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"I CAN ONLY COGNITIVELY COACH SO MUCH": HEAVY COACHING EFFORTS AMIDST DISCIPLINARY COMPLEXITIES IN SECONDARY SCHOOL CLASSROOMS

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DISSERTATION

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Abstract

Coaching often rests upon a "causal cascade" (Atteberry, Bryk, Walker & Biancarosa, 2008) that posits that collaboration with a coach leads to a change in the attitude, beliefs and practices of teachers and therefore improves student learning. If efficacy expectations related to adolescent literacy are not met, instructional coaching runs the risk of being attempted and abandoned by secondary schools (Knight, 2007; Walpole & McKenna, 2008). Insufficient research has explored how secondary coaches attempt to impact adolescent literacy and the ways that instructional coaches use discourse to negotiate disciplinary tensions. The author explored how three secondary school instructional coaches each attempted to "coach heavy" (Killion, 2009, 2010) and impact the disciplinary literacy and learning of adolescents during a single, long-term collaboration over the course of a semester. The following three research questions guided this interpretive study: How do secondary instructional coaches attempt to coach heavy? What tensions make heavy coaching challenging? And, what coaching practices do secondary instructional coaches use to negotiate these tensions?

Using a multi-case study design (Merriam, 1998), qualitative data were collected during semi-structured initial and exit interviews with each participating teacher and instructional coach. Over the course of these long-term collaborations, additional data included field notes of classroom coaching events, audiotaped debriefs between coach and teacher, and audiotaped debriefs between the coach and researcher. Data were examined via an analytical frame of heavy coaching (Killion, 2009, 2010), knowledge *of* practice (Cochran-Smith & Lytle, 1999), and stance taking (Du'Bois, 2007; Poggi, D'Errico, & Leone, 2010) in order to understand the challenges of coaching for impact in these three disciplinary contexts.

While all three coaches in this study attempted to coach heavy for student impact, tensions within each unique collaborative context made heavy coaching challenging. Using an *inquiry as coaching stance*, each coach created situated coaching practices that reflected their own disciplinary knowledge. While acknowledging the expertise of all three instructional coaches in this study, this dissertation raises questions about the suitability of using instructional coaches as generalists across secondary school disciplines given the complexity of heavy coaching as a disciplinary outsider.

Engagement in social practice is the fundamental process by which we learn and so become who we are.

Étienne Wenger

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To borrow a perspicacious phrase from Dr. Bob Stake, this project was a continuation of my "everlasting attempt to make sense of things." This unceasing journey included friends who deserve much more than acknowledgement.

At Joliet West High School from 1996-2000, Toni Feeley, Jack Prendergast, and my own instructional coach, Jim Talarico, created a space for my professional learning and inquiry as a novice teacher. Toni's staunch belief in teachers, Jack's unwavering belief in students, and Jim's steadfastj belief in me allowed me to develop a clearer view of the diverse students in my classes and my role in guiding their literacy and inquiry. These brilliant educators shaped my initial reflective stance. A special thanks to Jim Talarico who introduced me to the work of Mwangaza Education for Partnership in 1998 and walked Ilburo road with me numerous times in Arusha, Tanzania as we tried to make sense of the educational famine in Tanzanian secondary schools. You have been a source of wisdom for years, Jim. My attempt to make sense of things as a social studies teacher also included my teaching colleague and friend, Mike Manderino. Our moment of glory in the LRA band awaits, Mike. As the great-grandson of coal-miners and the grandson of a steel worker in Joliet, I take pride in the community of Joliet and in my inquiry into practice at Joliet West High School.

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Tysza, Anne, Brad, Karla, and Jill, thank you for thinking hard with me about our important work with students, teachers, administrators and community members. With my original colleague, Haeny, I learned the starting place for any professional learning with teachers must be the voices of specific students in classes. With Carol, Susan, and Catherine, I learned responsive teaching practices require responsive professional learning practices, buttressed by a belief that teaching is far more complex than non-teachers realize. To the secondary coaches within our local coaching community of practice, those who have never taken on your work will never fully understand the extent of your talent, expertise, and passion for adolescents. May your relentless advocacy for adolescent literacy and teacher inquiry slowly chip away at archaic, jejune conceptions of *professional development* so spaces for critical inquiry and *professional learning* can thrive. Think big but start small.

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Chapter 1

Introduction

Background and Purpose

A high school English and social studies teacher for seven years, I began my first year as an instructional coach working out of an old book storage room at the end of the humanities hallway at the century-old Maine High School. With a master's degree in language and literacy from the local university and as my school district attempted to implement literacy interventions for "struggling" readers, I had spent the two previous years teaching reading classes to incoming 9th graders who scored in the bottom 20% on the 8th grade reading portion of the Illinois Standards Achievement Test (ISAT). The school district required that Gates-MacGinitie Reading Tests measure impact data for adolescent literacy intervention. But I knew the assessment's limitations and recognized that explaining how my students—the majority representing historically disenfranchised populations—ended up in this course or why they underperformed in other freshmen classes at Maine was far more complex than most administrators and teachers realized. With an emphasis on providing students with opportunities to read an array of accessible texts, to direct their own I-Search projects (Macrorie, 2002), and to publish writing in class journals and other online community spaces, I had attempted to embed adolescent literacy within authentic learning experiences. But what happened when students left my class each day?

I perceived the adolescent literacy needs of my students as a social justice issue in light of simplistic district and federal notions of what counts as literacy and dominant

pedagogy that sanctioned mainstream cultural capital. As the first instructional coach at Maine High School (and in the district), I had successfully convinced the assistant superintendent supporting adolescent literacy required a larger, school-wide effort that focused on literacy instruction across all disciplines and that integrated professional learning into classrooms throughout the entire school day. But as I sat amidst rolls of old historical maps, outdated globes and dusty supplemental social studies texts in this office, the complexity of my coaching task ahead paired with the simplicity of the expected achievement outcomes for "struggling" readers felt overwhelming to me even though I fully embraced the challenge and had rapport with colleagues in the building. The students would return tomorrow and I knew that I needed to start coaching—whatever that meant.

My professional autonomy would be both a good and a bad thing. Without any administrators or committee tasked with defining this new job, I would create my own coaching model on the fly as I engaged daily in decisions about what coaching would look like in practice. To my relief, no one (yet) peered over my shoulder demanding specific coaching roles, events, stances or outcomes for my work that conflicted with my own beliefs or intuition. Fortunately, I could design the coaching initiative on my own.

On the other hand, I designed the coaching initiative on my own. There was no community of practice or outside expertise that assisted in problem solving the "stickiness" of coaching. How should I have reacted when a biology teacher and friend abruptly ended our collaboration and told me that he did not have time for coaching? How should I have worked with a math teacher if I was not sure what literacy looked like

in junior level trigonometry classes? Should I have complied with the assistant principal's request that I "do something about the brutal teaching in 10th grade English classes?" How should I have justified my job to skeptical teachers? And, why should I present a content area reading strategy at each faculty meeting even though no teacher had asked for the information? It did not take long for me to grow frustrated that the school and the district had not more carefully planned this coaching initiative. I sat daily on a reform island pondering several key questions as I fumbled my way through coaching: What do I do as a coach? What are the goals of coaching collaborations? What should the work with teachers look like?

Hired to impact the literacy and learning of a diverse group of adolescents across multiple secondary school disciplines, instructional coaches face complex tensions in their practice. These tensions illuminate the difficulty of coaching for impact and provide avenues for adapting instructional coaching to better serve the needs of teachers and students. In this study, my aim is to garner a deeper understanding of the ways secondary instructional coaches attempt desired impact, the disciplinary tensions in their coaching practice, and the ways their own coaching practices help to negotiate these tensions. I hope to highlight the complexity of this coaching task as well as the expertise of the three coaches in this study. In doing so, I aim to contribute towards an underdeveloped research base on instructional coaching in secondary school contexts and to use the relationships between coaching intent, disciplinary knowledge and situated coaching practices to prompt the reader to assess these relationships in his or her own coaching context.

Significance of the Study

Reform efforts in schools are seldom understood before they are enacted (Stahl, 1998) and, as David and Cuban (2010) note, they are typically hyped as standardized solutions that give too little attention to the complexity of the fit within local contexts. "The hype is the constant, exaggerated talk, the hyperbole, that goes along with reform." 'This reform is going to be a panacea.' 'One size fits all.' That constant exaggeration is what the hype is" (p. 12). And yet, 74% of middle school and secondary coaches surveyed in one study indicated that their role remained undefined (Blamey, Meyer & Walpole, 2008-2009). This exacerbates the challenges of coaching given the disciplinary diversity in secondary schools. The vast majority of secondary coaches have previously taught English language arts (85%), with a scant few holding degrees in the teaching of social studies (6%), science (1%) or mathematics (less than 1%, p. 317). Considering that few coaches admit to examining student work with teachers (16%, p. 320) or helping teachers analyze trends in disciplinary assessments (14%, p. 320), and given the prevailing national discourse that coaching can impact student achievement, a closer look at how secondary instructional coaches attempt to impact the disciplinary literacy and learning of adolescents is warranted. In the school district where this study occurred, and most likely in hundreds of other school districts across the country, instructional coaching has been attempted as a reform effort and is undergoing attack likely to be abandoned unless research helps to illuminate the possibilities and complexities of coaching for impact (Knight, 2007, p. 200). As teachers struggle to make sense in their daily practice and produce desired student learning in the form of achievement scores, coaching can

provide collaborative teacher inquiry into practices that support disciplinary literacy for adolescents. Coaching can be a part of an alternative narrative that positions coach and teacher(s) as experts who translate national policy and local pressures into meaningful disciplinary literacy for adolescents. Doing so necessitates a deeper understanding of the coaching task and the way disciplinary contexts influence this effort.

Research Questions

In this research study a multi-case study design (Yin, 2008) and Killion's heavy coaching framework (2009, 2010) were used to seek a local understanding of the following:

- 1. How do secondary instructional coaches attempt to coach heavy?
- 2. What tensions make heavy coaching challenging?
- 3. What coaching practices do secondary instructional coaches use to negotiate these tensions?

These questions helped to explain what was difficult about coaching for impact in secondary disciplines. This study showed how instructional coaches were often used as generalists expected to impact the literacy and learning of adolescents—even in disciplines in which they had limited disciplinary knowledge and teaching experience. This study illustrated the role of disciplinary knowledge, of epistemic beliefs, and revealed how instructional coaches could be highly strategic and skilled in their ability to buttress teacher inquiry even when they had their own uncertainty related to disciplinary knowledge and pedagogy. Finally, while this study illuminates coaching tensions and practices unique to collaborative contexts, the study suggested the research community

and local school districts must revisit the use of instructional coaches as generalists who are expected to impact teaching and learning in any secondary school discipline even though coaches hold their own unique disciplinary knowledge and experiences. In other words, when coaching as a "disciplinary outsider," how could a coach attempt to impact the disciplinary literacy of adolescents when he or she was simultaneously inquiring into the content and teaching of the discipline? Or, if coaching as a "disciplinary insider," how did disciplinary knowledge in the form of content knowledge and pedagogical content knowledge influence coaching practices? Given the unique collaborative tensions and the sizeable task, instructional coaches like the three in this study illustrated expertise through their use of situated coaching practices.

Outline of the Chapters

In chapter two, I first situate the reform effort of instructional coaching within a larger political discourse surrounding literacy achievement, official curricula, teaching evaluation and expected coaching outcomes. Then, using three common inquiry questions held by secondary instructional coaches, I build a theoretical framework for viewing instructional coaching as a means of supporting collaborative teacher inquiry into teaching practices that support disciplinary literacy for adolescents. "What do I do as a coach?" reviews dominant models of coaching while illustrating the underlying theoretical assumptions about instructional coaching. "What are we trying to improve during this collaboration?" borrows the concept of "heavy coaching" from Joellen Killion (2009, 2010) to establish a goal for instructional coaching while suggesting that both coach and teacher(s) negotiate the desired curricular outcomes and the learning

experiences for students. Finally, using "What should my work with teachers look like?," I argue that the situated, interactional nature of teaching necessitates that coaching be viewed as a form of collaborative teacher inquiry. Given the disciplinary tensions in coaching, instructional coaches employ discursive practices to support teacher inquiry and maintain a heavy coaching focus on student learning.

Chapter three explains why a multi-case study design and interpretive research methodologies make sense for this study of instructional coaching. I provide background on the school district, the coaching participants, and the ways in which my analytical methods, both during and after data collection, supported my inquiry into the coaching in all three collaborative contexts. Because all meaning is socially constructed and culturally situated, my unit of analysis was the discourse between the coach and the teacher.

Therefore, this section explains how I used a layered approach to data collection in which the coach/teacher discourse in the classroom, the coach-teacher debriefings, the coach debriefings with me, and my own memory memos and field notes provided discursive opportunities to understand the multiple participant perspectives on heavy coaching efforts.

Chapter four presents the case of collaborative coaching between an instructional coach, Eric, a former English teacher, and Jackie, an algebra teacher. While Jackie initiated this collaboration because she sought Eric's help in improving the "productive group work" component of the new College Preparatory Math curriculum, this case illustrates how Eric's heavy coaching was influenced by disciplinary knowledge. Using coaching practices developed within this unique collaborative context, Eric attempted to

coach heavy for students amidst his own ongoing inquiry into mathematical content and disciplinary teaching. His continued quest to uncover the larger disciplinary purposes for teaching mathematics in this class provides a window into the relationship between disciplinary knowledge, coaching inquiry, and heavy coaching intentions. In other words, how can a disciplinary outsider coach heavy in mathematics?

In chapter five, I present the case of Scarlett, a former middle school language arts teacher, and Nathan, a first year 6th grade science teacher. Asked to help improve how students read supplemental texts in a chemistry unit on matter, Scarlett encountered a novice classroom teacher with multiple pedagogical uncertainties. In balancing the needs of students and teacher, Scarlett developed coaching practices designed for this collaborative context. Her limited disciplinary knowledge in middle school science prompted a shifting between directive and responsive approaches during collaborative planning sessions. As Scarlett perceived numerous instructional needs in this class, she took the pedagogical lead, relying on her own general pedagogical content knowledge. But, with the weight of coaching in this context, how should she balance her vision for the literacy needs of middle school students with the professional learning needs of a first year teacher?

In chapter six, I tell the collaborative story of Meg, a former middle school language arts teacher, and Tracy, an experienced 8th grade language arts teacher as they sought to improve student thinking with disciplinary texts. As a "disciplinary insider," Meg's heavy coaching in this collaborative context stemmed from her strong epistemic beliefs about literacy and the value of helping students become more adept at thinking

through text. Yet, Meg's significant disciplinary knowledge and teaching experience clashed with her desire to respect Tracy's professional autonomy and expertise. To negotiate this tension, Meg sought coaching practices that would allow her to tap into her disciplinary knowledge without taking over collaborative decisions. In other words, how does Meg coach heavy while honoring the expertise of her colleague?

Finally, in chapter seven, I return to the three research questions and review relationships among a heavy coaching intention, disciplinary tensions within the collaborative context, and situated coaching practices. I suggest the coaches in this study used an inquiry as coaching stance as they simultaneously inquired into both disciplinary teaching practices and situated coaching practices. Not only does disciplinary knowledge matter when attempting to coach for student impact, but disciplinary knowledge influenced each person's coaching practices within the collaboration. This chapter concludes with implications for teachers, instructional coaches, and secondary school districts that persist in using instructional coaches as generalists in light of the specific disciplinary knowledge and pedagogies that exist within secondary school subject areas.

Chapter 2

Review of the Literature

"...Reform-driven educators and non-educators, working with little theory and even less scientifically gathered evidence, bang the drum daily for transforming schools and higher education. They do so without telling recipients what they know, do not know, and what is uncertain in these innovations or revealing to any extent what are the political, social, and economic costs of putting the reform into practice. School reform is filled with ambiguity and guesswork. That is the untold story."

Larry Cuban, Emeritus Professor of Education

As many instructional coaches would attest, there is much uncertainty surrounding instructional coaching in secondary schools. Even with its increased popularity (Cassidy & Cassidy, 2009), coaching has a longer and more pervasive history in elementary schools due to federal legislation like Reading First (K-3) and Early Reading First (Pre-K) that provided funding for literacy coaching to support "scientifically-based" reading instruction. A 2006 survey of reading and literacy coaches found that 76% of coaches worked in elementary schools as opposed to only 24% in secondary schools (Roller, 2006). Secondary school coaches face different challenges given the size of secondary schools, the specialization of teaching and learning within disciplines, the wider diversity of literacy and learning needs held by adolescents, and a systemic resistance to literacy instruction by content area teachers (Blamey, Meyer & Walpole, 2008; Riddle-Buly, Coskie, Robinson & Egawa, 2006; Snow, Ippolito &

Scwartz, 2006). It is not uncommon for the majority of elementary teachers in a school to utilize a common literacy pedagogical framework like writer's workshop or guided reading while a secondary instructional coach struggles to convince content area teachers that literacy exists within their discipline and that they share in the responsibility of scaffolding that literacy development for adolescents (O'Brien, Steward, and Moje, 1995). In their survey of middle and high school coaches, Blamey, Meyer, and Walpole (2008-2009) found that 85% had previously taught English/Language Arts (p. 317) and, unsurprisingly, a majority expressed a low level of comfort with incorporating literacy strategies into non-English/language arts classrooms (p. 323). Much of the research into coaching originates in elementary school contexts and explores the roles that coaches perform in their job with far less addressing the challenge of coaching within unfamiliar secondary disciplines. While research into secondary coaching may benefit from the extensive research base on tangential topics such as teacher change, the professional learning of teachers and student achievement and literacy, the field of coaching needs further studies that probe into the "ambiguity and guesswork" that surrounds how well intentioned and skilled educators try to use instructional coaching to benefit adolescents in different disciplinary contexts. This study attempts to illuminate the challenges associated with coaching for student impact, and not building relationships or changing teacher practice, as the definitive goal of coaching (Killion, 2009, 2010). Coaching for impact—especially within secondary disciplines often foreign to the coach may be more complex than many policymakers, school leaders and researchers realize and

understanding these local complexities could help reform the reform without abandoning it.

The Politics of Secondary School Reform

Recent educational reforms may have new acronyms and jargon, but the control of these reform efforts has increasingly rested with those furthest from secondary classrooms in order to perform a "socially pedagogic function" (Apple, 2008, p. 25). When "A Nation at Risk" warned "a rising tide of mediocrity" threatened our very economic future as a nation, educational policies dragged teaching and learning back to the "basics" by narrowing curriculum and acceptable student outcomes. As Apple argues (2008), the current standards-based reforms follow this familiar script with the current No Child Left Behind (NCLB) accountability milieu asserting that the challenges in our public schools threaten not only our economic future, but our national security as well (Council on Foreign Relations, 2012). After passing NCLB legislation with its accompanying high-stakes tests aimed at punishing poorly performing schools (and teachers and students) based on narrow definitions of adolescent literacy, learning and "annual yearly progress." Recent efforts to revise standards have brought together the "best academic minds to build curricula based on the structure and content of the disciplines," in order to "prepackage this material into teacher-proof sets of curricula" and then "give the selling of this material over to private enterprises to market it and get it into schools" (Apple, 2009, p. 23). Whether it is NCLB's high-stakes testing, the sanctioning of research-based pedagogies or the Race to the Top competition with its mandate that states adopt the Common Core State Standards (CCSS) while monetarily

rewarding state departments of education who comply, these collective reform efforts attempt to standardize curriculum, codify learning as that which is testable, and position teachers as culpable for insufficient annual progress in student achievement. Originally intended to ensure that all adolescents meet essential learning standards, the NCLB reform agenda implicitly suggests that accountability requirements can be the impetus for improved education in secondary schools (Levin, 2008, p. 16). The United States reform agenda narrows the input (content standards) and the output (testable literacy skills and mainstream knowledge) while choking pedagogical and curricular possibilities in the classroom through punitive accountability measures.

The politics of literacy assessments. What counts as evidence of adolescent literacy? Standardized assessments of generalized reading and writing skills provide one influential answer and have provided an impetus for many of the current federal reform efforts in secondary schools. National Assessment of Educational Progress (NAEP) data suggest that high school students have not improved in reading over the past 15 years (Grigg, Donahue, & Dion, 2007) nor are they prepared to tackle the rigorous demands of disciplinary texts in college (ACT, 2006). Seventy percent of middle school students score below the "proficient" level in reading (NAEP, 2011) and half of incoming ninth graders in urban, high-poverty schools read three years or more below grade level (Balfanz, McPartland & Shaw, 2002). Nearly a decade after the passage of the NCLB legislation, literacy disparities remain largely unchanged producing a growing "underliterate class" (NCTE, 2006) as only 14% of African-American, 18% of Hispanic, 22% percent of Native American 8th graders and a meager 3% of English language learners

scored at or above proficiency level in reading (US Department of Education, 2011). Three times more African-American students in Illinois score below the basic level of reading in 8th grade (52%) than white males (17%) and the 8th grade mathematics gap roughly mirror this divide (53% to 19%) in Illinois (NAEP, 2011).

Primarily measuring a student's ability to answer discrete reading comprehension questions about a randomly selected "on level" text during a timed testing session, standardized measures of reading achievement perceive universal reading meaning as residing in the text and ascertained by highly strategic readers, using general cognitive processes and regardless of the student's prior knowledge or cultural capital. A cognitivist theoretical perspective might explain these literacy gaps by suggesting that students lack general reading and writing skill because of inability or delayed ability to decode phonemes which stalls his or her ability to process increasingly complex texts and thus keep up with the literacy demands of curriculum in later grades. Thus, as students "fall behind" in their literacy development relative to that of other adolescents, reading increasingly complex texts in disciplinary classrooms becomes challenging and restricts access to core curriculum and subject matter. As a result, annual performance on school, state or federal standardized literacy assessments label groups of students as "exceeding," "meeting," or "failing" to meet standards while rarely acknowledging the limited view of literacy—and even print-based literacy--provided by these assessments. With literacy reduced to a set of testable skills, diverse ways of knowing have less cache in secondary schools and post-secondary educational settings where traditional print literacies are privileged. As Labaree (1999) stated: "Whatever is not on the test is not worth knowing,

and whatever is on the test need be learned only in the superficial manner that is required to achieve a passing grade" (p. 46). My intent is not to assert that standardized measures of reading and writing have no place in evaluating the literacy abilities of adolescents, but to assert that standardized measurements of literacy place too much value on single measures of print literacy performance while positioning many adolescents as "struggling readers" or "struggling writers" and diminishing the situated reality of literacy practice.

While a cognitivist view often overemphasizes the reader and underemphasizes the influence of the text and the context, I instead believe that literacy practices are situated in communities and function differently based on the shared value sets and dispositions of people in that community, and help to explain how students come to school with such varied linguistic practices and internalized knowledge production tools (Bernstein, 1971; Finders, 1997; Heath, 1983; Kirkland, 2009; Labov, 1972). Thus, these ways of talking, acting, and socializing that include linguistic practices, values, and types of behavior (McLaren, 2009, p. 219) represent the ways in which students learn and create knowledge. Over the last decade, research into adolescent literacy in secondary classrooms illustrates the multiple literacies of adolescents within secondary classrooms (Bomer, 2008; Dillon, O'Brien & Volkman, 2001; Hill, 2009; Jewitt, 2008; Kist, 2002; Tatum, 2008) and out of school settings (Guzzetti & Gamboa, 2005; Jacobs, 2008; Lewis & Fabos, 2005; Moje, 2003; Roswell & Burke, 2009). These efforts shed light on how adolescents enter secondary school classrooms and experience a cultural mismatch between their embodied cultural capital and the sanctioned literacy capital associated with traditional print literacies that represent mainstream ways of knowing and being. It

is through the secondary school curriculum where students proficient in traditional print literacies are further labeled, filtered and rewarded as "good readers" and where adolescents with alternative cultural capital and literacies are defined as "struggling" or "deficient readers." How literacy is defined in secondary classrooms impacts the learning opportunities provided to adolescents and in an effort to close these literacy achievement gaps, reform efforts have further attempted to narrow the secondary curriculum.

The politics of official curricula. Since schooling is reproductive, the ideologically, politically, and culturally situated curriculum is at the heart of that reproduction (Anyon, 1981; Apple, 1977, 1992; Bowles & Gintis, 1976; Finn, 1999; Keddie, 1971). I view curriculum as the learning experience provided for students within a classroom with the formal curriculum existing as the official statement of what students are expected to know. Schooling attempts to mold students according to societal design through sanctioned content knowledge (Apple, 1977, p. 15) where any attempt to define "core knowledge" should actually be seen as "someone's core and not everyone's core" (Apple, 2008, p. 22). As a result, no formal curriculum—be it an adopted 9th grade biology curriculum produced by a textbook company or a 7th grade language arts curriculum written by teachers attempting to align curriculum with the Common Core State Standards—is devoid of power, cultural values or epistemic beliefs about subject matter, students, teaching, and literacy. The formal curriculum, and the national learning standards in which it is based upon, is always the result of tensions, struggles, and compromises between stakeholders who attempt to define and align what kids should

understand, know and be able to do. Even though local control is given to schools and teachers to create the formal curriculum for secondary school disciplines, federal control of the accepted learning outcomes combined with a fear of failing to make annual yearly progress by schools and teachers results in diminished local control and a capitulation to narrow views of literacy. Secondary schools, then, have become sites of conflict about the "kind of knowledge that is and should be taught, about whose knowledge is official, and about who has the right to decide what is to be taught, how it is organized, and how teaching and learning are to be evaluated (Apple, 2008).

When discrete, print-based literacy skills are valued by tests, schools often overemphasize skills through an arrangement of curricular time and priorities. Striving to avoid punitive measures due to low test scores, 97% of school districts not making annual yearly progress (AYP) admitted to changing the time and content of their curriculum in an effort to boost student achievement (Center for Educational Policy, 2006)—often injecting more instructional time in reading and math while slashing time in other core subjects not assessed by NCLB (Hargreave et al., 2000). Many districts provide "struggling students" with double periods of reading or math or both while pulling these students from certain subject areas altogether (Center on Education Policy, 2008, p. vii). According to the Center on Educational Policy (2008), instructional time allocated to English language arts and to mathematics has increased 47% and 37% respectively while decreases can be seen in social studies (32%), science (33%), and art and music (35%). While it could be considered a rational response to high-stakes testing pressures, "performance on high-stakes tests determines the curricular choices being made and

those choices, paradoxically, may actually result in lower gains on the tests" (Berliner, 2009, p. 18). As national common core standards further narrow the content expectations in secondary disciplines, access to rigorous curriculum remains unequal—especially for historically marginalized student populations in "failing schools" whose performance on standardized assessments too often results in quick fix, skill-based classes and programs aimed at boosting test scores.

As a result of the sanctioning of literacy practices and a narrowing of the curriculum, adolescents with alternative cultural capital often completely disengage with schooling. After a combination of literacy interventions, remediation efforts, spotty attendance, academic underachievement in core disciplines, and disengagement with sanctioned literacy, many adolescents identified as "struggling readers" (Alvermann, 2001; Dressman, Wilder & Connor, 2005; Fisher & Ivey, 2006; Moje, 2000), "undereducated" (Rose, 2005), and who have been positioned in school as "bad boys" (Ferguson, 2001) sever their relationship with formal schooling. Not only do one in four high school students drop out of school, but the rates for African-American and Hispanic students are nearly double the rate of their white peers and low income students are seven times more likely to drop out than their peers in the upper quartile of family income (U.S. Department of Education, 2010). The Silent Epidemic (Bridgeland, Dilulio, & Morison, 2006), a report on high school dropouts for the Bill and Melinda Gates Foundation found that two-thirds of former high school drop outs stated that they would have worked harder if more had been demanded of them (p. iii). Many adolescents who remain in formal school have intellectually dropped out. The 2010 High School Survey of School

Engagement survey found that only 48% of students stated that they were challenged academically in most classes and 51% reported not giving their maximum effort in classes (p. 9). Seventeen percent believed that "none" or "one or two" teachers wanted them to do the best work they can do, and one out of every five students surveyed in a sample of 8,550 stated that they didn't feel good about being in their school (p. 10). The consequences are real: "Lack of literacy skills renders students unable to understand, evaluate and judge the information they hear and read, or to convey complex ideas, whether in the college classroom or the workplace—all of which acts as a barrier to finding employment and exercising their full rights as citizens" (Theroux, 2010, p. 5). When federal accountability measures restrict which subjects are valued, narrow curriculum and view achievement as a single test score, the winners become those who want schools to reproduce and sort students based on social and economic efficiency goals and the losers become those who advocate a liberal curriculum for adolescents with alternative cultural capital. As Berliner (2009, June) noted, "as a function of high-stakes testing, a liberal curriculum for our poor, and our not so poor, is often denied" (p. 42). Because literacy is connected with the learning, identity and future opportunities of adolescents, the literacy and learning adolescents experience through secondary school curriculum have life-long ramifications.

The politics of teaching. Teaching becomes complex when individuals enact practice by using overlapping frameworks comprised of multiple epistemic beliefs, facts, and personal ideologies (Jackson, 1986). As Cohen and Ball (1999) note, in order to teach well, teachers need knowledge of subject matter (meanings and connections,

procedures and information, and habits of mind embedded within the discipline), of children (both in general and of specific students), of cultural differences amongst these students, and of pedagogy (a repertoire of ways to engage learners effectively and the capacity to adapt and shift modes in response to students) (p. 5-7). This knowledge in action becomes a political endeavor that requires students and teachers to take risks in their daily interactions with each other and subject matter.

Teaching as interaction. In the middle of these heavy-handed reforms and accountability measures lay middle and high school classrooms where disciplinary teachers and diverse students interact around subject matter and materials (Cohen & Ball, 1999), enacting the curriculum within diverse classroom ecologies (Doyle & Rosemartin, 2012). In this sense, curriculum is made (Clandinin & Connelly, 1996) through this daily teacher and student dialogue (Freire, 1970) as both teacher and student attempt to make sense of each other and of subject matter. Curricular enactment, then, becomes "partly a function of what teachers know students are capable of doing and what teachers know they are capable of doing with students" (Cohen & Ball, 1999, p. 7). Teachers frame subject matter and design learning experiences based on assumptions of what their students are capable of understanding, how adolescents learn and based on which teaching practices have resulted in perceived learning by students. This daily work of teaching can be seen as multidimensional with teachers creating unique patterns of practice as they enact curriculum (Elbaz, 1990). Teachers decide what to teach and how to teach based on their own patterns of practice and beliefs about disciplinary knowledge, adolescent learning, and pedagogy. These patterns of practice involve political risk for

the teacher. As Erickson (1986) argued, "If the teacher engages a student with the genuine intention to foster the student's learning and the student then fails to learn what the teacher intended, the teacher is revealed, at best, as less than consummately competent pedagogically" (p. 344). In light of teacher accountability policies, the failure of students to learn not only exposes a teacher's identity to public criticism, but it could cost them their job, as well.

These daily interactions impact more than just the formal learning of adolescents. According to Jackson (1968), those daily social interactions conveyed the "hidden curriculum" of schools that empower or marginalize students by valuing or devaluing the capital students bring to classrooms. Sanctioned ways of interacting with and producing texts, acceptable and unacceptable discourse patterns, what good readers read, and how (or if) dominant knowledge can be critiqued all contribute towards the reproduction of "good" and "bad" students. Apple (1977) argues that the hidden curriculum is not accidental or "hidden or mindless as many educators believe" (p. 2), because "curriculum has its roots in the soil of social control" (p. 5), and "schools seem to, by and large, do what they are supposed to do…providing dispositions and propensities 'functional' in later life in a complex and stratified social and economic order" (p. 2). This normalizing of literacy through instructional practices position adolescents as "successful" or "struggling" according to the sanctioned value of their cultural capital.

Learning requires students to entertain risk, since "learning involves moving just past the level of competence, what is already mastered, to the nearest region of incompetence, what has not yet been mastered" (Erickson, 1986, p. 344). It requires that

students trust that the teacher has his or her best interests in mind. When viewed through the lens of historically marginalized students, learning what is deliberately taught can be a form of political assent and not learning can be seen as a form of political resistance. Given the diversity of the "language in use" in adolescent communities, a standardization of the language and literacy practices according to NCLB measures of reading and writing and math inevitably values the capital of some students and undervalues (or completely ignores) the language and learning practices of other students. Students, then, soon find that "being a *successful* student requires *identity work*—adopting and affiliating with multiple new ways of talking, listening, acting, feeling, responding, interacting, and valuing, as well as writing and reading" (Gee, 1996, p. 225). Alvermann (2001) observes, "Often our identities as readers (and learners) are decided for us, as when others label us as avid readers, slow readers, mystery readers, and the like" (p. 676).

Considering the potential to be labeled, positioned and marginalized, students must make political choices in classrooms. Is the teacher trustworthy? Do previous classroom interactions suggest that he or she is capable (and willing) to provide learning that meets the student's needs? If the student consents to the teaching and it does not result in learning, the student risks being seen as incompetent (p. 344). And, how does consent with the classroom learning position the student in relation to other students in the classroom? Each student must choose between participation or non-participation in learning activities based on their perception of the value offered in the subject matter, the responsiveness of the pedagogy, and the perceived capability of the teacher at meeting his or her learning needs. School success, then, does not just involve legitimacy, trust, and

assent, but is also impacted by patterns of practice that turn cultural miscommunication into student distrust and resistance in secondary classrooms (p. 354). Each day, students and teachers negotiate subject matter meaning, identities and participation in disciplinary learning.

The politics of teacher accountability. If 6th grade reading scores on the Illinois Standard Achievement Test decrease in a middle school, current accountability measures prompt a critique of those 6th grade language arts teachers, the degree to which their curriculum is aligned (narrowed) with content area standards, and whether or not the teachers are utilizing "best practice" instructional practices. Not only does dominant educational accountability discourse label the school as failing if standardized test scores decrease, but teachers are now implicated due to value added teacher evaluation measures. With numerous states, including Illinois, adopting value-added modeling measures of teacher evaluation based on hierarchical linear modeling to predict student increases on standardized tests, this is no longer implicit, but directly punitive and part of a teacher's permanent record. According to the Performance Evaluation Reform Act and Senate Bill #7, the performance evaluations of all teachers (and principals and assistant principals) in the state of Illinois must include "data and indicators of student growth as a significant factor" (Illinois State Board of Education, 2012, p. 14). In addition to being rated as an "Excellent," "Proficient," "Needs improvement," or "Unsatisfactory" teacher based on school district created indicators of "standards of effective practice" and "clear indicators of professional excellence" (p. 14), this new legislation requires that "data and indicators of student growth" represent at least 30% of the teacher's performance

evaluation rating (p. 24). While teacher evaluation uses both standardized measures of student growth (Type I or Type II assessments) and teacher created assessments, student growth is legally defined as "demonstrable change in the knowledge and skills of a student or a group of students, as evidenced by gain and/or attainment on two or more assessments between two or more points in time" (Illinois State Board of Education, 2013, p. 4). With ambiguous criteria for teaching excellence and with state assessments and criteria for teacher-created assessments determining expected learning outcomes for their students, teachers in Illinois are now permanently held accountable for the literacy and learning of adolescents in their classrooms. Advertised as providing Illinois educators "greater support," the new teacher accountability policy adds the final piece of a reform puzzle. A standardization of expected adolescent literacy outcomes combined with a narrowing of the disciplinary curriculum and increased teacher accountability combine to constrict teaching and learning in secondary classrooms.

The politics of coaching outcomes. Since the Coleman report (Coleman, Campbell, Hobson, McPartland, Mood & Weinfeld, 1966), discourse and policies related to the equality of education for students have shifted towards an output model with a common, widely accepted premise: Improving teachers improves student learning (Aaronson, Barrow, & Sanders; Cohen-Vogel & Smith, 2007; Kane, Rockoff, & Stalger, 2006; Murnane & Phillips, 1981; Rockoff, 2004). In response, professional development efforts for in-service teachers have moved from stand-alone workshops to hybrid models that incorporate job-embedded professional learning opportunities with the hope that reflection on practice and collaboration with a more expert practitioner will improve the

quality of teaching and result in increased student learning. In an era of high stakes testing, race to the top grant competitions, narrowing of the curriculum through common core standards, and the resulting intense pressure on school administrators to fix teaching (and teachers) through "research-based" best practices, many secondary schools have latched onto instructional coaching hoping it can deliver increases in student achievement.

Like other reform efforts that are seldom understood before they are enacted (Stahl, 1998), and hyped as standardized solutions that give too little attention to the complexity of the fit within local contexts (David & Cuban, 2010), instructional coaching can be defined both by its accompanying hype and by its uncertainty. As David and Cuban note, "The hype is the constant, exaggerated talk, the hyperbole, that goes along with reform. 'This reform is going to be a panacea.' 'One size fits all.' That constant exaggeration is what the hype is" (p. 12). The *potential* of coaching persists in the rhetoric of policy makers as the *promise* of improved student achievement as measured by test scores. In the 2006 Standards for Middle and High School Literacy Coaches written by the International Reading Association in collaboration with the National Council of Teachers of English, National Council of Teachers of Mathematics, National Science Teachers Association and the National Council for the Social Studies (International Reading Association, 2006), the introduction to these standards included the following quote:

"Current practice suggests a *promising* avenue for intervention that includes qualifying literacy experts to coach content area teachers in the upper grades who

currently lack the capacity and confidence (and sometimes the drive) to teach reading strategies to students particular to their disciplines. While there are few studies—and no systematic body of research—reporting on the direct link of literacy coaching to student learning, as noted above, schools that have adopted this approach report *remarkable improvements*." (p. 2)

While admitting that coaching is "promising," the authors also admitted that this reform lacked a body of research that links coaching with student outcomes. After being hired to improve teaching and learning in area secondary schools as part of a school-university partnership, a colleague of mine in Chicago spent three months working with six English teachers on formative assessment practices in two area high schools. When both schools met annual yearly progress (AYP), the assistant dean of the local university and a well-regarded researcher in educational evaluation sent my colleague a congratulatory email stating, "Congrats! Both schools made AYP because of your efforts!" Not only was my colleague shocked by the assumption that his work in six classrooms had shifted the teaching and learning for over two hundred teachers and two thousand students at two schools, but he feared what response he'd garner the following year if schools failed to meet AYP.

Uncertainty also hovers over instructional coaching. Instructional coaching often rests upon a "causal cascade" (Atteberry, Bryk, Walker & Biancarosa, 2008) that posits that collaboration with an instructional coach leads to a change in the attitude, beliefs and practices of teachers and therefore improves student learning and achievement. Yet, in his review of the research on coaching, Knight (2008) found that coaching can impact

teacher attitudes and practice while clearly stating that the "missing link, so to speak, in coaching research, is studies that clearly show that coaching improves the specific teaching practices that increase student achievement" (Cornett & Knight, 2008, p. 210). In fact, the authors found no published, randomized-control-style studies of the effectiveness of instructional coaching and most were focused on literacy coaching in elementary context. In their status report on teacher development for the National Staff Development Council, Darling-Hammond, Wei, Andree, Richardson and Orphanos (2009) concluded that the "jury remains out as to its (coaching) effectiveness" and reminded that the content of professional learning matters as much as the process (p. 11). A recent study has indicated a correlation between having instructional coaches in secondary schools and increases in reading achievement in the school (Lockwood, McCombs, Marsh, 2010). However, a correlation between having a coach and increases in test scores could be indicative of substantive change towards student-centered instructional practices and student achievement or it could merely be coincidence as in the anecdote shared by my colleague in Chicago. In their review of instructional coaching, Borman and Feger (2006) reported that empirical research on the impact of secondary instructional coaching remains limited by its relative newness, the complexity of multiple coach, teacher and student variables, as well as the diversity of coaching models that impact instructional coaching. Along with this uncertainty in the research on secondary instructional coaching, the research also lacks studies that explore how secondary instructional coaches attempt to impact the disciplinary literacy of adolescents. If efficacy expectations related to adolescent literacy are not met, instructional coaching, like other secondary school reforms, runs the risk of being attempted and abandoned by policy makers and secondary schools who run out of patience, money, or both (Knight, 2009; Walpole & McKenna, 2008). Jim Knight (2007) described an "Attempt-Attack-Abandon" cycle to describe typical educational reform efforts in schools (p. 200). During the "Attempt" phase, change leaders introduce a new practice into a school. However, very little support is available to help those who implement the reform. Before the reform is implemented with fidelity, various stakeholders begin to criticize the reform, typically on grounds that it has failed to achieve the desired outcomes. When the critiques mount, the reform is abandoned, often without an understanding for its demise and only to usher in another reform effort.

While many school districts, school-university partnerships and educational organizations have "adopted" coaching as reform, fewer have "adapted" coaching into a well-planned model of professional learning with clear goals and roles for coaches (Walpole & McKenna, 2008). The pressure to impact adolescent achievement combined with the pressure on administrators and policy makers to act results in coaches asked to "single-handedly facilitate school change" regardless of the unique and numerous organizational challenges (Feldman & Tung, 2002). At a time when high stakes tests are linked with punitive measures for schools and now teachers, and situated in a politically-charged secondary school system that still largely employs a 19th century assembly-line organization structure, and in a high school with over one hundred teachers who hold varied levels of content knowledge and pedagogical content knowledge while teaching a

student body that is more linguistically, culturally, ethnically and socio-economically diverse than ever, the lone instructional coach who is unsure of how to document impact, will coach a handful of teachers who may or may not be skeptical of his expertise or motives during inconsistent coaching cycles focused on unclear pedagogical goals in disciplines that he has never taught in order to not only improve student learning and literacy within disciplines, but, the most important outcome of all: student achievement on standardized assessments. With the pressure to impact adolescent achievement and the pressure on coaches to be heroic, how does one person attempt to impact adolescent disciplinary learning in light of the impatience of secondary reform efforts?

The Inquiry of Coaching

If we believe that teachers develop knowledge of practice (Cochran-Smith & Lytle, 1999), then the same is obviously true for coaches. In this section, I argue that coaches inquire into practice on two main dimensions: a teaching practice dimension and a coaching practice dimension. I believe this inquiry occurs simultaneously with inquiry into teaching practice supporting inquiry into coaching practice and visa versa. Even if a school district has a well defined "model" of coaching that lays out goals, roles and expectations for success, the real model is constructed in practice as coaches negotiate meaning—of disciplinary literacy, of pedagogy, and of what it means to learn professionally—with their partnering teachers. What follows is a return to the three core inquiry questions that instructional coaches continually wrestle with in their daily practice. "What do I do as a coach?" reviews research on coaching models while arguing that the theoretical underpinnings of three primary models help to explain the expected

role of any coach. "What are we trying to improve during this collaboration?" uses a coaching heavy conception (Killion, 2009, 2010) to argue that the purpose of instructional coaching in secondary school classrooms rests with the negotiation of disciplinary literacy. And, finally, "What should my work with teachers look like?" argues that instructional coaching can be seen as collaborative teacher inquiry.

What do I do as a coach? As a coach starts his or her first day as an instructional coach, his or her answer to the above question lies in his daily activities, for what we do and how we participate in discourses determine our roles as coaches. Joyce and Showers (1980) originally defined coaching as "helping teachers analyze the content to be taught and the approach to be taken, and making very specific plans to help the student adapt to the new teaching approach" (p. 384). But, it has also been defined as reflective coaching (Nolan & Hillkirk, 1991), as a linguistic partnership (Caccia, 1996) and as a "way for one person to mediate and influence the thinking and behaviors of another person" (Lindsey, Martinez & Lindsey, 2007, p. 5). Coaching can be "a process for developing the present and future capacities of employees" (Brown, Stroh, Fouts & Baker, 2005, p. 5), whether that is the individual teacher, a group of teachers or the entire school's capacity to reform (Neufeld & Roper, 2003). In their sizeable review of research on coaching, Cornett and Knight (2008) found four different types of coaching described in the literature: peer coaching, cognitive coaching, literacy coaching and instructional coaching (p. 193). Literacy coaching can be defined as spending the majority of time working with content area teachers to help them "implement and utilize strategies designed to improve their students' ability to read, write, and *succeed* in content courses (Sturtevant, 2004, p.1). Or, a literacy coach could simply be, "anyone who supports teachers in their daily work" (Dole, 2004, p. 462). In this study, instructional coaching is defined as coaching with one or more teachers where the focus is on the creation and enactment of classroom curriculum and pedagogy. But, I acknowledge that literacy is entwined with learning in teaching in secondary classrooms. Therefore, while "literacy coaching" has historically been used to define the coaching that occurs in elementary and middle schools and "instructional coaching" has been used primarily in middle and high schools, instructional coaching certainly involves the coaching of literacy instruction. Defining coaching is complex because it looks differently in individual school contexts and because there is a difference between being a coach and *doing coaching*" (Duessen, Coskie, Robinson, & Autio, 2007, p. iii). We define what we do through our daily practices.

Theoretical models of coaching. Still, theoretical models of coaching exist and help to explain both the intent of coaching within that model and assumptions about what gets changed, who gets changed and how change occurs (Brown, et al., 2005). Secondary coaching in practice does not reflect a single theoretical model of coaching but suggests a blending of the following three theoretical perspectives.

Based on cognitive/informational processing theories of learning, cognitive coaching (Costa & Garmston, 2002) asserts that a change in teaching practice results from the "alteration and rearrangement of the inner and invisible cognitive behaviors of instruction (p. 16). Cognitive coaches "attend to the internal thought processes of teaching as a way to improve instruction" through reflective conversations (Brown et al.,

p. 5). Combining a social justice lens to cognitive coaching, culturally proficient coaching suggests that a person can be coached to be educationally responsive to diverse student populations (Lindsey, Martinez & Lindsey, 2007, p. 5). Under this theoretical perspective, coaching is a reflective guide, a peer coach and a reflective mirror for teachers who hone their ability to create theories in practice. Cognitive coaching has been found to improve teacher efficacy, teacher reflection and the collaborative climate within schools (Edwards, 2008; Raney & Robbins, 1989; Wineburg, 1995).

In a review of the coaching literature in education, Brown et al. (2005) found that the majority of articles resembled "how to" articles or articles advocating for coaching (p. 8) but the vast majority of the literature acknowledged social interaction learning theory through the use of "collaboration" even though the actual theory was hardly ever referenced. Influenced by Vygotsky's (1978) concept of zones of proximal development, this theoretical perspective on coaching acknowledges the reciprocity of learning through dialogue and suggests that coaching is a collaborative act by which the group socially constructs meaning about teaching and learning. The coach simultaneously exists as the coached, learning alongside the teacher about literacy, students, teaching and learning. At times, the teacher scaffolds the coach's learning. Peer coaching and critical friends groups are common examples of coaching models that acknowledge this perspective.

Finally, organizational theories focused on system change provide another theoretical lens for secondary coaching. A deep theoretical base of research on organizational change has studied how the actions of individuals, including coaches, are nested within subsystems—subsystems that are interrelated and often in conflict

(Bronfenbrenner & Bronfenbrenner, 1979; Owens, 2001; Von Bertalanffy, 1950). And, these organizational subsystems are nested within distinct educational, national and societal contexts which influence how, when and what change can occur. This view of organizations proposes that any initiative aimed at reforming or restructuring activity in one entity of an organization inevitably impacts other dimensions of the organization in positive and negative ways. Improving the formative assessment practices in the science department is not just an assessment issue ameliorated through professional development events. Instead, this initiative impacts the collaborative structures in the building, curriculum alignment efforts, special education services and has the potential to cause conflict with fellow teachers when these teachers are provided professional leave time to attend workshops on the topic. Often referred to as "change coaching" (Neufeld & Roper, 2003) or "capacity coaching" (Brown et al., 2005, p. 1) or "coaching for whole school change" (Allen, 2008), these models focus on developing the human, social and pedagogical capital of schools and see coaching as a comprehensive strategy for reforming schools. Moving beyond the instructional coaching of individual teachers, change coaching involves restructuring knowledge systems, collaborative structures and human capital in order to develop the overall capacity of the organization to meet the educational, social, economic and political challenges facing the school. Given the punitive pressures of high stakes testing, whole school reform efforts are widespread in secondary schools and private organizations and school-university partnerships such as Pearson's Learning Teams and Harvard University's Change Leadership Group operate from organizational theory stances as they coach schools and administrators through

reform efforts.

Taken together, these three theoretical models of coaching suggest that coaches are reflective partners who socially construct meaning within teaching communities of practice that are nested in particular social, political, historical and epistemological contexts that directly influence the ways that collaboration can occur.

What are we trying to improve during this collaboration? Within the causal cascade, the assumption exists that a change in teacher beliefs and/or practices precedes improvement in student learning. This accounts for much of the discourse in coaching literature that sees instructional coaching as intent on changing teaching practices. Yet, how a coach answers this inquiry question says not just how he or she believes change occurs, but what he or she prioritizes and emphasizes in practice.

Coaching heavy and coaching light. Acknowledging the vital role that beliefs play in coaching practices, Killion (2009) distinguished between two coaching stances: "coaching heavy" and "coaching light." Coaching light provides support to teachers but has a primary focus on building relationships, gaining acceptance from teachers and seeking appreciation (p. 22). Light coaching might find coaches demonstrating instructional strategies or providing resources without a central focus on student learning that does the heavy lifting of engaging teachers in analyzing core beliefs about teaching, learning and students. A variety of "coaching light" activities can improve a willingness to collaborate, but light coaching resides in the shallow waters of teaching where assumptions, practices and beliefs are seldom engaged or critiqued. Killion argued that coaching heavy involves "high stakes interactions" between teachers and coaches, driven

by a deep commitment to improve teaching and learning, even if that commitment means risking relationships" (p. 23). Coaching heavy "engaged teachers in dialogue about their beliefs and goals rather than their knowledge and skills" (p. 24). Coaching heavy pushes coaches and teachers outside of their comfort zones with a laser like focus on improving learning for students, questioning assumptions about how adolescents make meaning with text or whose knowledge is being valued in a lesson. In a reprise of her heavy and light coaching, Killion (2010) further delineated the difference between the two stances and reiterated that no set of coaching or collaborative practices represent either category. No coaching model is purely heavy just as no collaborative protocols are inherently light. As she states, "Identifying coaching light (or heavy) is not easy since the key distinguishing factor is the coaches' intention and results" (p. 23).

Killion acknowledged contextual influences upon a heavy coaching approach. In addition to the specific job descriptions and role expectations laid out by the school district, the goals for coaching matter. These goals may or may not align with a heavy coaching focus on students, let alone an intention of improving the disciplinary literacy of adolescents. Within the local context, other factors can influence the work of coaches. The time of the school year can influence how much of a coach's time is available to work with teachers (p. 16). The length of time a coach has been in the building can impact the extent to which he or she feels led to focus on building relationships and/or proving expertise. The coach's experience level could also prompt him or her to be more passive about initiating collaboration with teachers or prompt them to overpromise and under deliver (p. 10). Killion also argued that the experience and knowledge level of the

teachers could position the coach differently in a collaboration (p. 17). If the teacher has over twenty-five years of teaching experience, how does that impact the collaboration when the coach has only been a teacher for five years? Likewise, a coach may be more assertive and direct if the teacher is in his first year of teaching. The role of the principal may also influence the coach. Not only might the principal pressure the coach to work with specific teachers on specific topics at a specific point in time, but also the coach may feel especially conscious of the way that the principal is evaluating him or her. In a more positive light, distinct roles between the principal and the coach could position the coach as supporting the initiatives put in place by administration and therefore support the coach's relationship with teachers. And, while each of these contextual factors influence how a coach goes about his or her work, the school's culture—"the invisible yet powerful structure of the school"—reflects the honesty, professionalism, epistemic beliefs about knowledge, and the extent to which the work of coaching is supported (p. 12). Heavy coaching efforts are influenced by these contextual factors and by the way both coach and teacher negotiate coaching goals.

Negotiating disciplinary purpose. However, the previous distinction between coaching heavy and coaching light still fails to articulate *what* should count for adolescent literacy and learning within secondary school disciplines. A secondary instructional coach technically coach heavy by maintaining a stubborn focus on improving the oral reading fluency of 12th grade physics students. Yet, few people would ever argue that should qualify as a worthy, let alone pressing, learning outcome for seventeen and eighteen year olds. A heavy coaching focus must be framed with a

discussion of what should qualify as worthy disciplinary literacy outcomes for adolescents and an acknowledgement of the ways that an instructional coach and a participating teacher negotiate these disciplinary purposes.

The conceptions of literacy and learning that adolescents confront in school impact what they learn, what counts as evidence of learning, the type of instruction they are provided and the positioning and labeling of students (Alvermann, 2001; Franzak, 2006; Moje, 2007). Since content knowledge and the language used to learn it are entwined (Schleppegrell, 2004), literacy functions as the vehicle for learning in secondary school classrooms. A disciplinary literacy approach sees reading, writing, talking and thinking as uniquely used in each discipline and as part of the ways that experts produce disciplinary knowledge (Shanahan & Shanahan, 2008). As students progress further into secondary school disciplines, the subject matter demands increase just as the texts and ways of knowing within disciplines become more complex and differentiated (Shanahan & Shanahan, 2008). "Basic Literacy" is at the base of their literacy pyramid and represents skills such as decoding and knowledge of high frequency words found in almost all reading tasks (p. 44). "Intermediate Literacy" builds upon the initial foundation and represents generic comprehension strategies, common word meanings and basic fluency (p. 44). "Disciplinary Literacy" sits at the top of this progression and includes the specialized literacy skills that exist within each discipline (p. 44). Obtaining this literacy requires students to be increasingly strategic in their uses of specialized literacy practices in order to learn disciplinary knowledge. Higher progression in the pyramid equates to more interaction with more sophisticated disciplinary texts and literacy practices. As

Shanahan & Shanahan (2008) illustrated, physics texts might become more dense, abstract and richer in the amount of prior knowledge required to engage with and think critically about the content. And, these texts may incorporate highly specialized prior knowledge that might not directly relate to the lived experiences of many students (p. 6). But, another challenge lies in the fact that these high-level, specialized skills and literacies are seldom explicitly taught in secondary school disciplines (p. 6). Students do not learn these literacies in order to access content. A content area literacy approach implies that teaching students generalized processes for reading and writing can help students access subject matter. A disciplinary literacy approach views these literacy practices as fused to the content and, therefore, inseparable from the disciplinary production of knowledge. As Moje (2008) argued, "Literacy thus becomes an essential aspect of disciplinary practice, rather than a set of strategies or tools brought into the disciplines to improve reading and writing of subject-matter texts" (p. 99). This view of knowledge as the integration of both content and process can be illustrated in the disciplinary diagonal developed by researchers at the University of Pittsburgh. "Disciplinary literacy is based on the premise that students can develop deep conceptual knowledge in a discipline only by using the habits of reading, writing, talking, and thinking which that discipline values and uses" (McConachie, Hall, Resnick, Raci, Bill, Bintz, & Taylor, 2006, p. 8). McConachie et al. argued that students need growth in knowledge of "core concepts, big ideas, and driving questions in a discipline" (p. 12). In addition to this view of content, they also need growth in "habits of mind in a discipline and development of ways of investigating, reasoning, reading, writing and problem

solving in a discipline" (p. 12).

But, this approach is far more than normed skills for reading, writing, and talking like historians, chemists, mathematicians, literary scholars, etc. Disciplinary literacy includes the "cognitive literacy processes used to make meaning, the cultural tools—including language and texts that mediate thinking—and the epistemic beliefs about knowledge and knowledge production that constitute the discipline" (Manderino, 2012, p. 121-122). Disciplinary literacy should be viewed as the *literate thinking* that involves "engagement in the thought and language of middle and high school academic courses" (Langer, 2010, p.11). As Langer argues, this literate thinking:

"...extends beyond the act of reading and writing themselves to include what we think about and do when we gain knowledge, reason with it, and communicate about it in a variety of contexts—at home, at school, on the job, and in the rest of our lives—even when we are not reading and writing" (p. 12).

Engagement in the literate thinking in disciplines helps adolescents learn the "course content set in relevant context and its connection to larger constructs within the course, the field, other fields and the world" but also the "ways of thinking and the language and structures that are used and valued by the discipline in conveying these ideas" (p. 11). The content, context and conventions matter because while acquiring information is important, "what you do with it and to what end creates knowledge" (p. 2). Knowledge production in disciplines involves an active quest and desire to make sense with classroom subject matter or with the subject matter in the worlds around us. And, when students engage in "substantive content-embedded experiences over time, they gain

discipline-specific knowledge" (p. 16). Disciplinary literacy also moves beyond participation in the literate thinking and opens spaces for adolescents to critique knowledge practices. Part of the subject matter learning becomes familiarity with the norms of practice found in the discipline in light of the norms of practice familiar to students (Moje, 2008, p. 100). Beyond mere access to sanctioned silos of content knowledge produced by experts outside of the school, the goal of disciplinary literacy and learning, then, becomes helping students become literate in the discipline through participation in the production and critique of mainstream disciplinary knowledge (Moje, 2007).

When teaching is viewed as the interaction among teacher, adolescents and subject matter (Cohen & Ball, 1999), these daily interactions write the curriculum (Clandinin & Connelly, 1996) and define the disciplinary literacy opportunities. Teaching then, becomes "partly a function of what teachers know students are capable of doing and what teachers know they are capable of doing with students" (Cohen & Ball, 1999, p. 7). Teachers frame subject matter and design learning experiences based on assumptions of what their students are capable of understanding, how adolescents learn and based on which teaching practices have resulted in perceived learning by students. As Doyle and Rosemartin (2012) argued, the curriculum (formal and enacted) is an argument—"about the educative potential of the content, the path (sequence) of learning that content, and educative activity with respect to the content" (p. 148). This can be viewed as a *frame narrative* representing a theory of the "educative potential and pedagogical representation" of what counts in the discipline (p. 140-141). But, it can also be seen as

the *task narrative* representing a description of classroom forms, discourse practices, activities, and exercises or assignments that seem most consistent with the frame narrative (p. 141). As teachers interact with students during teaching, they negotiate a frame narrative and a task narrative, striving to persuade students that the designed learning is worthwhile. Applied to coaching, a coach and teacher(s) harness these epistemic beliefs and pedagogical experiences as they negotiate the frame narrative and the task narratives for adolescents. A disciplinary literacy view as described above can become a specific frame narrative that suggests a certain task narrative. And, through discourse both in the classroom and during collaborative debriefing events, coach and teacher negotiate what counts as literacy in the discipline, how subject matter should be framed for students, and the appropriate role of teacher and coach related to adolescents.

What should my work with teachers look like? As teachers interact with adolescents on a daily basis, they draw upon beliefs and knowledge as well as previous teaching experiences and their own socially reproduced experiences as students. The resulting pedagogies, based in specific experiences with particular students, require innumerable daily decisions that impact not only their own identity as a teacher, but also the identities of the adolescents in their class. As Jackson (1986) noted, identifying teaching and best practice is illusive.

The actions of teachers, like those of everyone else, are constantly responsive to the vast and largely unarticulated network of shared understandings that comprise much of what people mean when they talk of common sense. (p. 11-12)

If we believe that the best practices are those that scaffold learning for specific students, a teacher's ability to reflect on his or her own teaching can produce "theories in practice" (Schon, 1983) that alter the way a teacher sees their students, the subject matter and his or her own literacy teaching (Whitton, Sinclair, Barker, Nanlohy, & Nosworthy, 2004, p. 219). And, since much of what a teacher learns occurs in practice rather than in preparing to practice, it requires that each teacher learn how to learn in practice (Cohen & Ball, 1999, p. 8). When teacher learning is viewed as a social act in which teachers appropriate the language and stances of other teachers (Bakhtin, 1981; Gee, 2001; Vygotsky, 1978), ongoing discourse around common issues within a *community of* practice becomes a necessity (Wenger, 1998, p. 14-15). These members learn through meaning, through participation with others and through identity (Lieberman & Pointer-Mace, 2008, p. 80) as they collectively recognize the "possibilities inherent in ordinary experience" (Dewey, 1938, p. 89). Unlike knowledge for practice that represents a formal body of knowledge garnered through empirical research or knowledge in practice that builds "practical knowledge" through expert teachers, knowledge of practice occurs within inquiry communities as teachers "treat their classrooms as sites for intentional investigation" and "theorize and construct their work and connect it to larger social, cultural and political issues" (Cochran-Smith & Lytle, 1999, p. 3).

Teaching as inquiry. Practitioner inquiry has a long, varied and often unrecognizable history in teaching and literacy education (Anderson, Herr, & Nihlen, 2007, p. 18-19). Cochran-Smith and Lytle (2009) suggested that inquiring into practice can take multiple forms including action-research, participatory action research, teacher

research, self-study, the scholarship of teaching, and using a practice site for research (p. 39). As Noffke (2009) pointed out, motivations for action research often overlap and include multiple purposes related to student learning, teacher understanding of his or her practices, the production and sharing of knowledge by teachers and/or social change. Whereas action research emphasizes action and social change, practitioner inquiry has knowledge production as the end goal—whether that be a better understanding of teaching grammar in context or an understanding of how multi-modal texts can scaffold ELLs. This focus on the local context ignores the need to generalize "findings" across contexts or classrooms while valuing the public sharing of knowledge as a way to deepen collective understandings of students and literacy. Regardless of the model, practitioner inquiry positions teacher as researcher, embeds this work in a community of practice (course-alike team, grade level team, etc.) while assuming that the practitioners are the most knowledgeable of the local issues and problems (p. 42-43).

Kalmbach-Phillips and Carr (2010) proposed that teacher(s) follow an inquiry cycle of planning, implementing and reflecting (p. 42). Identifying, formulating, deconstructing and refocusing the critical question leads to a discussion of what will count as data, a plan for collecting and analyzing data (p. 48). This grounded-theory approach (Anderson, Herr, & Nihlen, 2007) asks teachers to analyze the data in order to improve the practitioner decisions or to inform next steps. While each type carries a divergent range of theories and practices, each begins with a teacher's or teachers' own issues, uses a cycle of inquiry to garner deeper understanding of an issue in practice and to share knowledge with a larger community of practitioners.

Coaching as collaborative teacher inquiry. While conceptions of knowledge in practice might suggest that good teaching can be coached (but not taught) through reflective conversations, I am framing coaching as collaborative teacher inquiry that produces knowledge of practice because I believe that instructional coaches identify first as teachers. A theoretical view of knowledge in practice might see instructional coaches as working collaboratively with teachers to "identify discrepancies between their beliefs and practices" that promotes a kind of "self-study" (Cochran-Smith & Lytle, 1999, p. 24). While I see value in probing into these inconsistencies, I see coaching as partnering with teachers in order to take a critical perspective of "best practice" and theories of pedagogy and learning in light of what appears to be successful with the specific students in their classroom. From a socio-cultural theoretical standpoint, literacy and pedagogical practices are situated and uniquely constructed based on the unique interactions between specific teachers and specific adolescents. As Hlebowitsh (2012) argued, "there is a fallacy in assuming that individual members of a group necessarily carry the average characteristics of the aggregate group" (p. 4). Inherently, the mere notion of "best practice" is largely a "convergent exercise—a delimiting of different approaches in the interests of finding a single, undifferentiated process" (p. 5). By learning from practice, coach and teachers can blend the knowledge for practice with knowledge of practice in order to create their own situated theories of teaching that directly respond to the unique students in front of them. Best practice becomes best pedagogical fit. Collaborative teacher inquiry serves as a means of developing new knowledge of particular practice in particular classrooms with particular students and not implementing or mastering

someone else's pedagogical knowledge. Therefore, I suggest that, in response to outside pressures on teachers and coaches to produce desired results and based on the resulting complexities within their own classrooms, instructional coaching provides a means for teachers and coaches to "deliberate problems of practice" and to "work together to uncover, articulate, and question their own assumptions about teaching, learning and schooling" (Cochran-Smith & Lytle, 2009, p. 144). Neither coach nor teacher(s) hold the pedagogical answers, but instead "make problematic their own knowledge and practice as well as the knowledge and practice of others" (Cochran-Smith & Lytle, 1999, p. 27). Together, they "raise fundamental questions about curriculum, teacher's roles, and the ends as well as the means of schooling" (p. 27).

Inquiry is a multidimensional stance within instructional coaching as the coach participates as both teacher and coach. A coach brings their own teaching experiences and knowledge (of subject matter, students, cultural differences and pedagogy) into collaborations, but he or she also brings coaching experiences and coaching knowledge (of adult learning, school change, professional development, and professional learning). Thus, during collaboration with a teacher(s), an instructional coach develops knowledge of practice as a teacher and as a coach. His or her situated coaching pedagogy includes the tools and practices he or she uses to engender teacher inquiry and learning according to beliefs about adult learning; to share knowledge within the school according to beliefs about school change; to establish coaching cycles and events according to beliefs about professional learning; and to use beliefs about professional development to envision larger school-wide events that could support or extend the knowledge produced during

this collaboration. In light of the political pressures on both teacher and coach, this coaching as collaborative inquiry provides opportunities for emancipatory action (Noffke, 2009, p. 324) where knowledge of teaching and coaching practice has the potential to transform local educational knowledge, practice and power relations. This knowledge of practice can transform the collective instructional capacity of a building, evolve shared beliefs about teaching and learning, and restructure time, resources and discourse in the school's professional learning community.

Coaching practices. Coaching, then, can support or impede this inquiry. From a socio-linguistic perspective, stance may be viewed as the "way in which an agent during interaction positions him/herself toward the other and the topic of interaction" (Poggi, D'Errico, & Leone, 2010, p. 3233). It not only includes the social relationship one wants to preserve, protect or engender with other(s), but it also includes the role a person wants to fulfill towards the other person(s), the way they want to be presented and his or her evaluation of the other(s) (p.3233). Du'Bois (2007) argued that stance taking is a highly dialogic (Bakhtin, 1981), situated and collaborative act (Vygotsky, 1986) that includes not just a person's positioning towards other(s), but also towards an object. While more than a fleeting opinion or position that fluctuates during a single conversation, Du'Bois argued that multiple stance acts build and establish a person's stance.

While a heavy coaching stance focuses on each coach's intentions within this study and is identified by a coach's mindset (Killion, 2009, October 14), a subset of the coaching literature distinguishes between a responsive coaching stance (Costa & Garmon, 2002; Dozier, 2006) focused on teacher self-reflection and a directive coaching

stance (Deussen, Coskie, Robinson & Autio, 2007; Killion, 2009) focused on pushing particular pedagogical actions and epistemic beliefs. The primary difference relies upon the extent to which the coach provides information, shares expertise, and leads in decision-making. A directive coaching stance uses dialogue to assert next pedagogical steps and pushes epistemic beliefs, sometimes positioning the coach as the expert who dominates the decision-making within a collaborative event. A reflective coaching stance uses dialogue to help the teacher figure out next pedagogical steps and to construct epistemic beliefs while recognizing a teacher's expertise and ceding decision-making to the teacher.

Lipton and Wellman's (2010) three coaching stances illustrate a further continuum between directive and responsive coaching stances. When taking on the stance of a "coach," a coach provides "nonjudgmental mediation of thinking and decision-making" in the collaboration, acting as a cognitive coach and supporting the teacher's "idea-production" (p. 3). As a "collaborator," the coach opens a space for he or she and the teacher to "act as equals" in reflection, design and problem solving (p.2). Finally, when acting as a "consultant," the coach draws upon his or her "repertoire, experiences, and expertise to advocate and offer perspectives and options" (p. 2). Lipton and Wellman suggest that coaches should begin with the coaching stance, allowing teachers to identify the pedagogical challenge and to invite the coach into a collaborative or a consultant stance.

This subset of the literature has until now focused on whether coaches employ responsive or directive stances during collaborative events while largely ignoring the

reasons for the shifting stances. With a heavy coaching intent, coaches can adopt discursive tools, like stance, to negotiate coaching tensions and attempt to impact the disciplinary literacy of adolescents. While an instructional coach can employ either a directive or a responsive stance in order to coach heavy, often in the same collaborative event (Ippolito, 2010), I resist seeing these two stances as purely dichotomous. Instead, I suggest that coaches adopt varying degrees of directedness and responsiveness as they negotiate the decision-making with a teacher during a collaborative event.

Applied to this study of instructional coaching in secondary disciplines, coaches adopt and utilize stances according to the participating teacher and the collaborative context. I conceptualize the collaborative context to include the coach's disciplinary knowledge (both content knowledge and pedagogical content knowledge), the participating teacher's disciplinary knowledge (both content knowledge and pedagogical content knowledge), specific students, and the official curriculum. Content knowledge includes disciplinary understandings, concepts, and skills while pedagogical content knowledge includes the ways of framing, scaffolding, and shaping content for specific students based on the knowledge of teaching students within the discipline. Collaboration between coach and teacher involves the negotiation and enactment of the curriculum and this negotiating involves a coaching stance. Therefore, deciding how and when to adopt stances with teachers can be complex since collaboration about teaching, students and pedagogy involves deeply held beliefs and experiences about teaching and learning that continually shape the identities of coaches and teachers. These coaching stances, along with situated tools, protocols, and activities comprise a coach's locally situated practices.

When an instructional coach intends to coach heavy in disciplines where they have more or less disciplinary knowledge and pedagogical experience than the participating teacher, it is quite possible the coach will face unique tensions in practice related to disciplinary knowledge and the natural negotiation of reaching consensus about what should be learned, how it should be learned and the role of a teacher in that learning. While the coaching tensions may be generalizable in theory, the complexity of the coaching context produces unique coaching tensions and stances.

Chapter 3

Research Methodology

Underlying Assumptions About Research

Several underlying assumptions about research influenced my own approach to the study of secondary instructional coaching. Since I believe that meaning is socially constructed through joint activity with culturally and historically situated tools and artifacts (Vygotsky, 1978) and that language is the socio-cultural medium of meaning making, I, therefore, believe that "reality is constructed by individuals interacting within their social worlds" (Merriam, 1998, p. 6). As a visitor into these social worlds, I was the primary interpretive instrument (p.7) and my goal was to understand each coach's insider perspective on heavy coaching efforts in these unique collaborative contexts (p. 6). My research and fieldwork was also inductive, seeking to find a theory to explain what I observed and collected (Goetz & LeCompte, 1984, p. 4). And, finally, the product of this research study is rich descriptions of how each coach attempts to coach heavy and influence the disciplinary literacy and learning of adolescents in these classrooms.

Case Study Design

In order to understand how instructional coaches attempt to coach heavy in secondary disciplines and the tensions in these efforts, this project used interpretive case studies of three secondary instructional coaches. A case can be seen as empirical inquiry that investigates a "contemporary phenomenon with its real-life context" (Miles & Huberman, 1994, p. 25; Yin, 1994, p. 13). My interpretive study was descriptive and explanatory in nature (Yin, 2008, p.5) because my interest lied in describing *how* each

coach attempted to coach heavy, *how* tensions complicated his or her efforts, and *how* each coach negotiated these tensions in practice. While the research base lacks studies that address the effectiveness of instructional coaching in secondary school contexts, my goal was not to dissect the causal cascade, or to draw conclusions about the impact of coaching on the epistemic beliefs or practices of teachers, or to draw conclusions about the way that the coach-teacher collaboration impacted the disciplinary learning of adolescents. Therefore, given the focus on the *how*, *why*, and the *what* combined with an emphasis on understanding coaching within its "real-world context" (p. 5), case study methodology made sense for this research study.

Using a multiple holistic case studies approach (Yin, 2008), I observed the practice of three coaches as they each worked with a content area teacher over multiple months. While each coach and teacher might have shared in previous teaching conversations, jointly participated in professional development events and/or previously participated in classroom-based coaching with each other, in this study, I defined the case as the multi-month collaboration between the instructional coach and the participating teacher. It was the participant perspective on their collaboration that mattered the most to me. My aim was to understand the "immediate and local meanings of actions as defined from the actor's point of view" (Erickson, 1986, p. 119), so I used methods that helped me understand the different perceptions and interpretations that comprise their "ecological circumstances" (Erickson, 1986, p. 121). Case study inquiry acknowledges that there will be "many more variables of interest than data points" and that the researcher must "rely on multiple sources of evidence" (Yin, 2008, p. 18). And, since I

believed that "speech events" (Hymes, 1972) constituted what happened and also constructed what was happening (Mehan, 1982), discourse in the teacher collaboration served as my unit of analysis. Collaborative meetings between coach and teacher, classroom observations of coach and teacher, debriefing conversations between both participants, and debriefing conversations I had with the instructional coach all provided opportunities to understand heavy coaching through the words of the participants.

The phenomenon of coaching in these contexts was bounded (Smith, 1978; Yin, 1994, p. 13) because as Merriam (1998) added, "I can 'fence in' what I am going to study" (p. 27). These cases were bounded by three criteria. First, each case was confined by the duration of the collaboration, with each case lasting between six and ten weeks. Individual teaching or coaching schedules, the length of curricular units, the school calendar, and available time to collaborate influenced the official beginning and end of the collaboration. Secondly, their case was also bounded by the topic of their collaboration. While each coach saw himself or herself as focused on student learning within each teacher's classroom, each collaboration had a pedagogical focus. Their shared discourse around this pedagogical focus often occurred during formal coaching events such as planning sessions during non-teaching time, co-teaching in a class, or debriefing sessions. Often, the initial planning meeting marked the start of the collaboration and involved a discussion of the curricular content during the collaboration, a negotiation of collaborative goals, and a discussion of their possible roles and responsibilities. Their inquiry into this pedagogical topic often crept into other aspects of formal curricula, assessment practices, and instruction, yet the initial inquiry topic

influenced the direction of the collaboration. Finally, in all three of the coaching cases in this study, an individual site classroom also bounded each case. While the teacher may have transfered pedagogical designs into other class periods or visa versa, the site classroom provided the physical boundaries and the spatial boundaries—students, curriculum, class period, etc. The in-class coaching between the coach and participating teacher occurred in one class.

Review of Purpose and Research Questions

The goal of these three coaching case studies was to produce distinct kinds of knowledge about instructional coaching efforts in these contexts. By presenting these cases through the words and actions of the participants, I wanted to "concentrate on the way particular groups of people confront specific problems" (Shaw, 1978, p.2). Given the uniqueness of a case and the type of questions asked, case study knowledge then was "more concrete, contextual, developed by reader interpretation and based more on reference populations determined by the reader" (Stake, 1981, p. 35-36). Rich, thick descriptions of heavy coaching efforts can allow the reader to understand the complexities of heavy coaching in these particular contexts and therefore complicate the simplistic, sequential assumptions about the coaching causal cascade. Instead of seeking to generalize coaching "best practice" pedagogy or to elucidate *the* way to coach heavy in science or math or language arts, my goal was to help the reader question assumptions concerning secondary instructional coaching in their own context after reading these three cases.

Started in 2007, the Center for Education in Small Urban Communities was a school-university partnership between the College of Education at the University of Illinois and several local school districts. The primary component of this partnership was the teacher collaborator project in which former classroom teachers were hired as either elementary teacher collaborators or secondary teacher collaborators in order to provide job-embedded coaching to teachers and to partner with local schools to build models of professional learning. My role as a teacher collaborator in the Center for Education in Small Urban Communities at the University of Illinois over the last six years provided me with a unique opportunity to become immersed in local secondary coaching contexts. But, such a close up view required that I realize my own consciousness (Stake, 1995, p. 41) and recognize that who I was outside my identity as a researcher influenced the kinds of questions I constructed, what data was important, and how I collected, analyzed and wrote this data into my interpretation (Dyson & Genishi, 2005, p. 57-58). Since I began instructional coaching in 2002, I have been inquiring into my own coaching practice while pursuing the same broad, complex questions faced by many instructional coaches. This study originated in my own coaching practice as I wrestled with the challenge of impacting the disciplinary literacy and learning of adolescents. By starting with a broad question, I permitted a "dialogue between researcher and the topic" (Biklen & Casella, 2007, p. 13). The dialogue, then, "is what takes place between the researcher's original idea in entering the field and the informants' understanding of their situation" (p. 13). My research questions have evolved, narrowed and shifted since my preliminary examination. As I have reflected further on my own coaching practice with teachers since

then and as I have spent time with the three coaches in this study, the research questions have shifted away from a desire to understand how the professional learning of coaches impacted their coaching practice, teacher practice and student achievement and towards questions focused on the immense complexity and challenge of coaching for impact in disciplinary contexts. So, I did not enter into this study with a complete view of heavy coaching, but instead I attempted to pursue "deliberate lines of inquiry even though those lines could shift in response to events" (Erickson, 1986, p. 121). I entered hoping to question and complicate my existing assumptions about coaching heavy, the tensions that exist in this approach, and the assumptions implicit in instructional coaching in secondary disciplines. In this research project my aim to understand the complexities of heavy coaching in secondary disciplines is guided by the following research questions:

- 1. How do secondary instructional coaches attempt to coach heavy?
 - a. What discourse and practices do coaches use to support a heavy coaching focus?
 - b. What is the relationship between coaching heavy and coaching light?
- 2. What tensions make heavy coaching challenging?
 - a. What is the relationship between disciplinary knowledge and the coach's ability to focus on the disciplinary learning of adolescents in the classroom?
 - b. What is the relationship between the participating teacher's disciplinary knowledge and the coach's ability to focus on the disciplinary learning of adolescents in the classroom?

- c. How does the interpersonal relationship between coach and teacher influence the coach's ability to focus on the disciplinary learning of adolescents in the classroom?
- 3. What coaching practices do secondary instructional coaches use to negotiate these tensions?
 - a. How does the instructional coach use discourse to negotiate the above tensions with the participating teacher?
 - b. Specifically, how does an instructional coach use stance in light of the above tensions and the participating teacher?

Personal Standpoint and Ethical Considerations

Throughout my study, I varied the ways of positioning myself and being positioned by others around me (Dyson & Genishi, 2005, p. 51). The understandings I constructed from and with the participants in my study depended on these roles. The coaches and teachers informed the questions I asked, the conversations I valued, my interactions with the people in these school contexts, and the assumptions I formulated about how coaches and teachers made sense together. Just as the four characters in the Akira Kurosaw's 1950 Japanese mystery film produced substantially different but equally plausible accounts of an event, this Rashomon effect (Heider, 1988) required I approach this study of coaching with a subjective lens that filtered my interpretation of experience in this study. And, while in the field, I needed to "subject every assumption about meaning in any setting, including assumptions about desirable aims and definitions of effectiveness in teaching, to critical scrutiny" (Erickson, 1986, p. 126). What follows is a

brief account of my subjectivity as I approached this study and how that influenced the roles that I utilized in this study.

My local history. After spending a year as a full time student in this doctoral program in 2001-2002, I accepted a job at a high school in Glenville School District teaching reading intervention classes to struggling ninth grade readers. In fact, after teaching those reading classes for a year and with the previous experience of working with an instructional coach at my first teaching job, I approached my high school principal and the assistant superintendent in the district and suggested that instructional coaching could be a vehicle for pedagogical change at the school. Both administrators realized the value and limitations of a reading intervention class for struggling adolescent readers. When approved, I became the first secondary instructional coach in the Glenville School District and kept this position until 2007. Teaching English, reading and social studies at the school, I balanced this teaching with three hours of coaching each day. With no district approved coaching model, I devised my own coaching model. I set up content area cohorts of teachers to mirror the model I had experienced with the instructional coach in my own teaching six years before. Instead of a daily hall duty, three science teaches met with me daily to learn content area literacy strategies, design lessons and to reflect upon the implementation of these strategies. During another class period. I met with 9th grade English teachers and then with 9th grade geography teachers during the following hour. Over the course of three years, between 25 and 35 teachers participated in this yearlong collaboration with a diversity of instructional foci depending on the group of teachers, the curricular context, and the adolescent needs in their classes.

At the time, my goal was to help teachers infuse generalizable content area literacy strategies and I assumed that reading, writing and talking looked similar across disciplines. Today, while I believe there are general processes of reading, writing and talking, I believe that each discipline uses reading, writing, talking and thinking in unique ways in order to produce knowledge (Shanahan & Shanahan, 2010; Moje, 2008). At the time, I believed shared discussions around literacy strategies and the co-designing of lessons would result in improved literacy instruction. Today, while I value those conversations and the co-designing of instructional plans, I believe formative assessments must initiate these discussions and instructional plans. I also believe the role of an instructional coach is to guide a content-area teacher's reflection in practice and the role of a coach within the classroom should be negotiated with the classroom teacher. As a coach, I also presented reading strategies at staff meetings and conducted workshops after school on literacy frameworks like writer's workshop or balanced literacy for interested teachers. In the second year of coaching, the administration decided to create a math instructional coach and asked me to mentor this math teacher as he started "holding collaborations" with his math colleagues.

This coaching position also provided collaborative work with district administrators where I was routinely included in a small group who made decisions concerning collaboration, professional development, and school improvement plans in the building. To this end, I was sent with a handful of other teacher leaders to a national conference on school reform in Washington, D.C. and to state conferences on literacy. In the summer of 2007, I became a secondary teacher collaborator in the Center for Education in Small

Urban Communities at the University of Illinois at Urbana-Champaign. This job stretched my understanding of Glenville School District policies and organizational tensions related to adolescent literacy and the professional learning of teachers. Hired to improve teaching and learning in secondary schools, my roles shifted as I expanded my own understanding and practices related to coaching. During the 2007-2008 and 2008-2009 school years, I worked primarily with individual teachers with whom I had previous personal and professional relationships and/or those teachers that school administrators selected to attend a weeklong summer academy, the Chancellor's Academy, planned and facilitated by myself and other staff at the Center for Education in Small Urban Communities. My collaborative topics with teachers depended on the individual teacher but differentiating literacy instruction for adolescents was a common focus. Over the last three years, I also supported both districts in building the capacity of the schools to improve professional learning. At the district level, I planned and facilitated the professional learning of a cohort of fifty secondary teachers throughout the year who were focused on responsive literacy instruction. I also planned and facilitated a monthly meeting of middle school teachers focused on improving literacy interventions in their classrooms and in their building. At the school level, previous activities included starting and facilitating the coaching inquiry group for coaches, helping administrators frame overarching professional learning goals with his or her faculty, coaching the principals on professional learning structures, and designing school-wide collaborative structures for each content area teams. At the school department level, I worked with individual content areas at one middle school to frame their professional learning plans for the school year

and led the weekly collaborative meeting of the social studies teachers at another high school. Finally, I continued to coach individual teachers in their classes on aspects of literacy instruction, continued assessment and responsive teaching.

Based on what I have found effective at shifting the thinking and practice of teachers, my coaching process evolved alongside my own learning about formal curriculum, continued assessment and more responsive instruction. The frameworks of Understanding by Design, differentiated instruction and continued assessment provided me with a way to help teachers create a rich curricular context in which we partner to design literacy instructional practices. Working across multiple content areas in seven schools with a diversity of teachers taught me that teaching and learning is a complicated process. I learned that each school had a distinct culture and professional learning varied within these schools. A framework like Understanding by Design became a powerful framework for teachers to collectively plan at one high school. But, simultaneously, and due to building administrative policies, it became a framework that angered language arts teachers at another middle school in the Glenville School District. I learned that professional learning through coaching was influenced by the quality of personal relationships, impacted by who initiated the collaboration, whether or not the teacher(s) identified the topic of focus, the extent to which the topic aligned with school and district level professional development initiatives, and the responsive stance of individual coaches.

The nature of my work and my own teaching/coaching history with local school districts made it impossible for me to just be an outsider. I was not quite a teacher in

schools and I was neither solely a researcher. My personal and professional relationships with teachers meant that I had met and worked with the majority of teachers in each of the seven local secondary schools. I moved in and out of multiple local communities of practice at the community, district, school and teacher levels. The engagement within these communities of practice provided me with insider knowledge, multiple identities (teacher collaborator, friend, former teacher, former instructional coach, community member, doctoral student) and a need for navigating these political discourses. I was an advocate for teachers but worked closely with administrators who evaluated, gave tenure to and fired teachers. I provided and problem-solved school wide professional learning events for large groups of teachers but also conducted multi-week, ongoing collaborations with individual teachers in their classrooms. I worked with district administrators to plan professional development events and then watched as the same administrators implemented my ideas and coaching frameworks with large groups of teachers. My practice as a teacher collaborator reflected my strong desire for schooling that provided opportunities for adolescents to critique mainstream knowledge and literacy practices. It also advocated for democratic professional learning that used collaborative inquiry, shared-decision making and responsive coaching to create more equitable learning for coaches and teachers.

My researcher role. Throughout this study, I continued to be a teacher collaborator, a former coach, a researcher, friend and colleague in many professional and personal settings. My ontology, axiology and epistemology as a researcher in this study positions me relative to the social contexts in which I was an observer (Schwandt,

Lincoln, & Guba, 2007, p. 11). My own ontology regarding professional learning, coaching and teaching shaped the lenses used to observe the teacher collaborations. I believe coaches should partner with teachers in order to respond to the literacy needs of students and that coaching is done in order to affect pedagogical, social and political learning contexts so that they are more equitable for students—many who are often marginalized in secondary schools through transmission pedagogical approaches and exclusive, hidden curricula. My experiences as a high school English and social studies teacher at two urban schools provided opportunities for me to participate in practitioner inquiry for social justice ends. For the last six years, I have worked with local instructional coaches as well as secondary teachers in order to develop more responsive teaching that provides students with valuable reasons to inquire into content, diverse ways of showing learning and pedagogical spaces that provide students with the scaffolds and choice they deserve. I believe that too many schools provide unjust professional development that attempts to standardize curriculum, implement generalized instruction and devalue the expertise of teachers. In contrast, I believe those closest to the learning of students know the most about the literacy and learning needs of students and that professional learning must be a collaborative effort to close the gap between what students need us to know and what we currently know about teaching them. Coaching is immensely more complex than the simplistic notions that exist in policy and discourse. During this study, my work as a teacher collaborator continued in the other four secondary schools in this school-university partnership. This work provided an ongoing means of thinking about my own coaching practice in light of the coaching practice I

observed in this study. And, I firmly believe that I have, over the last six years, appropriated the coaching practices of those around me and have had my own coaching practices appropriated by other local coaches. However, in these three schools during this research, I did not take on my role of a teacher collaborator. During this research study, I did not lead any school-wide professional development events in the three site schools or meet with any other teachers in these schools. While observing the collaborations in this study, I did not act as a consultant where I offered advice or suggested pedagogical directions. Instead, as an observer, I closely watched the collaborative interactions and resisted the urge to participate in the design of or reflection upon teaching practices. Even when I believed my own observations of students might have benefited the collaboration, I did not share my observations because I did not want to disturb the directions of the collaborative discourse or coaching practice. I limited my evaluative comments to coaches and teachers. While my double consciousness (Henry, 2010, p.368) and my own knowledge of these schools, teachers, and contexts provided an opportunity to understand the particular challenges, I did not act as a consultant in these collaborative contexts.

Research Methods

My own work through the Center for Education in Small Urban Communities provided me opportunities to work directly alongside coaches as they coached teachers, to co-coach in teacher groups, to design professional development events with coaches, and to participate in shared reading and discussions of coaching and teaching research. So, their selection was based on my numerous participations in their coaching work over

the last several years. In some situations, I had the opportunity to coach some of the same teachers in their school building.

Site and participant selection. As a secondary school teacher collaborator in the Center for Education in Small Urban Communities through the University of Illinois at Urbana-Champaign, my primary role had been to support local secondary schools as they built the collective capacity of teachers to respond to the literacy and learning needs of adolescents. Over the past few years, this has included the professional learning of area secondary literacy and instructional coaching. In 2009, I organized a coaching inquiry group to support the learning of middle and high school instructional coaches from two nearby school districts that surround this midwestern university. This inquiry group explored tensions within their own coaching practice while using research and literature on coaching, pedagogy, and teacher change to deepen the group's understanding of coaching and teacher collaboration. As a facilitator of this coaching inquiry group in the years preceding this study, I had the opportunity to share my own coaching practice with participating coaches. Within this group, I shared protocols such as the Eyes on Students Protocol to help teachers collect formative assessment data on students. My participation allowed me to share how I garnered entrance into voluntary collaborations, discourse used to negotiate politically-risky discussions with administrators, to document impact of my coaching, and to synthesize recent research on instructional coaching, adult learning, pedagogy, and adolescent literacy. Additionally, participants read numerous articles from the literature base on coaching models, theories of adult learning, school reform, and collaborative practitioner inquiry. At times, this group subdivided into grade level groups

(middle school coaches or high school coaches) in order to provide time for these coaches to discuss a specific teacher collaboration, to shared coaching protocols, and to design documents and plans related to the professional development in their buildings, including coaching. Coaching heavy had been a topic of discussion in this group and all coaching members read the articles describing heavy coaching attempts (Killion, 2009, 2010). This coaching group allowed me to hear each coach talk about how they attempted to coach heavy, the tensions in their coaching practice, and the strategies they used to negotiate these tensions. In that sense, these experiences and my interaction with these coaches in this inquiry group provided knowledge for the selection of coaches for participation in this research study.

For this study, I used mixed purposeful sampling (Miles & Huberman, 1994) to select coaching participants. I relied upon criterion sampling to identify six secondary coaches from the thirteen coaches in this coaching inquiry group that had previously displayed a heavy coaching stance with teachers. Then, due to the fluid nature of collaborations in these schools (in terms of frequency, predictability and duration), I used opportunistic sampling to identify coaches who would be conducting a long-term collaboration of at least two months with a teacher in their building during the 2011-2012 school year. Sometimes a case(s) is selected simply because it presents the greatest possibility of what we can learn (Stake, 1995, p.4). Each of the three coaches in this study identify with a heavy coaching stance and view their purpose as impacting the literacy and learning of students. Throughout our shared work and interactions prior to this study, these three coaches displayed a heavy coaching stance in their collaborations in and

professional dialogue. I heard the participants discuss a preference for impacting student learning over building relationships with teachers. The participants often began collaborative events with a discussion of formative assessment data and I often heard the coaches use discourse to challenge the epistemic beliefs of participating teachers. In this study, each case was defined as the collaboration with the coach and teacher. In this situation, each coach provided a different complexity related to coaching heavy in secondary school disciplines. All three coaches expressed interest in the topic and stated that they felt an exploration of their heavy coaching efforts could improve secondary coaching. What follows is a brief description of Glenville School District, of each of the schools that comprise the coaching contexts for this study and of each of the three participating coaches.

Situated in a small Midwestern city, Glenville School District has recently exited a court-imposed consent decree to reduce the achievement gaps between the dominant white student population and students representing populations that have been historically disenfranchised. This court order lasted over a decade and provides a larger educational, social and political context within which school reform initiatives have originated. Jobembedded coaching in secondary schools represents one such school reform effort in the Glenville School District. This district has a longer history of secondary coaching than its neighboring school districts, but neither instructional nor literacy coaches could be found in any elementary or secondary schools prior to 2002. In the fall of 2002, Glenville School District hired two literacy interventionists to teach reading intervention classes for incoming freshmen identified according to standardized test scores. By the spring of 2004

and at the initiation of one of the literacy interventionists, the district allowed the interventionists to begin collaborating with content area teachers in addition to teaching reading interventionist classes for students. While additional district level personnel were employed to work with content area teachers on curriculum and to plan professional development, job-embedded coaching did not previously exist in the Glenville school district. Since 2004, Glenville has expanded coaching into all five secondary schools. A math instructional coach was added to both high schools during the 2006-2007 school year and instructional coaches were added to the three middle schools throughout the 2008-2009 school year. Currently, seven individuals work as secondary school coaches within these five buildings. Each of the three Glenville middle schools employs an instructional coach and two instructional coaches work in each of the two high schools in this district. Since the original use of secondary coaching in 2004, there has been a moderate amount of turnover in the coaching positions with a total of thirteen different teachers holding the seven positions. This turnover has occurred at the high schools, but the original three middle school coaches still work in their coaching positions.

Participation in coaching is voluntary in all three Glenville schools used in this study. Teachers are not required to meet with the coach outside of their classroom or to invite the coach into their classroom. While all three coaches in this study seek out teachers for participation in collaboration, each teacher in this study initiated the collaboration with their building coach. As a result of this voluntary status, the participating teacher and coach had autonomy to decide upon the topic of collaboration, the duration of their work together, and the roles they performed.

Davidson High School. A large comprehensive high school serving 1,454 students, Davidson High School has a staff of 125 teachers and is one of two high schools in the Glenville School District. According to the 2011 Illinois State Board of Education (ISBE) School Report Card, Davidson graduated 82% of all seniors at the conclusion of the 2010-2011 school year but just 75.4% of African-American students, 61.9% of Latino/Latina students, 50.7% of students who qualified for special education services and 66.9% of economically disadvantaged students compared to 87.3% of students were Caucasian and 87.5% of Asian/Pacific Islander. Of 11th graders who took the PSAE achievement test, 44.5% of all students failed to meet the reading standard and 48.7% failed to meet the math standard. While 31.2% of Caucasian 11th graders failed to meet the reading standard, 72.7% of African-American students, 50% of Latino/Latina students and 37.5% of Asian/Pacific Islander students fell below this reading standard. A staggering 82.2% of students who qualified for special services and 70% of economically disadvantaged students fell below this reading standard. The achievement gaps for 11th grade students in math also mirror the reading achievement gaps. As a result, Davidson High School failed to meet annual yearly progress in 2010-2011 in every reading subcategory and only met the standard for math in the Caucasian subcategory. Because of these challenges and their failure to meet annual yearly progress, the school entered into a state mandated restructuring process three years ago.

In order to improve teaching and learning in the building, Davidson has begun several new reform initiatives. Davidson High School first hired an outside teacher as an instructional coach in the 2009-2010 school year but that individual was replaced

internally with an English teacher and with a Math teacher who became the new instructional coaches at the start of the 2010-2011 school year. Also, during the 2011-2012 school year, a "late start" collaborative time was added on every other Wednesday to provide teachers time in course alike groups to "look at student work" together. During the 2011-2012 school year, the school-wide focus was on creating curricular units using the Understanding by Design framework (McTighe & Wiggins, 2004). Teachers were asked to design units of study for one course that they taught and then to turn in the units to the administration and coaches. Teacher resistance prompted a change midyear that asked teachers to just turn in three units by the end of the year. By the middle of the spring semester, teachers had discontinued turning in curricular units. In the fall of 2011, the school-wide focus shifted to the Gradual Release of Responsibility instructional model (Fisher & Frey, 2008) and teachers were told to use the late start time to create common assessments one week and then to look at the student work from that assessment the next week. Administrative turnover has been an issue at Davidson as the current principal is in his second year at the school but is the fourth principal in the last seven years.

Hobbs Middle School. Hobbs Middle School is one of three middle schools in the Glenville School District and has three teams at each grade level, serving a diverse student body of 700 students in 6th through 8th grades. According to the 2011 Illinois State Board of Education (ISBE) School Report Card, 49.9% of students qualify for free and reduced lunches and 6% of students were considered English Language Learners. Situated in this university town, 34% of the student body self-identify as African-

American, 44% as Caucasian, 12% of students as Latino/Latina and 9% self-identify as Asian or Pacific Islander. Hobbs Middle School is the oldest middle school in the district and faces numerous challenges related to the literacy and learning of adolescents. The school met annual yearly progress in 2009-2010 in every category but failed to meet annual yearly progress in 2010-2011 due to underachievement in reading and math by African-American, students who are economically disadvantaged and students who qualify for special education services. A sizeable literacy gap exists between Caucasian and African-American 6th graders. While 21% of 6th grade students at Hobbs Middle School fell below standards on the 2011 ISAT reading assessment, that comprised 8.5% of Caucasian students and 12.5% of Asian/Pacific Islander students compared to 36% of all African-American 6th graders and 36.4% of Latino/Latina students. One out of every three 6th grade students who qualify for free and reduced lunch and 54.2% of 6th grade students with IEPs were below reading standards. Similar achievement gaps exist in math at all grade levels.

While Hobbs Middle School has had several school-wide professional development initiatives, teachers currently use their collaborative team time differently depending on the day of the week. Each Wednesday, the English/language arts teachers meet with the instructional coach by grade level. On other days, content area team meetings occur. And, on other days, grade level teams meet in order to discuss students, plan field trips, meet with individual students or make parent contacts. On designated district professional development days, middle school teachers met with their content area counterparts from the other two middle schools to learn based on their "Professional

Learning Plans" that the group created at the end of the previous school year. Since the beginning of this district's court ordered consent decree in 2001, Hobbs Middle School has had five principals in eleven years. With this revolving door of administrative leadership has come a revolving door of school improvement initiatives and professional development efforts including coaching.

Coaching at Hobbs Middle School is a recent approach adopted in order to improve teaching and learning. Coaching as a form of job-embedded professional development was adopted prior to the 2010-2011 academic school year. With a desire to improve the literacy scores of middle school students, the school principal appointed Scarlett Moinahan to the position of instructional coach and directed her initial role in the building. The principal envisioned the instructional coach meeting with grade level and content level teacher groups in order to share content area literacy strategies and to help teachers plan how to implement these strategies. Participation in these planning meetings was required, but participation in any in-class coaching was left for negotiation between the coach and teacher(s). Scarlett Moinahan has been the only instructional coach in the building up until the time of this study.

Hamilton Middle School. Built in the 1960's, Hamilton Middle School is the newest of the three middle schools in the Glenville School District, with three grade level teams at each level serving a diverse student population of over 690 students. According to the 2011 Illinois State Board of Education (ISBE) School Report Card, 56.8% of students qualify for free and reduced lunches and 3.9% of students were considered English Language Learners. Situated in this university town, 34.3% of the student body

self-identify as African-American, 48.3% as Caucasian, 6.5% of students as Latino/Latina and 8.5% self-identify as Asian or Pacific Islander. While typically garnering the best achievement test scores of any middle school in the district, Hamilton Middle School still faces numerous challenges related to the literacy and learning of adolescents. The school has failed to meet annual yearly progress for the third consecutive year due to underachievement in reading by African-American students, economically disadvantaged students and students who qualify for special education services. Like Hobbs Middle School, a sizeable achievement gap exists between Caucasian and African-American 6th graders with almost a quarter of all African-American 6th graders below standards on reading. In seventh grade, 37.4% of economically disadvantaged students, 65.6% of students with disabilities, and 44.8% of African-American students tested below reading standards. Even though 8th grade reading gaps were smaller, similar achievement gaps exist in math and reading.

Unlike the high administrative turnover at Hobbs Middle School, Hamilton Middle School has had the same principal for the last fourteen years and works closely with the instructional coach on school-wide professional development initiatives. Many of these initiatives are tied to the summer Chancellor's Academy offered by the Center for Education in Small Urban Communities. This week long professional development event provided space for teacher groups to pursue collaborative inquiry and to plan year-long collaborations around adolescent literacy and literacy instruction. The coach and principal annually select teacher groups for attendance at this academy and develop ways of supporting their continued learning throughout the school year. At Hobbs Middle

School, a small cohort of teachers, including the language arts teachers in this study, have attended the Chancellor's Academy for numerous years. The building has a strong collaborative culture with content area teachers meeting in groups at routine times during the week. Grade level team meetings provide opportunities to discuss the needs of specific students and possible interventions. Hamilton Middle School has had the same instructional coach for the last five years with that coach being a full time coach during the last two years. Prior to the current coach, the building had no recent history of coaching. Since the beginning of this district's court ordered consent decree in 2001, Hamilton Middle School has typically had the highest achievement scores of the three district middle schools.

Data collection. Because I believe that learning is socially constructed in communities of practice and that language is the medium by which coaches and teachers co-construct and negotiate meanings, practices and identities, I used qualitative methods (interviews, field notes, observations, audio-taped conversations, etc.) in order to understand the "immediate and local meanings of actions as defined from the actor's point of view" (Erickson, 1986, p. 119). Beginning in January 2012, I observed the coaching of the three different secondary coaches over a minimum period of four to five weeks, spending at least three days a week with each coach and teacher. Each multi-week collaboration began at a different time between early January and mid February resulting in some overlap in my observation of coaching in multiple schools. Coach and teacher schedules dictated the actual daily observation times which resulted in some weeks having four or five days of observation and other weeks having only one to two days of

observation. Given my role as a teacher collaborator, I have been "hanging loose" (Bogdan & Biklen, 2003, p. 49) in these schools and in these collaborative contexts for several years. I knew all three coaches and all participating teachers prior to this study. I anticipated that illuminating aspects of any or all of the cases would prompt further observation after the initial four-five week period. As a result, all three of the collaborations went longer than the planned four to five week collaborative period. One collaboration lasted seven weeks. Another lasted eight weeks and a third spanned ten weeks during the spring semester. While I had previously observed the coaching of each coach, for the purpose of this study, I did not observe any coach's simultaneous collaborations. The unit of analysis was confined to a single collaboration with one teacher. To understand the local meanings and tensions in coaching practice, my interpretive tools and techniques (field notes, observations, interviews, analytic memos) guided me in documenting and analyzing the "slices of social life" in an unusually thorough and reflective manner (Saldana, 2010, p. 15). As a result, data collection took a multi-dimensional, layered approach that focused on the discourse within the coaching (see Figure 3.1). Building from my own classroom observations of the coach and teacher, each subsequent layer of collaborative discourse allowed me to understand the coach's and teacher's participation and perspective within this collaboration. The initial interviews framed each person's perspective on the collaboration topic and the extent to which each participant viewed heavy coaching as the intent. Classroom observations provided a window into the enactment of collaborative designs and the collaborative discourse and practices during this enactment. Coach-teacher debriefs provided me with

opportunities to listen and understand how the coach and teacher were making sense of classroom enactments and how they were negotiating tensions within their collaboration. Coach debriefs allowed me to further probe into the tensions and uncertainty I observed in both the classroom enactments and in the coach-teacher debriefs. These debriefs with the coach almost always directly followed the coach-teacher debriefs. And, finally, before leaving the field each day, my own audio-recorded memory memos provided me with opportunities to synthesize my observations, to identify inquiry lines to follow during subsequent days in the field, and to interrogate my own interpretive assumptions. In conclusion, individual exit interviews with both teacher and coach represented a closing collaborative conversation where I sought their perspectives on heavy coaching, the disciplinary tensions, and how they felt this collaboration impacted their own understanding and practice.

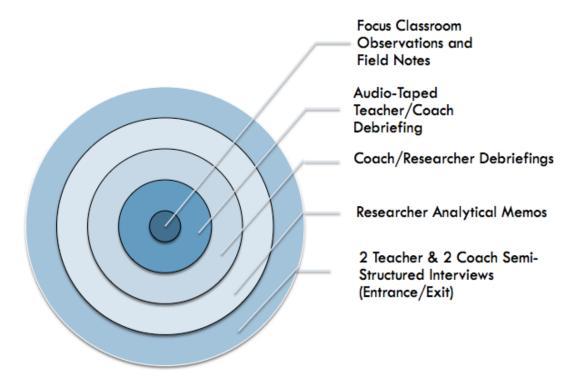


Figure 3.1. Layered Data Collection.

Initial interview with coaches. Early in my initial observations of each coach in practice, I interviewed the coach about his or her coaching history, teaching history, views on coaching heavy, tensions within his or her coaching practice and perspective on the upcoming collaboration with the teacher(s). The semi-structured interview was audiotaped and transcribed and lasted thirty minutes using the bank of questions (See Appendix A for interview questions). While the open-ended questions served as a guide, my goal was not to garner desired responses to every question. Instead, I was "bent on understanding, in considerable detail, how people...think and how they came to develop the perspectives they hold" (Bogdan & Biklen, 2003, p. 3). During this interview, the coach and I used our schedules to determine which teacher collaboration I could observe and which teachers, if more than one, I should approach about the in-class observation(s).

Initial interview with teacher(s). Prior to starting my observation of the collaborative meetings with teachers, I interviewed each teacher about his or her literacy pedagogy, professional learning, and perspective on the upcoming collaboration with the instructional coach. The semi-structured interview used a bank of questions to guide the conversation and to understand what he or she desired from the upcoming collaboration. It allowed me an initial window into whether or not the teacher thought the coach was primarily there to improve teacher practice or to improve the disciplinary learning of adolescents in the class.

Coach-teacher debriefs. Whether it is an initial planning meeting where curricular and collaborative goals are established, a recurring planning meeting where student learning is discussed, or whether it is a meeting to debrief what just occurred in

class, coaching relies on these regular discursive experiences with a teachers. I was an observer during these collaborative meetings where I took field notes and audiotaped conversations when appropriate. My field notes included descriptive jottings of what took place, reconstructions of dialogue, and an account of activities. They also included reflective memos that focused on the emerging patterns, connections and conflicts in this discourse as well as my own assumptions. As an observer in the group, I observed the meetings and only answered questions when asked. I saw my role as someone who was busy watching what was happening rather than participating in the problem solving discourse.

Classroom observations. Before, during or after the teacher collaborative meetings with the coach, the coach and teacher(s) often made plans for the coach to "push in" to classrooms and to support the implementation of their newly designed instructional plan. This is always negotiated with the classroom teacher and can take various forms including modeling of instruction, co-teaching of a lesson, observation of students, etc. Before my observation, I asked the teacher and coach which class they thought I should observe. This became my focal classroom throughout the entire collaboration. I observed the collaborative work in the classroom, taking field notes on the classroom coaching activities and the roles of the teacher and coach and students. Teacher artifacts including but not limited to lesson plans, documents created with the coach, and informal assessments were collected. Student artifacts including student work and informal feedback were collected from students who had given consent and whose parents gave consent prior to the observation of the first lesson.

Coach debriefs. Following the in-class coaching and any coach-teacher debriefing meetings, I debriefed with the coach. During these conversations, I asked the coach to share his or her perspective on that day's classroom teaching and learning, how he or she planned to approach next steps in the collaboration, and existing tensions in the collaboration. These debriefs provided a means of triangulating my own classroom observations with observations during the coach-teacher debriefs. I audiotaped and transcribed these conversations. I wrote informal jottings during the debriefing.

Exit interview with coaches. At this end of this coaching cycle, I held a semi-structured exit interview with the coach to discuss his or her heavy coaching practices, perspectives on this collaboration, and how he or she has attempted to negotiate disciplinary tensions in coaching practice. The interviews were audiotaped and transcribed. I also wrote informal jottings during the interview. The interviews lasted no more than sixty minutes.

Exit interview with teachers. At the end of this collaboration, I held a semistructured exit interview with each teacher in order to understand his or her perspective on this collaboration, disciplinary tensions, the role and work of the coach, and any impact on his or her own professional learning and teacher practice. The interview lasted no more than thirty minutes.

Analytic memos. Saldana (2010) referred to an analytic memo as "a place to dump your brain about the participants, phenomenon, or process under investigation by thinking and thus writing and thus thinking even more about them" (p. 32). As Clarke (2005) stated, "Memos are sites of conversations with ourselves about our data" (p. 202).

While this typically refers to memos written during a formal period of data analysis, I used the conception of an analytic memo while I was in the field observing because I believe that analysis in interpretive research is always ongoing. Therefore, before leaving the field each day, I set aside time to reflect on my observations—in the site classroom, during the coach-teacher debrief and during the coach debrief. Several of the categories suggested by Saldana (2010) framed the types of thoughts I audio-recorded. Memos offered opportunities to reflect on how I personally related to the participants and/or to coaching. They offered a time to reflect upon the evolving nature of my research questions, emerging patterns, themes, and concepts. At times, my memos became a place where I drew connections across collaborative events in the same day, across collaborative events on separate days, and even across the three coaching case studies. But, the memos also included my reflections about the problems and challenges and moral dilemmas in my study with my researcher role representing one early challenge. And, almost always, these memos contained my sense of the shifting lines of inquiry that emerged. Each memory memo was transcribed and added into my field notes as a concluding piece of daily reflection.

Data analysis procedures. Analysis is my "everlasting effort to make sense of things" in our contexts (Stake, 1995, p. 72). To some extent, my analysis and thinking about issues of teaching and coaching in these contexts has been ongoing in these schools, having begun during my own teaching, coaching, and work as a teacher collaborator in these schools. While we do this instinctively as researchers—"the teasing apart of our experiences in an effort to make sense—as people in social worlds," I

acknowledge that a systemic approach to this interpretation is just as important as good thinking (Saldana, 2010, p.72).

Analysis was ongoing throughout data collection (Saldana, 2010, p. 17). Descriptions of heavy and light coaching (Killion, 2009, 2010), knowledge of practice (Cochran-Smith & Lytle, 1999), and stance taking (Du'Bois, 2007; Poggi, D'Errico, & Leone, 2010) provided an analytical frame for this study. During initial interviews, I used probing questions to determine how coaches perceived heavy coaching, how they viewed the purpose of their coaching in general and in this collaboration specifically. I used these interviews with both coaches and teachers to begin to develop an understanding of how these individuals viewed literacy in secondary school disciplines, "good" teaching, and meaningful professional learning including coaching. While these interviews oriented me with the pedagogical and epistemic beliefs of participants, they also framed my initial view of these participants at the start of their collaboration.

Preliminary jottings were written on field notes while I observed classroom enactments, coach-teacher debriefs and coach debriefs. At the conclusion of each day's observations, I listened to and read through each day's data (class field notes, audio-taped coach-teacher debrief, audio-taped coach debrief, and researcher memory memo) in order to construct a narrative of each day's observations (Bogdan & Biklen, 2006). I created a summary table for each piece of data, listing basic identifiable descriptors as well as summarizing the observed events and my initial observations. This helped me to begin to organize data with initial codes (i.e. patterns that emerged around heavy coaching characteristics, tensions identified by the coach, coaching discourse practices, etc.). For

example, using the characteristics of heavy coaching (see Figure 2.1.), I analyzed the instructional practices Eric and Jackie put in place to determine if they occurred in response to their analysis of student understanding, if their debriefs of lessons analyzed how instructed impacted student understanding, if debriefs probed into underlying pedagogical beliefs, and the extent to which teaching practices were seen as situated and responsive to student needs. Before reentering the field again I listened to the previous day's analytical memory memo as a means of "reorienting my observational lens" (Saldana, 2010) and determining areas of further observation. I regularly used my initial jottings and field notes to initiate conversations with the coaches and teachers about topics, issues and statements that I noticed. Waiting would have resulted in missed opportunities for new directions, conversations and understandings.

After data collection ended, I listened to all audio a second time while transcribing files, taking notes, and reconstructing field notes again. Through this process, I organized the initial patterns jotted during data collection into richer themes. For example, during a coach-teacher debrief in which Eric and Jackie watched a video of her students working on math problems in a group, I took notes on how Eric repeatedly asked Jackie to clarify the mathematical content while they watched students struggle with linear equations. Using this instance, I developed patterns related to each coach's heavy coaching intent ("pushing focus on student understanding," "questioning 'productive group work' definition," "data driven instructional response") and to their disciplinary tensions ("uncertainty about math practices," "questioning content objectives," "transparency about his disciplinary knowledge"). Then, using descriptions

of responsive and directive coaching stances, I developed patterns related to each coach's discourse moves ("pushing," "leading," "cognitively coaching," "decision-making" etc.). I viewed the coach's discourse moves as their coaching practices while also looking for patterns related to the tools they used as coaches. By reading these field notes again, I decoded and encoded what "rises to the surface" (Saldana, 2010, p. 15) and uncovered new themes and topics and new relationships. For, I believe that coding is an "exploratory problem solving technique" that has no prescriptive process and is inherently about "linking" ideas, observations, dialogue and experiences in the context of the study (Saldana, 2010, p. 8).

While the initial jottings and themes emerged with my ongoing analysis throughout data collection and my stubborn re-reading of field notes after data collection, a constant-comparison method allowed me to connect patterns and themes across pieces of data, across days in a single case, and across all three cases. For example, on the day when Eric modeled a think-aloud in Jackie's algebra class, I compared his explanation of its purpose to students with his discussion of it with Jackie in their debrief after class, and then with his reflections on the think-aloud with me during our coach debrief. Through all three dialogic events, his words prompted me to focus on the extent to which his beliefs about think-alouds aligned (or misaligned) with the disciplinary literacy practices in mathematics. Additionally, his modeling of instructional practice could also be compared and contrasted with Jackie's discourse at the beginning of class the very next day. This constant comparison across collaborative events in a single day and then across multiple days provided a means of constructing themes related to the role of disciplinary

knowledge in coaching heavy. And, when contrasted with the disciplinary knowledge and coaching discourse in the other two cases, I began to develop a theory about the relationship between disciplinary knowledge, heavy coaching, and the shifting stances of instructional coaches. Both during data collection and after data collection, my analysis used the discourse within each collaboration to further understand the local tensions within a heavy coaching stance. How do these secondary coaches attempt to coach heavy? What tensions make heavy coaching difficult? And, how do these coaches use discourse practices to negotiate these tensions and maintain a heavy coaching focus? The goal of data interpretation for this research study was to generate a theory about the complexities of coaching heavy in secondary school disciplines and how disciplinary tensions prompt coaches to use sophisticated discourse practices.

Key Terms

Throughout this study, I use several key terms with assumptions about meaning. Within the secondary schools in Glenville School District, Understanding by Design (McTighe & Wiggins, 2004) provided one common framework for teachers to design instruction. In all three schools in this study, *essential questions* were viewed as inquiry questions which aligned with the essential understandings in a discipline. Teachers and coaches framed units of study for students around these questions and each unit often employed two to three questions. While the coaches and teachers used *essential questions* differently in each of the three case studies, the term reflects a belief in inquiry and an emphasis on instruction leading to the discovery of key disciplinary concepts.

Additionally, within this study, disciplinary knowledge was used in two ways.

First, as it relates to students, disciplinary knowledge represented both the content knowledge of a discipline and the disciplinary-specific ways of producing knowledge. While this belief assumed the inseparable nature of content knowledge and disciplinary ways of being literate, the coaches and teachers in this study varied in their beliefs about what counted as disciplinary knowledge. However, in all three cases, the term disciplinary knowledge represented the learning students were expected to learn.

Disciplinary knowledge was also used to describe the teacher's knowledge within the discipline. When referring to teachers or coaches, disciplinary knowledge reflected both the content knowledge and the pedagogical content knowledge held by the teacher or coach.

Within this study, *inquiry as stance* (Cochran-Smith and Lytle, 1999) was used to define an ongoing inquiry position of teacher and coaches. I believe teachers and coaches are always attempting to understand tensions and problems in practice. However, in this study, I did not use *inquiry as stance* to suggest a formalized process of inquiry where distinct steps were codified or documented by coaches and teachers. At no time during my observation was collaborative inquiry formalized to be presented to other teachers, educators, or administrators. Instead, the use of *inquiry as stance* implied an ongoing attempt to critique and reconceptualize epistemic beliefs about and the teaching or coaching practices related to adolescents literacy, content knowledge, pedagogical content knowledge, and teacher learning. I view the resulting *knowledge of practice* (p. 250) as the knowledge produced when teachers "treat their own classrooms and schools

as sites for intentional investigation" as they critique the knowledge and theory of other practitioners and educational researchers (p. 250). In this sense, inquiry was ongoing and an essential part of the daily lives of these teachers and coaches.

Contributions of the Study

As Meriam noted (1998), a case study researcher with an interpretive intent "gathers as much information about the problem as possible with the intent of analyzing, interpreting, or theorizing about the phenomenon" (p. 38). By understanding the situated practices instructional coaches use to negotiate heavy coaching tensions, this study attempted to broaden simplistic notions concerning coaching and teacher change. I desire for the study to illustrate the vast domains of knowledge that secondary instructional coaches must hold so that teachers and administrators can think intentionally about what coaching should look like in their particular building. Illuminating how these coaches and teachers negotiate the disciplinary literacies and pedagogies for adolescents, I'd hope that this study could prompt administrators, instructional coaches, and teachers to evaluate the clarity of local school reform efforts and to question how coaching can be adapted into these ongoing change efforts. I'd hope this study could help schools to view the possibilities of learning—for coaches, teachers and students—in a more democratic lens.

Additionally, I hope that this study can contribute local understandings and complexities about coaching to a wider body of knowledge about secondary instructional coaching. In their review of the research on coaching, Cornett & Knight (2008) identified the following four questions that must be pursued about coaching:

• What support systems should be in place for coaching to flourish?

- What are the best practices for coaches?
- On which teaching practices should coaches focus?
- What impact does coaching have on student achievement? (p. 214-216)

While my interpretive lens and qualitative research methodologies does not intend to produce generalizations across coaching in any secondary school, the reasonable and trustworthy assertions that I construct within these local contexts can provide the reader with an experience that transforms his or her own understanding of instructional coaching and how he or she might answer those questions within their own complex coaching context. I assert coaching practices are situated acts serving a specific function according to the tension(s) within the collaborative context. And, because I believe these situated coaching practices construct a coach's stance within a collaboration, analyzing both coaching practices and the produced coaching stance can expand the possibilities of practice for instructional coaches in their own contexts as they grapple with disciplinary tensions related to disciplinary knowledge, pedagogy, specific students, and curriculum.

Finally, through this study, I hoped to benefit Glenville School District by contributing towards a deeper understanding of the disciplinary complexity of coaching heavy for student impact. As Jim Knight (2007) reminded, instructional coaching, like other secondary school reforms, runs the risk of being attempted, attacked and abandoned if efficacy expectations are not met (p. 200). Public discussion at school board meetings suggest the abandonment phase could be on the horizon in Glenville School District if a single achievement score of student literacy achievement is used as the standard to evaluate the worth of secondary coaching and coaches. With an increasingly narrowed

curriculum, a standardization of teaching practices, pressure to erase achievement gaps, and new teacher evaluation policies, the pressure on teachers has never been greater. Professional learning in the form of coaching, then, can provide teachers with critical inquiry into disciplinary teaching—inquiry reconceptualizing whom they teach, essential understandings within their discipline, respectful assessment practices, and how each of these practices can position teachers as advocates for social justice within their discipline. My intention was to illuminate ways to adapt instructional coaching in Glenville secondary schools instead of abandoning it.

Chapter 4: Eric "They're Speaking Another Language": Coaching Heavy as a Disciplinary Outsider in a $9^{\rm th}$ Grade Algebra Class

Five weeks into his ten-week collaboration with a fourth year mathematics teacher at Davidson High School, Eric walked into Jackie's first hour freshman Enhanced Algebra class just as she finished a lesson on factoring quadratics. Typical of many high school mathematics classrooms, single rows of desks faced the front of the room. Jackie had eagerly volunteered to pilot a new College Preparatory Mathematics (CPM) curriculum for her mathematics department that included a teacher-led focus lesson, collaborative problem solving in student groups, and a closing whole-class debriefing in each lesson. Last fall, Jackie had participated in an after school book club that Eric had facilitated on the *Gradual Release of Responsibility* by Doug Fisher and Nancy Frey and approached Eric about helping her with "productive group work" in this class. The gradual release of responsibility model sequenced learning for students by placing initial emphasis on teacher modeling, utilizing collaborative group work, and gradually increasing student independence.

Jackie's handwriting on the front chalkboard listed the content goal for students as "Practice factoring with study teams," the language goal as "Communicate factoring language effectively," and the social goal as "Make sure everyone is involved in the process." As students shifted desks next to their group members and opened their photocopied student booklet on quadratics to the six factoring problems, Jackie found her place at the teacher's desk in the corner of the room. During class, she would hold individual conferences with students about their understanding of factoring and their

perspective on collaborative problem solving. Notepad in hand, Eric settled in with the student group closest to him in order to question students about how they were attempting to solve the problems and about their understanding of factoring. The latter posed a challenge for Eric. As math chatter from around the room slowly increased, Eric pulled up a desk next to the three students as they approached the first problem. The problem, "8-15" in this unit on quadratics (Kysh, Salle, & Hoey, 2012a, p. 617), stated:

Use the process you developed in problem 8-13 to factor the following quadratics, if possible. If a quadratic cannot be factored, justify your conclusion.

a.
$$x^2 + 9x + 18$$

b.
$$4x^2 + 17x - 15$$

c.
$$4x^2 - 8x + 3$$
 d. $3x^2 + 5x - 3$

d.
$$3x^2 + 5x - 3$$

With heads down, each student fervently began tackling the problem alone. "Why are you factoring that?" Eric asked a girl in the group as she looked up, glared at the student across from her, and then back down with a look of confusion. She said that she could not explain why she was doing it. "To find a product?" she answered before Eric then asked again, "So, what does that mean?" He continued the line of questioning that left all three students a bit perplexed. "I'm trying to figure out what this is about, the big picture. Is this about solving a problem?" A student responded with an unpleasing answer. When the students returned to their individual problem solving, he drew his conclusion, got up, and walked off leaving the three girls in a state of confusion. "I don't know what to do now," the first girl blurted to her group partner across from her.

After the same questioning of students in other groups, Eric approached Jackie at her desk.

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Eric: Hey, I've been asking students about the larger purpose for

factoring and they are pretty much confused. I'm not really sure

what that purpose is but I'm wondering if we could...kind of like

contextualize the inquiry process for them.

Jackie: Oh, cool. Wait, what do you mean? I am not sure we want to make

it explicit because it will come naturally as we progress.

Eric: I guess. I was just thinking that I used a process for introducing

essential questions in my English class at the start of the unit and it

might be a way to build inquiry here.

Jackie: I'm not sure where to fit it. Do you think we should just stop and

do it now?...Maybe we should hold off even though it would've

been nice to do it at the beginning. Let's totally talk about this on

Wednesday.

For the next twenty minutes, Eric continued to circulate from group to group, asking students about their factoring, checking their status on the problems and taking notes on what individual students say about the purpose and value of factoring. When class ended and he joined me in the coaching office for debriefing, it was apparent that his ongoing inquiry into the purpose of algebra and to ways of framing learning in inquiry for students had multiplied exponentially. Referencing his notes, he wasted no time in synthesizing his thoughts on student understanding:

They're doing well. They've figured out that the best way to figure these problems out is to graph them, but not a single girl in that first group could explain beyond

solving the problems, why they were doing this and what we wanted them to understand. Like every group is doing well with this, they're doing it and figuring out the process and that's one hundred percent across the board. But, like with that group of girls, when I asked them if they thought it would be helpful to have a reason for why they are being asked to do this, they said, 'Yes, absolutely.' Some groups have thought so little about math for so long and why they do things that they might not see it as important, but with that group, they really struggled to explain and understand the purpose of learning how to do this.

Eric's Heaviest Coaching Tension

Entering into this collaboration as an English teacher and outsider to the mathematics education discourse community, Eric admitted in his exit interview that the most challenging aspect of coaching heavy in this Enhanced Algebra class had nothing to do with the reflective teacher whom he respected nor the actual content knowledge that he developed over the ten week period nor his own roles throughout the building that often pulled him away from Jackie's class every day. To Eric, the heaviest tension in this heavy coaching attempt involved his uncertainty about the purpose of learning algebra and how to build inquiry within a mathematics class. During the second unit of this collaboration, Eric concisely summarized his quandary when he stated:

I asked Jackie, and nothing she talked about in any way hinted about big ideas in this unit related to factoring. I don't know what it is, but there has to be a larger reason to factor, other than to find the answer. Students are focused too much on just finding the answer to problems and not thinking logically about what they were doing or tying all of this small stuff together into a larger context. I know we have to engage students in asking important questions and in applying this math to things outside of this classroom, but how to do that and what that looks like, with me not being a math teacher, I'm not sure what that looks like. And, this is where my content knowledge breaks down again. I can't provide the context. I don't know the applications. I'm convinced there must be one. But, I don't have that knowledge of what the application would be and how to frame that content in a way that is meaningful for kids.

Seeing students factor for the sake of factoring bothered Eric. He believed students needed to acquire essential understandings in this discipline. Yet, Eric lacked clarity of an alternative view of mathematical practices, and he viewed mathematics teaching through his English teaching lens. How does a coach help a teacher improve the learning of ninth grade mathematics students if he or she is simultaneously inquiring into the content and mathematical pedagogy? In other words, can a disciplinary outsider still coach heavy?

Collaborative Context

Eric. A former English and Spanish teacher at Davidson High School, Eric Morrison was a Caucasian male in his fifth year at the school and his second year as one of two instructional coaches in the building. He taught Spanish and English during his first semester at Davidson, switched to a full time English teacher in the second semester, and taught English for two more years. During his second year at Davidson, he volunteered to be an Advancement Via Independent Determination (AVID) teacher, in which he tutored small groups of students on general study and literacy strategies related

to their college readiness plans. When Davidson High School underwent state-mandated restructuring due to failure to make annual yearly progress, Eric volunteered to join the school improvement committee. In his early thirties, Eric became increasingly concerned about teaching and learning at Davidson because he noticed that there "was no instructional framework used across the building" and "it was so clear that our building was going off in a million directions at once." With these concerns and feeling confident about his teaching ability in "academic classes with students who aren't always successful in school," Eric viewed the coaching position as an opportunity to "have more of an impact in the building" and a way to "expand his impact" during restructuring. Soon after he took the job as one of two instructional coaches at Davidson, Eric called a coaching colleague of his at another high school and, in a moment that reflected a lack of clarity over his role and purpose as a coach, asked, "So, what happens now? What do we do?" Over the course of the previous eighteen months, Eric said he had largely defined his own role as an instructional coach. He had provided job-embedded coaching to individual classroom teachers, led after-school book clubs on pedagogical topics related to the school-wide professional development plan, and assisted the English department with the redesign of their curriculum. He was also intricately involved with other teacher leaders and with the principal in designing the professional development activities at Davidson High School because he believed that common language stemming from a shared instructional framework supported the job-embedded work of instructional coaching. Eric was drawn to the systemic challenges of large high schools.

Eric's view of heavy coaching evolved since he started as an instructional coach. While not wanting to "change a bunch of people" and believing he had "something to share," he acknowledged that he used to equate heavy coaching with the duration and intensity of collaboration. In our initial interview, he stated:

You could work with someone heavily all of the time on things that that person might be very interested in working on. But, that may or may not be what's best for kids and it is not necessarily coaching heavy.

Eric said that he attempted to ground every coaching conversation and planning or debriefing session in "some sort of information or student data whether that's a video (of students) or exit slip." To Eric, this student-centered conversation positioned him as holding a teacher's feet to the fire regarding the learning of his or her students. In reference to his collaboration with Jackie, Eric stated that while they did not have time to unpack the College Preparatory Mathematics (CPM) curriculum, they did establish three "focus" goals. First, they considered the "best structure to structure the class around," given the newness of the CPM curriculum. Additionally, because the "content seemed so loose and so collaborative," they decided a focus on formatively assessing student understanding seemed important. Finally, they wanted to use this information to ability group students during collaborative problem solving. After the first several weeks in Jackie's class, Eric also realized that having clarity of learning objectives in each unit should be another focus goal. Not wanting to measure success based on individual curricular units, Eric believed the collaboration would be successful if he and Jackie were

using meaningful student data to determine learning needs and to inform instructional responses.

Jackie. A fourth year teacher who had taught seven different mathematics courses at Davidson High School, Jackie Ochs rarely passed up an opportunity to laugh and engage with her students in a personal manner. Jackie was experiencing her first classroom-based collaboration with a building instructional coach, although she had had previous experience working with a district math coordinator who coached her through one unit of study in her classroom. The class for this collaboration, a first hour Enhanced Algebra course, had been designed as a one semester course for ninth graders who needed, as Jackie explained, "a little help with their algebra skills" before taking Accelerated Algebra Two as sophomores. As a result, Jackie's fifteen-student class was comprised of students who elected to take the class and who were also taking either Accelerated or "regular" geometry. Given leeway by the district math curriculum coordinator to determine the scope and sequence of the course, Jackie pulled four units of study from the CPM Algebra curriculum in order to "help review the larger algebra topics" over the semester.

Algebra Connections (Kysh, Salle, & Hoey, 2012b) is structured as a "college preparatory mathematics course that delivers traditionally rigorous algebra content using a problem-based approach" (Algebra Connections Overview section, para. 1). The authors state that the curriculum emphasizes multiple representations and the meaning of a solution while it aims to help students "develop multiple strategies to solve problems and to recognize multiple ways of understanding concepts" (Algebra Connections

Overview section, para. 1). At odds with traditional mathematics curriculum that emphasizes a singular process for solving a problem through independent practice, CPM is "structured around problems and investigations that build the conceptual understanding of these algebraic topics and an awareness of connections between different ideas" (Algebra Connections Overview section, para. 3).

The collaboration spanned four units in the "Algebra Connections" curriculum (Kysh, Salle, & Hoey, 2012b). Chapter six covered systems of equations with a focus on writing equations, solving through graphing, and solving equations algebraically. Chapter eight focused on factoring quadratic expressions with an emphasis on learning to solve equations using the zero product property. Chapter nine taught students how to solve linear inequalities, and chapter ten emphasized how to use multiple methods for solving and finding solutions for an equation, including using absolute value and quadratic inequalities to solve inequalities. While the mathematics teachers at Davidson High School were to be provided training by national *CPM* representatives the following summer, Eric and Jackie did not have any planning meetings prior to the start of their collaboration where they could have unpacked the structure or content of this curriculum.

In her initial interview, Jackie stated that she felt "like a first year teacher again because the curriculum is off the wall for me and is a shift in how math has been traditionally taught." Jackie admitted she had little time to make sense of the overall curricular approach, individual units, the daily investigations within those units or even the pedagogical assumptions layered throughout this new curriculum. While she did view herself as a "sage on the stage and not a guide on the side", Jackie saw CPM and the

group-work component as both rewarding and challenging. Reflecting on her initial observations from teaching the curriculum, Jackie noted, "just listening and hearing the conversations is rewarding because it is completely different than anything I would've seen in an algebra two class, but it is a complete shift in how math has traditionally been taught." She believed in the core principles of the CPM curriculum, because in her view Students learn math most effectively when they're having conversations about it, when they're teaching each other and when the teacher is there to ask questions and to prompt their thinking as opposed to being told this is what you do, this is how you do it. There is space for direct instruction, but it's not just direct instruction.

Promoting collaborative problem solving became a primary goal of her collaboration with Eric because, in her view, students had been conditioned that learning in math classes is an independent endeavor with skills earned through repetition. In her opinion:

They were just so not conditioned to thinking. They're conditioned to know *the* process, follow *the* process, get *the* answer and calling it good. They still do that. Even know when we give them the template, they look for the x and the y. I think it'll take years to break them of this.

To Jackie, her collaboration with Eric was focused on student learning, even though it would also be helpful to have conversations about instruction. The collaboration, in her eyes, would be successful if she and Eric were able to help kids learn algebra and if they were able to improve their ability to use formal assessments to group students according to their needs. To Eric and Jackie, discussions of student understanding (or lack thereof)

should be the starting point for collaborative discussions and should be based on observations of what students write and say. Discussion of teaching should occur when attempting to understand the impact on student learning or as a response to identified student learning needs. In this way, teachers attempt to respond to the learning needs of students.

Over the course of ten weeks, Eric and Jackie saw their collaboration move in numerous directions. What began with a narrowed instructional focus when Jackie asked Eric to "help improve the productivity of group work" became an expansive inquiry into the purpose of learning algebra, the nature of mathematical discourse, and the use of formative assessments to inform instructional responses, ending three months later after four units of study in Jackie's first hour class. Eric's coaching cycle did not hold to set events such as model, observe, and debrief, but varied according to the time-strapped routines of their days. Eric worked in Jackie's first hour class two to three days a week, typically working with small groups of students as they worked through the day's investigation provided by the CPM algebra curriculum. Only on a few occasions did Eric model or teach during the class. When schedules allowed, Eric and Jackie debriefed in the coaching office once or twice a week during Jackie's planning period as they discussed their observations of students, looked at student learning logs or exit slips or summative assessments, and/or unpacked the upcoming units of study or daily investigations. Regardless of the collaborative activity, most conversations led to discussions of the next day's lesson and the ways in which the CPM curriculum would be enacted.

Although most collaborations with teachers included numerous tensions as he and the teachers with whom he worked negotiated pedagogical practices that often conflicted with epistemic beliefs, teaching experiences and identities, Eric's disciplinary outsider status was an ongoing challenge to his heavy coaching attempts in this particular collaboration. As an educator who routinely inquired into pedagogical practice, Eric's own inquiry in this collaboration prompted continued efforts at identifying the mathematical purpose for learning in Jackie's class and teaching practices that would support authentic student inquiry into disciplinary questions that mattered. He often spoke of how he and Jackie were "kind of flying the plane while we're figuring out how to fly it and struggling with giving kids the big picture context of why we're doing it (math)." As Eric and Jackie inquired into this curriculum, into mathematical teaching, and into the learning needs of students, Eric developed three primary coaching practices in order to maintain a heavy coaching focus despite his disciplinary outsider status. Specifically, Eric took on the role of the student in class, used classroom huddles with Jackie, and relied upon his own inquiry into practice—as a teacher and as a coach—in order to help Jackie uncover disciplinary objectives and teaching practices.

Taking on the Role of the Student

"They needed someone in the fish bowl, so I jumped in." On numerous occasions throughout the collaboration, Eric's coaching discourse strategies allowed him to embrace his limited mathematical content knowledge and to assume the role of a student. One day early in the first unit on systems of equations, during the second week of their

collaboration, a student absence opened the door for Eric to investigate the learning needs of other students in the class.

With the concept of accountable talk "fresh in his mind" from his collaboration with fellow English teachers, Eric believed there was a plateau students would reach in discussions unless they were given specific feedback on their discussion skills. To this end, Eric had created an ExCel spreadsheet with a "formula to kick out the class average (that then) then kicks out the mode for each student" (see Appendix B). During the previous day's class, Eric and Jackie had used this spreadsheet as a group observation form in order to gauge the problem solving and social skills of students in groups (see Appendix B for group observation form). They concluded that two groups had been "functioning extremely well and another group was particularly behind in functioning as a group and not necessarily in the math." Coming into the current classroom, Jackie and Eric had primarily seen social skills and problem solving skills as discretely used regardless of the math problem or the interpersonal dynamics of the group.

As Eric had explained in the previous day's debriefing:

We're trying to find a way to provide really good feedback about discussion. We have a spreadsheet that we're starting to use where the points on it are taken from the Common Core Standards for Literature and Discussion. And we've introduced it to students but we haven't really been able to give them feedback on it yet.

Jackie started to use it today so I'm anxious to see what she saw. We reintroduced what we were going to be looking for and we referenced an accountable talk

article that she used for a brief focus lesson yesterday on how to extend student responses and to give them a little bit of language.

Assuming the skills were transferable across disciplines, Eric proposed a "fishbowl activity" in which one exemplar group would be asked to sit in the middle of the classroom and work on a problem while the rest of the class observed their productive mathematical talk. With this group on display, Eric and Jackie assumed the rest of the students would learn how to be more productive in their group discourse. However, Eric's unplanned involvement in this activity altered both his and Jackie's beliefs about discussion skills, mathematical discourse, and the learning needs of students.

"So, before we ask you to focus on this accountable talk today in your groups, we wanted to take a few minutes to watch a group use this language," Jackie explained as the dozen students began looking around, checking to see if their group would be on center stage in the fish bowl. Jackie had just finished a focus lesson where she explained accountable talk and introduced students to three sentence starters as a way to extend the responses of peers. "This reminds me..." would count as evidence of making a connection during discourse. "I wonder why..." represented student questioning attempts, and students were encouraged to use "It sounds like you're saying..." to show that they were actively listening to their group members. With a light clap and a smile, Jackie motioned for a group in the back of the room to move to the center of the class and model how they solved a systems-of-equations problem algebraically. The group had been asked for their participation before class began. As two students pulled desks together in the middle of the classroom with each desk butting up against the other, the

male student notified Jackie that a fellow group member was absent. Jackie quickly

glanced around the room and began counting students like a teacher familiar with the

impromptu flexibility demands of teaching. Before she could readjust the groups, Eric

volunteered, nonchalantly walked over, pulled up an adjoining desk, and sat down as if

he had always been a member of this group. For several weeks he had interacted with

each group, asking questions of them as if he were a teacher. Today, he was a student

seeing the problem for the first time.

A system of equations is a collection of at least two equations with the same set of

unknowns. The problem read:

Judy has \$20 and is saving at a rate of \$6 per week. Ida has \$172 and is spending

at a rate of \$4 per week. After how many weeks will each have the same amount

of money?

a. Write an equation using x and y for Judy and Ida. What does x

represent? What does y represent?

b. Solve this problem using any method you choose.

Eric, the girl to his right and the boy to his left each read through the problem quietly as

the rest of the class sat around them watching their interaction. Eric did not wait long.

Eric: So...it seems like we need to set up two equations. Is that what you

are thinking?

Girl:

Yeah.

Boy:

One is saving and the other is spending.

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Eric: Well, different rates. Two different people. It kind of reminds me

of the problem from yesterday with the two trees growing at

different rates.

Boy: I think X equals the number of weeks.

Eric: It seems like we should start with we don't know but I don't get

why we would need a second variable. Just an x variable, I think.

Boy: Yesterday we had two equations both with an x and a y.

Eric: I don't get that, though. X is the number of weeks. Why a y?

Girl: But, the other ones had two variables.

Boy: (writes down an equation)

Eric: What do you have?

Boy: One hundred seventy two minus four x equals y is the first one.

And, then, twenty plus six x equals y for the second. I think that's

it.

Eric: So, you've set up two equations with two variables, but I don't get

the y. Doesn't the x stand for the number of weeks? What is the y?

Boy: The money.

Eric: Can you explain how you got that? I don't think I'd have a y.

Couldn't you just have one hundred seventy two minus four x

equals twenty plus six x?

Girl: It says using an x and a y.

In the above exchange, Eric removed his coaching hat and experienced the cognitive dissonance of a fellow algebra student. This positioning impacted both the classroom discourse and the collaborative discourse with Jackie that followed this class period. The Common Core State Standards for Mathematical Practice number one (Common Core State Standards Initiative, 2010a) proposes that students "make sense of problems and persevere in solving them" and that "mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution" (p. 6). Aligned with this practice, Eric began the conversation above by asking the students what they were thinking as they read the problem for the first time. His second contribution to the discussion made a connection to yesterday's problem about the two trees with two variables and implied this problem could be solved in the same manner. In his third, fourth and six comments, Eric voluntarily admitted his confusion to both students thus asking them to scaffold his understanding of how to set up the equations. Exposing the edge of one's zone of proximal development requires a risk for any student, and Eric's exposure created a space where students could take ownership of their learning, inquire into possibilities, and display expertise. Not surprisingly, the male student volunteered his equations and provided justification. Even Eric's final question asked the boy to evaluate Eric's proposed equations. In seeking clarity of his proposed equations, Eric blindly modeled the same mathematical practice which asks students to "continually ask themselves, 'Does this make sense?" (p. 6). While Eric's questions and comments guided the conversation, his transparency and

willingness to be taught by students represented an atypical coaching stance—coach as disciplinary student.

Eric embraced this role because he said he "absolutely (had) about the same level of content knowledge as students in the class" and that he "(had) been really explicit about it." In discussing this initial fishbowl event with me, Eric shared that his interactions with other students attempted to provide "intense modeling of problem solving skills" because, while he lacked the content knowledge of how to figure out how to set up and solve the systems of equations, he "could ask questions like someone with greater expertise in problem solving." On multiple occasions, Eric acknowledged that while his content knowledge grew as the semester evolved, it was easier to learn the content in the first two units (systems of equations and factoring quadratics) than the content in the latter two units (linear inequalities and quadratic inequalities). Eric admitted this role was "to some extent authentic" but acknowledged he could "logically quickly figure out" the single variable equations in Algebra. At times he was confused about math content and at other times he pretended to be confused so he could promote student inquiry and thinking. Reflecting his own meta-awareness of this coaching discourse strategy, Eric stated, "sometimes it is totally legitimate and I know that if I ask enough questions that someone would help me figure out the problem."

Although Eric's use of this coaching stance benefited students throughout this collaboration, it also influenced Jackie's understanding of her students and her role in supporting authentic student inquiry into mathematics. In their debriefing after this initial use of Eric as disciplinary student, Jackie shared that she noticed higher levels of

engagement among students in that fish bowl group. She also recognized a gap in student understanding when neither the male or female student attempted to use the substitution method like Eric suggested. Without realizing it, Eric had attempted to set up equations by skipping the use of a y variable and instead setting both equations equal to each other. As a result, Jackie told Eric his scaffolding of problem-solving skills and his use of substitution provided her with a reference point when attempting to help other student groups. As she worked with other students during class, she noticed that few students were aware of the substitution method or a few used it, like Eric, without naming it.

The fishbowl experience also prompted Jackie to unpack the skills involved in effective problem solving and resulted in both Eric and Jackie deciding to scrap the group observation form (see Appendix B for group observation form) because it was too focused on discrete skills. During their debriefing, and as a result of the fishbowl experience, Jackie began to see how a student's use of a skill was influenced by both the interaction in the group and the problem. Eric's scaffolding prompted Jackie to take a closer look at when and why students used the same problem solving skills. A checklist for skill use, as well as her assumptions about student use of skills, had become problematic. As she commented, "The other thing is that it mattered who was in the group with them as they work on a problem." Related to her role in supporting student problem solving, Eric's coaching stance provided Jackie with a window into the type of scaffolding provided by a non-math teacher and prompted her to question her own disciplinary stance as a teacher. As she commented after class:

When I sit with a group, I can't ask those questions. It's so much harder for me because as the content area expert I know where this is going, I know what kids are supposed to know, and one of the challenges for me with this curriculum is I really have to fight 'Okay, well actually, this is what you're supposed to do' and that's a whole other battle. So, I think you were able to use your problem solving skills and be completely honest about your own thinking and you were kind of like another student.

Due to his own inquiry stance, and his willingness to be transparent about what he does not know, Eric's lack of content knowledge became an advantage to students and to this collaboration. As a result of this fishbowl experience, Eric and Jackie decided to use this strategy and to purposefully embed Eric as a student in other groups in order to gather actionable formative assessment data on students and to model problem solving. This coaching stance became Eric's normative role within the class. Within these groups, Eric acted not as a teacher or as an instructional coach but as a fellow mathematics student with noticeable content knowledge gaps and a higher problem solving skill set than students in the classroom. This stance provided Eric with routine opportunities to reflect on his own learning, to compare it to his fellow students, and to use both of these as the impetus for challenging Jackie's beliefs about inquiry, disciplinary purpose, and for collaboratively developing instructional responses.

Classroom Huddles

Often times, heavy coaching occurred in the midst of classroom instruction as Eric and Jackie shared observations of students, adjusted their previous instructional plans, and used each other to clarify content or pedagogical confusion. Given the gaps in Eric's content knowledge, this "huddling" became another way that Eric attempted to maintain a heavy coaching focus on student learning in light of his uncertainty about what students should be learning. Over the course of the four units, the frequency and depth of these "huddles" increased with both teachers initiating them. In the following example during the second unit, Jackie approached Eric in the middle of class and asked about his observations of student understanding of the substitution method after the first ten minutes of class.

Should I give them a problem where they don't have to do that extra thing of rearranging to plug in? Or do you think they can take it? Because the problem they're working on now doesn't have that, so if I gave them one where they had to do the extra step.

The problems involved using the substitution method but did not require students to rearrange (balance) the equations prior to the substitution. Jackie was worried that adding that wrinkle might have confused students. Thus, after only a few minutes of student working in groups, she relied on Eric to help her formatively assess student understanding and determine the appropriate sequence of problems for students to solve. After pointing out that she would be assessing two different things if she gave them two different problems, Eric's participation in the rest of this huddle provided a sounding board for potential instructional modifications.

Jackie: Exactly. ... do you think they're ready for that, having not really even practiced it with their group?

Eric: I don't know.

Jackie: Yeah, me neither.

Eric: I have no experience in math, so I don't know if that's something

that kids can generally make that leap. I'm not sure.

Jackie: I think we're going to try.

Eric: Yeah, I mean if they couldn't make that leap, that's information.

Jackie: I was like, I could have another one ready to do, but then they're

just doing exactly what they did, exactly what they did, again.

Eric: One thing that struck me from their work was, maybe they always

... we talked about substitution, we talked about guess-and-check,

... maybe tomorrow we do like another short modeling where we

talk about...I mean, what's important is the answer. So whether

your group decides to get there algebraically or through guess-and-

check, the answer is what's important. So, maybe we open it up

where you don't have to solve this, necessarily, through

substitution...

Jackie: Well, where this takes them is it throws graphing in. It says you

can also do this graphing and graphically your answer is what

should make sense for both of the equations. So they kind of do it

that way. But, yeah...that's a good call.

Eric: And maybe it does make sense. That's something we would let the

groups wrestle with, what is the best approach? So maybe that's

part of what we model.

Jackie: OK. Like, wow, I can really do this with guessing and checking, I

don't need a route.

Eric: Well, and explain how you chose the approach that you chose.

Maybe what we want to get at.

In the above huddle, Eric and Jackie sought each other's perspective and valued the varied knowledge—of content and students—that both contributed in the collaboration. As Killion argued (2010), heavy coaching provides "feedback on the interaction between student engagement in learning, performance, and achievement and teaching" (p. 2). Not only did Jackie begin the conversation by asking if students were ready for the mathematical concept, but Eric's "one thing that struck me from their work" comment illustrated how he grounded the conversation in immediate observations of student understanding and not in Jackie's instruction. With transparency, Eric shared his observations of student understanding, acknowledged his limited disciplinary expertise, and then suggested a student's inability to "make the leap" could also inform instructional responses. Eric focused on student engagement and the suitability of instruction (heavy coaching) instead of providing feedback on Jackie's instruction (light coaching).

The interaction also illustrates how huddling prompted Jackie to interrogate the curricular sequence and purpose of learning how to solve these equations. Killion (2010)

argued that heavy coaching has a "focus on transforming practice, examining beliefs, and testing assumptions," and, in this huddle, we see how Eric challenged Jackie's assumptions about formative assessment, curricular purpose and the role of a teacher in promoting student thinking. After listing the various ways in which students could solve the problem (substitution, guess and check, graphing), Eric argued that "what's important is the answer" and not necessarily only learning one way of solving the problem. He suggested that he and Jackie "open it up" and "let the groups wrestle with, what is the best approach?" before finally adding that groups should then be asked to explain which approach they chose and why. As Bay-Williams, McGatha, Kobett, and Wray (2013) argued, mathematical coaching that supports the mathematical practices found in the Common Core State Standards promotes seven shifts in classroom practice (p. 12). When Eric attempted to persuade Jackie to open up a space for multiple ways of problemsolving and student explanation, he unknowingly sought to shift mathematics instruction from a "focus on correct answer toward a focus on explaining and understanding" (p. 4). With this emphasis on multiple ways of problem solving and the promotion of student explanations, Eric's huddle with Jackie resulted in a redirection of the formative assessment exit slip at the end of class and the subsequent day's lesson. But, Eric's dialogue in the huddle also provided a reflective lens for Jackie. At no time did Eric directly state what should occur, but instead used discourse to support her analysis of student needs, to challenge her clarity of curricular purpose, and her willingness to use further modeling as a possible instructional response. Not only did he defer to her expertise by openly acknowledging the limits of his own teaching experience, but by

using "maybe it does make sense" and "maybe what we want to get at," Eric respected her pedagogical autonomy while keeping the learning needs of students front and center.

Only after discussing their observations of the learning needs of students did Eric and Jackie then turn their attention to instructional modifications and to adjustments in the next day's lesson. As Killion (2010) suggested, heavy coaching uses a "focus on student learning and the use of specific practices within the school's or district's instructional framework, teacher's performance standards, or aligned with the adopted curriculum" instead of a focus on teacher practice (p. 2). Throughout the collaboration, we can see how instructional modifications stemmed from their use of "in the moment" formative assessment and their perspectives on student understanding. These occurred in process as their huddles during class redirected or scaffolded instruction for individual students or groups of students or sometimes the entire class. During unit two, Jackie initiated another in-class huddle when she asked Eric for his perspective on pausing the collaborative problem solving for a whole-class debrief of a specific misconception within a quadratics problem. During a lesson on graphing linear equations, Eric approached Jackie, shared his perspective on how each student in a group was struggling with graphing, and then asked Jackie to sit with the group since he couldn't help them. Over the course of their ten weeks, their in-class huddles prompted an array of instructional responses including focus lessons from Jackie, a regrouping of student groups, modifications in learning log questions, altered language for daily content and social goals, and one-on-one teacher consults with students to garner feedback on whether students felt supported as learners in class. Jackie and Eric used formal and

informal assessment data to modify instruction and Eric's coaching practice, in the form of huddles, provided a means of maintaining a focus on student understanding and on instructional responses to student needs despite his disciplinary outsider status.

A Transparent Inquiry Stance

As someone who described himself as thinking systemically about instruction, Eric Morrison stood at the front of the classroom arranging several transparencies in a pre-sequenced order on the teacher table in front of him. Each transparency revealed part of a problem solving process that he would demonstrate for the ninth graders on how to solve a system of equation. A long chalkboard stretched across the front wall, and Eric now turned to write that day's content, language and social goals in the upper right hand corner of the board. He had written the content goal as "to understand the thought process necessary to solve a two-variable equation using substitution," the language goal as "to make the thinking a part of your discussion," and the social goal as "to ask questions that allow that person to show they do understand the thinking."

As each of the fifteen ninth graders sauntered in and milled around before finding their desks, Jackie smiled, greeted each student with a personalized comment, and then handed them a photocopy of Eric's process sheet (See Appendix C for process sheet). Eric had been a regular fixture in this algebra class, but this was the first time he taught any part of the class. As a former English teacher of three years in the building, presenting a think aloud with text was a familiar pedagogical practice but a think aloud in an algebra class was not.

Within this first unit on systems of equations, Eric had expressed discomfort with the limited amount of direct instruction built into the College Prep Mathematics curriculum and felt that students needed more purpose setting prior to their group problem solving. This establishment of a purpose appeared to align with the "set up phase" of mathematical inquiry where a teacher builds cognitive dissonance around a problem or scenario in order to "stimulate students' curiosity and motivate their active participation" (Bill & Jamar, 2010, p. 78). The previous day, Eric had videotaped several student groups working on systems of equation problems, and he and Jackie had watched the footage during their debrief after class. As they took notes on student interactions and discussed gaps in mathematical understanding, Eric and Jackie agreed that students appeared confused at how to set up multiple equations and that additional scaffolding was needed. Unfamiliar with think aloud protocols and still unsure about how to use focus lessons, Jackie asked Eric to conduct the think aloud for students. Eric bravely accepted the challenge.

With his process sheet displayed on the class overhead and the reverberations from the first hour bell fading, Eric proceeded to share the steps in his process for solving this problem with students. As students copied down his steps into the graphic organizer provided to them, he began by telling students they had been doing a great job in their groups, but he and Ms. Ochs had a concern. As he explained:

We are a little concerned with the fact that you are good at telling each other what you've done to solve a problem, but I want us to think about and try to get better at explaining *how* we solved the problem because unless everyone in the group

understands the *how*, we can copy each other's work over and over again, but when it comes to individually taking the assessment or showing that you understand what you're talking about, it's that *how* that's going to allow you to do that.

More specifically, Eric mentioned that students had ignored the process with the last word problem on Friday and immediately went right to setting up the equation without paying attention to the "let statement" and the origin of the variables. He referenced Jackie's focus lesson on Friday and how she discussed "finding the let-statements and then coming up with the equation and then solving the equation and finally answering the question." Most students sat staring at the front of the room, pencils down, and their process sheet empty. Jackie stood in the back of the room smiling with her arms folded and a copy of the process sheet hanging from her right hand. As Eric mentioned the three goals on the board, he asked students to "think and discuss about what you have to think about to get that done." Finally, after explaining the reason for the think aloud, Eric gave one final direction before proceeding:

This is your time to see me thinking about how to solve the problem. It's not a real great time to jump in during it with questions and comments. You're going to see me working through the problem and me trying to think out loud.

Eric began his think aloud by reading the problem:

The Fabulous Footballers scored an incredible fifty-five points at last night's game. Interestingly, the number of field goals was one more than twice the number of touchdowns. The Fabulous Footballers earned seven points for each

touchdown and three points for each field goal. Write a system of equations to determine how many touch downs and field goals the Fabulous Footballers earned last night.

Before Eric even finished reading the word problem to the class, a student in the back of the room had jotted down 4 TDs and 9 FGs in the "Answer the Question" box while Eric proceeded to explain how he set up his let statements and shared his thinking about the possibilities of what could equal 55 points. The student quickly set down his pencil. Eric appeared confident as his mathematical language suggested a familiarity and membership within the mathematics education discourse community. "Distribute," "a system of equation," "variable," and "solution" were terms that flowed out of him, displaying mathematical knowledge that had not always appeared strong during this collaboration. He explained how he set up a let statement, following with a detailed account of how he decided on the particular wording of his let statement. A few pencils moved. A couple of heads nodded in response to his rhetorical questions about let statements. One student flipped over the sheet to see if there were more problems. A boy sketched in the margins. An equation appeared on the graphic organizer while Eric explained how he knew to set it up. For the next several minutes, Eric then unfurled his process for solving this Fabulous Footballer problem. Finally, after more than twenty minutes, he ended his first think aloud in a mathematics class.

Often positioned in coaching as an expert teacher, a coach can have his or her reputation on the line when they teach in someone else's classroom. Some have suggested that coaches should not model lessons in a teacher's classroom because it

emphasizes the pedagogical skills of the coach and detracts from a teacher's reflection on his or her own teaching (Borman & Feger, 2006; Costa & Garmston, 2002; Dozier, 2006). If the coach and/or teacher perceive the coach's instruction to be less than effective, coaches might be motivated to protect their reputation and allow ego to influence how he or she reflects upon his or her modeling of a lesson. However, Eric's discussion of his think aloud with Jackie revealed perhaps his strongest coaching practice, and allowed him to maintain a heavy coaching focus despite his limited disciplinary knowledge: a transparent inquiry stance. Through Eric's think aloud and his subsequent reflections with Jackie, he made a transparent attempt to "deliberate problems of practice" and to "work together to uncover, articulate, and question their own assumptions about teaching, learning and schooling" (Cochran-Smith & Lytle, 2009, p. 144). In this case, he openly questioned his own assumptions about teaching and learning in Jackie's mathematics class.

Prior to his teaching on this day, Eric admitted he had not been sure what a think aloud should look or sound like in a math class, but believed the goal of a think aloud remained the same across disciplines: to share the thinking of an expert. Eric believed Jackie had the expertise as a mathematician, and she needed to be more explicit with students about how to problem solve. Eric's critique of Jackie's think aloud during the previous day's lesson further reflected his pre-think aloud beliefs about mathematical teaching and learning. As he told me:

The things that she said that I probably would not have done initially, was that it was immediately opened up to the kids saying, 'What do you think?' And then

she copied down what they thought. Once that got written down, nobody explained any thinking. If students don't have the language yet to explain the thinking, as soon as you involve them everyone just writes down whatever the first person says. That's why I like that moment when the teacher kind of controls the situation.

Following the gradual release of responsibility model, Eric's instructional response to student learning needs about factoring prompted the creation of a think aloud that modeled how he solved a systems of equation algebraically—as a novice. During the fishbowl and other previous classroom activities, Eric had adopted the role of a student, displayed his own mathematical problem solving, and both students and Jackie had benefited. Eric had assumed this coaching stance would work again. Ironically, however, on this day he saw his disciplinary knowledge (or lack thereof) as "an asset for kids because as he told Jackie, 'I'll be thinking it through authentically like a student." He continued, "If I move my internal problem solving thinking outward(ly) and make it transparent for kids, I think it'll improve the group and individual internal discussions and problem solving."

Eric's well-intended use of a "best practice" metacognitive instructional strategy, however, didn't exactly fit, and Eric knew so after the fact. As Bill and Jamar (2010) argue, mathematics teachers must know they "do not suggest an explicit pathway for solving the task and that students tolerate the ambiguity that often exists because they know that they will have time to work with peers to figure out a way to solve the tasks" (p. 78). Through discourse, mathematics teachers open up avenues of critical questions,

prompt students to struggle productively, and then ask students to explain how and why they believe their own process made sense and led to a plausible solution. With the best of intentions and reflecting immense preparation, Eric's think aloud had not built the cognitive dissonance and purpose for authentic mathematical inquiry because it had sanctioned a process for solving a problem that could be answered through guessing and checking. Eric had not harnessed classroom discourse to discover problem-solving approaches owned by students, nor had the think aloud drawn students into the ways that mathematicians use multiple representations or question the value of the problem in the first place. It had been data-driven with the video footage he had taken. It had been a jointly agreed upon use of him as a coach. Yet, his approach had run counter to the disciplinary pedagogy that supports mathematical inquiry and practices because Eric's intent had been to show students how to properly solve a systems of equations. Yet, in the middle of his think aloud, Eric realized that he remained unsure of what thinking should be shared with students.

In his debriefing with Jackie after the fact, Eric's opinion about the "disciplinary fit" of his think aloud had changed, and we saw evidence of his own inquiry into mathematical pedagogy. He reflected:

As I was doing this, I realized that the thinking isn't really important at every step, there's not much to verbalize. I don't have to prepare all that much for a think aloud in an English class and I thought I was prepared today, but that right column is still a bit fuzzy to me.

The "Thinking" column had become problematic for Eric. Eric remained unsure of what thinking should be shared with students and, as a new member of the mathematical education discourse community, he was also unsure of how he should explain the thinking to students. With transparency about the gaps in his understanding, he admitted the following to Jackie:

I was comfortable with the math, but I found it easy to ramble with my thinking. I think it's because I didn't have many concrete things to say. As I was talking, I was also processing it for the first time. I wasn't processing the math. I was processing how to explain the math. I wasn't sure of the words to use and how to do that in a straightforward way. I felt very much like a beginning teacher in the sense that if I did this regularly in a math class, the amount of time spent at the overhead would be a classroom management issue. In English, I've learned how to talk about a text, annotate a text and still sort of engage kids around the room. What I need to think about is 'What are ways to explain my thinking about this that will make sense to a kid? I'd never verbalized my process to kids about this before."

Eric was very much in his own head, making sense of the suitability of a think aloud with a "Fabulous Footballers" problem that could be easily solved through guess and check, with these particular students, and within this discipline. In the above quote, we see how this experience and his lack of "concrete things to say" challenged his assumptions about the disciplinary generalizability of a think aloud. Not only had he felt like a novice ("much like a beginning teacher"), and the experience had made him self-conscious of

student engagement ("amount of time spent at the overhead would be a classroom management issue"), but it left Eric admitting that he lacked the pedagogical content knowledge and mathematical discourse familiarity required to scaffold problem solving and build inquiry for these students. And, he admitted all of this openly to Jackie as she sat across from him in the coaching office.

Although Eric acknowledged the duration of his think aloud had been problematic and that he struggled with the specificity of what mathematical thinking students needed him to model, the conversation with Jackie also produced a shift in the way he perceived the essential understandings of this unit on systems of equations, admitting that the following revelation didn't exist until after today's think aloud:

For this sort of sliver of material, I would like kids to be able to look at a problem and eventually decide if it's best to use the algebraic, is it best to graph it, is it best to use guess and check and to able to articulate that. What I don't know is what's the next step from an actual two variable thing."

As Eric took on the role of a mathematics teacher during the think aloud, his own processing of the content as a student helped him discover that all three options should exist for students. This reflection on his teaching (and learning) of systems of equations also brought a clearer focus on what students should understand about problem solving and the larger essential understandings related to the course. Even though Eric still believed that students needed mathematics teachers to demonstrate their expertise in problem solving, Eric now argued for an expansion from a singular method or process to multiple methods and processes stating that the ultimate goal should be for a student to

"look at a problem and attack it with a way that makes the most sense." With this new belief that aligned with the mathematical practices found in the CCSS and advocated by Bill and Jamar (2010), Eric reflected on the shifting goals of their collaboration:

When we started this, the goal was less about the math and more about being able to discuss and work through problems together. But, I'm more interested in the level of the discourse over here (points to right side). That's what I would consider to be successful at the end of the unit. No matter what problems you're given, can you articulate as a group how you're going about solving it? To me, it has less to do with necessarily the math. That's kind of it."

Despite Eric's new-found disciplinary purpose, he quickly reiterated that he still did not "have clarity of the endpoint in my mind" while stating, "Jackie very much tells me where this goes because we are absolutely trying to figure this out as we're doing it." Through his reflection as a mathematics student, his reflection on his instructional participation as a teacher, and his willingness to expose the edges of his disciplinary knowledge to Jackie, Eric adopted an inquiry stance as a coach that supported Jackie's ongoing inquiry as well. Throughout the twists and turns of this collaboration, Eric relied on this transparent inquiry stance in order to resolve uncertainty about the purpose of learning algebra and how to build inquiry within a mathematics class, but he used his inquiry to position himself as a learner and to continually challenge Jackie's beliefs about what students needed to learn, what mathematical inquiry looked like, and the role of a teacher in supporting mathematical inquiry for students.

Eric frequently shared his disciplinary position with Jackie. Whether admitting his lack of content knowledge about let-statements or uncertainty about the level of student understanding in learning log entries about factoring, Eric's transparent talk cued Jackie into his current thinking. By using phrases like "I'm wondering if" and "Do you think it would make sense..." and "I really don't know what this should look like", Eric exposed the boundaries of his existing knowledge and invited Jackie to scaffold his disciplinary knowledge. In this way, Eric's transparent talk opened up a discursive space where he relied upon Jackie's consulting stance for his own learning. Without his transparent inquiry, he could not assume the role of a student and use those experiences to question Jackie regarding disciplinary purpose and pedagogy. Without his transparent inquiry, he could not join Jackie in classroom huddles that adjusted instruction for students. These coaching practices allowed Eric to maintain a student focus and to challenge Jackie's disciplinary pedagogy while accelerating Eric's own inquiry into mathematical pedagogy.

After Eric and Jackie looked at the video of students' problem solving systems of equations, he admitted that "Today, my lack of content knowledge really mattered. It mattered a lot because I was relying on her for everything. I can only cognitively coach so much, but I had no other choice today." Eric was referencing the cognitive coaching framework that asserts that the role of the coach is to improve the thinking and reflection of the teacher while believing that knowledge exists within the teacher and he or she needs help in identifying it (Costa & Garmston, 2002). While Eric's disciplinary knowledge evolved alongside the students in this class, he realized that his disciplinary

knowledge (or lack thereof) impacted his ability to help students and that "while it isn't a requirement to be able to coach, it just changes the way you can coach in a class."

Throughout the collaboration, Eric's own inquiry into disciplinary teaching and learning in mathematics took center stage. As he depended on Jackie to scaffold his understanding of the mathematical content, and as he continually searched for essential mathematical understandings that could provide a purpose for learning in this discipline, Eric's reflection on his teaching practice and on Jackie's teaching practice prompted further inquiry into the ways in which his own English disciplinary pedagogy aligned with the disciplinary pedagogy in mathematics. With his tension as a disciplinary outsider, Eric created unique coaching practices for this collaborative context. In order to more efficiently discover mathematical content and to evaluate the fit of his and Jackie's instruction, he took on the role of students, freely exposing and utilizing his limited mathematical content knowledge. In order to support Jackie's reflection and inquiry into her own disciplinary teaching, Eric relied on class huddles to bridge the gap between student learning needs and his and Jackie's capacity to respond instructionally. And, most importantly, through his transparent inquiry into disciplinary teaching, Eric created collaborative practices that supported Jackie's learning and the mathematical learning needs of students because of his own learning. In this disciplinary context with this teacher and with these students, Eric's coaching practices allowed him to maintain a heavy coaching focus.

Chapter 5

Scarlett

"It's About the Kids and About Him and not About Me:" Coaching Heavy With a

First Year Teacher in a 6th Grade Science Class

After the last of three lengthy planning sessions that collectively spanned three hours at the start of this collaboration, Scarlett sat in the school amphitheater, frustrated. The supplemental texts on solids, liquids and gasses that she'd pulled together now rested on the concrete floor at her feet. Her multiple bags occupied the wooden seat next to her while the largest leather bag containing her laptop, notes from today's collaboration, professional development articles, and literacy resources clung on her left shoulder. A mother of two with a newborn at home, Scarlett looked weary. The planning sessions had frustrated Scarlett, leaving her discontented with the essential questions for the unit and skeptical of Nathan's summary of what was really essential for students to understand about matter. In her eyes, Nathan's framing of this content would not intrigue 6th graders nor establish a rich purpose for reading supplemental texts. Over and over, she had asked, "What matters about matter?" One week into this collaboration, she and Nathan had just finished designing a series of lessons to establish a literacy structure for his science class. The first planning session—almost ninety minutes long—was spent wrestling with content objectives and essential questions until the science teacher and the language arts teacher simply got tired and quit for the day. After today's planning meeting, they now had a sketched out plan—sort of. The seven-week chemistry unit would begin in another week and, as of now, Scarlett planned to help Nathan teach the first four weeks devoted

to the study of matter including a series of lessons using supplemental texts. One day on solids. One day on liquids. One day on gasses. Nathan would begin each day's class with a focus lesson to build background knowledge on that day's state of matter. Then, Scarlett would model her thinking with a text on that day's state of matter knowing that Nathan would take on this think aloud component in his classes later during the day. And, after the think aloud, students would be asked to read more of the same text with another student, learning about matter while also practicing a few reading strategies in a before, during and after process. They would repeat this structure for liquids the next day and then again for the lesson on gasses. Yet, she sat freely exposing a tension in her coaching practice as she looked forward:

Should I go in with the goal for Nathan? Do I be the responsive coach and just respond to the teacher needs as they come up? Do I go in and be directive and act like the literacy guru or do I let Nathan lead it or both? And, isn't the goal of this to increase student learning and achievement? But, there's no one right path to get to that goal, right? And, what should they learn in this science class?

Scarlett expressed uncertainty about how to coach heavy for student impact in science while guiding Nathan's own learning. Balancing the two would be tricky.

Scarlett's Heaviest Coaching Tension

As an instructional coach, figuring out what is best for middle school students is not easy. It can be especially muddy when you have never taught science and perceive there to be numerous pedagogical needs in a 6th grade classroom. Negotiating this change with a first year science teacher can be even more daunting. In the ensuing

conversation, Scarlett attempted to shift Nathan's beliefs about adolescent literacy:

Nathan: Well, I can see with the kids on this team that there's just no

medium. I have really high learners and I have really low learners

and I really need some of those (medium) for flexible groupings

because I don't want to get my high, high kids and my low kids

together.

Scarlett: Why not?

Nathan: Because, well, there's a lot of research that shows that these kids

are just too high for the very low. So, I try to put a medium, like

the highest person I try to put is a medium with a high level

learner.

Scarlett: So, you don't think that depending on the text or the situation...

Nathan: No, I don't say I never do that. I don't say never. Sometimes I put

them together. But, when I do a unit review, I never do.

Scarlett: Well, sometimes you just never know depending on the text. I

think I might be open to it, what you'd consider really "high" kids

or really "low" kids depends on the text especially if you're very

specific about what the role is, right? I mean, we should be very

specific to kids about what their role and purpose is for reading and

it's okay to put them together. It might actually be a good thing.

Nathan: Well, I didn't say I never have.

In a seven-week collaboration initiated by Nathan and replete with collegiality,

the exchange revealed a difference in epistemic beliefs about literacy and the abilities of young readers while also presenting a political challenge for Scarlett. Given what she believes about the needs of adolescent readers and wanting to preserve a developing collaborative relationship with a first year teacher, how much should she push? Killion (2010) argued:

Coaching heavy does not mean being directive, demanding or authoritative. Heavy means substantive, weighty, valued. It means robustly engaging in the work of coaching with a laser-like focus on improving student learning. Coaching light is more focused on the teaching rather than learning. It emphasizes the sense of being supported rather than the sense of producing results (p. 1).

But, how much is too substantive and weighty for a novice teacher challenged by the demands of teaching? If the pedagogical efforts of a young teacher do not engage students nor provide the disciplinary literacy and learning desired, how should Scarlett address it without bruising his identity and putting this voluntary collaboration at risk? For Scarlett, a former language arts teacher, finding this balance as she coached with Nathan prompted her to interrogate their collaborative purpose, the extent to which she should direct the collaboration, and her teaching role in his classroom. How should she balance her vision for the literacy needs of middle school students with the professional learning needs of a first year teacher? If she overemphasized the former, will the latter break down?

Collaborative Context

Scarlett. An energetic and impassioned teacher in her 9th year, Scarlett Moinahan previously taught middle school language arts for three years in an alternative school before teaching English for three years at a traditional high school. In her fourth year at Hobbs Middle School at the time of this study, her teaching experiences at the school occurred mostly with struggling adolescent readers where she taught 6th grade reading intervention and language arts classes. As she stated in her initial interview, working with struggling readers at the alternative school "sparked my obsession with struggling readers and then, when I was teaching at the high school, I continually asked, 'What are we doing for our kids that aren't succeeding? What are we doing for them?" This desire to meet the needs of struggling adolescent readers drew her into coaching because she saw it as her chance to improve teaching for these students. She admitted that when she began coaching at Hobbs, her interest in coaching stemmed from walking down the hallways, seeing kids "starving in classrooms" due to unresponsive teaching practices, and thinking that something needed to change for students. Even though Scarlett did not think she was responsible for what teachers did in their classroom, she believed that every staff member should be collectively accountable for the learning at Hobbs. On the one hand, this could be seen as a focus on improving teaching. However, as Scarlett explained, improving teaching is only done in order to figure out what is best for kids and this has been a shift in her coaching after substantial reading, video watching, and professional learning with other area instructional coaches. Comparing her coaching during her first year to her second year, Scarlett stated:

My coaching is more kids focused now. At first, I was just 'let's plan together" and I was doing light coaching and just saying let me share some great activities that I have known to work. But, the work of coaching is to support kids. I do think we support teachers and we are advocates for teachers too, but that's not the most important focus. I work with teachers to help them figure out what works best with kids.

Coaching under her second principal in two years, Scarlett was often frustrated with the lack of role clarity surrounding coaching at the building level while also feeling the pressure to prove her worth. When the first principal hand-picked Scarlett as the building instructional coach and mandated that all content area team meetings set aside time for Scarlett to share content area literacy strategies, Scarlett began to experience the political realities of coaching as she worked closely with administration while also advocating for her teacher friends. Even though Scarlett continued to support many of these team meetings, her approach allowed teachers to initiate coaching and almost all of her collaborations occurred because teachers initiated the collaboration. This resulted in work around historical inquiry with two 6th grade ancient civilization teachers. Two 8th grade math teachers relied on Scarlett to help them think through the new college preparatory mathematics curriculum and to use her keen eyes on student learning to record formative assessment data during class. An 8th grade language arts teacher turned to Scarlett to help respond to the literacy needs of her linguistically diverse students. A close friend routinely invited Scarlett into her classroom to help improve the way 6th graders used talk to make sense of texts in literature circles. And, this teacher initiation

approach resulted in Nathan asking Scarlett to help him teach with text in his 6th grade science class. Scarlett saw shifting collaborative goals with Nathan:

Our goals have evolved even within a week, Phil. Now, as of today? (Laughs) My goal will likely be different than what my goal could be next week. My goal...I've been asking myself this same question for days now. My goal is that through this collaboration, he understands that context, background knowledge and modeling of thinking are essential to literacy in his classroom.

Scarlett believed that her collaborations, including the one with Nathan, would be successful if two things occurred. Not only should the established learning goals for adolescents be met, but she also believed that the collaboration should improve the classroom teacher's capacity to instructionally respond to the literacy and learning needs of adolescents in his or her classroom.

Nathan. A dedicated, but often worried, novice teacher, Nathan Bloomfield admitted that he over-prepared as a teacher and preferred to have lessons planned out well in advance. Like many first year teachers, Nathan felt overwhelmed with the amount of planning involved in teaching 6th grade science, let alone the endless paperwork and organizational demands involved with teaching. Nathan conducted his student teaching as a 6th grade science teacher at Hobbs Middle School in the spring of 2011 before accepting the same position for the 2011-2012 academic school year. Overwhelmed with "everything I'm asked to do as a teacher" and "trying to do hands on stuff with classes of more than thirty students," he wasted little time contacting Scarlett for support back in October even though she was still on maternity leave.

Science Exploration was a 6th grade course offered to every 6th grader at Hobbs Middle School and Nathan was one of two 6th grade science teachers on the grade level team. Nathan and Scarlett's collaboration spanned one seven-week unit of study on a sampling of chemistry topics, most notably the study of matter. While the school district provided a textbook as a resource, at no time did I see students use a textbook. Instead, the school district provided Nathan with units of study that had been previously written by middle school science teachers in the district. These units consisted of a series of topics, some learning objectives, and a summative district assessment that Nathan and his science-teaching colleague largely ignored by the time of this study during the spring semester. Within this chemistry unit, Nathan had autonomy to identify the learning objectives, frame disciplinary knowledge, and to design instructional activities as he desired. Nathan often talked about incorporating "hands-on activities" into his teaching and these typically consisted of one day experiments connected to larger disciplinary concepts. However, during his initial interview, Nathan admitted he was not only "still figuring out what's in the curriculum," but he seldom framed units of study around essential disciplinary question. Nor, at the onset of this study, did Nathan's epistemic belief system align with science disciplinary literacy frameworks that ask students to construct explanations in science by helping them to make claims, collect evidence, and reason with data (McNeil & Krajcik, 2011).

Having attended four workshops on reading strategies during his first semester of teaching, Nathan approached Scarlett and asked her to "help him use text in class."

Nathan's K-9 teaching certificate allowed him to teach science, social studies, and

language arts, but he admitted that his language arts endorsement "isn't really about reading and is just because I had so many college hours."

In side conversations, Scarlett noticed that Nathan had a particular epistemic stance towards reading, text, and his students. As Scarlett stated, "I think in the back of his mind there is the assumption that 'I know these kids can't read or read this text' even though he didn't approach it that way with me." Scarlett stated that Nathan repeatedly mentioned that kids needed reading strategies, but he was not sure why or how it happened. Nathan frequently referenced his reading strategy workshops, and his current epistemic beliefs about reading could be seen in the way he described the two most important things he had learned to date from those workshops:

The reading strategy lady calls it flooding them with texts. A lot of people just use textbooks and we need to bring in more supplemental texts which is challenging to do especially if you don't have a coach here that could help you find those texts and resources. It's hard to pull everything together. I'm also starting to see them (reading strategies) coming together. The predicting. The summarizing. The connecting. I'd like a clear understanding of it before you go in and teach it.

For Nathan, his inquiry into literacy reflected an epistemic belief that comprehension of text depended upon the mastery of discrete reading skills. Nathan often referred to his students based on his assumptions of their reading ability as "lower level," "middle level," or "high, high level," even stating that "some (readers) don't do well because they just can't." With these assumptions about reading and struggling readers, Nathan hoped

that his work with Scarlett could show him how to implement strategies that would motivate his students—especially his "low, low students"—to read in science.

As a disciplinary outsider, Scarlett attempted to balance her epistemic beliefs about the literacy needs of students with Nathan's professional learning needs. Given the voluntary nature of this collaboration and the array of pedagogical needs she observed in Nathan's class, Scarlett relied upon several coaching practices to negotiate this tension. Specifically, Scarlett's shifting of coaching stances, her willingness to take the pedagogical lead in Nathan's class, and her use of encouraging discourse with Nathan provided a means of maintaining a heavy coaching focus while supporting Nathan's ongoing inquiry and reflection as a first year teacher.

Shifting Coaching Stances During Planning Sessions

As Killion stated (2009, October 14), "The fundamental distinction between coaching heavy and coaching light is a laser-like focus and a belief about it, deeply about it, that the work of a coach is about improving student success." Scarlett had a heavy coaching mindset and believed her coaching purpose was to improve learning for students at Hobbs Middle School. To do so, Scarlet, at times, enacted a directive coaching stance as she asserted her vision for disciplinary literacy in Nathan's class. At other times, Scarlett enacted a responsive coaching stance allowing Nathan to direct their collaborative efforts. Disciplinary knowledge, epistemic beliefs, and her evolving interpersonal interactions with Nathan prompted a shifting of her coaching stance during planning sessions.

Several weeks before the chemistry unit on matter was to begin, Scarlett and Nathan sat at two student desks in the middle of his classroom. A fifty-gallon aquarium with a few fresh water fish bubbled in the corner. Posters of toads and other amphibians adorned the west wall just above the tubs of curricular units developed by the district middle school science teachers. After student teaching in this building down the hallway last year, Nathan had some familiarity with the chemistry unit, but this first planning meeting with Scarlett left quite a few uncertainties.

Scarlett began the planning session by setting up a collaborative schedule. She offered to coach him on literacy instruction in his fourth hour science class and then debrief with Nathan prior to him taking on the same literacy instruction in his 6th hour class. A twenty-minute weekly formal debriefing would occur each Friday morning prior to the start of school. A final exit debriefing would occur in seven weeks. And, the planning session on this day would be the first of four meetings. When asked about the purpose of these planning sessions, Scarlett admitted she "needed clarity of what Nathan wanted to teach his kids so I can pick meaningful texts to use in the groups." As she explained:

I know if the text isn't meaningful the kids won't be engaged. I also know if they don't have clarity of where they're going, they're not going to read it--especially if he (Nathan) doesn't have a clear purpose for learning. We have to know what they know and what he wants them to know, understand, and be able to do.

Scarlett believed the established purpose for reading and extent to which that purpose is meaningful to kids influences how adolescents engage with text. To Scarlett, these

planning sessions provided an opportunity to identify essential disciplinary understandings and questions. However, as a former language arts teacher who had never taught science, Scarlett's participation in these sessions produced lengthy negotiations of disciplinary knowledge and prompted a shifting of her own coaching stance as she pushed her vision of adolescent literacy while respecting Nathan's learning needs and his disciplinary turf.

With collaborative schedules set, Scarlett wasted no time in dictating the agenda: Here's what I think. I think we need to figure out a couple of things. We need to figure out what they already know about this stuff. Once we know what they know about matter and chemistry, then we can be able to find texts. Since they're so dense they might be really good read-alouds, and I will model that for you. We should build some background knowledge and when you're trying to help them become strategic readers, you have to show them how to do it.

Two minutes into their planning, Scarlett employed a directive stance that not only set the agenda for the session, but also pushed her epistemic beliefs about literacy instruction, about the importance of framing curriculum around essential questions, and her role as a coach. Additionally, in the following exchange, Scarlett challenged Nathan's disciplinary knowledge as she sought clarity of essential understandings that, in her opinion, would matter to 6th graders:

Nathan: It affects their everyday life too. I'm trying to think of a couple more questions that we could...because like a main idea is that

matter can be classified into three states, solid, liquid and gas.

That's not really a...

Scarlett: Overarching understanding or question. So, you're talking physical

and chemical changes. And, then solid, liquid and...

Nathan: Well, another could be what makes up matter?

Scarlett: (Laughs) so, what matters?

Nathan: Yeah, I guess that doesn't work.

Scarlett: Yeah, what is matter? I mean, I'm trying to put myself in the chair

of a 6th grader when looking on our first day. Okay, here we go,

these are our big ideas and BAM! Our first big idea is how does

chemistry affect your everyday lives? We could do some crazy

hands on things that show them and get them thinking but when

you're talking about classifying matter? What is matter? I'm stuck

on that one.

Nathan: I am too.

Scarlett: Yeah, I'm just thinking, in ten years, what is important for them to

know about maaaaatttttter.

Nathan: Even with chemicals, they think that all chemicals are harmful. Or,

I would want them to see that when matter is changing, what

evidence do I have that it's a physical change or a chemical

change? Know what I mean?

Scarlett: No, not really. I'm thinking 'huh'? Okay, we're reaching a

road block here because we've got this really big one and...

Nathan: It is really big.

Scarlett: It is very big but we're always going to be able to come back to

this one. Okay, so I'm trying to think. You've said a lot. So, the

physical and chemical change. You definitely want them to know

the differences between them, to know evidence of that change, but

then you also have been talking about the states of matter.

Nathan: Yeah, and how that fits into those changes.

Scarlett: Okay. (flips pages in science text book) I won't lie to you.

Chemistry makes my brain hurt. Wow, this is not higher up

chemistry either. So...What is essential for them to get out of this

unit? Is that it? Well, we don't want coverage, we want depth.

Throughout this dialogue, Scarlett used a directive coaching stance to critique Nathan's purpose for learning about matter. While Scarlett appeared to consent to Nathan's "big question" about the importance of chemistry to daily life, Scarlett pushed back against his disciplinary knowledge by making a joke ("so, what matters?") and by dismissing his focus on classifying matter and the importance of students being able to distinguish between a physical and chemical changes. Even after he suggested a common learning standard for a unit on matter, Scarlett determined they had reached a "road block" before she opened up the textbook to the chapter on matter, looked for satisfactory objectives, and put more trust in the textbook than in Nathan's disciplinary knowledge.

As she listened to Nathan and searched the textbook, Scarlett's beliefs about engaging 6th

graders prompted her to conclude the conversation with a skeptical "Is that it?" As a disciplinary outsider, Scarlett critiqued Nathan's suggestions even though she could not provide alternatives. In this manner, her coaching stance asserted alternative essential questions or understandings, but, instead, pushed away from Nathan's suggestions. Scarlett even admitted this disciplinary knowledge gap when she asked Nathan, "What are you thinking? You are the science master. The content is not my thing." However, symbolic of their struggles, Nathan replied, "I'm not a science guy. I have a middle level degree from a state university and it's mostly teacher coursework." Within this collaborative quandary and after ninety minutes of back and forth, Scarlett finally called it quits and directed the next steps. As she exclaimed:

Okay, let me process some more. I need lots of processing time especially when it comes to science and I want to make sure where we're going. Let me see if by tomorrow morning, I can figure this out. I'll think about this some more tonight.

And, I'll look tonight for some texts that we an incorporate into these days—solid, liquid, and gasses.

Scarlett was going to figure it out. To Scarlett, adolescent reading in this science class depended on a legitimate purpose for learning about matter, and in this initial planning session, she used a directive coaching stance to filter what should count as legitimate—even though her disciplinary knowledge impeded clarity of the alternative. Skeptical of Nathan's goals, her motivation was clear. As she told me, "I really don't think the kids will buy in. It's vague. As he's telling me his goals, I'm thinking 'how do I get them to buy in?' As a coach, do I shut up and let it play out?"

By the next morning, Scarlett's coaching stance had shifted. Scarlett arrived early to Nathan's classroom, carrying an array of supplemental texts on solids, liquids and gasses. Scarlett had pulled together sample texts from the library on states of matter, settled on the three essential questions, and devised a foldable graphic organizer to preassess and formatively assess student understanding of the three states of matter during the first phase of the unit. Since they only had fifteen minutes today, Scarlett wasted no time in explaining what she had prepared and, instead of a directive stance where she pushed for specific pedagogical action or epistemic beliefs about students or literacy, she asked Nathan to make the pedagogical decisions:

Now, I haven't read through these texts, but I wanted you to see other options of texts about solids, liquids and gasses. So, I'm going to leave these with you to see. It's just one option. I don't think this one is one every kid will be able to read, but it's an option. Oh, and, I was going to ask you, because we..let's see..the essential questions...one about chemistry and life, another about solids, liquids and gasses, and then one about the changes. Are you still okay with those? Okay, cool, those will be our essential questions. Cool.

After all of the back and forth negotiation of disciplinary knowledge yesterday, Scarlett's stance had shifted from critique to consensus building. Much more responsive to Nathan's disciplinary knowledge, pedagogical beliefs, and his own needs as a novice teacher, Scarlett shared the text options, provided him time to preview the texts, and acknowledged that she could even find other texts if he did not find these sufficient. Additionally, instead of spending extensive time discussing the essential questions again,

Scarlett summarized Nathan's three initially proposed questions from yesterday, ceded the final decision, and attempted to brush aside her previous hesitations about his disciplinary knowledge with a nonchalant "cool." When discussing her offer to model text over the first three days of the unit, she once again handed over the decision-making to Nathan with a polite "if you think that would work" and a "let me know what you decide." Scarlett took on a more egalitarian approach while wrapping up this planning session:

Scarlett: It's exciting. There are two brains to wrap around an idea. You've

got really great ideas. I've got some okay ideas. It takes a lot of

time, but we'll get it together. Yeah, so it's going to be fun.

Nathan: Yeah, I'd say.

Scarlett: I'm just excited by all of the science texts they're going to be

reading together. Some short pieces. That's two, four, six pieces

and then the next week will be...who knows how many.

Nathan: Yeah, I just think there needs to be more non-fiction text. They're

not exposed to it. They are, but they're not finding strategies to

help them understand it.

Scarlett: Understand it and glean information from it. And, that's going to

help Mr. Smith (ELA team teacher) next door when he's teaching

them. I wish this was something that everyone thought about.

Nathan: Yeah, that was my professional learning plan or whatever it's

called. My goal this year was to help them use reading strategies.

Scarlett: Well, I think it's hard too because you see lots of great stuff in a

workshop and you come back to your classroom and want to try it,

but it's always good to have someone there to help you. That's

what I found.

Nathan: Oh, yeah, I agree. Because even though you've seen her model it

you still come into the classroom feeling uneasy about it. If it fails,

the kids don't know why to do it ever again.

Scarlett: Absolutely. It's always good to have someone there working with

you, showing you what it could look like and then help you debrief

and figure out.

Not only had Scarlett emphasized the potential of collaboration, but she also adopted a easy-going attitude even suggesting that "figuring it out together" would be fun. And, instead of challenging Nathan's overemphasis on discrete reading skills, Scarlett chose consensus over critique as she validated his belief by suggesting his students would learn in other disciplines because of his reading strategy approach. Scarlett then complimented Nathan's disciplinary knowledge and concluded by using her own teaching experience to gently remind Nathan of the benefits of modeling. By referencing the gaps in her own understanding as a practitioner, she attempted to diminish a traditional expert/novice relationship that can accompany a coaching experience. Yesterday, from her outsider perspective, Scarlett inundated Nathan with tough disciplinary questions and challenged his own disciplinary knowledge. Today, after offering resources and instructional

support, Scarlett used a responsive coaching stance to build consensus, share decision-making, and repair any potential damage to the ego of a first year teacher.

The shift had been intentional. Scarlett "felt it went a lot better" primarily because she set aside her own agenda when she met with Nathan:

I think the biggest thing was I just set aside some stuff and not going in with an agenda because I think I do that. I have my own teaching experience. I have a lot of things in my head that I know the research says...or really just Doug Fisher and Nancy Frey say (Laughs) and Richard Allington (Laughs). I don't want to sound like I know everything because I don't, but a lot of times, I go in with a very specific agenda like 'This is where we need to go and I know this because

I've read this research and I've seen this work with kids in my teaching.'

Scarlett still doubted students would be engaged in disciplinary inquiry with Nathan's three essential questions and she was not convinced his essential understandings were essential, but she realized her coaching approach—and her disciplinary knowledge—had not prompted Nathan to shift, or even question, his own epistemic beliefs about adolescent literacy. She recognized the need to show Nathan the pedagogical possibilities in order to shift his thinking about students and literacy. Scarlett reflected:

Well, I felt like I was wanting all this clarity to make sure that everything I was going to do was going to be right. But, it's not about you, Scarlett. That's what I was thinking last night. It's about the kids in this classroom and it's about me coaching him and showing him things so that he becomes more proficient. It's about him. It's about the kids and about them and not about me...It's about, *what*

kind of things are you going to show Nathan? How are you going to coach

Nathan so that the kids in his classroom receive good quality literacy in science?

Taking The Pedagogical Lead

Scarlet felt Nathan's students needed "good quality literacy" in his class. She also believed she needed to "show Nathan" how to provide it. As she reflected, "I don't think telling him or cognitively coaching him through it would've worked. When we discussed think alouds, he always looked up and to the left like he's thinking 'What is she talking about? He needed to see it." While Scarlett shifted between directive and responsive coaching stances during planning sessions, balancing the disciplinary literacy needs of these students with Nathan's professional learning needs became more daunting with her increased involvement in his fourth hour class. After three lengthy planning sessions, Scarlett realized that she had not observed Nathan and his students enact the science curriculum and, therefore, lacked sufficient first-hand knowledge that could inform collaborative planning. As she stated prior to these class observations:

I haven't seen him teach so I don't know what he does or not. He talks the good talk, but it's like as I'm trying to figure out a literacy structure he's just wanting to get on to planning the next week. He's a first year teacher. But, I don't think he's with me. How much would this be different if I could say 'Look here, Nathan, If you look at this student work, here are three kids that don't get it. Now what are we going to do about their needs?' That's why I need to see his kids, talk to him about his kids and I'd have data. Right now, it's just relying on expertise.

Scarlett observed Nathan use text to teach about water conservation over two consecutive days the week prior to the start of the unit. After asking Nathan to identify two students who challenged him as a teacher, Scarlett used a student observation form I had developed as an instructional coach in 2008 and had shared with her and other local instructional coaches in 2010. With the "Eyes on Students" protocol(see Appendix D for Eyes on Students protocol), Scarlett recorded her observations of the learning and engagement of these students with text. In column one, Scarlett recorded her observations under "What do you notice about students and their learning?" while she paid attention to student discourse during the lesson. As she noted, the more Nathan talked, the less these two students were engaged with text, discourse or the content on water aquifers. Then, during a reflective conversation with Nathan following class, Scarlett, typing into the document on her laptop, recorded Nathan's answers to "How do you account for this?" Nathan realized his lengthy talking with text had disengaged students, leaving both him and students eager to end class. Finally, Scarlett and Nathan used observations of these two students to discuss alternative pedagogy under "What are possible instructional responses?" As he prepared to teach the same lesson in his afternoon classes, Nathan would "put it back on the kids", giving students more of the thinking with text, reducing his own talk, and increasing student opportunities for disciplinary discourse.

Scarlett's observations illuminated both Nathan's struggle teaching with text and the high levels of student disengagement in his class. Specifically, Nathan had called his first think aloud effort a "disaster" and Scarlett had been "rattled" by classroom

management and a heavy dose of teacher talk with limited student interaction with meaningful content. Scarlett debated what to do about her observations:

Scarlett: No, it (classroom management) was never discussed with him

before today, but it was always in the back of my mind because

what I'm seeing, or what I saw today, there are some management

issues.

Phil: Have you identified those issues or are you still thinking?

Scarlett: Well, management and curriculum are very tied together in this

situation, and in all situations. And these kids are talking about

everything but science. I talked to about five kids in class and I

asked them what was going on and why they weren't doing

anything. Every single student said because it was boring. I asked

if it was the topic or book or text or reading...what ... And they said

it was the topic of the book, conserving water. And they also said it

was the whole class teaching. Like him standing up there talking.

Scarlett decided not to discuss her concerns about classroom management and teacher talk with Nathan because she was "not sure if he could handle it right now" and because she "needed to remember that he's a first year teacher like I was." Consequently, these initial observations provided the impetus for Scarlett's pedagogical assertiveness, as she decided to take on a sizeable teaching role in Nathan's fourth hour class. Choosing not to discuss the disconcerting classroom management and student disengagement with Nathan, Scarlett envisioned a coaching practice the following week:

I'm hoping that if I can focus on the kids and do some things, show him how to do some things well with text, that hopefully he'll, again, see that it's not Scarlett, that it's the stuff I'm doing that he can emulate that's going to help the kids learn and understand better. Then I won't even have to have the tough management conversations. Maybe I can just avoid those all together...maybe.

Those who advocate for responsive coaching stances (Borman & Feger; Costa & Garmston, 2002; Dozier, 2006) suggest that teacher change occurs when coaches provide teachers reflective discourse leading to the "alteration and rearrangement of the inner and invisible cognitive behaviors of instruction" (Costa & Garmston, 1994, p. 16). The internal thought processes, and not merely the repeated implementation of a teaching practice, are the primary targets of change. Under this assumption, a coach modeling pedagogy in a teacher's class could impede the reflective internalization a teacher needs to improve practice. Additionally, Scarlett's modeling of a think aloud with text, especially if effective in increasing student engagement or adolescent literacy practices, could highlight her expertise as a teacher while diminishing Nathan's pedagogical craft and harming his identity in the eyes of his students. However, those who advocate direct coaching (Deussen et al., 2007; Killion, 2009) believe that novice teachers especially benefit from pedagogical demonstration. And, given the concerns Scarlett perceived in class, she chose to take on a directive stance and demonstrate how to support adolescent literacy.

Nathan agreed. After thinking aloud with text during Scarlett's initial observations and acknowledging the ensuing student disengagement, Nathan reiterated

his desire to see her demonstrate how to help his students set a purpose for reading, preview text, and activate prior knowledge before reading. While Nathan had requested that Scarlett help him model teaching with text, Scarlett saw a need to construct a literacy rich context for Nathan's students that encompassed more than an isolated think aloud. McNeil and Krajcik (2011) argued that teaching science should feed student curiosity through scientific inquiry. Through a Claim, Evidence, and Reasoning instructional framework teachers could help a middle school student develop scientific conceptual understanding while improving his or her ability to articulate claims based in their own experiences, to design methods for collecting evidence, and to reason in favor of his or her claim while rebutting opposing claims (p. 12). Disciplinary talking, reading, and writing could become the tools for constructing scientific knowledge about the world around them. After her initial observations, Scarlett believed pedagogy needed to shift from: (a) teacher dominated talk to productive student talk, (b) the transmission of information to student construction of knowledge through inquiry, and (c) a focus on assigned reading to explicit instruction in how to learn from specific texts. By developing a rich context and authentic purpose for reading and by demonstrating literacy instruction, Scarlet believed she could meet the literacy needs of students and help Nathan understand the relationships between student engagement, meaningful content, and student-focused pedagogy.

Scarlett stood front and center in Nathan's fourth hour class. Before yesterday's modeling with a two page selection of non-fiction text on solids, Scarlett and Nathan had planned for her to conduct another think aloud today with the same text, this time

focusing on the liquids section and once again giving these twelve year olds practice in using text features to activate prior knowledge and set a purpose for reading. With Nathan standing alongside the west wall, anyone who passed by in the hallway might think this was Scarlet's classroom.

In this century old building, this second floor room tucked by the back staircase was crowded. The outskirts of the room were a blur of congestion. Dusty textbooks were stacked on the hardwood floor in one corner. Locked metal cabinets full of unknown liquids, beakers, and scales consumed the west wall. A forty-five inch tube television too heavy for its roll away cart and an overhead projector with electric cord still wrapped tightly around the lamp immediately greeted you on the east wall just inside the door. This cluttered room was originally designed for far fewer students. Thirty-two students fought for space as they sat elbow to elbow around rectangular tables in the middle of this classroom, their colored backpacks and winter coats littering the floor and making aisles impassable. Nine students piled around the front table. A table of four students by the door fought over the chair with sturdiest legs. At an adjacent table, half a dozen students kept to themselves while Scarlet attempted to garner the attention of the class including the five students in a heated debate at back table and the nine students chatting away with each other as they surrounded the largest center table.

The original chalkboard on the east wall with worn oak woodwork displayed the purpose and activities for the day's lesson in Scarlett's handwriting. The purpose was to (a) Learn new info about structure of liquids, (b) Use nonfiction text to build our knowledge, and (c) Describe liquids to an ALIEN! The activities were listed as (a) Warm

Up, (b) Liquid Activity, (c) Think Aloud, and (d) Partner Practice. Yesterday's purpose and activities were exactly the same if you replaced "liquids" with "solids."

Scarlet had prepared a "Solids" poster as a way to synthesize student learning about yesterday's topic and it was taped to the back window. Like the rest of this lesson, she had planned it independent of Nathan. With two fingers held up waiting for student attention, the class fell silent, and Scarlett began:

Eyes on me. Follow me... From yesterday, what are some things that we learned and we know about solids? A solid has a definite what? A volume. Thank you. What else? It takes up space. What happens when if I took a candle and held a lighter under the candle?

So many students began talking that Scarlett could not capture all of their ideas. When Scarlett asked about the impact of heat on solids, students began arguing with each other about whether or not applying heat to a solid would always result in a liquid. With each question, students blurted out answers. Scarlett guided the discourse and recorded student responses on the class poster while Nathan stood, observing, on the opposite side of the room by his desk. "Exactly, the ice melts. So, what does that tell us about solids?" she probed. Unprompted, two students at the table by the door debated whether adding water to a dirt clod and producing mud resulted in a change of state. Closer to Scarlett, a girl mentioned that Jell-O cannot melt while the boy next to her asked what would happen if you dropped it in a blender. A girl sitting next to me mentioned how her mother melts chocolate for ice cream prompting the students at her table to argue whether or not chocolate was always a solid. Scarlett's voice was lost as students wrestled with the

cognitive dissonance until, knowing the limits of her disciplinary knowledge, Scarlett sought Nathan's expertise whether heat always turned a solid into a liquid:

Scarlett: Mr. Bloomfield, can you be the expert and help us decide?

Nathan: Well, with some things...yes, but not with others.

Students: No, wait. That's not right. Prove it. Prove it! (yelling) What about

dirt?!

Nathan: What if I...wait, listen...what if...

Scarlett: Lots of great ideas going on here. Let's listen.

Nathan: If you think about the candle idea. It's made of wax and we'll see

these changes when we study changes of state.

Student: So, we can burn stuff? (Class Laughs)

Nathan: But, think of a log of wood for example. Do you think that when

we burn that log it's moving into the liquid state? What happens to

the ashes? Or, what about another example. It will be one of our

vocabulary words and I'll tell you now. It's sublimation.

Students: Subnation? Huh? What's that?

Nathan: Sublimation. It's where a solid moves into a gas state without ever

going to a liquid state. So, think about that log. When you watch

fire burning is that wood going from a solid to a gas? Is it still a

solid? So, go home and think about that tonight. We'll have some

examples when we get to that point.

At this point, however, Nathan had lost control of the discourse that mattered and student debate raged around the room. A week before this collaboration, Nathan implemented a new behavior management system in which "zero" stood for no talking in class, "one" allowed students to use what he called "six inch voices", and "two" constituted "normal talking." With students grappling with the examples and non-examples of solids, Nathan belted out a "Zero!" as Scarlett nonchalantly put up two fingers and called on a raised hand. A male student furled his brow, and as if he had been formulating this thought all morning, he stated "another example of that sublimation would be if..." as Scarlett cut him off. Now managing classroom behavior, Scarlett refocused students with a "Wait, I'm sorry. I hate to interrupt such a great idea but some students are not paying attention, and I need every voice but yours to be quiet."

When the boy finished his point about wax melting into a solid state, Scarlett reminded students of yesterday's student question about whether sand was a solid, setting off another commotion of productive chatter about glass, sand, solids, and change in states. With Nathan declaring "I need a Zero!," student voices continued until Scarlett raised two fingers and waited for attention. Hands across the room eventually sprang into the air mimicking her peace sign. As Scarlett wrote the final student comments on the poster, one student who had held Scarlett's watchful eye throughout class continued to disparage the activity and insult other students even mocking Nathan for needing a coach in the classroom. When Scarlett's head nodded toward the hallway, Nathan followed her advice, walked over, and guided the attention-seeking student out into the hallway for a talk.

With the final student suggestions recorded on the summary chart and praising students for their outstanding work, Scarlett transitioned students into a quick writing prompt using their foldable. On the solids tab, Scarlett asked students to describe solids to an alien, imploring them to "really think about what you now know about solids that you didn't yesterday," and even offering four sentence starters on the front chalkboard. When students finished writing, Scarlett shared an additional structure. Desiring to capture student questions and to create more inquiry, Scarlett asked students if they would mind having an "Ask A Chemist" poster placed on the chalkboard by the doorway. This poster would serve as a parking lot for questions during the unit, allowing students, at any time, to come to the poster and record their question on a colored post-it note. Each day, Nathan would start class by selecting a few post-it notes to read and discuss with the class. Scarlett explained the process to students:

Someone just asked me a great question and there are so many of you asking really, really good questions about solids and liquids and matter that I'll be honest with you, I can't keep them all in my head. But, what if we kept on a poster somewhere in the room, these great questions. I don't have all the answers. Mr. Bloomfield doesn't have all of the answers. Do you guys think that would be okay?

Twenty minutes into the class period, Scarlett was still front and center in the room preparing to model her thinking with text.

In an effort to "build a rich context for literacy," Scarlett took the teaching lead.

After looking at yesterday's writing about solids in student graphic organizers, Scarlett

used discussion around the solid poster to provide students with a means of synthesizing their understanding of solids and changes in states of matter. As she facilitated the class discussion, she allowed small pockets of student discourse knowing this productive talk stretched the limits of their conceptual understanding about matter. The activity was still teacher-directed and Scarlett, with the occasional help from Nathan, regulated who could speak and what comments were acceptable. However, as a coach, Scarlett's use of this discourse activity modeled one way in which Nathan could open up a larger space for student discourse.

In addition, while Scarlett decided not to discuss her classroom management concerns with Nathan prior to this week, Scarlett's teaching demonstrated alternative strategies for managing discourse. Scarlett paused and waited for students to stop talking before she proceeded with directions. She used a peace sign, signaling to students that she wanted each student to mimic the sign and collectively come back to attention. And, at one point, she even directed Nathan to intervene and talk to a student in the hallway while she continued teaching, thus establishing norms for unacceptable student discourse when she taught. Even her use of "I hate to interrupt such a great idea because people aren't paying attention" provided Nathan with an additional strategy for managing classroom discourse. As she praised student ideas, provided opportunities for authentic engagement with other students, set firm boundaries, and managed the discourse, Scarlett attempted to meet the literacy needs of students while using her pedagogy to scaffold Nathan's understanding of classroom management.

Scarlett's "Ask a Chemist" represented a literacy structure intending to create

more space for student discourse and her explanation of the process revealed her epistemic beliefs about student voice and the role of a teacher in guiding student construction of knowledge. By allowing students to write their questions whenever needed and by suggesting that they collectively try to answer the questions, the poster could create a daily dialogue between Nathan and his students about intriguing or confusing content. Through this daily dialogue where "Mr. Bloomfield doesn't have all of the answers," Scarlett attempted to shift classroom discourse away from a teacher-centered norm where students were seen as deficient or unskilled and to a learning environment where student knowledge and expertise was valued. "Ask a Chemist" could stretch Nathan's understanding of his "high," "medium," and "low," learners by putting the voices of his students in front of him on a daily basis. As she stated in her exit interview:

I used it because a lot of the kids in that class were naturally inquisitive and...well, Nathan saw their questions as these sort of distracters as to what was going on in class. I don't think that's why they were asking. I think they were actually inquisitive...they wanted to know these things. So, kind of as a management thing but partially as a way for him to give the students more voice in the class because I don't think the kids had much voice.

During this class and throughout this first week, Scarlett took the pedagogical lead in a myriad of ways. Scarlett had led a synthesizing discussion with her "Solids" poster, managed student behavior, designed and utilized a foldable graphic organizer, scaffolded the "Explain it to an Alien" writing activity with sentence starters, modeled

how to collect and analyze formative assessment, provided individual feedback to specific students as they wrote their explanation, and explained the "Ask A Chemist" poster—all within the first twenty minutes of the lesson and before she modeled how to continually set and revisit your purpose when reading about liquids.

A week later, with Scarlett watching from the back of the room, Nathan selected a post-it note from the "Ask A Chemist" poster and asked students, "Is a snowflake a solid or a liquid?" Each day last week, Scarlett modeled purpose setting and active reading with supplemental texts on the states of matter while also using various literacy structures and strategies—quick writes in the foldable graphic organizer, student discussion strategies, shared reading, one sentence summaries, etc. Nathan had replicated these lessons in his afternoon classes, but Scarlett's pedagogical leading had continued longer than planned and the weight of wearing so many hats related to assessment, reading instruction, writing to learn strategies, student discourse, and classroom management prompted her to gradually release the teaching responsibility in the fourth hour class back to Nathan. Scarlett whispered under her breath, "I'm doing no behavior management today, just so you know. I put it all on him" as she walked away, weaving in between tables while Nathan declared "Zero!" Grabbing the second post-it note, Scarlett found the writer and asked the student to share his thinking with the class about "Is there any solid that is indestructible?" before turning to Nathan and asking loud enough for everyone to hear, "Wait, I thought we were at Zero. We are, right? I wasn't sure because I heard someone talking."

Nathan had decided to teach students about Nafion, a smart, synthetic polymer much like a high-tech Silly Putty that remembers its shapes. When heated to the highest temperature, the material reconstitutes the exact shape previously assumed with the temperature. Having focused on text features and purpose setting last week, Scarlett decided to use today's supplemental article on Nafion to model metacognition. With the Nafion article under the document camera, Scarlett asked students, "From last week, what do you remember is the first thing we should do when reading a non-fiction text?" Hands popped up before a boy confirmed purpose setting. "Last week, we talked about text features and how those help us to set a purpose for reading, but today I'm going to show you what goes on in my head as I'm reading," she continued. Scarlett explained how today's denser text would prompt different thinking and her prior knowledge about solids, heat, and changing states influenced her purpose for reading. When Scarlett explained how an article last week related to a sentence in the opening paragraph of today's article, Nathan confiscated artwork away from a doodling student. As Scarlett shared how the article triggered questions about the shape shifting of Nafion, numerous students volunteered to share their own questions, while one boy read a graphic novel he was hiding on his lap. Then, when Scarlett pulled out the Silly Putty to demonstrate Nafion's shape according to the article, every set of eyes found her. After five minutes of shared reading and discussion of the relationship between the article and how prior knowledge of Nafion influenced their thinking as readers, Scarlett summarized:

So, I know you really want to talk about Nafion. I want to say one thing before you go on and read more about it. I set my purpose. Then, I did some visualizing

in my head. Then, there is one other thing I did every other paragraph. I stopped. Sometimes I asked a question. Sometimes I made a connection. Or, you could summarize what you just read. By setting my purpose, by asking myself some questions and by visualizing, I was able to come up with my answers to the two questions that I asked as my purpose."

Nathan read off group names as 6th graders reacted in disapproval to their assigned group members. During this guided practice, Nathan asked each group to read more of this article and to stop at pre-determined places to discuss the question starters Scarlett had provided. Each student was also given a color-coded strip of paper. When finished with the article, each student should write one sentence explaining what he or she had learned about matter before taping it to the class poster in the back of the room. In a congested room, transitioning into groups quickly became messy. During the lengthy transition, two boys mocked each other in the middle of the room as organizing students into groups preoccupied Nathan and Scarlett. A girl refused to work with another boy. Four students sat in a group doing the work independently. Two boys finished almost immediately and taped their strips of paper to the poster before two adjacent boys at their table started reading. A minute later, Scarlett reached her limit. Instead of leading students in discourse about their written strips of paper, Scarlett stated the class behavior had been unacceptable and led a discussion of what needed to change for group work to be successful. One student mentioned quiet talking, and another student suggested mutual respect as a half a dozen hands remained in the air. Several minutes later Scarlett had

filled an entire sheet of butcher-block paper with the new class rules for working in groups. Nathan occasionally validated suggestions, but stood off to the side.

A month after the first planning session, Scarlett reflected on her pedagogical lead in Nathan's fourth hour class:

Scarlett:

It's really hard, and maybe it's by nature that he's a first year teacher...its hard for me to not talk about everything with him. There are so many different avenues to take...the literacy, the everything; and it's hard for me not to talk about everything.

Phil:

You saw lots of different possible topics.

Scarlett:

I did and that's something that I've been struggling with in this particular collaboration. And this one has kind of been all over the place. And, so I don't know how much ...its kind of frustrating cause I don't know how much change I'm going to see because I wonder if I had just said 'Ok, we're just talking about text and I'm going to show you how to use leveled text and that's it, I'm not going to address any of the other issues.' But you know what? Here's what I know. If I hadn't addressed the group work and management and student talk, modeling wouldn't have been successful. It's all inter-related.

Once the unit began, Scarlett used a directive coaching stance with Nathan as she asserted, designed, and enacted instruction based on her own epistemic beliefs about adolescent literacy. This heavy coaching stance had been student-centered as she used

formative assessments of Nathan's students and coaching tools like the Eyes on Students protocol to ground pedagogical reflection and decision-making. Yet, Scarlett felt overwhelmed with the "multiple hats" she enacted as a coach. As she explained, the collaborative focus had felt fragmented by the diverse literacy and pedagogical needs in Nathan's classroom since Scarlett believed that other aspects of pedagogy would influence any singular instructional focus. Working with a first year teacher, Scarlett was unsure of how to improve student thinking with disciplinary texts if classroom management remained an impediment, if content remained devoid of meaningful inquiry, and if pedagogy ignored that adolescent literacy involved the social construction of scientific knowledge. With a directive coaching stance in the classroom, she attempted to put this into practice. To help students use writing to make sense of the three states of matter, she designed a foldable with colored tabs for each student. To help students clarify misconceptions about each state of matter, she designed synthesizing charts like the solid poster. To use student voices as a basis for building inquiry, she designed the "Ask A Chemist" routine. To help students use texts to learn about matter, she selected accessible texts and shared her thinking during think-aloud protocols. To provide opportunities for students to use productive talk to make sense of matter, she integrated discourse strategies throughout the lessons. Scarlett took on a heavy pedagogical load during the unit and her coaching load became quite heavy. Yet, even if her immense teaching in Nathan's class benefited his students during the unit, how could she impact what occurred after she left?

Encouraging Discourse

Phil: And, I see you being very supportive. Is that intentional because

the content of the collaboration is difficult?

Scarlett: Right. Purposely on my part because I want him to feel good about

it because my assumption is that if someone feels good about

something that has happened, it is more likely to continue after I'm

gone. If we are dealing with a challenging content and every day

he's in tears or I'm in tears and (Laughs) I was in tears at one point

in this collaboration, the likelihood of him continuing that then?

Slim to none. Slim to none. It's okay to have some tears. It's okay

to deal with some heavy, tough stuff. But, part of my job is to take

those heavy moments, present it in a light 'Yeah, this is hard, this

stinks, but let's work together and try to overcome it because we

can' kind of way. Part of my job with him was to be that

encourager, you know?

Clandinin and Connelly (1996) argued, "the landscape situated at the interface of theory and practice in teachers' lives, can be understood as filled with different kinds of stories" (p. 140). As Nathan and Scarlett enacted practice throughout these seven weeks, their stories—based both in their personal lives and school lives—merged as they built theories about teaching these specific students (Dewey, 1938). As a result, Nathan's developing practice as a teacher reflected both his prior narratives as a teacher, but also his personal identity—interests, ideas, values, beliefs, and prior and existing relationships (Lieberman & Miller, 1984). With teaching as an enactment resulting from the unique

interaction of teacher, students, and disciplinary content (Cohen & Ball, 1999), Scarlett enacted a unique coaching stance with Nathan based on their collaborative context. This stance involved setting aside her agenda concerning what students should learn in a unit on matter. This stance involved taking on the hard work of teaching students so that Nathan could see her best efforts. And, this stance involved balancing the tough, probing questions that advocate for students with words of encouragement for a teacher trying his best to inquire into his own practice.

Scarlett saw Nathan as a reflective, novice teacher who took risks. As Erickson argued (1986), "If a teacher engages a student with the genuine intention to foster the student's learning and the student fails to learn what the teacher intended, the teacher is revealed, at bests, as less than consummately competent pedagogically" (p. 344). As a first year teacher, Nathan took a risk by inviting Scarlett to observe these genuine intentions, and he took a potentially greater risk by asking a veteran teacher, and one with expertise in literacy, to demonstrate her teaching practice in his classroom with the same students whose disengagement with his teaching had prompted his request for coaching in the first place. Easing these risks necessitated a coaching stance that not only balanced directive and responsive approaches and that offered to carry the pedagogical load, but offered encouragement as well.

Scarlett's use of encouraging discourse can be seen in her response to Nathan's effort to teach with text prior to the unit on manner. During this unit, Nathan taught his students about water conservation by studying the local water aquifer and water wells.

Through contour maps, charts from the Illinois State Water Survey, and a few "hands-on

activities," Nathan sought to build background knowledge and prepare students to read about local water conservation efforts. On the day that Scarlett observed, Nathan modeled how to predict with four pages from a "water and earth" text for most of the class period, and the resulting student disengagement and behavior had left him demoralized. With the added pressure of the assistant principal sitting in to observe Scarlett's coaching, Scarlett decided not to share her observation notes on students. Instead, she simply stated, "Well, I think, Nathan, you already know, so, just talk a little about yesterday." Nathan could not hide his frustration:

Nathan:

Basically, what happened with the lesson is that I felt I was talking too much in it and so as I was talking I was just trying to model what I was thinking and sometimes I talked too much. The process was long, kind of drawn out and I think I used too much text for them. I think Tuesday's lesson on predicting with text went a lot better because the text was easier to predict. And, what I learned from that is that we need to make sure that we're using the right strategies for the right text. It has to fit.

Scarlett:

And, that's really huge. What every literacy person wants to hear.

We want to hear teachers realize that strategies depend on the text...err, the thinking and things you do are text-dependent.

With an administrator present, Scarlett not only chose to skip over the student data she had gathered, but she emphatically praised Nathan's conclusion that *the* strategy needed to fit the text. This high praise misaligned with Scarlett's actual epistemic beliefs

about reading considering she had previously voiced her frustration to me that Nathan reduced reading to discrete "strategies, strategies, strategies." When Nathan mentioned his plans to teach with text again later in the afternoon and his concern that his students are scared to show their confusion, Scarlett offered both encouragement and a plan as Nathan exposed his insecurities about the previous effort:

Scarlett: Well, let's find out. Let's find out what they know and what is

confusing to them. It's worth a shot. We can look at that today. Is

it okay if I come in again today during 4th hour? So, are you

excited? I am excited.

Nathan: Yes, I am.

Scarlett: Because you were kind of beat down yesterday. I was worried.

Nathan: Yes, I was very beat up. You want things to go this way and then

this way and when they don't go the way you would like, you kind

of feel as if you are a failure. That's kind of how I felt.

Scarlett: No, no. Do you still feel that way?

Nathan: No, what we changed for yesterday afternoon's classes was a

breath of fresh air for me and I'm excited to see you model it so I

can be a better teacher of literacy and that's what I'm really excited

about.

Scarlett had offered to observe his afternoon class, take additional notes on selected students, and to give Nathan feedback on the duration and specificity of his next think aloud effort. Once again, Scarlett not only offers to help pedagogically, but her repeated

exclamation of excitement is followed by her display of concern for him. By acknowledging Nathan had been "beat down yesterday" and she had worried, Scarlett displays empathy. In her previous debrief with me, Nathan's think aloud effort on predicting had not only concerned her. As she told me:

About sixty minutes were wasted with a group of students today. That's one class period of students that got absolutely nothing out of that text that sat and stared at the wall, fiddled with a pencil. Something needs to change.

Yet, during this debriefing Scarlet did not coach heavy (Killion, 2010). Scarlett did not display a "focus on student learning" or provide "feedback on the interaction between student engagement in learning, performance, and achievement and teaching" (p. 9). She even avoided probing questions that "focus on transforming practice, examining beliefs, and testing assumptions" like those used during her first planning session with Nathan (p. 9). Given Nathan's identity as a first year teacher and his obvious frustration with his teaching, Scarlett temporarily employed a light coaching stance in this debrief as her primary goal became encouragement. Setting aside her concern for student disengagement with text during that class period, Scarlett reminded Nathan:

The good thing for me to see was that after class was over, you came to me immediately and you said "That sucked, I talked too much" and saying 'This didn't go well' and 'this student this' and so, you are very aware of your classroom and what's going on. And, I said it yesterday and I want to reiterate it, I think if you did not ask the questions you were asking, then you wouldn't be effective as a teacher. The fact you care enough about your kids to try and help

them through a text is powerful...We didn't even have to look at this because you're reflective in your practice already in your first year. After what? Six months. Not only are you reflective, but you seek ways to understand the problem and ways to fix it. We all have horrible days...but the powerful thing is that you don't stay there. You want to push yourself, and not stay there, and you do because of your students. I just needed to say that I admire that about you. It's better than other veteran teachers that I know.

Enacting a light coaching position instead of prioritizing the needs of students (Killion, 2010, p. 9), Scarlett praised Nathan's willingness to implement new literacy instruction and to reflect on his practice even though it had resulted in frustration for both Nathan and students. With Nathan readily admitting his teaching had been ineffective and knowing that he had been upset, Scarlett not only praised Nathan's willingness to teach with text, but also his reflective practice as a novice teacher. She eased his insecurity by reminding him "we all have horrible days" while calling his determination to improve "powerful." And, Scarlett finished by offering her admiration because of his determination to improve his practice for his students. Scarlett's encouraging discourse had been intentional. As she admitted during our debriefing, "I wanted to praise his efforts and to make him feel better because he was really beating himself up over it." Through encouraging discourse, Scarlett supported Nathan as he exposed and deconstructed multiple aspects of his teaching practice while also supporting Nathan's professional inquiry so he could continue the work of enacting student-centered literacy pedagogy for his students after the collaboration ended.

Two months after the second planning session that resulted in a frustrated Scarlett sitting in the school amphitheater and expressing uncertainty about her coaching stance with Nathan, Scarlett once again sat in the back of Nathan's class. Even though their collaboration had officially ended with a final debriefing a few weeks ago, Nathan had asked Scarlett to observe his teaching with text in his fourth hour class. Just as Scarlett had initiated a visible purpose and activity for class, Nathan's handwriting on the chalkboard stated the purpose as (a) to understand how the pH scale is used, and (b) to define an acid and a base. The activities were listed as (a) Warm Up, (b) pH scale-Acid vs. Base, (c) Guided practice, and (d) Brain Pop. During the warm up activity, Nathan enabled student discourse when he asked students to "discuss with a person sitting next to them about what you have learned the last two days about acids and bases" before then identifying the product and reactant in a chemistry problem. When the activity ended, Nathan resisted providing the answers, but relied on students. Students used the "Ask A Chemist" poster throughout class as they frequently walked over, scribbled a question, and placed it on the crowded poster full of pink, green, blue and yellow notes. As Nathan plucked a question from the poster, he allowed students to be the chemist as they offered possible explanations about baking soda. Explaining they needed to "build background knowledge about acids and bases before we read," Nathan guided students through a short cartoon video explaining examples of acids and bases on the pH scale. And, while still too lengthy for Scarlett, Nathan's think aloud with text reflected Scarlett's approach six weeks earlier as he stood by the document camera, writing on the text he had provided for students. He began:

Nathan:

So, I want you to just follow along with the text as I read and show you my thinking. What is the first thing you should do when you're reading a text?

(Several students shout "purpose.")

Nathan:

Good. So my purpose for reading and I go back to the board. Our first purpose is to understand how a pH scale is used. And, my second purpose is to understand what pH is and how it is tested. This reading will help us build more background knowledge. What's the second thing we should do when reading this text? What do I look at? What is this...the pictures, the chart? Text features. We look at our text features. So, let me begin.

Mirroring Scarlett's previous approach, Nathan had marked up the text with a "Before" box asking students to write a response to "What do the text features tell us?," a "During" question asking students to "show their thinking in some way," and an "After" box providing a space for students to "Look back at your purpose, did you meet it?" Nathan's think aloud involved reading the entire three paragraphs in the text, pointing out unknown vocabulary words, discussing what he learned about the pH scale, and opening up opportunities for students to ask questions about the pH level of blood, the neutrality of water, and even about a science show on Nickelodeon. After Nathan asked students to discuss their reading of a second pH text with a partner, Nathan spent the next fifteen minutes managing group conversations, helping groups write their summary, and sternly

employing "One" when unfocused talk ensued. Scarlett sat taking notes on the engagement of focus students and asked Nathan for his reflections after class:

Nathan: I thought it went well. There are always ups and down, but even

with the papers I got back, students are mostly where I wanted

them to be. They were on task most of the time. I got papers back

from all of them with stuff written down about acids and bases.

Scarlett: Can you put your finger on anything you've done as a teacher that

has led to this?

Nathan: Well, yeah, with help from you I changed the way I approach my

teaching...I always thought just to do hands on. Last year, acids

and bases was in one day. But, like we talked about, flooding them

with text, letting them talk, helping them build background

knowledge so they can understand the lab. Even when they were

doing the lab, they were talking about what they had learned the

day before, throwing around 'hydroxide ions' and what an ion is or

an electron and that bases my have a more negative charge...

Scarlett: Hmm, pretty powerful. Those are big takeaways. You also said

you felt like the modeling...

Nathan: I had to put myself in their shoes, or try to and think about what

they might struggle over.

Even when Nathan's teaching ended in increased student engagement and reflected Scarlett's literacy instruction, her encouraging discourse continued to praise Nathan's efforts. Scarlett described his reflections as "pretty powerful" as she hoped his continued reflection on his practice would produce future inquiry into literacy instruction that fit his specific students.

Throughout this collaboration, Scarlett struggled to meet the literacy needs of Nathan's science students while simultaneously shifting Nathan's perception of his students, their literacies, and his pedagogical role. To Scarlett, Nathan was in the middle of a perfect first year teaching storm. Placing immense pressure on himself as a teacher, Nathan had taken on a time-intensive and revealing collaborative inquiry into literacy with Scarlett while he struggled to identify curricular goals, plan lessons, keep on top of his teaching responsibilities in the building, and develop classroom management norms in an overcrowded fourth hour class which included numerous students who challenged his expertise daily. While Nathan willingly exposed his practice and opened his classroom, Scarlett adopted a coaching stance according to this specific disciplinary context.

Early in this collaboration, Scarlett realized that despite her heavy coaching intent, her limited disciplinary knowledge in science and her initial interactions with Nathan necessitated that she set aside her own agenda for learning outcomes. Scarlett's inquiry pursued practices that could support both the literacy of students and the learning of a first year teacher. Consequently, Scarlett would strike a balance as she shifted between directive and responsive coaching stances during planning sessions: coaching directive for Nathan's students while coaching responsive for Nathan. Additionally, after observing his teaching and seeing numerous pedagogical and literacy needs, Scarlett, the disciplinary outsider who said she became the instructional coach at Hobbs because she

felt something had to be done for students, took it upon herself to hide student formative assessment data from Nathan in order to preserve collaborative momentum. As she admitted, "Nathan knew the bad news, so why share more bad news?" Instead, believing he needed to see examples of literacy instruction, Scarlett took the pedagogical lead and became the primary teacher in the early weeks of the collaboration. As Scarlett taught in Nathan's class, her epistemic beliefs about literacy guided her attempt to enact a literacy space where students could read with a purpose, socially construct knowledge about matter, and harness their own inquiry as they made sense of the science. While Scarlett's coaching practices incorporated directive and responsive stances, and while it involved her modeling literacy instruction, Scarlett's consistent use of encouraging discourse became vital to her coaching with Nathan. In response to both his disappointment and his satisfaction with the impact of his teaching practice on students, Scarlett used encouraging discourse to ensure Nathan's inquiry and reflection endured after the collaboration officially concluded. Unsure of which practices would become a staple of Nathan's teaching, Scarlett reflected:

Scarlett: Like if I had to judge, do I think this was successful? As of today,

taking everything into consideration, I think there are some definite

things that are coming out of this. Is everything perfect? No.

Phil: But, he is a first year teacher.

Scarlett: But, he IS a first year teacher. We started the wheels in motion. I

think that's good if we get him thinking 'is this good enough?' 'is

this perfect enough for my students?' You know I'd love to fix

everything, but we can't.

Even though she could not fix it all in this first year teacher's class, Scarlett developed coaching practices that allowed her to balance the literacy needs of students with Nathan's learning needs.

Chapter 6

Meg

"Here's What Your Kids Are Telling You, What Can We Do About It?: Coaching

Heavy as a Disciplinary Insider in an 8th Grade Language Arts Class

Meg sat in the Hamilton Middle School library catching her breath. She had just conducted a brief think aloud using a short story from *Dear Bully: Seventy Authors Tell Their Stories* (Hall & Jones, 2011) in Tracy's first hour 8th grade language arts class. As she looked down at the time on her phone, she only had ten minutes before her daily debriefing with Tracy. She reflected on her think aloud:

Meg: One of the reasons I asked to model is I know Tracy feels a little

uncomfortable doing think alouds even though I think she does

them fine. She just doesn't always think to do them and so if we're

wanting to talk about text annotation, that's a very easy place to

think aloud, where I'm more comfortable in that realm.

Phil: You mean she doesn't think to include it in the lesson or her

thinking is not the same as she's doing it?

Meg: Well, I think she's more interested in getting from A to B, where I

maybe take a little bit more time with it because of what the kids

need me to model.

Phil: I thought that was interesting because you two almost finish each

other's sentences and there's enough of a relationship there that

you know each other in the classroom.

Meg:

Right. And, I've been working with her for four or five years so it's not something that is a new experience. We, again this year, since she's starting in a new grade level, there's a lot more apprehension about what she's doing and so my role is not as much of a...is more of a support than it has been in the past.

Phil:

Whose idea was it to focus on the annotation?

Meg:

It was mine. I mean we talked about how we wanted to see their thinking as they're reading and that's something that we've been working on. And she's assigned them, "ok now do these five pages for homework and show me what you're thinking, ask questions, things like that" but hasn't really had a lot of success with that. Slowing it down a little bit for them would be helpful.

As a former language arts teacher, Meg was comfortable in this language arts realm. Having coached with Tracy for the last four or five years, Meg was attuned to Tracy's discomfort with think alouds and offered to model her thinking with a passage from the short story. And, given her extensive presence in Tracy's first hour class and in other 6th and 7th grade language arts classes in previous years, Meg's personal knowledge of Tracy's students allowed Meg to cater her think-aloud effort according to their specific reading needs. Meg's five minutes of modeling, driven by the previous day's formative assessment data, attempted to engage students in thinking through the text instead of assigning annotations. And, while Tracy gladly agreed to Meg's offer, Meg's coaching advocated a particular epistemic belief about reading and literacy instruction that Tracy

sometimes overlooked in practice: the goal of reading pedagogy is to scaffold adolescent thinking with text while building student independence. Meg was quite familiar with Tracy's disciplinary context.

Meg's Heaviest Coaching Tension

As the school's only instructional coach, Meg worked with a number of teachers including Tracy—a teacher she had known dating back to their first teaching days together at Hamilton in 2004. Meg and Tracy had multiple professional experiences together over the past several years. At the time of this study, they were co-writing a proposal to present at the National Council of Teachers of English conference. Throughout their tenure at Hamilton, they were co-participants in school, district, and university sponsored professional development events focused on pedagogical topics ranging from literature circles to Understanding by Design (McTighe & Wiggins, 2004) to literacy intervention. Most notably, during the summer of 2010 and 2011 Meg and Tracy had been participants at an annual Chancellor's Academy for teachers. While the weeklong professional learning event offered keynote speakers, disciplinary strands, and pedagogical breakout sessions, the academy also provided a space for Meg and a cohort of five to six Hamilton teachers to develop a collaborative practitioner inquiry project, typically around literacy instruction. Then, throughout the school year, Meg, as the instructional coach at Hamilton, guided the professional learning of this teacher cohort as they followed this inquiry topic into practice. Meg and Tracy had both attended the 2011 academy that produced a collaborative practitioner inquiry project focused on uncovering ways to promote student thinking with text. Through this shared experience came

multiple opportunities for Meg, Tracy, and other cohort members at Hamilton to "deliberate problems of practice" and to "work together to uncover, articulate, and question their own assumptions about teaching, learning and schooling" (Cochran-Smith & Lytle, 2009, p. 144). However, given Meg's strong epistemic beliefs about literacy as a "disciplinary insider," her first-hand knowledge of Tracy's students, and the daily invitation to coach with a friend, the collaborative inquiry with Tracy exposed a tension in Meg's heavy coaching practice: How do you respect the professional expertise and autonomy of a colleague in light of your own well-defined, disciplinary epistemic beliefs? In other words, how does Meg coach heavy while honoring the expertise of her colleague?

Meg explained her toughest coaching tension:

Phil:

A few days ago, we talked about how you aren't there all the time with Tracy so sometimes she would put things in place and it wouldn't be exactly the way that you would want to do it.

Meg:

Well, it is going to happen when you're not with somebody every day. She'd say, "Yeah, I did something you're probably not going to like." But there's this whole...with responsive teaching, the day-to-day responding to kids and the need to not be so time intensive with that and to also feel like you have a plan. And it is important to Tracy for her to know where she's going, not just the next day, but the next week and the next couple of weeks. So that big picture and details along the way are important to her.

Phil: So, it's her comfort zone as a teacher?

Meg: Right, we'd get together and plan a unit and we'd get the big ideas

and the performance task and then she'd say "we've just done a lot

of work, and I feel good about it, but what am I going to do

tomorrow?" Where I'm more, "let's look at what the kids are telling

us and plan the next day off that" versus "here's a packet on the

whole book and let's try to make this now fit with what the kids are

telling us as readers."

Acknowledging the complexity of teaching, Meg understood Tracy's pragmatic need to plan into the future. But, she also understood close attention to students' reading would illuminate the next day's most appropriate instruction for the twenty-one students in Tracy's first hour class—just as Meg felt it had in her own language arts classes and in other classes in which she had coached. In her practice as a teacher and coach, Meg believed strongly in her vision for literacy instruction. In order to coach heavy and improve student thinking and interaction with texts in this unit, Meg sought coaching practices that challenged Tracy's understanding of disciplinary reading in language arts while allowing Tracy's own inquiry to unfold. As Meg coached Tracy, negotiating this "disciplinary insider" tension prompted Meg to continually refine a coaching stance uniquely fit for Tracy and this collaborative context. Over the course of eight weeks, Meg's reliance on three essential coaching practices evolved her unique coaching stance. Meg's use of humor preserved a respectful collaborative context while her use of formative assessment and guiding discourse challenged Tracy's epistemic beliefs about

reading and contributed towards more responsive literacy instruction for Tracy's 8th grade students while respecting Tracy's expertise as their teacher.

Collaborative Context

Meg. In her twelfth year as an educator, Meg Murray is a certified 6th-12th grade English and language arts teacher, having spent the first three years of her career teaching language arts at a private religious middle school in a local community. Meg began her career at Hamilton Middle School in 2004-2005 as a reading support specialist in addition to teaching 6th grade language arts. In her reading position at Hamilton, Meg provided teachers with in-class literacy support while most of her time was spent working directly with struggling adolescent readers and teaching pull out reading courses. At other times, she helped coordinate the school-wide reading interventions across 6th-8th grade language arts. With a master's degree in literacy from the local university as well as a master's degree in teacher leadership and a National Board Certification, Meg's work at the school had always revolved around adolescent literacy and you could find her on most committees in the building that involve literacy, curriculum, and professional development.

Since the 2010-2011 school year, Meg had been the school's only instructional coach. During this research study, she coordinated a study group on literacy interventions comprised of language arts teachers, school psychologists and special education teachers from all three middle schools in the Glenville school district. Much of her coaching involved language arts teachers at all three grade levels. Meg coached two seventh grade language arts teachers who wanted to improve student writing. At the request of the 7th

grammar in the context of meaningful writing. Meg's easy-going approach and knowledge about literacy opened collaborative doors in other disciplines, as well. In addition to the collaboration observed in this study, Meg met several times a week with two 6th grade math teachers who were implementing a new math curriculum and focusing on the math practices found in the new Common Core State Standards. And, several times a week you could find her in a friend's 8th grade science class where they explored teaching practices that supported a claim, evidence, reasoning model of scientific inquiry and literacy (McNeil & Krajcik, 2011).

When asked how she would describe her work as a coach to a friend or relative, Meg explained, "I work with teachers to help teachers help their kids learn, to help them know what their kids are understanding and what they're not understanding, and then work with them to help their kids understand more." Meg differentiated heavy coaching from light coaching not just by a desire to improve the literacy and learning for students, but she saw heavy coaching as "working in-depth" with teachers around the needs of students and acknowledged that while light coaching might have an instructional focus, the focus of heavy coaching is fluid because the literacy needs of adolescents are fluid within a disciplinary context. To Meg, heavy coaching involved challenging conversations with teachers about the relationship between student learning and pedagogy. Meg described her typical practice of collecting observational data on students during shared reading in class before presenting the data to the teacher often saying, "Hey, did you know when you were reading out loud, only twenty-five percent of the

kids were actively paying attention to you?" Meg suggested that she would follow by asking, "What else could we do in that situation that may make more of an impact on the students and their engagement with text?" Meg believed coaching heavy involved actionable formative assessment and challenging discourse about instructional responses. Yet, Meg also expressed an understanding of the complexity of teaching and the need to select the right opportunities to engage in heavy coaching discourse with teachers. As she stated:

I think sometimes you know a teacher might know that there's a better way to do something for students, but at the time, they do something else and you know it's a day when they're not feeling well and they show a movie. Is that the day that I'm going to come in with my heavy coaching hat and say "Hey, you think that was the best thing for kids?" Or, do I say, "Ok, what are we doing the next week that we can really respond to kids."

Stemming from her experience as a language arts teacher and as an instructional coach, Meg exhibited strong epistemic beliefs about adolescent literacy and literacy instruction in middle school language arts classrooms. Meg believed that adolescents had a right to literacy that provided ample opportunities to read texts that were both interesting and accessible while using these texts to inquire into essential disciplinary questions about themselves and society. And, Meg, especially spoke about the importance of reading instruction:

I mean I've definitely got a belief in a metacognitive focus that teaching kids how to think is way better than teaching them a specific strategy. So, we also need to be aware of what they are thinking because most of them do it but they don't know they do. And fix up strategies, things like that. When you're stuck, how do you deal with that? I think that's good literacy instruction, having kids *read as much as they can* and then *talk about what they're reading or interacting in some way, responding in some way to what they are reading.*

Meg's prior presentations at national literacy research conferences and her publications in national literacy research journals reflect her epistemic belief that literacy instruction should use ongoing formative assessment of student thinking with text to inform differentiated instructional responses. Literacy instruction, to Meg, should scaffold the understandings, knowledge, and skills students need to use and produce texts that matter to them. Literacy instruction should be "responsive teaching" in which the "day-to-day responding to kids and their literacy needs" becomes a norm in classrooms as teachers use the words and work of students to determine individual literacy needs before designing instructional responses. After her experience at the 2011 summer academy with Tracy and other Hamilton teachers, Meg repeatedly referenced *The Right to Literacy in Secondary Schools: Creating a Culture of Thinking* (2008) by Suzanne Plaut. She explained the influence of this academy and text on their current yearlong collaboration:

I know it's something that we have been working on since the academy with the book, *The Right to Literacy*. Something that has really stuck with us, and we've discussed it many times, is the one who's doing the talking is doing the thinking. And, so that's sort of been in the back of our minds the whole year. How can we, that's been a goal that we've had, how can we get our kids to talk more?

Tracy seemed to say, "I want them to talk about what they're reading." So, how can we talk less and our kids talk more?

With this yearlong collaborative focus, Meg desired for her coaching to "create responsive spaces where students could authentically think with texts and about themselves."

In her collaboration with Tracy, Meg believed the collaboration would be successful if students showed an increased ability to monitor their thinking with text and if Tracy improved her ability to respond instructionally to the reading needs of her students. While this entailed an increased capacity to use small group instruction, think alouds, guided reading and other literacy scaffolds, Meg placed primary emphasis on Tracy's capacity to use formative assessment. Meg also had no set coaching cycle with Tracy. Meg's coaching schedule allowed her to be in Tracy's first hour class three to four days a week for at least the latter half of the eighty minute class period.

Tracy. Describing herself as "lighthearted yet structured" as a teacher, Tracy Wilson began teaching at Hamilton Middle School during the 2002-2003 school year as a sixth grade pull out teacher who provided struggling readers with additional reading instruction through the social studies curriculum. Tracy began working with Meg during Tracy's second school year as she provided reading support at all grade levels across multiple disciplines. After teaching seventh grade language arts for several years, Tracy moved to eighth grade language arts at the start of the 2011-2012 school year. Despite her graduate degree in reading and a teaching career with ample experience as a reading instructor, Tracy admitted that she was "more passionate about writing than reading" and

was not as confident as a reading teacher in comparison to her writing instruction. While stating it helped her "relate to those kids" in her classroom, Tracy referenced her own experience as a struggling adolescent reader when describing this instructional preference and lack of confidence as a reading teacher.

Tracy described her first hour class as "a handful in a funny way" because of the high number of boys who were friends and who tried to get the attention of the smaller number of female students. She described the twenty-one students as "good kids" and the class as "not strong readers" even though they have "some good ideas and can talk through things." She noted the friendly nature of the students in the class and perceived a sizeable gap between the "low and the higher in the class" compared to other classes. She did admit to differentiating students as readers based on what they read and how much students "write complex sentences with creative thought." Tracy believed that it was "important to make sure kids are thinking about what they read and especially with this class, they need a little bit more guidance."

The overarching essential question for the year in this class asked students to think about how one person could make a difference. During this research study, the observed curricular unit of study explored the persuasive power of words through four essential questions. The essential questions posted on a bulletin board in Tracy's room were (a) How can one person make a difference?, (b) How can we effectively change people's minds?, (c) How does literature purposely elicit emotion?, and (d) What power do words have? Meg, Tracy, and the other eighth grade language arts teacher wrote this curricular unit during the previous summer. In order to inquire into the power of words

used by bullies and bullying victims, students read selected short stories from *Dear Bully:*Seventy Authors Tell Their Stories. Then, a few weeks into the unit, Meg and Tracy provided students with a choice of reading one of two young adult novels on the Holocaust in small groups in order to explore how both the characters in the novels and the authors of the novels persuaded others through powerful words. Students selected either Four Perfect Pebbles: A Holocaust Story by Lila Perl and Marion Blumenthal Lazan or Daniel's Story by Carol Matas. The unit culminated with a performance task that asked students to create a "This I Believe" piece of writing, asserting their voice about an important belief they possessed.

In her first year teaching the 8th grade curriculum and given her lack of confidence with reading pedagogy, Tracy initiated this collaboration with Meg earlier in the fall semester. To Tracy, the collaboration focused on "making sure students are interacting with the text through annotation of the text in order to get to what they're thinking." Tracy believed this collaborative focus would help students inquire into the essential questions. But, she also believed the collaboration would help her "better respond to the students" by holding her accountable to her students. Tracy called Meg an expert and a "bouncing board" who would "be in my room, checking, and asking 'well, how's this working? How can we do things differently? This kid isn't getting it. What should we do?' because she holds me accountable to my kids." Tracy did not see Meg as evaluating her practice, but as having a focus on improving learning for students. As she stated:

I don't know that I really see her as trying to change something. I think that's what's good, a strength of Meg's. Whenever she comes into the classroom, it's not like, even though I see her as an expert, she never imposes that on other people. She is student focused so I would think it seems like her priority is making a change in the better for the kids whatever that means.

When asked what she would do if Meg's coaching position were ever eliminated, she stated, "I don't think it (collaboration) would stop. I would still talk to her when time allowed." Tracy believed Meg was in her class to improve the literacy of kids and respected Tracy's disciplinary expertise. However, respecting Tracy's expertise proved challenging when Meg perceived the literacy needs of students as being unmet. In these situations, Meg relied on a set of coaching practices uniquely catered to this collaborative context.

Use of Humor

Phil: Does being accepted give you more leverage to work with

teachers?

Meg: Well, if I'm a big jerk and I (Laughs) try to come in and change

teachers, they're not going to want to work with me. I think I'm a

different type of coach in that, and this is my personality, I think

that my relationship with Tracy can both help and hurt where I

don't want to push something on her because I know that the

relationship is there but then I also have the ability to say things

and take risks in a way and point things out that maybe another person wouldn't.

Phil: Because you have a relationship with her?

Meg: Yeah, it's a double edge sword, but I'd obviously rather have it.

Phil: Do you think being accepted is important to you?

Meg: I think being...the word accepted is the word maybe I am having

issue with, being um...being valued. Do you need to have a close

relationship with everyone you work with? Absolutely not. But for

them to say, "Hey, I value your opinion when you come in or hey,

I know that you have some knowledge or some resources that

would help my kids."

Killion (2009) argued that one possible side effect of a coach believing "being accepted gives more leverage to work with teachers" could be "working on being accepted may delay conversations on what matters most—teaching and learning" (p. 27). Yet, Meg viewed her ten-year relationship with Tracy as a double-edged sword. On the one hand, their relationship, replete with routine social gatherings within the same circle of friends, offered opportunities to "say things and take risks" during this collaboration. In fact, over the course of this eight-week study, Meg's relationship with Tracy afforded multiple opportunities to challenge epistemic beliefs and practices about adolescent reading. But, on the other hand, challenging discourse about student reading and Tracy's pedagogy risked damaging this long-term relationship by implying Tracy's literacy instruction did not meet the needs of her students. And, participation in coaching at

Hamilton was voluntary. Risking a relationship with a colleague is one thing. Risking a healthy relationship with a friend is quite another. Meg believed her heavy coaching focus preserved a strong relationship while allowing her continued access to the conversations that could improve student literacy. As one of Meg's primary coaching practices, humor allowed her to preserve a respectful collaborative context in light of challenging disciplinary conversations.

On pajama day during Hamilton Middle School's Spirit Week, Tracy and Meg sorted half sheets of student annotations from a pile on Tracy's desk. Unaccustomed to my audio-recorder, they wasted no time in commenting on the change:

Tracy: Should we start with the date?

Meg: Today is January seventeenth. The time is nine seventeen.

Tracy: Central Standard Time. Oh, and we are both wearing leopard-print

Snuggies.

Meg: The twins are present. (Laughter) Well, two of the three teacher

triplets anyway. This is Meg Murray.

Tracy: Tracy Wilson.

Meg: So, Tracy Tracy Wilson, without even looking at the data that we

have what is your sense of how the kids got the idea of showing us

their thinking since this isn't the first time they've done it?

Tracy: Right. Well, I think there was a decent mix of kids who were

actually doing what we asked because it came easy to them, but quite a few, for whatever reason, did not have anything down. And it wasn't until I intervened that then they would.

Meg:

Oh?

Tracy:

Before, it's not sinking in. And they're focusing on just reading and they're really not thinking anything while they read so that's why they couldn't do it. So that's something, obviously, that we need to work with those kiddos.

Meg:

Maybe they're not thinking or it maybe that they're not aware of what they're thinking. And I know that you have done text annotation before and the reason that I asked to come in and model is just because I know you said, "Well, some of them are doing exactly what we're asking" but a lot of them aren't. And I think at the end when we said, we don't care what symbol you are using, we just want to see your thinking on the page, I think every person I'm looking at has something written down so there is thinking.

Tracy:

Yeah in all fairness too, page seventy-six might not have been the best...

Meg:

Yeah, who picked that page? (Laughs)

In the beginning and at the end of this debriefing conversation, humor provided a light-hearted balance to the epistemic disagreements about why some of Tracy's students were not writing down annotations. As they began their analysis and discussion of formative

assessment, both Tracy and Meg alternated jokes about the audio-recording and their matching wardrobes before Meg launched into a more serious discussion of student reading by mocking Tracy's repetition of her name. However, after Tracy attempted to explain limited written annotations through deficit thinking illustrated by comments that "it's not sinking in," and students were "not really thinking about anything," and "they couldn't do it," Meg pushed back by suggesting another possibility: students weren't aware of their thinking. As we see Tracy back down in her "in all fairness" response and attempt to find a neutral ground where both could agree, Meg's use of self-deprecating humor alleviated this tension. Not only does the humor imply the lack of student thinking could be blamed on Meg's text choice, but the self-deprecation quickly moves the discourse away from the emerging implication: Tracy's incorrect assumption about student thinking with text. By making a joke at herself at this moment, Meg established commonality by implying that making decisions for students, even when selecting a text or interpreting their lack of thinking with text, was difficult for both of them.

At other times, Meg used humor during collaborative discourse to build relationship capital. After discussing the appropriateness of asking students to annotate connections when reading non-fiction text on the Holocaust, Meg poked fun at Tracy's repeated misstatement regarding non-fiction:

Tracy: Big picture, I do wanna think about how this will transfer to

nonfiction. I mean essentially it shouldn't be that

Meg: Right, right. And this is nonfiction, I mean it's a narrative

nonfiction.

Tracy: I guess more informationally.

Meg: Right, Informational text and non-narrative nonfiction.

Tracy: Yes.

Meg: It's a thing we've been working on in the thing and Tracy's always

like "I don't get non-narrative nonfiction" and then we

Tracy: And Meg tells me five times. (Laughs)

As a running joke, Meg not only used the humor to add a light-hearted element to the otherwise serious discourse, but Tracy's reaction illustrated a trusting relationship.

Multiple times Meg made the same joke about Tracy and, yet, Tracy still laughed at this latest joke. Meg's use of humor provided a light-hearted contrast to the challenging heavy coaching discourse often found during their debriefings.

Two weeks later after class, Tracy revealed her frustration at her ability to provide students with timely feedback on their thinking with text. In the following exchange, Tracy admitted her uncertainty about how to accomplish this task and her guilt at not doing it more frequently for her students.

Meg: I mean I think that's fair. I mean give us some time to look at what

they are giving us and then be able to design a response to that

instead of just like "Ok, we have to talk about it right now." You

know? I mean...

Tracy: Um, we could still touch base with some of the kids, um, maybe

I can target some of the kids who I don't think you know, just on

my gut are not doing this thinking during the reader's workshop.

I'll read with those kids. The problem is I always intend to do that and it doesn't actually happen. I can't get around to helping them in class and I know they get short-changed. I have to get better at doing it.

Meg: Ok, well, we can figure it out. You can't help every kid every day.

Tracy: ...because other kids are like, "Oh, this whatever!" And I still need

to redirect eight thousand people. So, hopefully, (the special

education co-teacher) can come in and maybe he could be just the

behavior guy and I can just focus on kids. They need more help.

While Meg reassured Tracy, she turned to humor as an additional source of relief at the end of the day's debriefing as she attempted to boost the spirits of her collaborative partner and friend who was feeling overwhelmed. Not only did Meg joke about their impending conference proposal, but she interjected humor to close the conversation and lift Tracy's spirits.

Tracy: Wait, when is it due? Tomorrow? Five?

Meg: Morning.

Tracy: Ohh! Dang it! (Laughs)

Meg: Not that we put anything off! (Laughs)

Tracy: (Laughs) No we never put anything off. Ever.

Meg: But maybe I can, maybe (another teacher) if she's free after school,

we can, because I don't have anything after school today. Heaven

forbid I'd have a day without something.

Tracy: Yeah. I mean I can talk for like, fifteen minutes.

Meg: Where are you going to physical therapy?

Tracy: I'm calling it physical therapy for the audiotape, but it's not

physical therapy, but it is, well it is. (Laughs) It's a chiropractor.

Meg: Ohhhh! Witch doctor. (Laughs)

Tracy: It's a soft tissue massage kinda like.

Meg: Gotcha, very cool. Well, good luck.

Tracy: It's very interesting. Get that on tape.

Full of shared experiences and humor, Meg and Tracy ended Tracy's disappointment by taking the time to discuss their routine missing of deadlines, their busy schedules, and even Tracy's hesitation to admit her use of a "witch doctor" as Meg described. Humor occupied a reoccurring place in their collaboration. Meg relied on humor not only to ease more challenging epistemic discourse, but also to lighten the mood when this discourse moved too forcefully into Tracy's insecurities about her own teaching practice. As we see above, Meg not only valued her professional relationship with Tracy, but also used her personal relationship to distribute expertise and to remind her friend that Meg also could relate to the complexity and frustration of teaching. Humor maintained relationships while formative assessments and guiding discourse attempted to shift pedagogy for the benefit of Tracy's students.

Use of Formative Assessment

Built in the mid 1960's, Hamilton Middle School is laid out in a square with three of the four wings occupying a different grade level in this 6th-8th grade school. At the end

of the 8th grade hallway, Tracy's classroom never lacked for laughter as her laid-back banter with her students could often be heard into the hallway. Desks were arranged in a U-shape with the teacher's desk in the northwest corner opposite the classroom door and adjacent to the Smart Board at the front of the room. Instead of an overhead projector or a table in the middle of the room, an oversized blue exercise ball occupied the space, a product of a grant aimed at building in exercise for adolescents throughout the day. Students frequently sat on it during each class period's "brain break" when Tracy stopped all activity, told a few jokes, and cajoled students to stand up and follow her stretching routine. At 8:45 a.m., students surprisingly obliged.

"How does R.L. Stine remember all of this?" a boy asked Tracy from across the classroom just as Meg entered through the door. Because of her ongoing collaboration with 7th grade language arts teachers, Meg typically arrived twenty to thirty minutes into this eighty-minute double period of language arts, but in a seamless entrance. "He's likely around fifty-five to sixty years old, so that's a great question to ask," Meg responded instinctively as sat down in a plastic blue chair next him, pulled out a photo copy of the story, and joined the student group of seven. Smiling at Meg, he looked back down at his copy of "Funny Guy" and listened as one group member continued to read out loud.

Since November, Tracy had occasionally attempted to implement stations in her first hour class, and today was the latest foray into this new class structure. As Meg explained, "the first time she had six stations, then we went down to five and then we've been at three for the last two weeks." Meg had allowed Tracy to discover the need for

fewer stations by pointing out how students often felt rushed and confused. Today, Meg joined the annotation station where students read R.L.Stine's short story on bullying. On the west side of the room by the windows, Tracy helped students complete a vocabulary writing assignment with teacher-selected words from the short story. Across the room, eight students sat in desks pulled in an unrecognizable shape where Tracy had asked students to discuss their annotations from last night's homework. The majority of students sat quietly talking to the student next to them while they completed last night's assignment. Students had been asked to generate four annotations per page with a choice of recording something that surprised them in the text, a connection made within the text or to life, or a question they had from that page. Tracy bounced back and forth between the vocabulary station and the discussion station, keeping students on task.

"Rotate please," Tracy announced as students moved to their final station for the last fifteen minutes of class. Meg sat with this new annotation group of nine girls in a circle as the girls turned to page 78 while wrapping up their sidebar conversations. Meg started, "Okay, we don't have a lot of time, so honesty time, how many of you have some thoughts you put down on page 78 last night?" Meg chuckled while one girl smiled because few girls had completed last night's homework. "Okay, what three things are we focusing on?" Meg asked as girls politely recited the three annotation focus strategies. "Well, as you're reading, think about something that is surprising, a connection you might want to make or a question that you have. I'm going to give you a few minutes to read and jot down your thoughts." The silence of reading persisted until one girl instinctively blurted "That's bogus" before reading on and writing nothing on her sheet.

Otherwise, each girl in the group continued reading silently, occasionally jotting down thoughts while Meg did the same on her sheet.

When the time was right, Meg asked girls to share any surprising parts. A girl fumbling with a class stapler immediately pointed out that the title "Funny Guy" was ironic since the story was about him being bullied. Meg waited for responses to this comment to die down and then asked a different girl to share one of her questions from her sheet. "Why does RL Stine refuse to cut the lawn in this story?" did not prompt any discussion in the group. Over the next three minutes, a few questions were shared. "Does everyone in this town believe that there are ghosts?" "Why does bullying happen in this town?" "Why don't any of the boys want to touch the house?" Meg facilitated a discussion of each question, focusing on the questions directly related to events in the text while also giving space to discuss questions most interesting to the girls.

"Connections anyone? Anyone have a connection to anything going on here? Anyone been really scared before?" A girl who often dominated conversation launched into her own short story about being scared in her living room one Halloween night. When the story ended abruptly, Meg provided the next directions, asking students to read page 79 with a partner and generate three annotations together using any combination of the three strategies. Students casually paired up and read silently, periodically turning to each other to figure out the wording of their annotations. One pair of girls finished right away and began discussing what they would wear to school tomorrow during Spirit Week, prompting Meg to ask them what they thought about the events on page 79. A girl offered a general reaction, stating, "I'm wondering why he continues to put himself in

situations that could harm him." Meg and these girls discussed possible explanations before Meg checked in on another pair of girls to her left.

When Tracy announced only two minutes until the class wrap up, Meg reconvened her group with directions. "Okay, let's go. Alright, as we read, I want you to raise your hand and stop me as soon as a thought comes to you." Meg began reading with enthusiasm on page 80. She read, "Oh, man it's got me" when a girl interjected with "I got one: What's got him?" No student answered, and Meg suggested, if they were patient, they could trust R.L. Stine to explain the answer. Meg read on, pausing to pull thoughts out of the girls. When Tracy announced only one minute remaining, Meg asked the girls to finish reading the page and write one final annotation. Most girls immediately wrote something down, even though they had not read anything further on page 80. As the girls gathered their book bags and moved back to their assigned seats, one girl who had not written any annotations during these fifteen minutes continued to read onto page 81, unfazed by the building noises around her. Finally, she quickly jotted down "Why is the kid funny?" on her annotation sheet and handed her paper to Meg.

Standing in the center of the room, Tracy counted down from five to reconvene the class. When students listened, she collected papers from each row and began her daily wrap up:

Okay, before you leave, if your writing sheet is not on the back table, do that before you leave. I want to spend the last five minutes going over...Do not get rid of the story because we're not finished with it. Some of the groups got to different places. When you were talking about the text, what are some things we want to

remember?

Numerous students quickly answered with the three annotation strategies while Tracy probed their perspective on which strategy was most challenging and why. One student suggested you annotate to understand what you're doing. Another stated you annotate because you make connections all day long. Displeased with the responses, Tracy attempted to clarify before utilizing Meg's expertise:

Tracy: Sometimes we make connections easily, but it helps us to

understand how it helps us understand the text more. Mrs. Murray,

what would you like to add to this or say about this?

Meg: A lot of times when we ask you to write, we want to see what

you're thinking. We want you to be more independent with your

thinking. This is your way of showing us.

Tracy: Right, eventually, you'll do these things more habitually. And, it

was kind of difficult to do this because not a lot of people had

finished their homework. Some had read and didn't do it. So, we

had to do it differently today. What happened? Help me out.

Several students stated they read the story but forgot to write anything down. Other students agreed, even commenting that they liked the bullying stories but not annotating. As the bell rang and students filed out, Tracy reminded students to leave copies of today's short story on the front table and to work on their independent writing assignment for homework. Meg stood by the Smart Board, waiting to have a quick debriefing

conversation before she and Tracy joined their language arts colleagues in a department meeting.

While Meg viewed time at stations as insufficient and believed the complexity of the tasks at the stations required further scaffolding, she decided to support Tracy's reflection regarding the adjustment of this structure. As Meg explained:

She's realizing that students need more depth at the stations and reduced it from six to three (stations). I offer a lot of the positive feedback on what's going well that maybe she's not seeing when you bounce around to different stations. Again, with stations, I'm just really in the support role and less in the instructional role of making decision and making her feel good about what's going on.

Instead, Meg focused her coaching conversations with Tracy on student reading, annotation of text, and discourse.

Petrosky, McConachie, and Mihalakis (2010) argued disciplinary literacy in language arts engages students in "substantive problem solving and collaborative work, including discussions of and writings about challenging literature through oral and written exchange of ideas" (p. 139). In language arts, the nature of student talk and thinking become just as important as what students say. Therefore, students must have "(1) opportunities to learn core concepts and habits of thinking in ELA; (2) a rigorous curriculum that 'mirrors the work of the discipline' in its tasks, texts, and talk and that positions learners as apprentices; (3) opportunities to engage in meta-understandings of their learning through reflection on their studies; (4) a community that enables socializing intelligence by encouraging risk taking, help seeking, question asking, problem solving,

and reflective analysis; and (5) their work assessed through multiple forms of informal and formal assessments that gauge their "grasp of content area concepts; their habits of inquiring, investigating, problem solving, and talking as well as their learning processes and their interests" (p. 138-139). Through a focus on annotation and thinking through text, Meg attempted to guide Tracy's capacity to scaffold student understanding of the "habits of thinking" in this discipline while providing collaborative opportunities for students to become meta-cognitively aware of the ways of critiquing, analyzing, and personalizing with literature.

The Common Core State Standards for English/Language Arts (2010B) assert adolescents should develop an ability to read increasingly complex texts through a close reading of grade-specific texts. The Grade 8 standards for literature suggest that Tracy's students should increase their ability to read for key ideas and details as well as deepen an understanding of the craft and structure of literature. Tim Shanahan (2012) described close reading as "an intensive analysis of a text in order to come to terms with what it says, how it says it, and what it means" (What is Close Reading?, para. 5). While suggesting that "close reading requires a substantial emphasis on readers figuring out a high quality text", Shanahan argued for multiple re-readings of a text where a first read "is about figuring out what a text says," a second reading focuses on "figuring out how this text worked," and a third reading identifies the authorial intent and potential applications of the text to the reader in both aesthetic and substantive ways (What is Close Reading?, para. 2-4). Through Meg's scaffolding of multiple readings of a text, Tracy's students could construct an initial understanding of the events in the text, analyze

authorial craft, and also transact with the text in light of his or her own experiences, knowledge, and opinions.

After engaging with Tracy's students as they read and annotated "Funny Guy," Meg had concerns. Meg felt confident that the topic interested students as numerous students asked Tracy for a personal copy of the book in order to read additional stories about bullying. Student writing and discourse around the topic revealed significant personal connections with the issue. Meg also felt the reading of the short stories had been framed with essential questions in a way that established an authentic reason to analyze the power of language. However, not only did Meg identify assigning too much annotating outside of class as problematic, but her experiences reading with this group of girls validated a disconnect between the way students were annotating and Meg's own epistemic beliefs about how students should interact with text. To Meg, most students viewed annotation as a task to complete. Several of the students in her group offered questions connected to topics outside of the text ("Why does bullying happen in this town?") or to minor details ("Why does RL Stine refuse to cut the lawn in this story?"). And, while students connected the genre with personal scary experiences, Meg felt too many students were not showing evidence of a close reading of the text. Students were either spending too little time constructing an initial understanding of the events in the story and the authorial craft or students did not understand the value of annotation. Either way, Meg attempted to reiterate this purpose during the class wrap up when she reminded students that annotation could provide evidence of their thinking and would help students become more independent in their thinking with text.

As they walked down the hall to their department meeting, Meg decided to share her formative assessment of student annotations with Tracy. After wondering out loud about possible reasons why student questions, connections, and reactions seemed loosely related to the text and whether that represented their thinking with text, Meg asked Tracy if she had similar observations. Tracy also noticed students had not annotated the text as much as she preferred, but was unsure of the reasons. Meg ended the brief exchange by stating, "Maybe we should see what the students would say about the purpose for annotating. We might want to see what they say." Tracy would design the formative assessment. Getting feedback from students had become a common pedagogical practice resulting from Meg and Tracy's collaborative conversations.

During class the next morning, Tracy passed out the formative assessment. On one side was the same worksheet that students had used to annotate yesterday's story with Meg. Students would spend today's class reading, annotating, and discussing "Dear Audrey" by Courtney Sheinmel first in one of two large groups, then in pairs, and finally independently before class ended with any unfinished annotating assigned as homework. But, first, Tracy and Meg wanted to hear from students. A writing prompt was on the back of the worksheet. Tracy explained the task:

Since Mrs. Murray can't be here right away, you need to tell her, tell us in your own words why using symbols is helpful. Write on the back. How does using the symbols help *a* person when he/she reads? Take a few minutes. It's kind of like a little quiz to see what you understand. When Mrs. Murray and I look at these, I'd like for us both to be happy with what we see.

When students finished writing, an impromptu class discussion occurred with two students by Tracy's desk:

Student #1: I think it could help because using the symbols can make you think more about the story. Is that the answer?

Tracy: Now, can't you relate without using symbols? What is it about the symbols that make it easier?

Student #2: Like she was saying, it makes it easier because it makes it obvious.

When something is a question, you can use a question mark or

when you can connect to it, you can use a plus to show how you

connect to it.

Tracy: Anything else? What else could we say?

Student #1: You can mark it and it makes it quicker.

Tracy: Yeah, if you're expected to engage in a conversation after reading, it's easier to mark it so that you can remember the part. I'd also say it helps the reader stay focused. As I'm reading, it gives me a purpose. Research says that when you have a purpose for reading, you can actually understand more.

Student #2: Didn't we prove that last year? That having a purpose helps you remember. Mrs. Murray helped us.

Tracy: We did. We did that with Mrs. Murray too."

Through this brief exchange with students, Tracy revealed her existing epistemic beliefs about reading while also revealing her perspective concerning her collaborative focus

with Meg. Tracy's discourse with students focused on annotation for utilitarian purposes as it marked thinking for future reference, maintained reading stamina, and even established a purpose for reading. Yet, while Meg had shared her concerns about the reading of students yesterday and the way in which student understanding of annotation limited her and Tracy's knowledge of student thinking with text, Meg had not suggested using this writing prompt to gather student perspectives on the use of symbols. In the following debriefing, Meg and Tracy's collaborative discourse around this student formative assessment illustrated how Meg maintained a heavy focus on improving student thinking *through* text while challenging Tracy to deconstruct her assumptions about adolescent reading and, consequently, the appropriateness of Tracy's reading pedagogy.

Meg and Tracy sat at the teacher desk in the classroom as Meg gave half of the student formative assessments to Tracy. On one side of the paper students had recorded their annotations from today's reading, but Meg and Tracy spent time looking at how students answered the question about annotations. Throughout the early weeks of their collaboration, debriefings typically began with a shared analysis of student work—writing samples, homework assignments, exit slips, or even their own individual notes on what they had heard students do and say during class. During these fifteen to twenty minute daily debriefings, an analysis of student work typically preceded a discussion of instructional implications for the next day's lesson. Throughout these debriefings, Meg and Tracy compared observations about the specific students in Tracy's classroom.

Looking up from one student's writing, Meg noticed the wording of the question:

Meg: Ok, so you didn't change this question?

Tracy: No, well, I felt like some of them possibly had talked about the

question yesterday. Um, but I don't know, it's hard because I think

some of them still are not writing it down.

Meg: Gotcha.

Tracy: So, the important thing is that they are writing it down, I mean...

Meg: The thinking!

Tracy: That they're thinking. Right. As a teacher, you know, I don't...

Meg: Well, and again, I think that's something that we're gonna have to

work up to knowing what's coming in high school. Not that it's the

driving force behind everything but that's sort of how they evaluate

your reading is through text annotation. So, yeah, I guess we do

need to emphasize writing it at? some level. But, thinking first and

then, "ok, write that down", you know? And, then again, as we sort

of do some release of them, we can build their independent

thinking with text until they're doing it more on their own.

Within this dialogue, Tracy's mixing of "writing" and "thinking" revealed an epistemic belief Meg had attempted to shift in previous days. Tracy's concern with students completing the annotation assignments mirrored her utilitarian comments with the two students in class. Tracy had become concerned with using annotations as a form of evidence of student thinking whereas Meg believed student thinking trumped completing annotations. To Tracy, students annotate for the task and the teacher. To Meg, students

could use annotations to document thinking for future discussion, as a way of collecting evidence for an argumentative piece of writing or even for summative assessment purposes. However, as she discussed the need to "build their independent thinking with text," Meg saw annotation as a means to increasing student thinking with text.

Meg's discourse around student formative assessments challenged Tracy's epistemic beliefs about reading while also illuminating the reading needs of particular students. As she and Tracy flipped through their individual stack of student writing, Meg used several student examples towards this collaborative end. Meg shared how one student did not want to annotate because of the student's own previous experiences with bullying and how another student said the task did not help because it distracted the student from understanding the text. Each time Tracy or Meg shared a student writing sample, Meg responded with insider information about the specific student, his or her reading habits, potential gaps in the student's thinking with text, her observations from class, and even previous teaching experiences with the student in another classroom or grade. Finally, in the following exchange, Meg used student writing to push Tracy to prioritize student thinking over the completion of an annotation task:

Tracy: But, I don't know that they understand when you say "we're interacting with the text."

Meg: Right, and I think for a proficient reader like (Student #1) I think that's a very fair statement. When I was in eighth grade I never did this and I was fine. But, I think when I am presented with

something more complex, it's also about purpose. And maybe that's something we need to help them do...set authentic purpose.

Tracy:

Yeah, and who was it...somebody in the front, (Student #2) who said something about oh, it helps mark a spot in the text so he remembers what it was in the text which I think is crucial for high school and college that when you're going to have to engage in conversations, and go back to a text...

Meg:

Well, and you know, with (Student #3) she was talking about the writing assignment yesterday and how she chose a character because it was easier to use textual support. So, she's looking back at the text and seeing where that information is...so it's easier to find that information if you've already marked up the text and put down your thoughts.

Meg explained how text complexity and purpose influence how a student interacts with a text, even using Student #1 and her own reading experiences to illustrate her point and suggest an instructional modification in future lessons. Tracy, however, continued to discuss the utilitarian benefits of annotation as she mentioned how Student #2 marked a spot in the text for future reference while implying this practice would be most beneficial in the future and not during her own class. And, Meg validated the pragmatic use of annotation through her use of Student #3's writing assignment. However, Meg continued to suggest that pedagogy should first support student thinking with text:

Meg: Wow. This surprises me. (Student #4) said it "was helping me

remember and that it "helps us stop and think like we're supposed

to do as students." I like that.

Tracy: (Student #5) said well, the symbols make sense. Like, a question;

you put a question, if you have a question. (Laughs)

Meg: It's not the symbols. Again, we're looking for your thinking, not

necessarily your symbols.

Tracy: Sure. Maybe her talking about symbols out loud gave them the

wrong idea. A few of them that were sitting near (Student #5) were

fixated on it.

Meg: The symbol, gotcha. (Student #6), I like this. "The symbols help

me with making connections and when I have questions, I can

write them and not interrupt the teacher." (Laughs) But, again I

think that's getting at independence.

Tracy: Well, and I've noticed with (Student #7) the last couple of days in

class has been interacting more with...

Meg: Awesome. Oh, this is nice. (Student #8). "I know where I have a

question or I can connect to whenever I go back to a book and see

those, I'll remember where I had a question and where and what I

was thinking." So, I like that.

Meg reiterated her epistemic belief about annotation through her discourse around the

student writing samples she elected to share with Tracy. Through Student #4, Meg

emphasized annotation as a means of helping students stop and think through text. With Student #6, Meg reminded Tracy of the importance of building student independence with reading strategies. And, Meg liked Student #8's answer because it presented annotation as a means of helping students remember their own thinking without prompting from another student or teacher. Even when Tracy chose to share Student #5's written response, Meg immediately disagreed with the student's comment and asserted thinking, and not symbols, as the goal of annotating text. Instead of Meg telling Tracy not to assign annotations for the sake of annotating text, Meg used her own formative assessment of reading with the nine girls in yesterday's class to suggest the use of a student quick write. Then, during her debriefing with Tracy, student voices became the impetus for shifting Tracy's epistemic beliefs about reading, student thinking, and the type of reading tasks Tracy should provide for her students.

Guiding Discourse

During this unit of study, Meg's heavy coaching intended to provide students opportunities to inquire into how authors used powerful language to persuade when writing about the Holocaust and about bullying. She also hoped students would develop a deeper awareness of their thinking as readers with increasingly complex texts. As a primary coaching practice during this collaboration, Meg's use of formative assessments consistently functioned as the starting point for collaborative discourse with Tracy. However, with her desire to respect Tracy's pedagogical expertise and decision-making as a professional, Meg used guiding discourse as a consistent coaching practice in this collaboration. Meg used questioning to probe into Tracy's epistemic beliefs about

literacy, adolescents, and pedagogy while resisting the urge to dictate particular instruction and refraining from directing decision-making. Meg sought a middle ground where her disciplinary knowledge would be helpful to Tracy while allowing Tracy to determine next steps in her classroom. This guiding discourse represented a final important coaching practice as she coached Tracy.

Two weeks before the end of the unit, Tracy was exasperated as she sat down at her teacher's desk opposite Meg. For the last few weeks, students had been reading their choice of two young adult historical fiction books on the Holocaust while Tracy continued to focus student attention on annotation. Tracy typically guided the students reading *Four Perfect Pebbles* and Meg often facilitated the reading and discourse with students reading *Daniel's Story*. Over recent weeks, Tracy used think alouds and a new response sheet to help students focus on documenting their thinking with text. With three columns, the response sheet asked students to write the page number in the left column, the sentence or words that triggered their thought in the middle column, and their reaction to the text in the right column while coding the response as a connection (+), a question (?), or a surprising reaction (!). Tracy exhaled before expressing her frustration:

Tracy: I'm just frustrated with the lack of thinking that some of them are showing. And, I feel like we're kind of pulling teeth to get too many of them to talk about their book. Frustrating because we've been spending lots of time on this.

Meg: Sure, I wonder if one of the answers, Tracy, is that we're obviously not done. This isn't something that if you haven't done it your

entire life or not aware of doing it, it's not going to automatically happen. And, a lot of what we've had them do is very independent and maybe before a lot of them are ready. But, I saw lots of good conversation with your group today. (Student #1) said, "You know, I was just reading out loud so I didn't write, but I do have thoughts." So they see the difference between the two tasks: reading and thinking or writing down annotations.

Tracy:

Thank you. I need to hear that.

Meg:

A lot of students on this side of the room (*Daniel's Story*) had said they had read to the end of the chapter and they said, "So what do we need to do?" and I said, "You still need to write what you're thinking about what happened so you can review it." And, they were all able to do that and they were talking about it and thinking about it. Now, some of that could be the story too, right? It's very emotionally intense in that book right now.

Tracy:

Yeah, I still need to keep in mind that there are kids that are doing this correctly and then there are kids who aren't, and that is going to be true of anything we do. So, maybe follow up with those kids but I think what you said about "this is not the only time that we're going to be doing this" so I don't have to have all the answers right now. I guess that puts me a little bit at ease. I guess I was thinking that we're getting to the end of the unit, but really this whole

annotation thing has transformed my thinking on what I want readers to do all of the time. It's ongoing and never ends.

Meg's coaching once again began by grounding collaborative discourse in the immediate formative assessment of Tracy's students. As Tracy struggled to identify student progress, Meg used Student #1's reading experience and the textual engagement of students reading *Daniel's Story* to settle Tracy's disappointment and illustrate how students understand the value of monitoring their own thinking with and talking about text. And, at no time did Meg direct next instructional steps in her coaching discourse, instead staying within a stance that allowed her to push beliefs about adolescents and literacy. Tracy appreciated the reminders and was "a little bit at ease" as she stated she needed to "keep in mind" some of her students were exhibiting proficiency in showing their thinking with this text. But, Meg's coaching discourse also helped Tracy realize this focus had long-term implications and required a never-ending focus in her classroom. Through Meg's discourse, Tracy understood that assigning annotations for homework could not produce this thinking through text over night, and adolescent thinking with text varied according to the complexity of the text. While Tracy suggested possible instructional implications, her evolving epistemic belief about literacy would influence her subsequent instructional decisions. In this case, Tracy suggested a "follow up" with students who had not demonstrated their thinking with text during today's class.

As Meg guided Tracy's reflection and challenged her epistemic beliefs about literacy and pedagogy, Tracy took the lead in designing and making decisions about

instructional responses based on her perception of student reading needs. With Meg's prompting, Tracy took the lead:

Meg: So, what are your thoughts on where to go from here?

Tracy: It would be nice to have a better sense of a few groups of students

that are a little bit more masterful. And, I don't know if I'm quite

there yet and that's probably a problem...

Meg: Okay.

Tracy: ...considering we've been doing this for a while. What if we do it

with a Dear Bully piece or a "This I Believe" and you know, the

kids that get it are not going to need...the kids that get it will go

and do it on their own. The kids that kind of get it can work with a

partner. The kids that need, you know, some more help, would be

with a small group with the teacher where we're just saying it out

loud instead of writing it.

Meg: Uh, huh.

Tracy: The problem is that I don't know if I could say right now, "these

kids yes, no, yes/no."

Meg: How do you think we can get that information?

Meg's coaching discourse provided a reflective lens for Tracy to envision the next instructional steps. Using a cognitive coaching approach (Costa & Garmston, 2002), Meg's first question did not suggest an instructional direction, but instead prompted Tracy to think through the instructional possibilities. As Tracy shared her current

thinking about the ability of her students to think with text, she suggested a differentiated approach, grouping students based on perceived ability. Meg neither validated nor discouraged Tracy's ability grouping suggestion, choosing to listen as Tracy thought it through. Finally, with guidance, Meg redirected Tracy's thinking back toward formative assessment by focusing on how to ascertain the reading needs of her students. After Tracy suggested garnering student thinking with an annotation homework assignment, Meg once again respectfully guided her thinking:

Tracy: We could probably give them...Write down what you're thinking

and then quickly sort. And, that could be, you know...

Meg: A bell ringer.

Tracy: Right at the beginning of class.

Meg: I think that's *probably* a good idea.

Tracy: And, I still think it's reasonable Thursday night to have them do a

take-home test, like show us really what you're made of. Write

down your thinking on whatever the piece is.

Meg: *I just wonder* if it should be in class versus take home. *I don't*

know.

Tracy: Yeah, I don't know.

Meg: Just if we're really wanting to get their thinking at that moment...

Tracy: Yeah, that's fine.

Meg: Then *if* they take it home they *might* read it and then "oh, now, I've

got to pull this out and do it."

Tracy: True. That's fine.

Meg's guiding discourse remained consistent. As Tracy filtered her ideas about the possible formative assessment, Meg, once again, used discourse as a means of promoting Tracy's reflection. To Meg, asking students to do it at the beginning of class was "probably" a good idea. When Tracy revisited a previously unsuccessful practice from early in the unit of assigning annotation for homework, Meg used "I just wonder" and "I don't know" to expose her uncertainty while ceding decision-making to Tracy. Finally, when Tracy paused, Meg exposed her own pedagogical content knowledge and said an in-class formative assessment made sense "if" they wanted to get at student thinking "at that moment" before withdrawing and allowing Tracy to decide.

Meg continued to use guiding discourse throughout the debriefing, allowing
Tracy to decide on a sample paragraph from a newspaper article about the Warsaw
Ghetto and the wording of the prompt. Before Tracy decided on the text, Meg reminded
her of the textual differences between the two Holocaust books students were reading in
class and how the tone, syntax and plot development might influence how students were
thinking with text. However, Meg refrained from suggesting a text for the formative
assessment. When they discussed the wording of the prompt, Meg shared wording that
had been effective in another language arts classroom, but ended with "it's something to
think about." Tracy took the lead, explaining, "Okay, on one side we want a reflection
question about thinking while reading, of course this is going to be a half sheet. On the
back side, we want a sample text and have them write down their thinking." Once Tracy

defined the task, Meg even allowed Tracy to decide Meg's coaching role in tomorrow's class:

So, what can I do to help tomorrow? Do you want me to get things started and you furiously sort or do you want me to furiously sort and you can get things started? If it would be easier for me to sort their writing, I'd be happy to do that.

Doesn't matter.

Tracy elected for Meg to categorize the student annotations and response statement and, while Meg had offered to perform either function, Meg preferred to sort formative assessment writing. Students would record questions about the purpose of the Warsaw Ghetto to the Nazis. As she explained:

It was narrative, and I basically had decided to sort according to superficial reactions and reactions embedded in the text that helped students understand the text and what's going on. These would go a little beyond just a question but into a "oh, is this person nervous?" But, they were reading into the text a little bit more. There wasn't a lot going on in the paragraph, but there were places after Tracy's frontloading that I would expect kids to have good questions. I figured most would have questions and the majority, all but one student, did. It showed me that they can all do these types of thinking with text.

Even though Tracy decided on Meg's coaching role in class, Meg's disciplinary knowledge allowed her to quickly analyze the complexity of the text and to predict how these specific students were likely to ask questions with this text. Her disciplinary knowledge, daily formative assessment of these students, and her evaluation of Tracy's

ability to analyze and organize student responses prompted her to push for this "analyze and sort" role even though her guiding discourse had respected Tracy's instructional autonomy. Meg's guiding discourse harnessed her own pedagogical content knowledge while respecting Tracy as the classroom teacher with expertise.

Tracy explained the purpose of the formative assessment to students at the beginning of class the next morning:

Tracy:

Yesterday when Mrs. Murray and I talked we decided that we weren't sure how you are doing thinking with text. So, we thought we would ask you to show us. I know. I know. But, it's only a paragraph about the Warsaw Ghetto with writing at least four questions and then a single question on the back that says, "What makes annotating easy? What makes it difficult?"

(Students grumble about writing four questions on a single paragraph.)

Meg:

And, again, we really need evidence of your thinking when you read and try to understand this paragraph. We can't decide what to have you do as you read if we aren't sure what you need to get better at doing. So, we really need to know where to go next with you guys.

Tracy:

We want to see your thinking as you're reading. We can't get in your heads as you read. I know I don't want to. (Laughs) Then, Mrs. Murray will put you in groups based on what you need to focus on today.

Meg: So, I have to read what's in their heads? (Laughs).

When cognitively coaching a teacher (Costa & Garmon, 2002), a coach's primary objective is to help the teacher reflect in a way that leads to the teacher discovering the answers to tensions in his or her practice. This focus on teacher self-reflection uses dialogue to help the teacher figure out next pedagogical steps and to construct epistemic beliefs while recognizing a teacher's expertise and ceding decision-making to the teacher. Given Meg's disciplinary content knowledge and pedagogical content knowledge as a former language arts teacher and as instructional coach who had worked with numerous language arts teachers over the years, Meg's use of discourse with Tracy represented a derivation from the traditional directive versus responsive coaching stances found in the coaching literature. While Meg's discourse moves during single collaborative events could be described as responsive or directive, Meg employed discourse that pushed her epistemic beliefs about literacy, pedagogy and students.

Like anyone else, Meg could not set aside her own beliefs and experiences as a language arts teacher and instructional coach. These beliefs influenced her perception of teaching and literacy and students throughout the collaboration with Meg. Meg believed students should improve their thinking with text and be provided with opportunities for meaningful disciplinary discourse about these texts, author craft, and the implications for their own lives. Meg also believed that instruction should be "responsive" in nature with formative assessments as the starting point for any discussion of lesson plans, stations, think alouds, or student use of annotation. Guiding discourse, then, provided Meg with a middle ground where she coached heavy for student thinking with text and built Tracy's

responsive pedagogy, but ceded the decision-making of particular instructional practices to Tracy in order to respect Tracy's expertise and professional autonomy. In this way, Meg advocated for student literacy needs and guided Tracy's reflection and inquiry as a teacher, but stopped short of being the disciplinary expert in the collaboration. Meg could use her disciplinary expertise while honoring the professional autonomy and expertise of her friend.

Throughout this collaboration, Meg's heavy coaching intent stemmed from her own disciplinary teaching experiences and beliefs about reading and the role of a teacher in scaffolding student thinking through text. As she heard students read in her annotation group, Meg analyzed their reading responses, compared it against her view of how students should be interacting with text, and then used three evolving coaching practices to shift literacy pedagogy. Through humor, Meg established rapport, a respectful collaborative context, and eased risky collaborative discourse with her friend, Tracy. Instead of entering conversations as the disciplinary expert and telling Tracy what was wrong with her instruction, why students weren't using annotation in meaningful ways, and what "best practice" reading instruction Tracy should use, Meg wisely started with student voices. Formative assessments provided the starting point for analyzing how students interacted with texts, and these assessments became a consistent impetus for modifying literacy instruction the next day. Finally, in order to build Tracy's capacity for responsive literacy instruction, Meg realized looking at formative assessments and deciding upon instructional responses must still respect Tracy's professional autonomy and expertise. Through guiding discourse, Meg led Tracy, but respected Tracy's need to

reflect on her own practice and decide what would or did work best with her students in her classroom. As Meg stated:

And again, yes, my focus is on the kids and I think it is really important, but are they not learning anything anyway? They definitely are and to push hard would feel really uncomfortable. Tracy makes choices based on what she knows about those kids, who she knows *very* well, and she does those things with a goal in mind. So, let's see what we've done, let's see what they're doing, and let's reflect on it and let's make revisions and choices. And so honoring the teacher's professionalism is huge regardless of who it is.

By partnering with Tracy, Meg's three coaching practices—humor, use of formative assessments, and guiding discourse—allowed her to maintain a heavy coaching focus on students while respecting Tracy's autonomy and expertise. Meg became a supportive, fellow disciplinary expert who selectively used humor to ease the heavy coaching discourse as she sought to help Tracy create more responsive literacy instruction for her students.

Chapter 7

The Weight of Heavy Coaching

Our job is a juggling act...a juggling act between coaching stances, between teachers and administrators, teachers and students, between being responsive and being directive. We are a juggling act in no man's land with no one to tell us how to juggle but everyone to tell us that we're juggling incorrectly. We are constantly weaving through responsive and directive...learning...trying...doing...all in the sake of student learning. But a "laser-like focus" on student learning and achievement cannot come at the cost of the teacher's professionalism.

Scarlett, Exit Interview

As Scarlett noted, coaching is a juggling act filled with uncertainty and limited support. With the pressure to impact student achievement amidst unique disciplinary tensions, instructional coaches can feel the weight of heavy coaching. Instructional coaching is often framed as a means of fixing both teachers and students. One dominant narrative assumes that through participation in coaching teachers will adopt "best practice" pedagogy, and consequently students will become literate within disciplines. This study partially validates this causal cascade narrative. In her exit interview, Jackie admitted her collaboration with Eric refocused her belief in and use of formative assessment as a means of understanding the daily mathematical learning of her students. She also admitted her work with Eric challenged her to re-conceptualize teaching within her discipline. Jackie stated, "Eric always emphasized what the real world application might be, and I think what we kind of both found was that there's a way to foster that

inquiry in math"—a shift supported by the mathematics education community and the Common Core State Standards for Mathematical Practice. For Nathan, not only did he continue to use several of Scarlett's pedagogical structures in his daily teaching a year after the collaboration ended, but Nathan acknowledged his teaching had previously included a "de-emphasis on literacy" and was "much more about content." Nathan believed the incorporation of literacy instruction impacted his students' understanding of chemistry and stated his students had a better understanding of the content in their writing and talk. Through Scarlett's coaching, Nathan experienced a shift in the way he perceived his 6th graders as readers and learners and now valued formative assessment as the starting point for instructional decisions. As he stated:

I think it is important to look at student work in a positive and negative light. Like, what can I do to help struggling readers and struggling learners? I think that's my purpose now. And looking at the student work to see what I can do better to help students read but also learn the content.

Meg's collaboration with Tracy also produced shifts in beliefs and practices. Not only had Tracy shifted pedagogical practices in order to prioritize student thinking through text over the completion of annotations, but Tracy also acknowledged authentic student thinking with text should be the goal of her literacy instruction throughout the entire year. As she stated:

I've come to realize, you know, they're going to have some struggling moments, and that's ok. They'll come around to it, if I provide the proper support. I can't give up on something just because it's hard.

While Tracy's beliefs about reading and literacy pedagogy appeared to shift over the duration of the collaboration, Meg took greatest satisfaction in Tracy's increased responsive teaching practices. Saying she was "a little geeky excited" by Tracy's suggestion of using formative assessment to uncover current student metacognitive needs, Meg's consistent use of formative assessment to drive collaborative discourse resulted in Tracy routinely using formative assessment as the starting point for her own pedagogical practice.

While these self-reported shifts in pedagogy and perceived student impact might be seized by administrators, coaches, teachers, and policy-makers desiring to validate the existence of instructional coaching, this study does not aim to do so. To do so might ignore the need for additional research to measure impact while also ignoring the complexity of coaching in these three collaborative contexts and the expertise of these three coaches. Coaches create situated practices as a response to the tensions within unique collaborative contexts. However, this study provides insight into how secondary instructional coaches attempted to coach heavy, the tensions involved in these efforts, and how their emerging coaching practices constructed a distinct coaching stance during the collaboration. Each coach's stance supported his or her ongoing heavy coaching effort despite the coaching tension.

A Heavy Coaching Intention

How did coaches attempt to coach heavy? As Killion argued (2009, October 14), mindset and intent determine if a coach is coaching heavy. What is a coach wanting to change and why? What are his or her goals for the work? In each case in this study, the

participating teacher initiated the collaboration since participation in coaching in the Glenville School District was voluntary. Each collaboration occurred over multiple weeks. Eric and Jackie worked over multiple units of study, ending after ten weeks. Scarlett and Nathan's collaboration spanned a seven-week unit even though she continued to support him in short cycles of follow up coaching throughout the rest of the semester. Meg and Tracy's collaboration lasted the duration of an eight-week unit of study ending only when Meg went on maternity leave. In all three collaborations, each coach spent at least three days a week in the participating teacher's class while also holding daily debriefings. The voluntary nature, duration, and daily intensity of the collaborations influenced the goals of each collaboration, especially in the two cases where coaches were disciplinary outsiders. Jackie determined the initial focus on improving productive group work. Nathan asked Scarlett to help "flood kids with text" and teach him some "reading strategies to use with text." Over time in both situations, Eric and Scarlett negotiated a more student-centered collaborative goal, aligning each collaboration with a heavy coaching focus. Eric sought a meaningful application of mathematical content and pedagogy that supported student inquiry. Scarlett sought increased opportunities for sixth graders to construct knowledge about chemistry in a class where their voices, questions, and literacy needs were valued. For Meg, her yearlong collaborative inquiry with Tracy and another 8th grade language arts teacher produced a student-centered collaborative focus: improving the quality of student talk and thinking with text.

Each coach described his or her collaborative purpose through a heavy coaching lens. While admitting he previously equated heavy coaching with the length of a collaboration, Eric realized the focus of a lengthy collaboration "may or may not be what's best for kids." Additionally, Eric's student-centered focus could be seen in his coaching practices as he took on the role of a student in problem-solving groups and used class huddles to share formative assessment data. Eric also stated that he "attempted to ground every coaching conversation and planning or debriefing session in some sort of information or student data whether that's a video (of students) or exit slip." Scarlett's heavy coaching intention could be seen in her intention as well. After becoming the instructional coach at Hobbs Middle School because she got tired of seeing students "starving in classrooms," Scarlett believed the "work of coaching is to support kids" and her own coaching intended to "help them (teachers) figure out what works best with kids." Throughout Scarlett's collaboration with Nathan she relied on her version of an Eyes on Students Protocol for classroom observations, even assigning Nathan to use it for student observations when she taught in his class. During debriefings, she routinely asked Nathan to bring student work to share, analyze and use to discuss next instructional steps. In a similar way, Meg also believed she held a heavy coaching intent. Meg believed heavy coaching involved challenging conversations with teachers about the relationship between student learning and pedagogy while believing the length of a collaboration must be married with a focus on student learning. Throughout her collaboration with Tracy, Meg used formative assessment in debriefings as she and Tracy discussed classroom observations of specific students, analyzed student annotations, and categorized student

quick writes. Eric, Scarlett, and Meg believed coaching should improve the disciplinary learning of students while building the participating teacher's capacity to use formative assessment to respond to the learning needs of students.

Tensions in Coaching Practice

Yet, intent is never enough. What tensions made heavy coaching challenging? Since coaching is a situated act and is influenced by the unique collaborative context, the disciplinary knowledge of coaches, the disciplinary knowledge of teachers, educators, specific students, and the official curriculum all contribute to the tensions coaches face as they intend to improve learning for students. While Eric's complicated schedule in the building proved cumbersome and impacted his availability in this collaboration, Eric's limited disciplinary knowledge in mathematics positioned him as a disciplinary outsider always feeling one step ahead of the 9th graders in this class. How do you coach heavy as a disciplinary outsider? Not only did Eric need to learn mathematical content about systems of equations, factoring, and quadratics, but he entered this collaboration unfamiliar with the larger purposes for mathematical learning in secondary school classrooms and with the mathematical pedagogy espoused by members of the larger mathematical education discourse community. Coaching for student impact relied upon his disciplinary knowledge and his ability to increase his disciplinary knowledge. In order to coach heavy and improve the mathematical practices of Jackie's first hour students, Eric needed to develop ways of turning his limited disciplinary knowledge into a collaborative advantage.

In her collaborative context, Scarlett encountered a novice teacher with

underdeveloped epistemic beliefs about literacy and literacy instruction. When she observed his classroom and perceived there to be numerous pedagogical and literacy needs, Scarlett's coaching tension became more challenging. Instinctively, Scarlett pushed her own epistemic beliefs and took over the teaching in order to improve student learning. Yet, what would happen after the collaboration ended? How should she balance her vision for the literacy needs of middle school students with the professional learning needs of a first year teacher? Meeting the immediate literacy and learning needs of 6th graders conflicted with the need to deepen Nathan's understanding of his students, literacy, and his role as a teacher in supporting their scientific learning. In order to coach heavy during this unit and to increase the likelihood that Nathan's students received improved literacy instruction, Scarlett needed to find a means of balancing both student and teacher needs during this collaboration.

As a former language arts teacher, Meg's "disciplinary insider" status posed a unique challenge. While her coaching schedule, ongoing work in another 8th grade language arts class, and frustration with a lack of focus for coaching in the building all influenced her collaboration with Tracy, Meg's primary tension surfaced: How do you respect the professional expertise and autonomy of a colleague in light of your own well-defined epistemic beliefs within the discipline? Given her significant disciplinary knowledge as a former language arts teacher and current instructional coach, Meg struggled to know when to exert her expertise and when to allow Tracy to exert her own. In order to coach heavy in Tracy's and improve student thinking with disciplinary texts, Meg needed to discover ways of harnessing her own expertise without harming Tracy's

professional autonomy.

Across all three cases, coaching tensions arose from the unique interaction among disciplinary knowledge, educators, students, and official curriculum. Coaching involves distinct personalities, knowledge and experiences. How would Scarlett have coached with Tracy? Would Scarlett have been more apt to take over the way annotation was being taught? Would Meg have been more patient with Nathan and allowed him to figure out how to build a rich context for disciplinary reading? While Nathan may have experienced more inquiry with Meg, would it have resulted in more frustration? And, how would either Eric or Scarlett have coached differently with Tracy given their own disciplinary knowledge and pedagogical experiences as former English/language arts teachers? In all three collaborations, the established professional (and in some cases personal) relationships resulted in teachers seeking out the advice and support of their coach. Each collaborative context, including the personalities of participants and their distinct disciplinary knowledge, created unique coaching tensions.

Inquiry as Coaching Stance

Coaching practice is the product of inquiry. Cochran-Smith and Lytle (1999) argued knowledge *of* practice does not consist of either a formal body of knowledge (knowledge *for* practice) or a practical body of knowledge (knowledge *in* practice). Instead, their view of knowledge *of* practice assumed that the knowledge of teaching is created "when teachers treat their own classrooms and schools as sites for intentional investigation at the same time that they treat the knowledge and theory produced by others as generative material for interrogation and interpretation" (p. 250). Inquiry, and

the knowledge created through it, exists while working in communities of practice where participants share a common challenge, problem or goal. In this study, I theorize that each collaboration comprised a community of practice as the shared inquiry attempted to improve student talk in a 9th grade mathematics class, 6th graders' use of texts to learn about chemistry, or the ways in which 8th grade students talk about and think about short stories on bullying or young adult novels on the Holocaust.

Cochran-Smith and Lytle suggested an "inquiry as stance" position involved a unique conception of professional learning that spanned an educator's professional life and assumed that "beginning and experienced teachers need to engage in the same intellectual work" as they pursued questions related to the "ends of teacher learning" (p. 293). Coaching in these three cases involved varied knowledge domains and levels of experience for both teachers and coaches depending on the topic and the situation. For example, Jackie's disciplinary knowledge, knowledge of her students, and knowledge of the discourse within mathematics education positioned her as experienced during certain days and discourse with Eric. And, Eric's knowledge of literacy, inquiry, and formative assessment positioned him as experienced during specific days and discourse with Jackie. However, each collaboration was also "inextricably linked to larger questions about the ends of teacher learning" (p. 293). As Cochran-Smith and Lytle noted, an inquiry as stance position includes specific questions about the learning of teachers:

What are or should be its purpose and consequences? Who makes decisions about these purposes and consequences? In what ways do particular initiatives for teacher learning challenge and/or sustain the status quo? What are the

consequences of teachers' learning for student learning? What part does teacher learning play in school reform?...The most significant questions about the purposes and consequences of teacher learning are connected to teacher agency and ownership (p. 293).

When participating in the job-embedded professional learning of teachers, coaching invariably involves issues of agency, power, and autonomy.

While each pair of teachers and coaches in this study was involved in collaborative inquiry, I suggest that Eric, Scarlett, and Meg all worked from an *inquiry as* coaching stance position as they entered into classrooms as change agents who had been hired by their school district with the expectation of improving teaching and learning. Since this political task created possibilities to diminish or promote teacher agency, instructional coaching required each coach to deliberate issues of teacher agency and ownership. With this assumption about the political nature of coaching, I theorize all three coaches participated in inquiry on two different dimensions as they inquired into disciplinary teaching practices while also inquiring into situated coaching practices. As secondary instructional coaches working across multiple disciplines within their school, this ongoing dual-inquiry into practice could be placed on a fulcrum with inquiry into disciplinary teaching practices on one end of the spectrum and inquiry into the professional learning of teachers on the opposite end. Inquiring into disciplinary teaching practices within their collaborative context included learning disciplinary knowledge in the form of content, literacy, and pedagogy. Inquiring into coaching practices within their collaborative context included developing coaching practices informed by his or her

assumptions about teacher learning, expertise, and agency. With limited guidance from their district and school, all three coaches used an *inquiry as coaching stance* in order to create coaching practices related to four overarching essential questions: (a) *What do I do as a coach?*, (b) *What are the goals of those collaborations?*, (c) *What should the work with teachers look like?*, and (d) *How will I know if we are effective?* As secondary school instructional coaches working concurrently across multiple disciplines and classroom contexts, each coach pursued these questions throughout their coaching lifespan as each teacher collaboration shaped new understandings about their work with teachers. As Eric, Scarlett, and Meg inquired into both dimensions, their inquiry as coaching stance produced coaching practices unique to their collaborative context.

Disciplinary Knowledge and Coaching Practices

Eric relied on coaching practices to neutralize his disciplinary outsider status. But, as a disciplinary outsider, his desire to coach heavy prompted him to spend much of his time inquiring into disciplinary teaching practices. As he stated:

We're kind of flying the plane while we're figuring out how to fly it, we're struggling with giving kids the big picture context of why we're doing it and the thing I keep thinking is that if we could just hit 'Pause' and take a day and just look at the curriculum together and see where it's going, we could solve this right now.

Eric and Jackie both spent ample time struggling with curricular purpose and within the disciplinary teaching domain. Eric constructed coaching practices that took advantage of his limited disciplinary knowledge. With his persistence in pursuing disciplinary teaching

inquiry, Eric positioned himself as a mathematics student during group problem solving activities in order to reflect on his own mathematical learning. Once Eric took on the role of a student, he expanded both his content knowledge and epistemic beliefs about productive student discourse, leaving behind a focus on group skills and moving collaborative efforts toward the creation of more meaningful student discourse. He made his inquiry into disciplinary knowledge transparent with Jackie as they both struggled to identify the purpose for learning in mathematics and how his English disciplinary knowledge fit in Jackie's class. As a result, Jackie scaffolded his content knowledge during debriefings and during in-class huddles. Eric found the collaborative space despite limited disciplinary knowledge. His student-centered debriefings and in-class huddles provided a means of supporting Jackie's reflection and inquiry into disciplinary practice. Despite the mathematical content knowledge becoming more complex with each unit, these coaching practices allowed his own learning of mathematical content and pedagogical content knowledge to accelerate. By the end of this collaboration, Eric designed an entire unit with focus questions, formative assessment activities, focus problems, and possible focus lessons. However, his inquiry into disciplinary teaching took time.

Scarlett's inquiry as coaching stance vacillated between the disciplinary teaching practices domain and the coaching practices domain. Early on during the collaboration, Scarlett struggled to identify a purpose for learning about matter and resisted trusting Nathan's disciplinary knowledge. Scarlet did not search for disciplinary specific ways of teaching or for the essential disciplinary literacy espoused by some within the science

education community. Unable to identify alternative essential questions, Scarlett recognized her direct coaching stance had been too forceful and shifted to a more responsive coaching stance as she reflected on Nathan's own learning needs. Largely unaware of the disciplinary specific literacy practices in science and attempting to address multiple pedagogical needs at once, Scarlett relied on her general pedagogical expertise and enacted general literacy instruction while spending little time inquiring into disciplinary specific teaching practices. While Scarlett still inquired simultaneously into both domains, Nathan's identity as a first year teacher consumed much of her inquiry efforts since she believed his instructional capacity would impact the type of teaching students experienced after she left. As a result, Scarlett's use of encouraging discourse became more prominent and a staple of her coaching practice.

Meg's inquiry as coaching stance resided primarily in the coaching practices domain. With her experience as a language arts teacher, reading support specialist in the building, and coach in numerous other language arts contexts, Meg had a well-defined view of how students should interact with text and the responsive instruction that supported this student reading, thinking and talk. Contrary to the other two cases, Meg had a more prominent role in shaping the collaborative focus, even crafting a yearlong focus for language arts teachers in the building around increasing student talk and thinking with texts. Through her shared professional learning experiences involving *The Right To Literacy* (Plaut, 2009), Meg also benefited from an existing shared language with Tracy and a more closely aligned set of epistemic beliefs about adolescent literacy and literacy instruction. Meg's simultaneous collaboration with Tracy's grade level

language arts colleague on the same literacy topic provided another context for Meg to appropriate disciplinary teaching and coaching practices. As a result of these built in collaborative advantages and her well-defined disciplinary knowledge in language arts, Meg's inquiry as coaching stance resided primarily on the coaching practices domain as she developed coaching practices that directly supported Tracy's inquiry into disciplinary teaching practices. With humor creating collaborative trust and with student work in front of Tracy during debriefings, Meg's final coaching practice, guiding discourse, led Tracy towards a deeper understanding literacy and responsive literacy instruction while honoring Tracy's professional expertise.

Disciplinary knowledge impacted all three collaborative contexts. With his limited disciplinary knowledge in mathematics, Eric used inquiry into disciplinary teaching to learn disciplinary knowledge and to create coaching practices where limited disciplinary knowledge benefited Jackie and her students. With her limited disciplinary knowledge in science, Scarlett backed off of her critique of Nathan's disciplinary knowledge, abdicated decision-making about essential questions, and trusted the disciplinary knowledge of a first year teacher. Trusting his disciplinary knowledge, Scarlett enacted general literacy instruction that overlooked the disciplinary specific ways of reading, writing and talking within science. In the following exchange, Meg explained how her coaching practices benefited from her own disciplinary knowledge in language arts and how her limited disciplinary knowledge influenced her coaching in other disciplines:

Phil: So how's your coaching with math teachers different?

Meg:

It's very different in math in that I'm completely focused on students, where in ELA there's a lot more that goes in with curricular ideas, with a lot of my background knowledge on teaching practices. In math, I'm purely there to look at kids and give you some data on that. When I'm sitting there talking with a teacher and trying to figure out what students should understand, I'm not always sure what to do with the teacher's answer.

Phil:

Are you more or less likely to critique and question their answer?

Meg:

I'm very less likely. I don't know the content. I know some math and general stuff and my own language arts teaching, but I'm not a math expert. I'm not always sure what students should learn.

What should students learn about quadratics and what mathematical teaching practices would support Jackie's 9th graders as they learn? What should Nathan's 6th graders learn about matter and what disciplinary teaching practices would support this scientific learning? How should Tracy's 8th graders think with disciplinary texts about bullying and the Holocaust and what disciplinary teaching practices would support this learning in language arts? As Eric talked with students, he struggled to answer the first question. As Scarlett talked with students, she struggled to answer the second question. As Tracy analyzed and read student exit slips displaying textual annotations, Meg already knew her answer to the third question. All three coaches maintained a heavy coaching focus, but disciplinary knowledge provided Meg with greater freedom to inquire into how her coaching could support Tracy's teaching long after their collaboration ended.

Implications

With mounting pressure on teachers, instructional coaches, and administrators to produce testable achievement data, secondary school reforms such as instructional coaching face a potentially shortened life span. My goal in this study was to illuminate the challenges of coaching heavy as well as the situated coaching practices employed amidst disciplinary complexities. For schools to make the most of coaching, teachers, coaches and school districts should adopt a critical stance towards instructional coaching as they continually interrogate the assumptions about coaching in their context. What follows are implications for participating teachers, coaches, and school districts who desire to improve disciplinary learning for all adolescents.

Implications for participating teachers. Trust matters. Teaching involves risk as we expose our ability (or inability) to help students understand and demonstrate mastery of the desired learning outcomes. When students do not demonstrate the intended learning, it often reflects our need for further learning. But, this learning in practice with a colleague has political ramifications. As Erickson (1986) stated, "to learn is to entertain risk, since learning involves moving just past the level of competence, what is already mastered, to the nearest region of incompetence, what has not yet been mastered" (p. 344). Admitting what we, as teachers, do not know requires humility and trust in those with whom we work—especially in light of new teacher evaluations tied to student achievement. For teachers to participate in coaching, trust matters and these teachers should adopt a critical stance towards instructional coaching.

Teachers should ask critical questions about the goals of coaching. Why me? If a teacher did not initiate the collaboration, the teacher should question why he or she was targeted for instructional coaching. What have the coach and/or building administrators assumed about the teacher's practice that warrants coaching when other teachers were not selected? If student learning and/or achievement determined teacher selection, what measures of student learning and literacy provided the means for selecting teachers? In all three cases in this study the teachers initiated the collaboration while carving out precious time for planning or debriefing sessions before school, during lunch, during their preparation periods, and even after school. By initiating the collaboration, teachers invited coaches into their ongoing inquiry. Yet, even when the teacher(s) initiate the collaboration, who determines the collaborative goals? When coaches enter into a collaboration with pre-determined goals—even if aligned with the department or school or district professional development goals—the exclusion of the participating teacher in the identification of collaborative goals minimizes the teacher's expertise. Instead, as the coaches in this study demonstrated, a shared focus on improving the disciplinary learning of adolescents allowed both coach and teacher to assess their pedagogy in light of adolescent learning needs. The primary goal, however, rests with student learning and discussions of teacher pedagogy, as illustrated in this study, occur as a result of perceived student learning needs. Every secondary school collaboration, then, should intend to impact both the learning of adolescents during the collaboration and the ability of educators, including the coach, to respond instructionally to student learning needs. Yet, teachers and coaches vary in their disciplinary knowledge and the vagueness of

"improving the disciplinary learning of adolescents" can not be sufficient. Adolescents deserve opportunities to learn disciplinary-specific ways of producing knowledge as well as opportunities to critique mainstream disciplinary knowledge (Moje, 2007). Teachers should partner with coaches to ask critical questions about what should count as disciplinary learning goals for adolescents. Within this collaborative disciplinary inquiry, teachers and coaches can inquire into essential questions: (a) What does it mean for students to be literate in this discipline?, (b) What disciplinary teaching practices support student reading, writing, talking and thinking?, and (c) What collaborative practices can support both student learning and our learning as disciplinary educators? Given the disciplinary knowledge differences among teachers and coaches, collaborative inquiry becomes essential. When teacher and coach share the responsibility of improving the disciplinary learning of students, collective expertise about disciplinary literacy, pedagogy, specific students, and curriculum can be harnessed.

Teachers should ask critical questions about the ownership of knowledge generated through coaching. Does the coach provide the administrator with routine updates about the collaboration, the teacher's progress, and/or student learning? Whether complimentary or uncomplimentary, how is the participating teacher described to those in position to evaluate the teacher? In other words, who owns the knowledge of practice generated through the collaboration? While the three coaches in this study provided teachers with copies of collaborative notes, student formative assessment data, and planning documents, what happened to the original electronic versions? To what extent does the participating teacher have decision-making regarding the ways the knowledge of

practice might be shared with other teaching colleagues? As Scarlett demonstrated in her practice with Nathan, at the outset of the collaboration teachers and coaches must decide what tools will be used to collect data, and how their collaborative story will be narrated. Scarlett adopted the practice of only sharing evidence of teacher and student growth with the building principal and only after asking Nathan for his input. When the assistant principal joined her debriefing with Nathan in order to evaluate Scarlett's coaching practice, Scarlett intentionally shared positive observations of Nathan's growth and the learning of his students in order to support Nathan and to preserve the health of a voluntary collaboration. Towards the conclusion of their collaboration, Eric and Jackie's excitement about their own learning about productive group work and mathematical inquiry resulted in a mathematics department meeting in which teachers shared perspectives on teaching mathematical practices. For teachers to openly discuss how their pedagogy is or is not meeting the needs of adolescents, teachers must be allowed to coauthor collaborative narratives. When administrators and/or coaches author the professional learning narratives of teachers, voluntary participation in coaching will dry up.

Implications for instructional coaches. Knowledge matters. The 2006 Standards for Middle and High School Literacy Coaches (International Reading Association, 2006) suggested secondary coaches needed expertise in two knowledge domains (leadership and content area literacy) consisting of four key standards: skillful collaborators, skillful job-embedded coaches, skillful evaluators of literacy needs, and skillful instructional strategists. While these standards emphasized collaborative, instructional and literacy

assessment skills, this study argued coaches developed disciplinary knowledge and coaching knowledge distinct to the specific collaborative context. Knowledge of factoring combined with pedagogical knowledge about group work and pedagogical content knowledge related to specific students represents disciplinary knowledge demands. But, additionally, a coach utilizes knowledge of adult learning and of a specific participating teacher in a unique context to craft coaching practices catered to the intersection of the disciplinary knowledge domain and the coaching knowledge domain.

Coaches need to ask critical questions about disciplinary knowledge and coaching knowledge. If school districts persist in expecting instructional coaches to impact the disciplinary literacy of adolescents across multiple secondary school disciplines, coaches must become knowledgeable of disciplinary-specific pedagogy. Even within the International Reading Association Standards for Middle and High School Literacy Coaches (2006), the unique disciplinary knowledge demands of each content area are minimized, assuming a single coach can develop content knowledge and pedagogical content knowledge and literacy knowledge across multiple disciplines. In order to impact the disciplinary learning of adolescents, coaches must interrogate the discipline, relying upon research and literature produced within that discipline's teacher education discourse communities. Learning about a claim, evidence, and reasoning framework for science teaching (McNeil and Krajcik, 2011) becomes a pre-requisite to collaborating with middle school science teachers. Building a foundational understanding of mathematical literacy and teaching practices (Bill and Jamar, 2010) becomes a prerequisite to collaborating with high school mathematics teachers. Developing an

understanding of historical reading heuristics (Reisman and Wineburg, 2012) becomes a pre-requisite to collaborating with middle school social studies teachers. By learning about the disciplinary knowledge and disciplinary-specific pedagogical frameworks, coaches can critically evaluate the participating teacher's assumptions about and objectives for student learning. Without, the coach has no choice but to trust the teacher's knowledge. Given the outcome expectations of coaching, disciplinary knowledge demands, collaborative knowledge demands and the political realities of coaching, secondary instructional coaches must rely upon an inquiry as coaching stance to ask critical questions about disciplinary teaching and about coaching in order to produce knowledge of practice.

Coaches need to ask critical questions about power and agency. Instructional coaches are currently being hired as change agents during a time in which outside pressures on teachers can create mistrust with anyone perceived to be aligned with teacher evaluation. Coaches must be aware of how the work of coaching positions them and participating teachers. How can I balance a working relationship with administrators with the collaborative relationships with teachers? To what extent is this collaborative work respecting the autonomy and professionalization of participating teachers? As teachers ask critical questions about the goals of coaching, coaches must maintain a stubborn focus on student learning, using respectful discourse to center goals on students and not teaching. "Tell me about your students" and "What are they struggling to understand?" can be effective ways to collaboratively determine goals related to student learning. "How have you already tried to teach these students?" and "What teaching

practices appear to help these students?" can be effective ways to collaboratively analyze the interaction between student learning and pedagogy. Protocols like the Eyes on Students Protocol or additional formative assessment routines can ensure collaborative goals remain centered on student literacy and learning. As teachers ask critical questions about the ownership of knowledge of practice generated through coaching, coaches can use transparent talk to share decision-making with participating teachers. Coaches can respect the professional autonomy and learning of participating teachers by collectively deciding what collaborative events and data make the most sense to collect and share with disciplinary colleagues. The expertise and agency of teachers can be honored when coaches use transparency to admit gaps in knowledge and seek the input of the participating teacher. As one teacher collaborator colleague often stated, "When someone invites you into their home, you don't automatically start moving around furniture."

Coaches need to ask these critical questions within their own coaching community of practice. Given the isolated nature of the work and the increased knowledge domains required to impact teaching and learning, a personal inquiry as coaching stance in isolation is not sufficient. Secondary instructional coaches, like those in this study, often work on an island as the only coach in a school building. This isolation results in few other teachers or administrators who understand the tensions of coaching, let alone hold the vast knowledge of numerous disciplines or knowledge of adult learning and coaching. All three coaches in this study benefited from an ongoing coaching community of practice where disciplinary knowledge and coaching knowledge was socially constructed. It would be naïve to assume that Meg invented her guiding discourse in isolation or

Scarlett developed the Eyes on Students Protocol without input from others or Eric alone realized how to use student formative assessment to guide coaching discourse. In fact, all three coaches were participants in the coaching inquiry group I had facilitated from 2009-2011. Meeting twice a month, this coaching inquiry group provided a professional learning space to read about and discuss district pedagogical frameworks, adult learning theories, and coaching stances like heavy coaching. But, the coaching inquiry group also allowed instructional coaches to share about ongoing teacher collaborations, unique tensions within these collaborations, and to appropriate each other's coaching practices as they collaboratively problem-solved the stickiness within these collaborations. In this space, coaches can socially-construct disciplinary knowledge and coaching knowledge as they deliberate the problems in their own coaching practice with fellow coaches who share experiences and perspectives on this challenging work. Coaches need the professional learning space to "research our own issues, meaningful in our own current life and practice and pursue critical questions that resonate within their own professional community and have the potential to improve teaching, learning and life (Kalmbach-Phillips & Carr, 2006, p.45).

Implications for school districts. Vision matters. Within this study, each of the three instructional coaches were given autonomy to determine who they coached, the topic of the collaboration, and the coaching events and practices. This laissez faire approach to secondary instructional coaching appears to be common. As recent as 2008, 74% of middle school and secondary coaches surveyed indicated their role remained undefined (Blamey, Meyer & Walpole, 2008-2009). Expected to impact adolescent

achievement and typically left to figure out coaching in practice, coaching will fall victim to the attempt, attack, abandon cycle (Knight, 2007) if school districts fail to develop a shared vision for disciplinary coaching and if they fail to provide essential professional learning for instructional coaches. As Walpole and McKenna noted (2008), school districts can either adopt coaching as a new reform, putting it into place without sufficient planning or they can adapt coaching into existing professional learning communities, merging coaching with existing practices that support teacher learning. A vision for instructional coaching can be essential to the learning of coaches, teachers, and ultimately, students.

School district administrators need to ask critical questions about the purpose of coaching. What are we trying to change? What are our assumptions about how teachers learn? What should count as evidence of coaching impact? All three questions have limited attention in the research on coaching, but the answers to these questions contextualize coaching and determine expectations for success. While student achievement remains the ultimate impact goal for school districts pressured to close achievement gaps, produce testable data, and prove student learning to policy makers who hold access to funding, the impact of coaching can not be reduced to single measures of adolescent reading on achievement tests. Instead, articulating the disciplinary learning outcomes for students represents an essential and more immediate undertaking. What should students know, understand, and be able to do as a result of their middle school science courses? By the time adolescents leave high school, what should they know, understand, and be able to do as novice historians? Answering these questions, and those

in similar disciplines, are entwined with any discussion of coaching outcomes since the ultimate goal of coaching is to impact the disciplinary learning of adolescents. But, answering these questions requires school administrators to build a common understanding of disciplinary literacy and to provide the professional learning space for teachers and coaches to inquire. Just as instructional coaches use duel inquiry into both disciplinary teaching practices and into coaching practices, school districts should convene and support school-level inquiry groups in both domains. Convene an ongoing inquiry group on adult learning for anyone willing to join and cede decision-making about the professional learning structures in the building to this site-based group of administrators, coaches and teachers. Trust this voluntary group with the task of creating, modifying, and evaluating the health of professional learning in the building. Using outside expertise if needed, begin discussions in this group that unpack theories of adult learning and coaching while building a shared understanding of teacher inquiry.

At the same time, disciplinary inquiry groups of teachers and coach(s) need the inquiry space to identify both the disciplinary learning outcomes for students and disciplinary teaching practices which could support student learning. Instead of adopting a coaching model for an entire district and hiring one or two individuals to go forth and independently improve teaching and learning across all disciplines and all classrooms, district administrators should support collaborative teacher inquiry within disciplines and create ways that instructional coaches can support the ongoing inquiry of disciplinary teachers. By aligning instructional coaching with disciplinary inquiry groups, both the collaborative goals and the knowledge of practice produced through collaborations can be

shared with all disciplinary teachers. District administrators can provide role clarity for instructional coaches as coaches support the ongoing inquiry of specific disciplinary teams as teachers inquire into practices that support disciplinary literacy for adolescents.

School district administrators need to ask critical questions about the unique professional learning needs of coaches. What professional learning structures would support the learning of coaches? How could a coaching inquiry group support coaches as they embark on this challenging work? If districts are to use coaches as disciplinary generalists, coaches need initial professional development where theories of disciplinary literacy, specific disciplinary pedagogical frameworks, theories of adult learning, and research and literature on coaching can provide a foundational knowledge base for coaches. However, ongoing professional learning in the form of a coaching inquiry group can provide coaches with sustained discourse around the specific disciplinary tensions in their coaching practice. All three coaches in this study identified participation as beneficial because the researcher questions provided a much needed opportunity to reflect on coaching practice.

But, in addition to an ongoing coaching inquiry group, instructional coaches need district administrators and non-participating teachers to understand the complexity of coaching so the challenge of improving teaching and learning can be shared. How could district administrators develop a richer understanding of the disciplinary complexities and the situated work of coaching? What might it look like for a district administrator to join the science disciplinary inquiry group with middle school science teachers and an instructional coach? What role would make sense for the administrator in order to deepen

his or her understanding of both the challenges of coaching and the expertise of his or her building coach and teachers as well? With respectful involvement in instructional coaching could develop a deeper understanding of disciplinary coaching and an illumination of the learning needs of coaches, teachers, and students. Without a fuller vision of the complex learning needs of coaches, teachers, and students, quick fix policies, false assumptions about teacher change, and simplistic student learning outcomes might ruin the promise and potential of secondary instructional coaching for teachers and students in any district.

Future Research

While this study attempted to understand how secondary instructional coaches attempted to coach heavy amidst disciplinary tensions and how these three coaches developed situated coaching practices to negotiate primary tensions, this study also shed light on future research directions. Several new inquiry questions emerged through this study. How would a secondary coach's practices vary as he or she coached across multiple disciplines at the same time? In what ways would his or her disciplinary knowledge influence and shift his or her coaching practices in the multiple collaborative contexts? Additionally, how would the different teaching identities of participating teachers influence coaching practices? If coaching practices are situated, variation among teachers and disciplinary knowledge should influence the development of specific coaching practices. Such a design would present an opportunity to unpack the multiple knowledge domains required of instructional coaching throughout a "typical" period of time as a coach.

While coaching practices are situated and a product of unique disciplinary tensions and interactions among teacher, coach, and students, are there "best" coaching practices within secondary disciplinary contexts? If we believe that historians read, write, talk, and produce knowledge in disciplinary-specific ways and if we believe that this specificity results in disciplinary-specific teaching practices, would we say the same about coaching within specific disciplines? How would or should an instructional coach plan differently with history teachers as opposed to science teachers? Would instructional modeling in history classes require a unique set of coaching practices? Does "looking at student data" with a history teacher enact unique coaching practices due to the discipline? How does the discipline influence the coaching practices in ways unique to the discipline?

The concept of expertise remains an untapped research direction as it relates to instructional coaching. In each case of this study, coaches and teachers displayed diverse expertise related to content knowledge, pedagogy, literacy, collaboration, etc. Without previous identification, one might not be able to recognize who was the coach and who was the teacher if he or she walked into Tracy's classroom or into a debriefing between Eric and Jackie. The term coach often carries assumptions about expertise, positioning the coach as holding valued knowledge and the teacher as lacking and needing to be remediated by the coach. Research should question assumptions of expertise during coaching collaborations in light of current efforts to deprofessionalize teaching.

Finally, any attempt to draw correlations or conclusions about the impact of instructional coaching on student learning or achievement requires a longitudinal study considering the complexity of teacher, coach, student, discipline and context. Even while

this study occurred over a four month period, observing the multiple discourses and interactions among a teacher, a coach, and students in one class posed a challenge for a single researcher. Observing the same across three cases in three schools become a cumbersome task, especially in light of the unpredictable nature of scheduling voluntary collaborative events. And, while evidence of teacher, coach, and even student learning surfaced in this study, identifying lasting impact beyond the duration of this study was guesswork. Well-designed, longitudinal studies of the impact of collaborative inquiry between a coach and teacher(s) on student learning are sorely needed to validate the continued funding and support of instructional coaching. Without a richer understanding of the immense challenge of coaching heavy across secondary disciplines and without empirical evidence supporting the impact of coaching on school, coach, teacher, and student, the collaborative inquiry of Meg and Tracy, Scarlett and Nathan, and Eric and Jackie will eventually be eroded.

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Appendix A

Initial Interview Questions-Coach

Coaching & Teaching Background

- 1. What is your teaching background?
- 2. Could you tell me how and why you became a coach?

Beliefs about Coaching

- 1. For people outside of education, how do you explain your job?
- 2. How would you describe coaching heavy and coaching light?
- 3. I'm going to provide you with a statement about coaching and I'd like to hear to what extent you agree or disagree with the statement (Killion, 2010):
 - a. Being accepted gives me more leverage to work with teachers.
 - b. Being viewed as credible is essential to being a coach.
 - c. The work of coaches is to support teachers.
 - d. Teachers are resistant to change.
 - e. Coaches can't impose on teachers since they have no supervisory responsibilities.
 - f. Teachers can learn in workshops.
 - g. Coaches are not responsible for what teachers do.

Coaching Practice:

- 1. Has your approach to collaborating with teachers changed since that first collaboration? If so, why and how?
- 2. What does a typical day look like for you?
- 3. How do you decide what teachers to work with?
- 4. I want to give you a few scenarios and see how you might respond. Okay?
 - A. Your principal sends you an email and asks you to collaborate with a first year math teacher because he or she is worried about this teacher's classroom management. You have not had any previous conversations with this teacher. How might you respond?
 - B. You spend several weeks coaching in a Biology class with a veteran teacher who wanted your help implementing writing instruction in a unit on cell division. Throughout this time, you're in this teacher's class on a daily basis modeling strategies, planning lessons and observing her implement the writing strategies. At the end of three weeks, the teacher tells you that the collaboration has been valuable to her. How do you know if you've been successful?
- 5. Tell me about the collaboration that I'll observe. What are your goals for this collaboration?

Initial Interview Questions-Teacher

Learning as a Teacher:

- 1. Tell me about yourself as a teacher.
- 2. Tell me about the class that is the focus of this collaboration. What do you find rewarding or challenging about teaching this class?
- 3. What do you think you've learned this year while teaching this class?
- 4. How would you describe your own professional development as a teacher?
- 5. Can you tell me about any "critical transformations" as a teacher that changed the way you see students, learning and/or teaching?
- 6. As you think back on your own teaching, how has your teaching changed between your first year and this past year?
- 7. How and why do you think your teaching practices changed?
- 8. How would you describe good teaching?

Collaboration with a Coach:

- 1. What is this collaboration about?
- 2. How did the collaboration with your coach come about?
- 3. What are you hoping to learn from this collaboration?
- 4. What do you think makes a good instructional coach?
- 5. How do you think your students will benefit from this collaboration?
- 6. If you have collaborated with a coach before, can you tell me about that experience? What do you think you learned from that collaboration? How do you think the students in your class benefited from that collaboration?
- 7. How and why do you think teachers change their practice?

Exit Interview Questions-Coach

- 1. When do you feel you were coaching heavy in this collaboration?
- 2. What do you think are obstacles to coaching heavy?
- 3. What was most challenging for you in this collaboration?
- 4. If you could do it again, what might you do differently? What would you repeat?
- 5. How do you think students benefited from this collaboration?
- 6. How do you think _____ (teacher name) benefited from this collaboration?
- 7. How would you evaluate this collaboration?
- 8. What did you learn through this collaboration?
- 9. How do you use your time as a coach and what changes would you want to make to your roles in this position?
- 10. What do teachers and students need you to learn more about?

Exit Interview Questions-Teacher

- 1. What were your impressions of the lesson that you and _____ collaborated on?
- 2. What were your goals for this collaboration and how do you feel you addressed those?
- 3. How do you think your collaboration with your coach impacted your students?
- 4. How, if at all, has this experience impacted your understanding of
- 5. I had asked if you could bring some student artifacts from the lesson to discuss. What do you notice about your students by looking at those artifacts?
- 6. How and why do you think teachers change their practice?
- 7. Why do you think teachers might be nervous about collaborating with an instructional coach?
- 8. Tell me about the class that is the focus of this collaboration. What do you find rewarding or challenging about teaching this class?
- 9. What do you think you've learned this year while teaching this class?

Appendix B

Eric's Group Observation Form

Enhanced Algebra Discussion Checklist

Key:	3 = In Use	2 = Emerging		1 = Not in Ev	idence	
Roles:	Is fullfilling role					
	Respects roles of others in group					
Group Interaction:	Asks other group members questions about the topic or skill					
	Extends other students' responses					
	Respects the opinions of others					
Being on task	Is working on given assignment/task a		and n	othing else		
Week 1						
	Roles	Interaction		On-Task-ness		
Student Name						

Enhanced Algebra Discussion Checklist

Key:	3 = In Use	2 = Emerging	1 = Not in Evide			
Preparation:	Has read selecti	ons prior to group discu	ssion			
_	Has contributed to the creation of questions and/or discussion					
Group Behavio	rs Asks other grou	n members questions al	bout the text			
	Extends other students' responses					
	Respects the opinions of others					
Connections:	Makes connections between test and purpose setting questions					
	Makes connection	ns between text and ot	her students' responses			
Week 2						
	Preparation	Group Behaviors	Connections			
Student Name	3, 2, 1	3, 2, 1	3, 2, 1			
Joe Smith	3	2	1			
Mary Johnson	1	1	1			

Eric's Think Aloud Process Sheet

4. Answer the Question	3. Solve	2. Equations	1. Let Statements	Procedure	Enhanced Algebra Exit Slip: The Fabulous Footballers scored an incredible 55 points in last night's game. Interestingly goals was 1 more than twice the number of touchdowns. The Fabulous Footballers earned touchdown and 3 points for each filed goal. Write a system of equations and determine ho and field goals the Fabulous Footballers earned last night.
				Math	incredible 55 points in last night? mber of touchdowns. The Fabulou ed goal. Write a system of equatio lllers earned last night.
				Thinking	Enhanced Algebra Exit Slip: The Fabulous Footballers scored an incredible 55 points in last night's game. Interestingly, the number of filed goals was 1 more than twice the number of touchdowns. The Fabulous Footballers earned 7 points for each touchdown and 3 points for each filed goal. Write a system of equations and determine how many touchdowns and field goals the Fabulous Footballers earned last night.

Appendix C

Scarlett's Eyes on Students Protocol

Class:	Date:				
By the end of class, students will understand/know/be able to					
What do you notice about students and their learning?	How do you account for this?	What are possible instructional responses?			