ABSTRACT

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PROFESSIONAL DEVELOPMENT

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Teacher professional development (PD) is considered essential to improving student achievement toward high standards. I argue that while current notions of high quality PD foreground cognitive aspects of learning, they undertheorize the influence of relational dynamics in teacher learning interactions. That is, current conceptions of high quality PD may be necessary but insufficient to engender teacher learning, and attention to relational dynamics may be essential to leveraging teachers' engagement and productive participation in learning opportunities. A review of the literature from related fields provides preliminary recommendations for addressing affective concerns and relational dynamics in learning, but extrapolation of these recommendations for PD is problematized by particular considerations of *teachers* as learners, including bureaucratic presses and hierarchical school contexts. A conceptual framework that incorporates power/knowledge considerations may allow for investigation of relational dynamics in PD interactions in a way that takes into account the participants' individual characteristics as well as institutional context.

This study uses discourse analysis to examine interactions between three focal teachers and their PD facilitators in a science learning progressions project and a literacy coaching cycle. Examining moments of tension or questions raised by the focal teachers, my analysis finds that close attention to both verbal and nonverbal discourse moves in PD interactions illuminates the ways in which relational dynamics were consequential to the teachers' participation and can help explain the progress or lack of progress for each teacher.

RELATIONAL DYNAMICS IN TEACHER PROFESSIONAL DEVELOPMENT

By

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Table of Contents

A almoviladgements	;;
Acknowledgements	
List of Tables	
List of Figures	
Chapter 1: Introduction	
Rationale	
Characteristics of high quality PD	
Overview of Conceptual Framework	
Research Questions	
Chapter 2: Literature Review and Conceptual Framework	
Overview	
Trust, Relationships, and Positionality in Empirical Research on PD	
Approaches to Literature from Related Fields.	
Creating a climate and organizational context for learning.	
Creating interpersonal relationships to support learning.	
Creating internal conditions (motivation, affect) to support learners	42
Applicability of Related Literature to Affective and Relational Dynamics in PD	
Conceptual Framework: Power/Knowledge Considerations	
Problematizing goal-setting with teachers.	
Problematizing nonhierarchical relationships.	
Problematizing communication: Nonjudgmental feedback, transparent	
communication, and discourse norms.	60
Summary of conceptual framework	63
Chapter 3: Methods	66
Overview	66
Background and Participants	70
Background of Learning Progressions project	
Participant selection.	
Background of literacy coaching project.	
Participant selection.	
Researcher positionality	
Data selection and analytic approaches	
Summary of analytic approach	
Chapter 4: Case Study of Bonnie	
Narrative Overview of Bonnie over Two Years in Learning Progressions PD	
Summer One.	
Year One	
Summer Two	
Year Two.	
Discourse Analysis of Relational Dynamics in Bonnie's PD Interactions	
Episode 1: "You win."	. 103 110
Episode 2: "Can it be? Yes or no?"	110

Episode 3: "I'm having dreams, and they're wild."	115
Episode 4: "To me, they're not learning anything."	
Conclusion	
Chapter 5: Case Study of Stacy	
Narrative Overview of Stacy over Two Years in Learning Progressions PD	127
Summer One.	128
Year One.	132
Summer Two	137
Year Two.	140
Discourse Analysis of Relational Dynamics in Stacy's PD Interactions	145
Seeking guidance and asking for permission.	146
Asking for catch phrases and denying success.	162
Conclusion: Recurring Tensions	169
Chapter 6: Case Study of Kirsten and Carla	174
Narrative Overview of Kirsten and Carla's Coaching Cycle	176
Initial goal-setting meeting.	178
Week one.	180
Week two.	183
Week three.	186
Week four	188
Week five.	
Week six	
Discourse Analysis of Relational Dynamics in Carla and Kirsten's PD Intera	
	193
Answering questions and navigating authority for decision making	
Getting all students to write.	
Conclusion	
Chapter 7: Discussion and Conclusion	
Categorizing Teacher Questions	
Logistical and implementation concerns.	
Concerns about teaching and student learning.	
Guiding Questions in Building Productive Relationships	
Implications	233
Limitations	
Next steps	
Conclusion	
Appendices	
Appendix A: Structure of the writing workshop	
Appendix B: Discourse analysis transcript	
Appendix C: Finkelstein (2008) unpublished manuscript	
Appendix D: Literacy coaching lesson plans	
Bibliography	269

List of Tables

Table 1: Synthesis of recommendations from reviewed literature	p. 49
Table 2: Characteristics of data collection sites.	p. 67
Table 3: Quantity of data sources.	p. 78
Table 4: Overview of analytic approach	p. 79

List of Figures

Figure 1: Concept map	p. 65
Figure 2: David pointing	p. 105
Figure 3: Bonnie and David laughing	p. 112
Figure 4: Bonnie with student papers	p. 120
Figure 5: Stacy in whole group PD session	p. 139
Figure 6: Stacy in planning session for composting module	p. 158
Figure 7: Stacy responding to April	p. 167
Figure 8: Kirsten laughing	p. 204
Figure 9: "Some kids just drive me nuts."	p. 207
Figure 10: Kirsten looking at student work	p. 212

Chapter 1: Introduction

Rationale

Teacher quality, more than any other school-related variable, has been identified as the greatest influence on student academic success (Darling-Hammond, 2000). School reformers' efforts to *improve* teacher quality—in part through professional development—have therefore become a compelling means to improve student learning. Indeed, education policies at local, state, and federal levels have appropriated significant funds for professional development (PD) activities in the hope of raising student achievement. For example, Title II of the federal Elementary and Secondary Education Act (ESEA) dedicates over \$3 billion per year toward strategies for improving teacher and principal quality (http://www2.ed.gov/policy/ elsec/leg/esea02/pg20.html). Dozens of school systems are investing millions of dollars in instructional coaching initiatives as cornerstones of larger, systemic reform efforts; for example, the Boston Public Schools recently "devoted \$5.8 million from general school funds to support seventy-five coaches in ninety-seven schools" (Neufeld & Roper, 2003, p. 5). And educational economists have estimated that local districts regularly invest close to 8% of their budgets on PD (Fermanich, 2002; Odden, Archibald, Fermanich & Gallagher, 2002; Rice, 2001).

With such significant financial investments in PD, the urgency for its effectiveness becomes increasingly heightened. The demands on PD have also coincided with more rigorous expectations for student learning. The standards-based reform movement in the U.S. has sought to raise the achievement of all students to

specific, articulated standards and proceeds from the belief that successful implementation relies on the alignment of curriculum, assessment, pedagogical strategies, and systemic organization. Partly in response to the 1983 publication of *A Nation at Risk*, states and content area associations such as the National Council for Teachers of Mathematics developed standards detailing what students ought to know and be able to do.

By promoting active learning opportunities, higher-order thinking, problem solving, and connections beyond the classroom, these standards demand new proficiencies from teachers as well as students. That is, as expectations for student learning have shifted from accumulation of factual knowledge to problem-solving competencies and flexible use of knowledge in novel situations, so too have expectations for teachers shifted from transmitters of knowledge to facilitators of active learning. As Hiebert and Stigler (2000) note:

Students are encouraged to become active participants in the classroom and this, presumably, means that teachers must expect the unexpected. This more ambitious teaching places a premium on the individual teacher's skill in orchestrating the unexpected. (p.13)

In order to implement such rigorous curricula, teachers would need significant changes in their practice, such as deeper content knowledge and more flexible pedagogical skills. Early research into standards-based reforms was beginning to demonstrate that traditional, short-term, workshop-model PD did not effectively support teachers in such major changes in their practice (Cohen, 1990; Hawley & Valli, 1999).

Characteristics of high quality PD

In this era of standards-based reform that promotes students' learning for understanding, it is not surprising that reformers seek to enact models of *teacher* learning that mirror the conditions and goals for student learning. This reform view of PD views its goal as "to cultivate teachers' academic habits of reasoning and discourse associated with their particular discipline and to help them develop a particular skill set that will enable them to cultivate those same habits in their students" (West, 2009, p. 115).

Among the teacher education community, there is considerable consensus about the characteristics of high quality professional development (PD); these characteristics include long-term and sustained opportunities for teachers to engage in collaborative, active, job-embedded learning around contextualized problems of practice, that is, improving student learning toward articulated goals in their own school or district (Garet, Porter, Desimone, Birman & Yoon, 2001; Hawley & Valli, 1999, 2007; Little, 1999; McLaughlin & Talbert, 1993). Based on research in cognitive science that has provided compelling evidence about how people learn (cf. Bransford, Brown & Cocking, 2000), these PD characteristics have also been referred to as learner centered (Hawley & Valli, 2007; Murphy & Alexander, 2007). As Hawley and Valli (1999) explain:

Just as schools must be student centered, professional development opportunities for educators must be learner centered....Our claim is that professional development is more likely to result in substantive and lasting changes in the knowledge, skills, and behaviors of educators that strengthen student learning when it includes these [high quality] characteristics. (p. 137)

Indeed, empirical studies of school reform initiatives have repeatedly found that teachers in those schools identify the presence of these high quality PD characteristics as influential in changing their practice (Desimone, Porter, Birman, Garet & Yoon, 2002; Fishman, Marx, Best & Tal, 2003; Garet et al., 2001). But because evidence from these studies comes largely from teacher self-reports, often through large-scale surveys, reliance on this method may overestimate actual changes in instructional practice (Cohen & Hill, 2000). In addition, empirical studies of PD within standards-based reform initiatives encounter methodological difficulties in disentangling any positive effects of PD from other components of the reform, or in attributing changes in student achievement to PD. As a recent review of the literature in this area has described, "although a consensus has emerged in the literature about the features of effective PD, the evidence on the specific features that make a difference for achievement is weak" (Wayne, Yoon, Zhu, Cronen & Garet, 2008, p.

Additionally, not every standards-based reform initiative has successfully spurred change in teachers' instructional practices. Although many researched PD programs demonstrate the features of high quality as described in the literature, they may still *fail* to achieve meaningful growth in teacher learning (Rainville, 2007; Stein, Smith & Silver, 1999). What might be missing from those less successful professional development initiatives?

I argue that a significant impediment to teacher learning stems from teacher resistance or disengagement from learning opportunities in PD. While the characteristics for high quality PD reflect current thinking about cognitive aspects of

learning, they undertheorize the influence of affective and relational aspects of learning in interactions. That is, current conceptions of high quality PD may be necessary but insufficient to engender teacher learning, and attention to relational dynamics may be essential to leveraging teachers' engagement and productive participation in learning opportunities.

This view resonates strongly with recent work of Carol Lee (2008), who argues that learning (for students) "is influenced by intersections among thinking, perception of self, others, and tasks; emotional attributions; and self-regulation" (p. 268), and that "emotion and cognition are intimately and dynamically intertwined" (p. 270), but that research programs about cognitive learning and about psycho-social development often remain separate. As Lee explains, our willingness to participate fully in learning opportunities depends in large part on affective and relational concerns that are

influenced by our perceptions of how the task, the people around us engaged in the activity (peer learners and teachers), and the effort required to accomplish the goal address our basic social and emotional needs as defined by Maslow. Do we feel safe in carrying out this work? How does engagement with this task weigh out in terms of competing needs? Do we develop a sense of competence as we move forward? And are the people with whom we are working (as peers or teachers) aiming to help or hurt us? (p. 271)

These same questions— in regard to *teacher* learning—comprise the driving motivation for this study.

Without specific attention to processes for building trust, minimizing vulnerability, or encouraging motivation, PD activities can engender teacher resistance and disengagement. Participation in professional development—particularly when it is job-embedded, that is, integrated into the work of teachers in

classrooms— can be a threatening experience for many teachers, who may feel that they are being judged or exposed as deficient during the coaching process (Gonzales, Nelson, Gutkin & Shwery, 2004). Numerous current PD models are primarily jobembedded, opening up teachers' practice publicly—either in real time (e.g., instructional coaching) or through analysis of artifacts of practice (e.g., Japanese lesson study, video clubs, standards in practice). Such models simultaneously have the benefit of connecting directly to teachers' daily practice and the risk of exposing teachers' vulnerability to others' judgment. As Sztajn, Hackenberg, White and Allexsaht-Snider (2008) explain, "Teachers who are learning and changing their practices are in a potentially delicate position because they are vulnerable to their peers' opinions, the professional developers' perceptions, and their administrators' expectations" (p. 973). Such resistance to making one's teaching practice public is arguably felt most acutely by teachers in underperforming schools who often experience outsiders blaming them for their students' struggles.

Professional development models may benefit, therefore, from specific attention to mitigating teacher resistance through attention to teachers' affective and relational concerns. As a recent report to the National Staff Development Council expresses, "Collective work in trusting environments provides a basis for inquiry and reflection into teachers' own practice, allowing teachers to take risks, solve problems and attend to dilemmas in their practice" (Wei, Darling-Hammond, Andree, Richardson, & Orphanos, 2009, p. 6). The report does not, however, detail how such trusting environments might arise. How professional developers and other

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¹ Instructional coaching is a popular model of professional development that provides modeling, co-teaching, and other direct, in-class support of teachers' instruction.

stakeholders interested in supporting teacher learning might accomplish such "trusting environments"—contexts and conditions that engender teachers' productive participation in learning opportunities— is the motivation for this study.

Overview of Conceptual Framework

This study is situated within the stance that interactions between adults around workplace learning necessarily involve negotiations of power, authority and knowledge (e.g., Apple, 1995; Foucault, 1977, 1980; Weber, 1947). As Foucault reminds us, "Power is 'always already there' ...[and] is co-extensive with the social body" (1977, pp. 141-142).

In application to this study, relationships between teachers and those who would teach them are likely to invoke issues of who holds authority for instructional decision making, whose beliefs about teaching and learning will be paramount, and how expertise of various kinds will be valued. These power dynamics will also vary depending on who facilitates the PD and what expertise (actual and perceived) they bring to the role; the wide range of PD providers may include, for example, university faculty, instructional coaching consultants, school-based master teachers, or publishers' curriculum representatives. Existing bureaucratic hierarchies in most K-12 school systems position professional developers and teachers in power asymmetries that are likely to color their relationships before they even meet. And PD facilitators not employed by the school district, such as university faculty, bring their own institutional authority (Weber, 1947) that may or may not be afforded respect by classroom teachers. As a related concern, the types of knowledge held by outside "experts"—university faculty, publisher representatives, PD consultants—may or

may not be considered valuable knowledge by teachers. Such knowledge might be considered as "outsider" or "insider" knowledge and may range from deep disciplinary expertise to pedagogical content knowledge to familiarity with curriculum to knowledge of the strengths and needs of the children in particular school.

In addition, with job-embedded PD that makes teaching practices public, power dynamics may arise in regard to who participates in the act of teaching and how classroom practice gets discussed. That is, reform-based PD activities often happen in real time in the K-12 classroom and/or through review of classroom video and student work. Whether PD facilitators participate in this work through active modeling, coplanning and coteaching, or through more passive observation, has implications for power and positioning between the facilitator and teacher. Similarly, professional developers often run up against school cultures that traditionally isolate teachers as the lone adult in the classroom (Lortie, 1975) and view classroom observations as tools of surveillance and evaluation (e.g., Fordham, 1996; Foucault, 1977, 1980; Valli & Buese, 2007).

This is not to imply that invocations of power are always negative or repressive, but rather that:

people do not hold power as a result of their affiliations; rather, others may ascribe power to people in particular positions or people may act on the basis of their sense of their own authority. These enactments of affiliatory power may include moves either to reinforce or to deny, mystify, or mask power, and these moves may be especially present in relationships where people are working hard to collaborate and maintain closeness despite their differences in ideology or practice. (Moje, 2000, pp. 27-28)

Moje is describing the problematic relationship between a university researcher and a teacher collaborating to implement a more process-based approach to literacy in a middle school classroom. Within the PD projects examined in this study, each party presumably shares a desire for improved student learning. PD facilitators seek the teacher's enactment of particular instructional strategies in order to leverage students' learning. But it is ultimately the classroom teacher who holds the authority, responsibility, and access to instruct her students. In this sense, professional developers *need* teachers, whereas teachers may or may not feel they need the professional developers. Negotiations of power in such relational dynamics are inevitable.

Research Questions

My primary research question in this study is: How do relational dynamics shape professional development interactions in ways that open up or constrain teachers' participation in learning opportunities?

Sub-questions include:

- What concerns, questions, or tensions do teachers raise in professional development?
- How are these concerns presented, affectively, by teachers?
- How are these concerns negotiated between professional developers and teachers in PD interactions?
- How do issues of power and knowledge affect the negotiation of these concerns?
- How do these negotiations open up or constrain teacher participation in PD and influence opportunities for teacher learning?

The following chapter describes literature from professional development research and related fields that have investigated the influence of relational and affective concerns on learning; I offer a synthesis of how this literature might apply to building productive learning relationships in PD. Next, I problematize these recommendations in light of power/knowledge considerations and provide a set of questions to guide empirical investigations of relational dynamics in PD interactions.

In the third chapter, I present my research design and methodological considerations. I describe the sites for data collection and provide justification for the selection of three focus teachers from two very different PD models. Then, I propose an analytical approach using discourse analysis both to provide fine-grained examination of negotiations of power and knowledge and to make broader claims about teacher participation in learning opportunities.

Chapters four – six present data and analysis from the three focal teachers.

Each of these chapters opens with a found poem, constructed of verbatim utterances from the respective teacher. This is followed by a narrative, chronological synopsis of the teacher's participation in the PD project. The third section of each of these chapters presents episodes that represent the teacher's primary tensions and concerns. Through discourse analysis of the ensuing relational dynamics in the interactions between the teacher and the PD facilitator(s), I provide evidence that seeks to explain the nature of the teacher's participation and progress/lack of progress.

Chapter seven provides a discussion across the three focus cases, examining commonalities that may offer opportunities for generalization. This is followed by implications for use by professional developers.

Chapter 2: Literature Review and Conceptual Framework

Overview

There has been minimal empirical work among the PD research community that explicitly investigates affective concerns or relational dynamics of teacher learning. This literature review will first present practitioner and empirical PD literature, which primarily addresses the construct of relational trust. Next, I will turn to related social science fields and review the relevant literature that conceptualizes affective and relational components of learning in three broad categories: 1) creating a climate and organizational context for learning; 2) creating interpersonal relationships to support learners; 3) creating internal conditions (motivation, affect) to support learning.

In both practitioner and empirical literature on PD, a strong consensus exists that trust in PD relationships is essential to teacher engagement, and that teacher resistance may be traced to a lack of trust. However, this conceptualization of trust is, for the most part, amorphous and undertheorized. For example, research on a mathematics reform project with university-based resource partners providing PD for two public middle schools suggests teacher distrust as a source of teachers' disengagement from learning (Stein, Smith & Silver, 1999). Although not an initial focus for their research, interpersonal relationships between professional developers and teachers arose as a significant factor affecting teacher engagement or disengagement in both participating schools. As a result of this study, Stein et al. recommend that "professional developers need to think about how they will manage

the tension between developing interpersonal trust and propelling teachers toward higher levels of accomplishment" (p. 264). The authors do not, however, unpack the construct of trust, nor do they provide specific guidance about what it might take to build trust with teachers.

Similarly, several evaluation reports of instructional coaching programs have discussed issues related to relational dynamics in this PD model (Knight, 2007; Neufeld & Roper, 2003; Poglinco et al., 2003). For example, an evaluation of literacy coaching in the America's Choice program identifies significant variation in coaches' effectiveness due to their "human relations skills," such as being able to make teachers feel "supported" and being considered "approachable" (Poglinco et al., 2003, p. 36). This report also describes tension for coaches in managing their ambiguous authority role—whether they act more as teacher colleagues offering suggestions or as quasi-administrators mandating change in teacher practices; teachers noted in particular that coaches' approaches to giving feedback from classroom observations had a strong impact on whether teachers trusted and respected the coach.

Neufeld and Roper (2003) share similar results from longitudinal, qualitative studies of instructional coaching programs in four large, US school districts. With regard to relational and interactional areas of coaches' work, Neufeld and Roper find that coaches "need the personal qualities that establish trust. They need professional expertise – which in urban areas includes skill teaching low achieving and diverse students – in order to demonstrate their value to teachers and principals" (p. 17). That is, coaches may build trust in part by demonstrating competence in teaching. Neufeld and Roper also explain that teachers may distrust coaches who serve as "snitches,"

and that coaches and principals need to "work out the delicate balance between confidentiality and reasonable feedback so that the coach can be a productive informant for the principal and the principal can use the coach's feedback in professional ways" (p. 18). In this sense, Neufeld and Roper view clear expectations about coaches' communication as integral to the development of trust with teachers.

The consensus about the importance of trust extends as well to the realm of practitioner literature about PD. The vast proliferation over the past dozen years of "how-to" books and articles for various types of PD providers invariably encourages professional developers to attend to building trust with teachers (e.g., Dole, 2004; Lyons & Pinnell, 2001; Toll, 2005); however, minimal attention is paid to the *process* for doing so. For example, a practitioner journal offers one sentence on the issue of trust: "Once this coach had built a positive rapport with teachers, the teachers would be comfortable inviting the coach into their classrooms for feedback and coaching" (Dole, 2004, p. 467). The assumption here is that trust building is an early and discrete step at the start of a PD experience. By its lack of attention to *how* professional developers might build trusting relationships, such literature simplifies this complex process and implies to coaches that trust may be easily achieved.

There is one branch of PD literature, within instructional coaching, that indirectly discusses trust building by embedding it in discussions of goal-setting and teacher beliefs. That is, instructional coaches may engage teachers through establishing "a safe environment in which teachers can strive to improve their practice ...by approaching their own work as continuous learners and admitting they are not experts" (Neufeld & Roper, 2003, p. 9). In addition, instructional coaches

may reduce resistance by valuing teachers' expertise and respecting teachers as individuals with "ideas, passions, beliefs, anxieties, and skills to be discovered and interwoven into the work" (West, 2009, p. 124). In this viewpoint, coaches can build a collaborative relationship with teachers when they respect teachers' beliefs, remain explicitly nonevaluative, and maintain a stance of curiosity about student learning (Casey, 2006; Costa & Garmston, 1994; West & Staub, 2003). These recommendations, however, lack empirical grounding.

Trust, Relationships, and Positionality in Empirical Research on PD

At this time, there is extremely limited empirical research that explicitly investigates interactions between professional developers and teachers (Knight, 2009; Rainville & Jones, 2008; Remillard & Geist, 2002; Sztajn et al., 2008). One reason may be the relatively recent shift away from short-term workshop approaches to PD, in which interactions between teachers and PD providers were not significant to the PD model. The existing studies reviewed here do cover a diversity of PD models and providers: literacy coaching from district-provided, school-based coaches and mathematics PD provided by university faculty as part of a larger research project.

Sztajn et al. (2008) look specifically at the development and role of trust in relationships between school-based elementary teachers and university-based mathematics educators engaged in a professional development initiative aimed at improving math instruction at the elementary school. The authors explain their interest in trust:

Despite emerging discussions in the professional development research literature about teachers and communities, how trust among participants is built as communities develop has not been widely investigated. Trust seems to be taken for granted in many reports about professional development projects that work with teachers in learning communities. (p. 971)

The authors—participating professors in the professional development program—seek teachers' perceptions of factors that built their trust in the university-based faculty. The authors use care theory as described by Noddings to conceptualize the factors identified by the teachers as integral to trust building. Sztajn et al. posit that trust and caring support teacher learning, because "when the cared-for comes to believe that the carer has the cared-for's best interests in mind, he or she is likely to engage in the carer's suggestions and ideas" (p. 974). That is, teachers are more likely to try out new teaching practices when they trust their PD instructors.

Data in this study do not focus on the professional development interactions themselves, but rather on "evaluation interviews" with teachers, as the researchers are interested in presenting and examining the teachers' own voices as they described the faculty's trust-building moves. Stzajin et al. (2008) identify three main themes that they saw contributing to teachers' trust of the university partners: 1) professionalism of the math educators; 2) the organization of the project, such as inclusion of PD time during the school day; and 3) the establishment of university-school relations.

Teachers highlighted "the respect the mathematics educators had for teachers' knowledge, experiences, and questions" as well as their "confidence that the mathematics educators had something to contribute to the community and to teachers' professional growth" (p. 978). Use of teacher evaluation interviews as the main data source is problematic, however, in that the interviews were conducted by members of the research team who also served as PD instructors; the researchers make no

examination of the role that their positionality and authority as PD instructors may have played in affecting the teachers' responses about how they felt "cared for" by those instructors.

A more explicit investigation of positionality comes from Rainville and Jones' (2008) discourse analysis of one school-based literacy coach in her work with three teachers; the researchers find that the literacy coach takes on "shifting identities" as she positions herself differently in relationship to various teachers, even within one school. For example, in her interactions with one of the participating teachers, the literacy coach encountered resistance that manifested as the (older, experienced, male) teacher's active opposition to the (younger, less experienced, female) coach's goals. In this case, the veteran teacher "had decided that the support he needed was for Kate [the coach] to complete some of the running records *for* him, not *with* him" (p. 444, italics added). Rainville and Jones posit that "when a teacher and a coach have different expectations of the coach's role in the classroom, misunderstanding and miscommunication (on both sides) can lead to a counterproductive standoff" (p. 445). The participants' differing perceptions of their roles in the PD relationship are seen as leading to the teacher's disengagement.

This description mirrors findings from Stein, Smith and Silver's (1999) case study of two middle schools participating in a mathematics reform project. In the third year of participation, teachers from one of the schools dismissed further PD facilitation from their university partner. As Stein et al. explain,

a standoff materialized: Riverside teachers felt that their knowledge of and experience with the students, the school, the environment, and the curriculum, as well as their concerns about the district and community, were ignored by the resource partners. The resource partners held

firmly to their belief that the context in which teachers worked should not influence the kind of support they received. (p. 253)

In this instance, the teachers' resistance stems from the perception that their local expertise—their knowledge of their students, curriculum, and school context—is not valued or respected. Similar to the findings from Rainville and Jones (2008), the teachers' sense that their own interests or goals are in conflict with the professional developers' expectations leads to disengagement from the learning opportunities of the PD. In the Rainville and Jones study, however, the coach's positionality is presented as a static characteristic of her relationship with each teacher; consequently, the study does not provide analytical tools for examining the complexity and dynamic nature of teacher learning in interactions.

In a study that perhaps most closely addresses my own research questions, Remillard and Geist (2002) investigate how teacher educators seek to support teachers' learning in implementing a new, reform-oriented mathematics curriculum. Although not the original intent of the study, Remillard and Geist observe a number of interactions between teachers and facilitators around moments of tension or questions teachers raise about the new curriculum. The authors notice that

the three facilitators confronted unanticipated and at times awkward points in the conversations through which they had to navigate. These instances were prompted most often by participants' questions, observations, challenges, or resistant stands on issues that were important to them. (p. 13)

The authors choose to explore these unanticipated questions and label them "openings" that may present "opportunities for facilitators to foster [teacher] learning" (p. 13). Focusing on cases of three teacher educators, Remillard and Geist note that moments of opening—when teachers raise concerns or tensions—seem to

arise from "mismatches between what teachers have come to expect from professional development and what they encounter in the seminar" (p. 19). Their research shares the stance of this study, that "because the work of teaching involves attending to multiple, often competing agendas, teachers constantly confront dilemmas of practice. The work of teaching involves managing these dilemmas, rather than seeking to eliminate them" (p. 23).

Three types of openings become apparent in their data: (1) participating teachers' "assumptions that facilitators advocated a particular approach to teaching mathematics" (p. 23), of which the teachers were skeptical; (2) moments of tension when "facilitators struggled to find ways of acknowledging the expertise that teachers brought with them while maintaining a stance of inquiry" (p. 19); and (3) interactions around explorations of mathematical ideas – and "how much to push the explorations"—a tension between "mathematical goals and the immediate interests or questions of the participants" (p. 24). This paper then examines the considerations that facilitators take as they seek to navigate the multiple tensions inherent in teachers' questions and choose a move in response.

The authors conclude that "awareness of the navigational process is critical to the work of supporting teachers' professional development" (p. 27) and that implementation of an inquiry-oriented curriculum "demands that facilitators/teachers take advantage of openings as they emerge and that these openings are likely to vary from context to context" (p. 28). Remillard and Geist (2002) examine professional development around the implementation of one reform-oriented mathematics

curriculum. Whether these dynamics hold true in other content areas in other contexts—and how teachers respond to facilitators' moves—is a focus of this study.

Approaches to Literature from Related Fields

Both practitioner and empirical literature on PD interactions provide little specific guidance for addressing relational dynamics in teacher learning interactions. In seeking a more robust conceptualization, I have turned to related areas of literature that consider issues of relational dynamics and affective concerns for teachers or other learners. Providing a comprehensive analysis of this topic—which would travel to fields as wide-ranging as organizational management, mentoring, clinical psychology, clergical education and other helping professions—is beyond the scope of this review. Instead, I draw on relevant bodies of literature by approaching the issue of affective concerns and relational dynamics in PD interactions from three broad categories:

- Creating a climate and organizational context for learning
- Creating interpersonal relationships to support learners
- Creating internal conditions (motivation, affect) to support learning
 In each of these categories I will review relevant literature, summarize their
 recommendations, and discuss how and to what extent their recommendations may be
 applicable to relational dynamics of PD interactions. It is not my intent, however, to
 suggest that these categories are mutually exclusive; rather, there is much overlap
 between them, such as school leaders who structure time for PD into the school day
 and also care about teachers' self-efficacy, or teacher inquiry communities that seek
 to influence school climate as well as support interpersonal relationships among

teachers. The categories simply provide a heuristic and organizational device for sifting numerous bodies of literature and unpacking the often-amorphous concepts of relational trust, affect, and interactional dynamics as they may apply to learning for teachers.

Creating a climate and organizational context for learning.

Fields including organizational leadership, continuous improvement, and professional/ teacher learning communities are concerned with the climate and organizational context for learning; that is, in promoting schools as workplace environments that provide the time, space, and encouragement for teachers to engage, usually collaboratively, as learners as they seek to improve student achievement.

The approach to creating a climate and context for teacher learning is exemplified by the literature on organizational leadership and school reform—much of which emphasizes PD as a primary vehicle for improving student performance. This body of literature encourages school leaders to pay explicit attention to building relational trust with teachers and to acknowledge valid causes of teacher resistance as a springboard for collaborative problem-solving (Elmore, 2000; Fink & Resnick, 2001; Fullan, 2001). Principals are also exhorted to create a school climate in which continual learning is expected and valued among all school staff (Smylie, 2010). During the proliferation of school reform experiments in the 1980s and 90s, researchers initially looked to the literature on organizational management and organizational change to advise school and systemic leaders about the change process (Fullan, 1991, 2002). Because organizational leaders most often hold clear authority in hierarchical relationships with employees, how, then, might they foster trust with

teachers? And what applications may their recommendations have for professional developers, whose positionality in schools is more ambiguous?

Effective change leaders allow employees to express their views about the reform, and they even anticipate employee resistance. Fullan (2002) challenges principals directly to "[r]edefine resistance. Successful leaders don't mind when naysayers rock the boat. In fact, doubters sometimes have important points. Leaders look for ways to address those concerns" (p. 18). Due to the social nature of schooling—as compared to business enterprises—it is considered particularly important for leaders of schools to attend to relational features of reform work. Much recent school reform centers around collaboration and shared knowledge building among all adult stakeholders. Along those lines, effective leaders "value the tensions inherent in addressing hard-to-solve problems because that is where the greatest accomplishments lie" (p. 19). In addition, change leaders take care to build relationships with staff: "The Cultural Change Principal's efforts to motivate and energize disaffected teachers and forge relationships can have a profound effect on the overall climate of the organization" (p. 18). Fullan (2002) implies that when effective leaders show a willingness to address resistance, engage in difficult conversations, and build relationships, they develop a climate of trust and create among teachers a long-term, meaningful buy-in of the reform.

Empirical investigation of such claims about what may make principals effective in implementing reform and supporting teacher learning has occurred, particularly through case studies of the school restructuring efforts in Chicago in the 1980s and 1990s (Bryk & Schneider, 2002; Tschannen-Moran, 2004). Both Bryk and

Schneider and Tschannen-Moran use the concept of trust as the overarching feature of successful reform environments and effective school leaders. Their case studies seek to uncover specific components of trust-building or trust-eroding moves that impacted schools' progress in reform.

Bryk and Schneider (2002) develop their construct of trust by examining scholarship on social relations in diverse institutional contexts from the fields of social theory, economics and political science. Their theory of action is that "the quality of social relations in diverse institutional contexts makes a difference in how they function" (p. xiv) and that the development of relational trust, in particular, distinguishes schools making progress in reforming. This analysis, together with their narrative case studies of three urban Chicago schools over three years, allows them to "link measures of relational trust over time within the school communities with changes in the work life of these schools, and most importantly, with measured improvements in school academic productivity during the early to mid 1990s" (p. xiv).

Bryk and Schneider (2002) seek to unpack the features of social trust and interpersonal relationships in the schools they studied. Through interviews with teachers, principals, and community members, as well as school and classroom observations, focus groups, and document analysis, they define four interdependent components of relational trust: 1) respect, 2) competence, 3) personal regard for others, and 4) integrity. Bryk and Schneider first describe respect in the context of schooling as:

recognition of the important role each person plays in a child's education... Key in this regard is how conversation takes place within a

school community. A genuine sense of listening to what each person has to say marks the basis for meaningful social interaction... Genuine conversation of this sort signals that each person's ideas have value and that the education of children requires that we work together cooperatively. (p. 23)

If respect in school-based conversations is based on mutual regard for each participant's ideas, then the teacher's expertise must be sought out and valued. Bryk and Schneider provide examples in their case studies of one principal doing just that, as they explain, "Teachers especially appreciated that Dr. Goldman gave them a voice in school decision making and encouraged them to expand their roles beyond traditional classroom concerns" (p. 80). Teachers may also experience respect when they see their principals following through on administrative promises that help support teachers' work. For example, when professional development is an element of school reform, respectful principals make scheduling arrangements to allow teachers to work collaboratively during their work day.

Competence—one's ability to complete one's formal responsibilities—is another key component of trust, but it can be more ambiguous in schools than in other organizations. As Bryk and Schneider (2002) explain, the fundamental complexity of schooling and the lack of widespread agreement of what constitutes exemplary practice complicate the issue of evaluating competence among teachers or, indeed, principals as well. The authors imply that schools that do not work collaboratively to envision the successful enactment of the role of teacher are more likely to encounter tension or conflict about who is or is not exhibiting competence.

Personal regard for others is also seen as crucial in school settings because "the social encounters of schooling are more intimate than typically found within most modern institutions" (p. 25). Bryk and Schneider (2002) see personal regard as more than a generalized attitude of kindness, but rather as specific words and acts of caring appropriate for particular individuals. They argue that when adults in schools demonstrate personal regard, relational ties strengthen, and teachers are more likely to be committed to their work.

Principals' commitment to their work, their enactment of integrity, is also essential to teacher buy-in; Bryk and Schneider (2002) define integrity minimally as keeping one's word but also see it as "a moral-ethical imperative [that] guides one's work" (p. 26). When conflicts arise, which Bryk and Schneider explain is inevitable in any organization, integrity is demonstrated by making decisions that "affirm an individual's commitment to the core purposes of the school community" (p. 26). Principals might exhibit this quality by, for example, speaking out against a central office mandate that they believe will not help their students.

In combination, according to Bryk and Schneider, enactments of respect, competence, personal regard for others, and integrity may build relational trust among school communities and lead to developing capacity for change and improvement. Similarly, Tschannen-Moran (2004) offers five facets of trust—benevolence, honesty, openness, reliability, and competence—developed through earlier empirical work with faculty in urban elementary schools (Hoy & Tschannen-Moran, 1999). Through three case studies of urban Chicago elementary schools, Tschannen-Moran (2004) focuses on the capacity of principals "in fostering trust relationships among teachers, students, and parents" (p. xii). She describes each of the five facets of trust

in the context of three principals, one of whom the author finds to be successful in cultivating trust in her school community and two who are unsuccessful.

Tschannen-Moran's (2004) definition of benevolence extends beyond mere caring: "In situations of high trust, people do not hesitate to seek help because they do not fear that others will think they are inadequate" (p. 21). The creation of a climate in which learners (teachers) view calls for help or collaboration as expected and supported rather than risky or to be avoided, has clear parallels to one of the goals of reform-oriented PD described throughout this paper—diminishing teachers' sense of vulnerability in sharing problems from their practice. In addition, trust-building principals support a school climate of continual learning through ongoing practices of building their own instructional expertise and engaging in PD themselves alongside their faculty; Tschannen-Moran views this as a demonstration of competence. The author also describes three distinct components of principals' communication: honesty— defined as consistently speaking the truth— which she distinguishes from openness—being voluntarily forthcoming with information that affects the school community—and reliability—consistently following through on promises.

Tschannen-Moran (2004) recognizes that the power differential between principals and teachers influences the development of trust:

Because of the hierarchical nature of the relationships within schools, it is the responsibility of the person with greater power to take the initiative to build and sustain trusting relationships. Because of their greater feelings of vulnerability, subordinates seem to be hypervigilant in their trust assessments of superiors so that even relatively minor gestures take on considerable importance. (p. 35)

Principals clearly hold greater power and authority than teachers in the vast majority of U.S. schools. According to Tschannen-Moran, principals therefore need to take the lead in initiating trust-building relationships with the teachers who work for them.

Tschannen-Moran (2004) emphasizes that those principals who recognize the interdependence of all adult stakeholders in creating a successful school take the time to build initial trust with teachers. By negative example, she describes one of the ineffective principals in her study, who "because of the pressure she felt to make change quickly, she did not invest the time to develop the requisite trust needed to lead people through change... her impatience for change was perceived as disrespectful by those who had invested their professional lives at [the school]" (p. 43). Another difficulty in building trust in schools can result from differences in stakeholders' beliefs about teaching and learning. Tschannen-Moran sees such clashes as attenuated by cultural diversity among staff, as the practice of teaching evokes many deeply held (and often not explicitly discussed) beliefs about children, learning, and relationships. The author explains, "People have a tendency to extend trust more readily to those they perceive as similar to themselves based on the assumption that they have adopted similar norms of obligation and cooperation learned through similar cultural structures" (p. 50). Effective, trust-building principals will engage with the challenge of discussing cultural beliefs and norms with their staff, with the goal of establishing a common vision for teaching and learning goals.

Taken together, these studies (Bryk & Schneider, 2002; Tschannen-Moran, 2004) find that school leaders encourage trust building with teachers by:

- Involving all school stakeholders (including school leaders) in continual learning;
- Expecting, honoring, and addressing resistance to change initiatives;
- Respecting teachers as professionals and valuing their input;
- Demonstrating caring for colleagues both personally and professionally;
- Demonstrating integrity by sharing responsibilities and following through on commitments;
- Offering transparency in communication.

Ultimately, these studies express that school leaders' trust-building actions increased teacher buy-in and improved teachers' capacity to implement reform.

Trust-building actions by principals, though, may not apply directly to PD. Principals differ from professional developers in that their authority is clearly defined within the bureaucratic hierarchy of the school. For professional developers, on the other hand, their positionality is often more ambiguous. On the one hand, they are not classified as administrators by school systems or unions; often, in fact, they are employed by external foundations, institutes, or universities. Although professional developers mostly do not have evaluative authority over teachers, they do often participate on school leadership teams with administrators. And, not insignificantly, professional developers are often *perceived* by teachers as holding more power. Such a perception has real impact on the creation of trusting relationships. At the same time, professional developers are additionally charged with *teaching* teachers, which, for the most part, principals are not; that is, while principals may create

organizational conditions and climate to *support* learning, they do not have to *conduct* learning experiences.

Creating interpersonal relationships to support learning.

The belief that learning is social and happens in interactions, and that the quality of relationships matters for learners, undergirds this category of creating interpersonal relationships to support learning. This belief resonates with numerous and diverse fields including professional learning communities, new teacher mentoring, teacher learning/research communities, Japanese lesson study, executive coaching, cognitive coaching, and consultative school psychology². This literature foregrounds communication skills in learning interactions (Costa & Garmston, 1994; Knotek et al., 2003) and views the sociocultural and interactional negotiations among teachers as a leverage to teachers' professional growth (Cochran-Smith & Lytle, 1999; Grossman, Wineburg & Woolworth, 2001; Lieberman & Miller, 2007; Little & Horn, 2007; Shimahara, 1998).

Consultative school psychology.

For some, research in this area focuses on interactions in dyads as the most significant unit of analysis of relational interaction and learning (Gonzales et al., 2004; Knotek, Rosenfield, Gravois, & Babinski, 2003). Consultative school psychology, coming from a mental health approach, has arisen as a method for diminishing inappropriate special education referrals by teachers who find they cannot alone address certain students' needs. School-based psychologists are

28

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² This is not to say that these fields are not also concerned with organizational climate and context for learning; however, their focus is not on *creating* such climates at the organizational level.

available to teachers for consultation in modifying classroom practices to better meet the behavioral and academic needs of struggling students within their classrooms. School psychologists in this consultative model "add to or improve upon the teacher's knowledge and problem-solving repertoire, with the net effect of enhancing the teacher's present and future effectiveness with other children" (Gonzales et al., p. 31). This is a problem-solving approach in which psychologists explicitly draw teachers' attention to the application of strategies from a particular child to other students as well.

Because the success of consultation depends upon teacher engagement, Gonzales et al. (2004) seek to delineate specific causes of teacher resistance to the process. Although teacher resistance is often attributed to teachers' "inflexibility, irrationality, and poor motivation" (p. 31), the authors explain that teachers' exhibition of resistance is reasonable when they view the costs of engaging in consultation as outweighing the benefits. The authors hypothesize the following causes for teacher resistance: 1) time demands of consultation; 2) a teacher's perception that needing help is a public admission of inadequacy; 3) fear that problem identification might expose professional incompetence; 4) anxiety produced by change; 5) discomfort over interpersonal processes involved in consultation; 6) discomfort over losing control of the problem; 7) fears associated with confidentiality; 8) incurring the principal's admonishment; 9) risking the possibility that deficiencies unrelated to the presenting issue will be revealed to the consultant. It is noteworthy that most of these causes relate to teachers' anxieties about being judged or exposed as deficient in their practice. Indirectly, they suggest a school

culture in which teachers feel primarily (if not solely) responsible for the successful achievement and productive behavior of all of their students.

Gonzales et al. (2004) surveyed a random sample of certified elementary school teachers from Iowa, which had recently implemented a problem-solving consultation approach statewide, and sought to determine the variables that influenced teachers' use of consultation. After analysis of responses, the authors found "no predictive relationship between the identified factors and the number of teacher-reported actual consultations" (p. 34). They speculate that a low response rate (27%) may have biased the findings. In addition, Gonzales et al. theorize that there may be a more significant relationship between teachers' perceptions of the variables and their willingness to participate in consultation (rather than their actual *amount* of participation). That is, a connection between how consultation is implemented and teachers' willingness to engage with the consultant may be more salient. The authors suggest a future study that better seeks to understand teacher resistance and dispositions toward consultation by measuring their perception of the effectiveness of consultation. Nevertheless, Gonzales et al.'s detailed look at possible causes for teacher resistance is useful to an investigation of teacher (dis)engagement in PD.

In a study of another consultation model, Knotek, Rosenfield, Gravois, and Babinski (2003) look more specifically at teacher dispositions toward consultation. Knotek et al. present a micro-ethnographic study of the Instructional Consultation (IC) model, which coordinates consultation teams at schools in seven U.S. states (see also Rosenfield, 1987; Rosenfield & Gravois, 1996). In the IC model, a teacher

voluntarily refers a struggling student (or group of students) to the IC Team when she desires additional support to identify and address the student's needs. In addition, there are occasions when school administrative policies *require* teachers to make a referral to IC as a precursor to referral to special education. In this sense, IC is similar to professional development, in that teachers' participation in activities seeking to improve their instruction is not always voluntary.

Knotek et al. (2003) come at the issue of affective and relational dynamics through an examination of how the consultation process supports the development of consultees' problem-solving skills in one high-functioning IC school. Implicit in this discussion is the belief that consultants use specific communication strategies to develop trust with consultees. An important part of the consultant's role is to support the teacher in "reconceptualizing the work problem" not as a weakness on the part of the individual teacher, but as a joint dilemma which is at the heart of the educational enterprise:

One of the central goals of IC is to change how consultees (teachers) frame students' school problems away from viewing them as internal, student-centered deficits, toward understanding student learning as a result of the interaction of instruction, task, and student entry skills. (p. 305)

Redefining student struggles as a *mismatch* between the instructional delivery, the assignment or task, and current student skills—rather than a teacher deficiency—places the focus for student improvement on the consultant and teacher collaboratively realigning all three elements of the mismatch. This conception of *teaching* as a collaborative, problem-solving activity contrasts with a commonly-held

view—which often affects approaches to PD— that student difficulties indicate a *teacher* who needs to be improved.

Knotek et al. (2003) present a subset of results from an ongoing, longitudinal study of IC (www.icteams.org/2006ICEffectivenessStudy.html); specifically, the authors collected and analyzed interviews with case managers and teachers, direct observations, formal consultation documents, and IC training documents to examine the consultation process over one year. In particular, their unit of study was defined as the "problem-solving event, specifically consultation between a case manager and a teacher" (p. 309). The researchers' analysis of the data identified several themes from teacher participants, including the attention to communication norms, the collaborative approach to problem solving, and the nonhierarchical process in which consultants relinquished the expert role.

Teacher participants as well as IC case managers spoke at length about the role of communication to foster a sense of shared responsibility within the IC process. One teacher explained, "Everything I have to say is always taken very seriously ... she will say 'what is it exactly you are trying to do? What are you trying to accomplish?' ... She really takes the time to listen" (p. 316). In this sense, case managers and teachers work in a collaborative fashion; teachers appreciate case managers' contribution to the problem-solving process by offering their time and their communication skills, and case managers show their respect for teachers in this process by valuing teachers' expertise about their students and their curriculum.

This study also emphasizes the importance of IC's nonhierarchical process: "The focus of [case managers'] responsibility in the professional situation shifted

from telling teachers about their students to concentrating on the teachers' beliefs and perspectives and asking teachers to be the authority regarding the student" (Knotek et al., 2003, p. 320). This approach has benefits for teachers, as described above, who bring more trust and engagement to the IC process when they feel case managers authentically trust and actively listen to them. Case managers, as well, view the nonhierarchical approach as valuable; they "began to rethink and reevaluate the etiology of students' academic troubles, and deepened their appreciation of collaboration's potential to support teachers' ability to solve their work-related problems" (p. 321). The IC model is deliberate in constructing the role of case managers as collaborative partners who can co-construct interventions or solutions with teachers.

In their discussion, Knotek et al. (2003) also describe the role of feedback for teachers as a tool in instructional consultation:

If a teacher is to freely construct new ideas about a situation in her classroom, she must not feel judged, evaluated, or otherwise constrained by the consultant. Problem-solving must occur within an accepting, supportive environment so that a teacher may spend consultation time constructing new possibilities and not defending old practices (p. 322).

This perspective views evaluative feedback as potentially detrimental to teacher engagement and sees nonjudgmental feedback as offering more promising possibilities for teacher growth. Overall, the Knotek et al. study suggests several aspects of Instructional Consultation that may leverage teachers' engagement: conceptualizing teaching as a problem-solving activity, developing nonhierarchical relationships that value teacher expertise, developing explicit communication norms,

and providing feedback that focuses primarily on measurable student growth rather than on judgments of teacher performance.

One recent study of an instructional coaching model for elementary reading intervention teachers is explicitly based on the consultative psychology model (Denton, Swanson & Mathes, 2007). The authors describe Student-Focused Coaching (SFC), which incorporates "the problem-solving emphasis of collaborative consultation with a focus on the use of student assessment and observation data for decision-making" (p. 572). It is perhaps not surprising that the designers of the SFC model—including this article's lead author— who are professors in a Special Education department, have designed their SFC model with components from collaborative consultation, as the field of consultative psychology also arose from within special education.

Denton et al. describe how SFC's attention to assessment data improves the relationship between teacher and coach: "rather than focusing classroom observations on teacher behaviors, coaches focus on the interactions between student and teacher behaviors... This kind of student-focused feedback helps to reduce the feeling of evaluation of classroom observations" (p. 573). Although Denton et al. do not draw any conclusions from this statement, one might infer that a reduction in feelings of evaluation could build teachers' trust and could engage teachers more meaningfully in the coaching process. This view clearly resonates with Knotek et al.'s (2003) description of nonjudgmental feedback that views teaching as a problem-solving activity rather than teachers needing to be "fixed."

Denton et al. find that teachers in this study began to base instructional decisions on their interactions with instructional coaches about student assessments. The authors see evidence that teachers "set goals for student performance and adjusted the pacing and focus of instruction based on progress monitoring data" (p. 588). However, the authors themselves point out the limitation that their study will need to track teachers for a longer period of time to determine if the SFC coaching process influences teachers' long-term practice.

The above studies from consultative psychology offer the following recommendations for building productive relationships with teachers:

- Promoting a problem-solving stance toward teaching and learning;
- Using communication strategies that make teachers feel "heard";
- Fostering nonhierarchical collaboration that values both consultant and teacher expertise;
- Providing nonjudgmental feedback by focusing on observable, measurable goals for student growth.

These features clearly rest on several assumptions: that the work of teaching is inherently a problem-solving enterprise, that the classroom teacher is not solely responsible for students' performance and growth, and that consultants are not experts with solutions for teachers. Several of these recommendations may transfer directly to PD, such as developing explicit communication norms and offering nonjudgmental feedback; that is, in discussing classroom observations or demonstration lessons, professional developers may craft their feedback language to focus on what students

accomplished, rather than on evaluating the teacher's performance as "good" or "not so good". However, creation of nonhierarchical relationships between teachers and professional developers may be more complicated: Where school psychologists and teachers have a clear distinction in their knowledge bases, it may be less clear to professional developers in what ways they might genuinely value teacher expertise that is distinct from their own.

Teacher learning in communities.

The value of addressing interpersonal relationships to support learning also has roots in sociocultural approaches to learning in communities of practice (Wenger, 1998), which has influenced the promotion of professional learning communities for teachers. Researchers who study teacher inquiry, teacher research and learning communities note the importance of such groups being initiated and sustained by teachers themselves, as teachers become invested in learning that stems from reflection on problems or issues within their own practice (Cochran-Smith & Lytle, 1999; Grossman et al., 2001; Little & Horn, 2007). They also largely concur that building a trusting professional community is an essential but slow process, as teachers undergo characteristic phases of developing group dynamics, such as forming communication norms and negotiating interpersonal tensions (Grossman et al., 2001; Lieberman & Miller, 2007).

Judith Warren Little (2003) examines teacher learning in two high schools, providing case studies of three "teacher-led groups that consider themselves collaborative and innovative" and that "engaged in improvement-oriented professional work together" (p. 915). Through discourse analysis of teacher

36

conversation in these inquiry groups, Little seeks to discover what aspects of classroom practice teachers discuss, and how group interaction might "open up or close down teachers' opportunity to learn" (p. 920-921).

Little finds that the three groups in this case study—which operated without administrative directive—demonstrate many of the features desired of professional learning communities, such as identifying and examining meaningful classroom problems or issues, seeking advice from colleagues, focusing on their responsibility to student success, and sharing artifacts from classrooms. In addition, Little presents examples of teachers supporting one another in managing the tension between grappling over time with real dilemmas and "getting on with the business of teaching" (p. 938). She also notes, however, that teacher conversations in the groups closed down the offerings of some participants even as they pursued others, without explicitly discussing why those choices were made. As Little (1999) explains, a critique of organic teacher learning communities is that they do not automatically create benefits for teachers and students or necessarily promote student learning.

Research into teacher learning communities also presents a common theme of looking at teaching from a stance of inquiry (Cochran-Smith & Lytle, 1999), that is, seeing instructional difficulties as opportunities for problem-solving (Horn & Little, 2010; Little & Horn, 2007). Little and Horn (2007) call this approach "normalizing problems of practice" (p. 81). In their discourse analysis of a collaborative teacher group, Little and Horn identify particular conversational resources that seem supportive of teacher learning when

teachers' expressed problems are met with *normalizing* responses—that is, moves that define problems as normal, an expected part of classroom work

and teacher experience...[and] as a means to help anchor emergent advice to more general problems and principles of teaching. (pp. 81-82)

In this view, improvements in teaching occur through collaborative problem solving and a focus on improving student learning, rather than judging teacher performance. It also seems important in these groups that teachers themselves initiate the problems of practice with which they choose to wrestle (Horn & Little, 2010).

Similarly, Lesson Study groups in Japanese schools involve teachers working collaboratively to improve teaching and learning in a specific area they find problematic by planning, teaching, observing, critiquing and revising lessons (Hiebert & Stigler, 2000). A significant feature of Lesson Study is that, after planning lessons collaboratively, one teacher "tries them out while the others observe and evaluate what works and what does not, and they revise the lessons" (p. 10). Teachers often focus specifically on adjusting the wording of questions or problems to elicit more productive responses from students; then they reteach the revised lesson, again with peer observers. As Hiebert and Stigler explain, "this process may go on for several months, or several years" (p. 10).

Lesson Study is described as an ingrained part of school culture in elementary schools in Japan (Hiebert & Stigler, 200; Shimahara, 1998), a culture in which teaching is viewed as a craft and in which expertise is located in veteran teachers. Shimahara (1998) describes this culture as resting on several assumptions: that teaching is a collaborative process, that peer planning is a critical aspect of teaching, and that teachers participate in cooperative management of responsibilities throughout their schools. Situated within this existing culture, Lesson Study practices of observing and critiquing colleagues' lessons seem not to evoke the sense of

vulnerability or judgment described in much of the literature about classroom observations in U.S. schools. Rather, Shimahara presents ethnographic data establishing the stability of the concept of teaching as craft as embedded within Japanese teaching culture; that is, the existing framework of inservice teacher development reifies cultural practices of teacher collaboration and peer planning and critique.

As such, the Lesson Study example carries caveats for those who would consider implementing it outside of Japan. As Hiebert and Stigler (2000) explain, the changes needed to enable teachers to collaborate productively are more than organizational and institutional, involving "significant changes in the culture of U.S. schools...[and] in the ways teachers think about planning and teaching" (p. 12). Lieberman (2009) conducted a case study of a Lesson Study project at a U.S. secondary school, among a voluntary group of mathematics teachers. Lieberman finds that implementation of Lesson Study over a seven year period supported the group in developing interactional dynamics that fostered openness, continual improvement, and student-oriented goals. Peer observations of Lesson Study lessons helped form a culture in which all teachers—whether experienced or newcomers—were seen as continual learners; however, the author notes that the practice of peer observation at the school has not extended beyond formal Lesson Study activities.

Another branch of teacher learning groups, which focuses primarily on the capacity of teachers as researchers (e.g., Cochran-Smith & Lytle, 1999), shares many features with other forms of teacher learning communities including: teachers themselves having valuable expertise to be leveraged for improving teaching and

learning; teachers setting goals for inquiry based on compelling problems in their own practice or school sites; taking a problem-solving approach to the enterprise of teaching—"inquiry as stance"; working collaboratively to interrogate and critique one's own and colleagues' teaching and schooling practices. Cochran-Smith and Lytle describe such teacher research as "associated more with uncertainty than with certainty, more with posing problems and dilemmas than with solving them, and with the recognition that inquiry both stems from and generates questions" (p. 21). While teachers' work in organic inquiry groups may empower teachers and support their learning, this approach is not necessarily grounded in the types of goals and timelines for student learning that are often a professional developer's charge.

Teacher learning communities have significant similarities to PD interactions. In fact, many advocates of teacher research, inquiry groups, and professional learning communities consider this work to *be* professional development. We might assume, therefore, that recommendations from research on teacher learning communities would transfer directly to PD. However, between purely collegial teacher groups and many organized PD activities—such as those facilitated by staff developers, university partners, or outside consultants— power differentials may variously affect the implementation of trust-building and relational moves. For example, a teacher presenting a problem in PD is likely to weigh responses differently from a colleague than from a professor. This is a tension that goes largely unaddressed by Horn and Little (2010), a research study that included members of the research team in the teacher inquiry groups. The authors do not investigate how their own power and positionality may have influenced the ways that teachers interacted in the groups.

On the other hand, Grossman et al. (2001) recognize the emergence of this tension in their long-term, interdisciplinary study group:

Keenly aware of the resentment teachers feel toward outside "experts," we worked hard to counteract the image of the know-it-all professor arriving on the scene with a binder of answers. Reluctant to take on this role, we may have been too hesitant to provide leadership that the group genuinely needed. (p. 958)

Although Grossman et al. did not anticipate this tension when designing their study, they sought to repair fragile group dynamics several months into the project, by facilitating conversations that explicitly addressed power dynamics and their effects on group decision making.

The development of group norms that build trust among teacher learning communities is likely to look different when such groups include professionals specifically enlisted to facilitate teachers' professional development. To be sure, even in a "collegial" teacher group, power asymmetries are inevitable, for example between more and less experienced teachers, department heads, or teachers with varying degrees of content area expertise.

Teacher learning groups also differ from many PD efforts in the source of their goals and the time afforded to reach those goals. For example, Grossman et al. (2001) found that during the first half of their project – 18 months of teachers' collaboration— teachers "struggled to find a common language and worked to create a collective vision for ongoing professional development in the workplace" (p. 944). This organic development of teacher community—where the work was about forming group norms for communication and collaborative goal-setting— took place over the long time span of one and a half years. As Hawley and Valli (1999) explain, "This

approach might bring personal satisfaction and even professional growth [to individual teachers], but it will do little to foster school improvement and student achievement if disconnected from teachers' daily practice and a coherent school improvement plan" (p. 135). District and school-level administrators charged with raising student achievement impress upon professional developers the urgency of demonstrating measurable improvements in their work with teachers. Professional developers, particularly in the current high-stakes assessment policy climate, are likely to find the timeframe of developing organic teacher communities untenable.

In sum, literature on various types of teacher learning communities offers the following recommendations for creating interpersonal relationships to support teacher learning:

- Empowering teachers to identify areas for inquiry that stem from compelling issues in their own practice;
- Allowing time to build group norms for communication;
- Approaching teaching and learning from an inquiry stance and using "normalizing" or nonjudgmental language to discuss instructional practices.

Creating internal conditions (motivation, affect) to support learners.

Researchers in learning theory as well as psycho-social development recognize the importance of internal learner conditions, that is, their feelings and dispositions toward learning (e.g., Bransford, Brown & Cocking, 1999; Murphy & Alexander, 2007). These include learners' goals (*What do I want to learn?*), prior knowledge (*How does this relate to what I already know and believe?*), and sense of

self-efficacy (Do I believe I might succeed at this learning? May I maintain my self-worth while engaging in this learning opportunity?).

Compelling research in this area focuses primarily on students, rather than teachers, as learners. Throughout this section, I will draw connections between this literature and implications for teacher learning in PD. Murphy and Alexander (2007) present a synthesis of recommendations for teachers in addressing student affect and motivation:

Teachers should acknowledge students' goals and interests and cultivate an academic climate that is supportive and encouraging of students' individual interests and goals, to the extent that students' goals further the desired instructional goals.... [and] teachers should recognize that students are often unmotivated about tasks or subjects for which they believe they will not succeed. (p. 21)

When teachers are learners, they are as likely as younger students to be more motivated when their interests and goals "further the desired instructional goals." Similarly, Blumenfeld, Kempler, and Krajcik (2006) argue that "students who value the subject matter and/or perceive that their needs have been met are more likely to be invested in learning" (p. 478). As described in previous sections, recommendations to involve teachers in goal-setting may support teachers' motivation for learning in PD settings.

In a related concern for learners' affect, Nasir, Rosebery, Warren, and Lee (2006) describe a "cultural view of learning" in which, in part, successful learning experiences are organized "in ways that address basic human needs for a sense of safety as well as belonging" (p. 491). When teachers—rather than children—are the learners, we may expect issues of affect and motivation to be similarly relevant. For example, PD that is job-embedded and that provides feedback on classroom practices

can make teachers feel threatened, vulnerable, or judged. Teachers' "needs for a sense of safety" in PD, therefore, are relevant concerns for professional developers seeking to engage teachers in learning opportunities.

One area of educational research that has emphasized the value of addressing learners' internal conditions is culturally responsive teaching (CRT). CRT seeks to explain and redress the underachievement of historically marginalized communities by characterizing learners' disengagement or underperformance as stemming in part from the exclusion or devaluing of students' culture (Gay, 2000; Ladson-Billings, 1995). Though K-12 teachers may not be considered a historically marginalized community like children of color or second language learners, there are some similarities in the rhetoric describing both children's and teachers' underachievement. That is, some explanations for the achievement gap have characterized historically marginalized groups of children as "not ready for school" or lacking the prior knowledge to access traditional school curricular. Similarly, when PD programs fail to change teacher practices, the fault is often placed on teachers for a lack of prior skill, ability, or expertise.

Building on cognitive learning theory about the importance of schema, CRT is primarily concerned with engaging learners by incorporating their cultural knowledge and language as a resource for building bridges to new learning and by communicating in ways that privilege learners' discourse norms (Lee, 1995; Nasir, 2002; Warren et al., 2000). As Carol Lee (2006) explains, citing Bransford et al. (1999), "If, as the most recent work in the Learning Sciences affirms...it is most productive for learners, especially novices, to make connections between prior

knowledge and new targets of learning, then it logically follows that we must also understand the range of diverse pathways to learning and development that are not only possible, but generative" (p. 319). This attention to valuing learners' cultural knowledge may apply as well to teacher learning, and is consistent with previous recommendations to incorporate teachers' goals and value teacher expertise in PD projects.

CRT also advocates that teachers (and curriculum materials) communicate in ways that privilege learners' discourse norms (Lee, 1995, 1996; Warren et al., 2000). As Gay (2002) explains, culturally responsive teachers are knowledgeable about cultural "protocols of participation in discourse" and recognize that "understanding them is necessary to avoid violating the cultural cues of ethnically diverse students in instructional communications" (p. 111-112). In contrast, Gay cautions that when students are "denied use of their natural ways of talking, their thinking, intellectual engagement, and academic efforts are diminished as well" (p. 111). Professional developers may also benefit from making space for teachers' voices in PD conversations. Often, teacher discourse may contain "cultural cues" in the form of local expertise about the school or district community, which professional developers may be wise to hear. In addition, individual differences between professional developers and teachers (e.g., race/ethnicity, gender, age) can cause disconnects or misunderstandings in discourse; CRT would advocate that professional developers repair any such miscommunication by privileging the learners' (in this case, teachers') discourse.

For example, Carol Lee's (1995, 2006) work with high school English students leverages students' knowledge and discourse, using cultural modeling to scaffold students' learning of requisite skills. Lee (2006) describes how cultural modeling motivates students by validating "their" cultural texts and incorporating students' reasoning about these texts into instruction. In addition, she emphasizes how students are repositioned as important sources of knowledge in the teaching-learning relationship: "From the beginning of instruction, because students most often have more genuine knowledge about the meaning of everyday texts than the teacher, the roles for who is the source of authoritative knowledge shift" (p. 310). That is, students become empowered as collaborators in classroom knowledge-production. Lee explains the influence of these changing roles and norms of discourse on students:

Students teach their teachers, and teachers learn from students. In the process, new rules emerge for who can talk, when and about what; and as a consequence a different genre of classroom talk emerges...I am interested both in the structure of talk, which I argue is a genre, and what participation in that genre seems to afford students. (p. 312)

Lee sees that cultural modeling both empowers students and enables their engagement in learning. Professional developers may similarly work to build teachers' self-efficacy through valuing teachers' knowledge and expertise. This recommendation parallels the stance, reviewed earlier, of building nonhierarchical relationships that value teachers' knowledge.

In addition, researchers have found that culturally responsive teachers demonstrate personal caring for their students and simultaneously hold them to high academic standards (Irvine, 2003; Ladson-Billings, 1995). CRT conceptualizes caring

as a complex act that does more than simply offer kindness. Teachers' caring for culturally marginalized students also serves to engage students in learning and contribute to their academic success. Culturally responsive teachers not only demonstrate caring through humane interactions and recognition of individual students' backgrounds and needs; such teachers also hold their students to high academic standards that demonstrate a belief in students' abilities. This is an additional component of self-efficacy that may support teacher learning as well.

Culturally responsive teaching seeks to support academic success and meaningful learning experiences for traditionally underserved and marginalized student populations. In what ways could these considerations transfer to teacher learning in PD? First, demonstrating personal caring has already appeared as a recommendation for trust building with teachers from the school leadership section. Second, professional developers, like culturally responsive teachers, may benefit from taking teachers' personal cultures and beliefs into account. If they do not, professional developers may risk marginalizing or minimizing teachers' experiences and thus engendering their disengagement from learning opportunities in PD. For many teachers—particularly those in underperforming schools—their local expertise and cultural knowledge has traditionally been marginalized and devalued, as the authority and knowledge for improving schools (and for "fixing" teachers) emanates from outside "experts." If professional developers instead value and incorporate teachers' schema, expertise, and cultural knowledge as resources, then teachers may exhibit increased engagement in learning.

In sum, literature about creating internal conditions to support learning, including research on student learning from CRT, recommends the following:

- Building on learners' schema as a bridge to achieving the learning goals;
- Encouraging students' interests and goals;
- Valuing learners' cultural knowledge and discourse;
- Supporting learners' self-efficacy by demonstrating caring, believing they can learn, and holding them to high standards.

Applicability of Related Literature to Affective and Relational Dynamics in PD

Through a synthesis of the literature reviewed above, I will draw applications from their recommendations to teacher learning in PD. (See Table 1 below.)

Area of literature	Recommendations from reviewed literature		How these recommendations might apply to affective and relational concerns in PD
School reform leadership	Demonstrate caring for colleagues both personally and professionally	\rightarrow	Demonstrate caring for teacher-learners
CRT	Support learners' self- efficacy by demonstrating caring, believing they can learn, and holding them to high standards		
Teacher learning communities	Empower teachers to identify areas for inquiry that stem from compelling issues in their own practice	\rightarrow	Involve teachers in goal setting
School reform leadership	Respect teachers as professionals and value their input		
Affect/motivation	Encourage students' interests and goals		
Consultative school	Promote a problem-solving stance toward cases referred		

psychology	by the teachers about their		
G to the	own students		D :1 : 1
Consultative	Provide nonjudgmental		Provide nonjudgmental
school	feedback by focusing on		feedback that views
psychology	observable, measurable		teaching as a problem-
	goals for student growth	\rightarrow	solving enterprise
Consultative	Promote a problem-solving		
school	stance toward teaching and		
psychology	learning		
Teacher learning	Approach teaching and		
communities	learning from an inquiry		
	stance and use		
	"normalizing" or		
	nonjudgmental language to		
	discuss instructional		
	practices		
Consultative	Foster nonhierarchical		Create less hierarchical
school	collaboration that values		relationships by viewing
psychology	both consultant and teacher		all participants as learners
	expertise	\rightarrow	and valuing teachers'
CRT	Value learners' cultural		expertise, beliefs and
	knowledge and discourse		culture.
CRT	Build on learners' schema as		
	a bridge to achieving the		
	learning goals		
School reform	Involve all school		
leadership	stakeholders (including		
	school leaders) in continual		
	learning		
School reform	Offer transparency in		Communicate
leadership	communication		transparently and with
School reform	Demonstrate integrity by		explicit attention to
leadership	following through on		discourse norms
	commitments	\rightarrow	
Consultative	Use communication		
school	strategies that make teachers		
psychology	feel "heard"		
Teacher learning	Allow time to build group		
communities	norms for communication		
CRT	Value learners' cultural		
	knowledge and discourse		

Table 1: Synthesis of recommendations from reviewed literature

There is considerable overlap among the recommendations described in Table

1. All of the reviewed literature values learners' schema, expertise, and cultural

knowledge and advocates incorporating them as resources for learning. School reform leadership, teacher learning communities, and consultative psychology include a related interest in teachers identifying—or contributing to—the goals for their learning. For consultative psychology and teacher learning communities, it is also important in supporting teacher learning that these relationships be nonhierarchical—that is, that each participant is recognized as holding valued expertise that is important for the successful work of the group.

All of the above fields also recognize the importance of transparent communication and explicit attention to discourse norms in interactions about teaching and learning. Consultative psychology and teacher learning communities add a particular focus on nonjudgmental feedback that would minimize teachers' sense of their performance being evaluated. Both CRT and school reform leadership emphasize demonstrations of personal caring about the learners. Consultative psychology and teacher learning communities both advocate approaching teaching from an inquiry stance, in the sense of valuing collaborative problem solving that focuses on improving student learning, rather than judging teacher performance. School reform leadership takes a similar stance in viewing all stakeholders' commitment to continual learning and problem solving about instructional issues.

In sum, from the reviewed literature I draw five overall recommendations that may apply to affective and relational concerns in PD: 1) demonstrate personal caring;
2) involve teachers in goal setting that focuses on measurable student goals rather than on teacher performance; 3) create less hierarchical relationships by viewing all participants as learners and valuing teachers' expertise, beliefs and culture; 4) provide

nonjudgmental feedback that views teaching as a problem-solving enterprise; and 5) communicate transparently and with explicit attention to discourse norms.

Conceptual Framework: Power/Knowledge Considerations

Implementation of several of these recommendations, however, is complicated by foreseeable tensions in power and knowledge that exist in the politicized, bureaucratic, and hierarchical settings of K-12 schools. Put simply, when teachers become learners in PD, issues of power and knowledge arise—in terms of who holds authority for instructional decisionmaking in classrooms and where knowledge claims about disciplinary content, pedagogy, curriculum, institutional context, and students reside. And because of the social and interactional nature of PD, we can expect these power and knowledge issues to play out in ongoing negotiations between professional developers and teachers; that is, no one participant alone can "establish" a relationship. For example, professional developers' attempts at trust-building moves may not necessarily be received with trust by teachers because of the context and culture in which they occur. Trust is a construct that exists only in interactions. One cannot simply have trust; one must trust someone, somewhere. Therefore, creation of productive relationships between professional developers and teachers will be based on ongoing negotiations that occur simultaneously with the work of supporting teachers' learning.

The degree of autonomy afforded teachers, for example, is contested territory in schools, yet it has significant implications for teacher input into goal setting as well as whether teaching is conceptualized as a problem-solving enterprise. Similarly, a professional developer's attempts at transparent communication and nonjudgmental

feedback are affected by school cultures surrounding discussions of teachers' work, including classroom observations and evaluations. For example, teachers used to receiving evaluative feedback—either positive or negative— from classroom visitors may find a professional developer's feedback suspect if it is descriptive and nonjudgmental; such teachers may assume that the professional developer is simply hiding what she really thinks of their teaching.

Interactions between professional developers and teachers are necessarily affected by the power dynamics in bureaucratized and often hierarchical school settings. At the same time, such interactions occur not just within systemic structures but also among individuals. In this sense, PD relationships are also influenced by unique characteristics of the participants, such as their sociocultural backgrounds, discourse norms, and educational experiences. The following section will explore these tensions in more detail, primarily in light of theoretical literature on issues of power and knowledge in interactions.

Problematizing goal-setting with teachers.

First, the provision that teachers drive their learning goals in PD raises thorny questions that reveal tensions in top-down versus bottom-up conceptions of reform (Cochran-Smith & Lytle, 1999; Cohen, Moffitt & Golden, 2007; Elmore & Burney, 1996): Will teachers have free reign in determining the goals for their learning in professional development? Ought they? What degree of autonomy are teachers afforded for instructional decision making?

Cochran-Smith and Lytle (1999) decry imposed limitations on teachers' inquiry topics. They also recognize that their view of teacher inquiry inherently challenges existing power structures in schools and school systems:

To the extent that teacher learning initiatives fit comfortably with a district's stated commitment to teacher leadership, site-based management, or curricular revision, for example, they can be regarded as at least compatible with, if not central to, ongoing efforts to improve schools....But sometimes—if they work from an inquiry stance—teachers begin to challenge and then alter or dismantle fundamental practices such as tracking, teacher assignment, promotion and retention policies, testing and assessment, textbook selection... not to mention raising questions about what counts as teaching and learning in classrooms. Sometimes teachers begin to reinvent their own job descriptions. (p. 293-294)

Cochran-Smith and Lytle would argue that meaningful teacher learning—which they envision as teacher inquiry— cannot occur within a systemic culture that invalidates teachers' participation as change agents.

Other reformers seek to resolve this dilemma by separating out the role of teachers in instructional as opposed to policy decisions. In practice, New York City's District 2's systemic reform initiative during the 1990s-early 2000s attempted to blend elements of top-down and bottom-up approaches into an effort that viewed professional development for teachers *and* administrators as the driver of the reform. Tensions surrounding teacher decision making, however, remained during this initiative. Tony Alvarado, former superintendent of District 2, expresses one instantiation of this tension: "If teachers really own teaching and learning, how will they really need or want to be involved in governance decisions? Our instincts are to push responsibility all the way down, but they may not want it, and it may get in the way of our broader goals of instructional improvement" (interview, cited in Elmore &

Burney, 1996, p. 12). Although Alvarado presumes that teachers may not be interested in opportunities for policy input, he simultaneously expresses that teacher involvement in policy decisions may derail or obstruct reform by "get[ing] in the way of our broader goals for instructional improvement." This view illustrates Cochran-Smith and Lytle's concern that empowering teacher inquiry may be seen as threatening to policymakers' reform goals. Indeed, Cochran-Smith and Lytle would likely argue that a separation between instructional and governance decisions is a false distinction, and that teachers can never "really own teaching and learning" if they are excluded from any type of decision making in schools.

The contrasting views of Alvarado and Cochran-Smith and Lytle beg the questions: How much authority do teachers have in determining areas of inquiry? What happens if teachers' inquiry leads them to more deeply entrenched inequitable practices that challenge existing power structures? If teachers are not empowered to participate in selecting their learning goals, to what degree will they engage with PD learning opportunities?

As Cohen et al. (2007) explain, education policy that seeks to improve schools through teacher PD presents a fundamental dilemma:

A dilemma lies at the heart of relations between policy and practice: policies seek to correct problems in the definition or delivery of social and educational services, yet the key problem solvers are the failing schools [and teachers]... that policy identifies as the problem. The success of policy depends on the flawed clients, practitioners, and organizations that policy would correct. The central puzzle for policy and practice is how to enable these people and organizations to change and improve. (p. 80)

This view sees teachers simultaneously as agents and recipients of reform; that is, teachers both need to *improve* student learning and *be improved* in their own

instructional practices. Cohen et al. (2007) remind us that when professional development is included in policy for school reform, teacher learning is not the goal in and of itself; rather, PD is envisioned as a lever for increasing student achievement. As educational decision makers create policies to improve schools, then, they may envision the role of teachers with more or less agency.

Wei et al.'s (2009) report for the National Staff Development Council examines teacher input in PD and school decision making in U.S. schools and suggests that teachers in U.S. schools do not see themselves as decision makers in the areas of PD or school decision making. In their analysis of 2003-04 Schools and Staffing Survey data, Wei et al. explain:

Fewer than half of U.S. teachers perceived that they had some influence over the content of their in-service professional development and very few felt they had influence over other school policies and decisions affecting teacher hiring, evaluation, or deciding how the school budget will be spent. (p. 59)

While such survey data is limited to self-reporting, teachers' perception of their authority for decision making and goal setting is a key component of relational trust that affects their engagement in PD.

Calls for teacher input in selecting the goals for professional development are not new (Hawley & Valli, 1999). With respect to my interest in affective and relational aspects of teacher learning, however, the tension in this area presents particular challenges for professional developers. Particularly within school settings that place limits on teachers' decision making, how might professional developers negotiate authority for goal setting with teachers? In light of federal policies that mandate high-stakes assessments, who controls teachers' learning goals when schools and school systems face the urgency of reaching AYP? Despite numerous

recommendations from the literature to elicit, respect and build from learners' goals, the process for doing so in *teacher* learning situations appears to be problematic.

Problematizing nonhierarchical relationships.

Similarly, a professional developer's moves to develop less hierarchical relationships that value teacher knowledge and expertise are not straightforward: In what way(s) might this relationship be made less hierarchical? How might a professional developer negotiate her positionality if school administrators or teachers position her with unwanted authority? What if teachers resist attempts from professional developers to interact less hierarchically?

Nonhierarchical relationships are built on the assumption that participants each have valuable knowledge and expertise. Between teachers and professional developers, though, it is not necessarily clear what expertise the teacher may contribute, as professional developers are generally assumed to bring skill sets as "expert" teachers; that is, they are expected to interact with teachers as more knowledgeable others of curriculum and pedagogy. What expertise, then, might teachers bring to this relationship if it is to be less hierarchical? As discussed in the review of the literature, teachers in PD may be valued for their local expertise of students, school context, community, and local curriculum/standards. A professional developer may then establish some parity by soliciting teachers' local expertise and incorporating it into PD decisions. Even a professional developer who has previously worked as a teacher in the same district can meaningfully value teachers' expertise about their own students, classroom norms and routines.

Tension in this area may result from teachers who demonstrate resistance to professional developers' attempts to create less hierarchical relationships. This may occur for a few reasons. First, teachers may distrust the sincerity of a professional developer's moves toward parity, because of their entrenchment within the bureaucratic hierarchy common to most U.S. public schools. That is, professional developers may be imbued with institutional authority, or what Weber (1947) calls rational-legal authority. For example, professional developers are often included on schools' leadership teams along with principals and other administrators; as such, they may participate in organizational decision making and are often exposed to privileged information about teachers and staff. How might professional developers position themselves less hierarchically with teachers in light of others' positioning of them within the bureaucratic hierarchy? A professional developer's attempts to align herself more with teachers may require a *re*negotiation of implicit power and positioning in schools.

In this sense, professional developers are in a similar position to what Apple (1995) describes for teachers in relation to students and administrators: On the one hand, the positionality of teachers might be seen as middle managers aligned with decision-making principals. In that case, they may be viewed as the "enemy" by their students. On the other hand, teachers may be positioned more like factory workers, lacking decision-making authority and aligned more with their disempowered students. Similarly, professional developers are often in an ambiguous hierarchical position among adults in schools, as they negotiate their roles in supporting teachers.

Attempts to create less hierarchical relationships may be complicated not only by issues of institutional authority in schools but also by participants' sociocultural and personal characteristics, including race, ethnicity, gender, class, age, etc. These characteristics have historical associations with dominance or subjugation, as they have been viewed in binaries—such as male/female; white/person of color; middle class/working class; older/younger. Feminist and poststructuralist theory troubles these binaries by recognizing one as traditionally dominant over the other: "For instance, feminists believe that the first term in binaries such as culture/nature, mind/body, rational/irrational, subject/object is male and privileged and the second term is female and disadvantaged" (St. Pierre, 2000, p. 481). These historical binaries are furthered complicated by intersectionalities or hyphenated identities in which individuals comprise multiple sociocultural characteristics. Differences in sociocultural characteristics between professional developers and teachers will likely affect the power dynamics in the relationship. How, for example, might relationship building be complicated by the power dynamics between an African American, older male professional developer working with a young white female teacher? Between a younger, white female professional developer and an older, African American female teacher? If the professional developer represents any of the dominant characteristics, and if these are not shared by the teacher, then the professional developer may have difficulty helping the teacher ignore the dominance ascribed to that characteristic in order to establish a nonhierarchical relationship.

In addition, teachers may find suspect a professional developer's overtures toward less hierarchical relationships if they conceptualize their work as technicians

rather than intellectual professionals. That is, teachers used to following structured or scripted curricula may resist professional developers who seek to value teachers' local expertise and empower teachers to participate equally in instructional decision making. As Apple (1995) and McNeil (1986) explain, once a particular type of job has been "deskilled," workers, including teachers, will often demonstrate (conscious or unconscious) resistance to calls for its "reskilling." For example, in an analysis of a university-based PD program aimed at teaching writing as a process, Zellermayer (2001) found that,

The beginning of the program was very difficult. I was frustrated because the teachers were merely acting as consumers, wanting to get tips from me about what to do in class the following day. In time, I realized that I, like the participants, was a product of the consumer culture, expecting them to receive a packaged body of professional knowledge and to accept a predesigned professional development program "for their own good". (p. 41)

The tensions around creating less hierarchical relationships relate to the "paradox" for teacher learning in the current policy climate (Sandholtz & Scribner, 2006): On the one hand, high quality PD is supposed to offer opportunities for teachers' active learning and to follow a constructivist learning model that encourages teachers to be responsive to their students; on the other hand, many school systems are responding to high stakes testing mandates by providing rigid or scripted curricula and limiting teachers' professional autonomy to enact their work as intellectuals and problem solvers.

Problematizing communication: Nonjudgmental feedback, transparent communication, and discourse norms.

Tensions also exist in three aspects of communication in teacher-professional developer interactions: nonjudgmental feedback, transparent communication, and discourse norms. A professional developer's attempts to provide nonjudgmental feedback and to communicate transparently may be problematized by a school culture of evaluation, judgment, and surveillance of teachers' work (Foucault, 1977; Valli & Buese, 2007). What happens if teachers assume that conversations about their teaching will be evaluative? What if teachers presume classroom visitors are searching for their faults in order to report them to administrators?

In some views, nonjudgmental feedback means that conversation about classroom activity ought to lack evaluative language about teacher performance—either criticism *or* praise. Avoidance of judgmental feedback emerges in part from a perspective that situates judgmental language within a power lens and identifies it as a behavioristic act. As Costa and Garmston (1994), psychologists who created the Cognitive Coaching model, explain, "Praise communicates a value judgment about another person or the person's performance. It infers an unconscious entitlement to evaluate another" (p. 101). They further explain that when coaches praise teachers, "teachers tend to acquire or exercise skills that the coach values rather than their own skills" (p. 112). Costa and Garmston view praise as disempowering to teachers, in that it encourages their dependence on the praiser. A professional developer who hopes to build trust and engagement in part by minimizing teachers' fear of judgment, then, may seek to avoid giving praise as well as criticism. (This perspective, however, may come into conflict with previously described recommendations for instructors to

demonstrate personal caring and build self-efficacy of learners. Efforts to balance nonjudgmental feedback with demonstrations of caring will likely be another source of tension for professional developers seeking to engender teachers' productive engagement in PD.)

In order to accomplish nonjudgmental feedback—to make space for nonjudgmental conversation about instruction—both professional developers and teachers must reject views of teaching as performance; that is, they cannot approach PD as a vehicle for "perfecting" teacher moves. Rather, nonjudgmental feedback about classroom activity looks at teaching from a stance of curiosity. From such a stance, conversation about classroom lessons—whether it was the professional developer or teacher who was doing the teaching—looks dispassionately at what occurred during the lesson (such as what students said and did, and the work they completed) and how that relates to the goals for the PD.

If teachers work in a school culture in which evaluative feedback is the norm, however, they may not trust professional developers who withhold judgment. Such teachers are likely to wonder, what does this professional developer *really* think of my teaching? Although teachers may decry traditional evaluations of their work (Howard, 1992), they may paradoxically distrust or resist *non*evaluative feedback. Working within a school culture of judgment may condition teachers to assume others are always evaluating them. Teachers may avoid trying out new instructional approaches in PD if they fear that a professional developer is secretly judging their performance, or if they interpret the absence of praise as criticism.

One antidote to teacher distrust of professional developers' nonjudgmental feedback might, therefore, be transparent communication. Professional developers might assure teachers, for example, that they will not share reports of teachers' progress with school administrators as they are trying out new practices; that is, they will not act as a "spy" for the principal. But that move, too, is problematic in many school contexts that operate in a culture of surveillance (Foucault, 1977; Valli & Buese, 2007). Teachers, like prisoners in the panopticon, are watched by any number of more powerful others who may visit or observe in their classrooms at any time and who may pass judgment on any number of things. And for the most part, this surveillance is one-way: teachers are not afforded equal power to watch their superiors.

As discussed earlier, professional developers are often included on school leadership teams and, as such, are involved in exclusive decision making and may be exposed to privileged information about teachers. When teachers know that such conversations happen at leadership meetings, they are likely to assume that a professional developer may share information about their performance or progress, despite a professional developer's stated commitment to transparent communication. As Foucault (1980) explains, transparency cannot exist until there has been a complete rejection of surveillance:

It was the [revolutionaries'] dream of a transparent society, visible and legible in each of its parts, the dream of there no longer existing any zones of darkness, zones established by the privileges of royal power or the prerogatives of some corporation, zones of disorder. It was the dream that each individual, whatever position he occupied, might be able to see the whole of society, that men's hearts should communicate. (p. 152)

A professional developer seeking to establish relationships through transparent communication may encounter resistance from teachers who disbelieve the sincerity of the move.

A final tension in communication relates to how professional developers and teachers (implicitly or explicitly) negotiate discourse norms in their interactions.

Participants' sociocultural and personal backgrounds influence what they say, how they say it, and how it is received by the conversational partners. As Alcoff (1991) explains, "Who is speaking to whom turns out to be as important for meaning as what is said: in fact what is said turns out to change according to who is speaking and who is listening" (p. 12). Negotiations of any of the tensions presented here happen primarily through talk, but the talk itself occurs within negotiations of power. As discussed earlier, if sociocultural characteristics are perceived as hierarchical binaries (e.g., male/female, white/black), participants' discourse moves may also be layered with perceptions of dominance or oppression. A professional developer seeking to create less hierarchical relationships and establish nonjudgmental feedback will need to contend with how to create space for teachers to participate meaningfully in talk about teaching and learning.

Summary of conceptual framework

My argument in this literature review has been that characteristics of high quality PD undervalue the influence of relational dynamics and affective components of learning in interactions. Through an examination of literature from related educational fields, I have synthesized a number of recommendations for professional developers seeking to build trust and engender teachers' productive engagement in

learning. I have problematized these recommendations, however, by examining negotiations of power and knowledge that are likely to inform interactions between professional developers and teachers within the politicized and bureaucratic contexts of U.S. schools. That is, I anticipate that relational dynamics in PD will manifest in interactions around the issues of goal-setting, (non)judgmental feedback, (non)hierarchical relationships around expertise, and communication³. However, it is essential to note that these power/knowledge considerations will not affect all participants in the same ways. I would expect them to be negotiated differently within each professional developer – teacher(s) interaction, depending on the unique contexts and personal backgrounds of the participants.

The Concept Map (see Figure 1) provides a visual overview of the perspective that will structure my analysis in the forthcoming chapters. The arrows pointing inward from the PD facilitator and the participating teacher(s) indicate that, through the lens of relational dynamics, both of these parties will influence the negotiation of the concerns that are likely to arise in PD interactions. These participants and their concerns are nested within the particular context in which the interactions take place; that is, the way that negotiations play out will likely be affected, too, by specifics at the school or district level. All of these considerations, I theorize, will influence the teacher's quality of participation, moving him or her toward more or less engagement in the PD learning activities.

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³ The recommendation to demonstrate personal caring, in contrast, does not seem to carry with it any concerns or tensions. It is recommended by several areas of the literature and does not seem to be problematized by power/knowledge considerations. Therefore, it will not appear in my conceptual framework, which describes the affective and relational concerns that I hypothesize will be negotiated in interactions between professional developers and teachers.

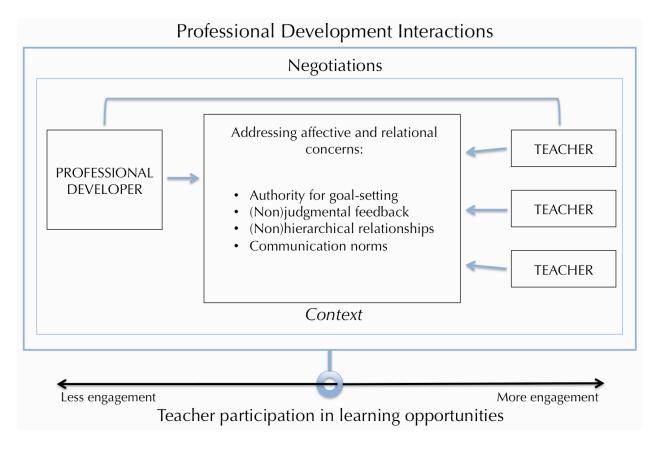


Figure 1: Concept Map

Investigation of these tensions forms the basis for data analysis of relational dynamics in PD interactions in this study; that is, how *do* negotiations between professional developers and teachers play out around goal-setting, development of (more or less) hierarchical relationships, use of feedback, and interpersonal communication? I expect that PD interactions around these issues will continually move teachers along a spectrum of more or less productive participation in learning opportunities.

Chapter 3: Methods

Overview

In this study I investigate multiple cases of professional development in varied contexts. I examine interactions between professional developers and teachers, primarily using discourse analysis to explore relational dynamics in the interactions as they shape teachers' participation in PD. Although these interactions occur in varying sized groups—from pairs to small grade level groups to whole school faculty or large groups of teachers, university research faculty and graduate students—my unit of analysis focuses on individual teachers in relationship to one professional developer. Data sources primarily include video of PD activities (some of which occur during classroom teaching sessions), email communication between teachers and professional developers, teachers' reflective writing (generated through PD activities), and post-hoc interviews with participating teachers and PD facilitators.

In this study I am using the analytical strategy of discourse analysis. Because PD interactions happen largely through talk, and because I am interested in participants' relational and affective concerns as they emerge in moment-to-moment interactions (cf. Erickson, 2004), the methodological approach of discourse analysis is appropriate for this study. Discourse analysis allows for close examination of naturally occurring talk in interactions and will afford an investigation of how relational and affective concerns remain dynamic throughout a PD project. This methodological approach will allow me to make claims about teacher participation in PD activities, which is valuable in its potential for providing more robust explanations of why and how teachers do or do not engage productively in learning

opportunities.

I focus on two separate data collection sites, which vary in terms of PD models, content areas, and school/district contexts. Such variation affords me the opportunity to study the enactment of relational dynamics across PD models and begin to determine the extent to which such dynamics may manifest similarly or differently across sites. Table 2 below provides an overview of the characteristics of each data collection site:

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Characteristic	Science learning	Literacy coaching
	progressions project	project
Organizational structure	3-year, university-based	Local foundation
of project	research project	contracting with
		individual schools to
		provide literacy PD
Location	West coast urban district	East coast urban district
Number of teachers	13	2
Number of schools	7	1
PD facilitator(s)	5 science education	1 literacy PD consultant
	faculty and 4-6 doctoral	
	students	
Site(s) for PD	West coast university;	"lab site" classroom of
, ,	some debriefing in	one of the participating
	teachers' classrooms	teachers
Grade level(s) of	Elementary grades 3-5;	Elementary grade 2
teachers	middle school (social	, ,
	studies/science teachers)	
	at gr. 6	
Content area	Science	Literacy (writing)
Duration	3 years	8 weeks
Frequency	1-2 weeks each summer;	Weekly
	biweekly PD during	
	school year; 2-3 weeks	
	of curriculum module	
	implementation each	
	year	
PD model/activities	Doing science; analysis	Instructional coaching:
	of classroom video	demonstrating and co-
		teaching; collaborative
		planning and debriefing
Researcher positionality	Mostly outsider: As a	Insider: I was the
The second secon	- 3 - J =	

research assistant on this project, I had no involvement in PD interactions during the time of data collection for this study	literacy coach in this project
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Table 2: Characteristics of data collection sites

The first site is a university-based science education project, which is part of a larger, NSF-funded research project investigating student and teacher learning progressions in science inquiry. In this project approximately a dozen teachers of grades 3-6 from multiple schools in one west-coast district participate voluntarily in summer workshops, biweekly PD meetings, and annual implementation of one science inquiry module. PD activities in this science inquiry project primarily involve teachers in watching and discussing video snippets of classroom practice, focusing on student ideas and reasoning; engaging in "doing science"; and reflecting on their participation as science learners.

The second site is a school-based literacy coaching model at one struggling K-8 school in a large, east-coast city. The principal at this school has contracted with a local foundation to provide literacy PD for the entire school, and teachers' participation is mandatory; literacy coaching activities happen during regular school time and primarily include in-class literacy coaching (modeling and co-teaching of reading and writing lessons), as well as planning and examinations of student work at grade level team meetings. The study at this second site focuses on one coaching cycle (once a week for two months), in which I served as literacy coach for a grade level team of second grade teachers. For the purposes of this study, teachers volunteered to participate in this coaching cycle with me. Data collection in this study

includes fieldnotes of each week's writing lesson, videotape of planning/ debriefing sessions following each lesson, and written artifacts including lessons plans and email correspondence between me and the teachers. I also conducted an open-ended interview with one of the participating teachers two months after the coaching ended, using a stimulated recall interview format in which viewing and discussion of the debriefing videos stimulated the teacher's reflection on the coaching experience.

In both PD sites, I am interested in examining how interactions between staff developers and teachers around problems of practice—which, I argue, represent negotiations of power and knowledge—open up or constrain teachers' participation and engagement in the PD activities and, ultimately, influence teachers' learning opportunities. Through discourse analysis of data sources (described above), I seek to describe the enactment of the teachers' affective and relational stances in interactions with PD staff and activities.

Investigation of these two specific PD sites may allow for particularly rich and complementary analysis. First, the science Learning Progressions (LP) project and the literacy coaching project represent two currently prominent models of PD that are vastly different in their activities and participation structure. The literacy coaching project primarily involves modeling and co-teaching, in which the professional developer and two teachers work side by side in real time in the teacher's regular classroom, while the LP project has multiple university faculty facilitate approximately a dozen teachers participating as learners in doing science as well as conducting discussions of classroom artifacts of practice primarily in the form of attending to student thinking (Levin, Hammer & Coffey, 2009) in videos/transcripts

of teachers' science module lessons developed by this project. Will interactions in these two projects bring up similar or different issues of power and knowledge? How will negotiations of these issues become consequential for teacher participation across the two contexts?

In addition, research suggests elementary teachers express discomfort with their content expertise in science (NRC, 2007); a study looking only at the science PD site might suggest that teacher (dis)engagement in PD was primarily due to their perceptions of their subject area expertise in science. Similarly, one might argue that teachers' negotiations around issues of authority with PD facilitators in the LP project—university faculty and doctoral students in science education—result primarily from teachers' perceptions of the expertise of professors. If, on the other hand, some similar themes in teacher affective and relational concerns appear in both the Learning Progressions and the literacy coaching data, then we can begin to hypothesize that such concerns may be salient across PD models and may apply to teacher learning more generally.

Background and Participants

Background of Learning Progressions project.

The Learning Progressions (LP) project is a three-year, National Science Foundation-funded research project, which is a collaboration between one west-coast and one east-coast university, to develop learning progressions for scientific inquiry in the context of energy. It involves curriculum design, professional development, and research on student and teacher learning. Participating $3^{\rm rd} - 6^{\rm th}$ grade teachers (8 teachers in year 1; an additional 5 teachers in year 2) from a large, urban, west coast

district teach a 20-hour science inquiry module each school year, participate in 1-2 week summer workshops and attend biweekly after-school meetings. During the workshops and PD meetings, teachers engage in four types of activities: 1) doing science, 2) watching and talking about classroom video, 3) modifying the curriculum modules or other curriculum, and 4) writing about their own classrooms. All of these meetings are videotaped. At the time of my study, the project was beginning its third and final year of implementation.

Participant selection.

Data for this dissertation study comes from the first two years of the LP project and focuses on two of the teachers, each of whom presents markedly different affective concerns and relational interactions with project staff. Bonnie is a white, female 5th grade teacher with well over 20 years' experience and National Board certification. She has a strong sense of her own authority and autonomy as a teacher, demonstrates confidence in her science content and pedagogy expertise (she was on the district committee that adopted the FOSS science curriculum), and is generally enthusiastic about new learning opportunities for herself. In relationship with the LP project over two years, Bonnie seems to make substantive changes (progress) in both her PD participation and in her approach to science teaching; she expresses some fundamental shifts in her conceptions of the goals of science instruction and what it means to "really listen" to students. Stacy is a white, female 6th grade teacher of social studies and science who has been teaching for seven years. She is deferential to those she considers authority figures, both at her school site and in this project. Stacy expresses a lack of confidence about her science content knowledge but an

enthusiasm to learn more about engaging her students in inquiry. In relationship with the LP project over two years, Stacy seems to make erratic but not stable or consistent changes either to her PD participation or her approach to science teaching; the types of questions she asks and concerns she raises remain substantively similar over the years of her participation in this PD project.

All participating teachers have consented to the data collection sources for the larger LP project, including videotaping of all workshops and PD sessions, collection of all written and electronic documents pertaining to the project, videotaping of their module teaching implementation and debriefing sessions, and occasional interviews with project staff. Some project staff (research faculty and graduate students) are also a focus of analysis in their interactions with selected teachers, and additional data collection, under separate IRB consent, includes interviews with these project staff.

Background of literacy coaching project.

Based on a PD model used by Teachers College Reading and Writing Project (Calkins, 2006), this literacy coaching project is part of a larger, whole-school literacy reform effort, which was initiated as a partnership between a mid-Atlantic, urban school system and a local foundation. This study documents a six-week instructional coaching cycle between myself—a literacy professional developer—and two second-grade teachers at an urban, K-8 public school where I had previously served as a staff development consultant. At the time of this study, the school had never made AYP and suffered from high teacher turnover. As a school where teachers might be predisposed toward distrust, this site was selected in part to serve as a

critical case of how professional development that attends specifically to relationship building might affect teachers' engagement in learning opportunities.

In this study one teacher's classroom served as our "lab site" for weekly lessons with her 29 second-grade students; the two teachers set the goal of improving their students' writing by learning to implement a writing workshop model (Calkins, 1994; see Appendix A). Each week's "lab site" session included a one-hour writing lesson, in which I either demonstrated or cotaught while coaching the teachers on an aspect of workshop instructional practices. The lesson was followed by a debriefing/planning conference of about 40 minutes. Between sessions, I sent an email reiterating what had been discussed in the debriefing/planning conference and providing a reminder about next steps.

Participant selection.

In winter 2008 I approached the school's principal about the possibility of providing literacy coaching for a small group of her teachers in order to conduct this study. The principal, along with her current literacy staff developer (a former colleague of mine), recommended the 2nd grade teachers for this project for two reasons: they thought these teachers would be amenable to participating, and they hoped that my work might help build collegiality between the teachers. The principal and her staff developer gave me complete latitude in setting a coaching goal in collaboration with the teachers and excused the teachers from weekly literacy team meetings during the duration of our coaching cycle.

The 2nd grade team at the school includes two teachers: Kirsten and Randy.

Kirsten is an African American woman in her late-20s who had been teaching for five

years at the time of this study, all of them at this school. Randy was a brand-new, first year teacher in Teach for America who had never before lived or worked in an urban area. I had worked with Kirsten previously during my year as a part-time literacy staff developer at her school and had found her to be intellectual in her stance toward teaching and professional development, but inconsistent in her follow-through and erratic in her work habits. She seemed wary of PD programs, as curricular and pedagogical approaches change often at this school, and she expressed general distrust of classroom visitors (whether outsiders or school leadership). Kirsten views herself as having strong classroom management and good relational skills with students but does not have strong commitments to particular pedagogical approaches.

I selected Kirsten as the focal teacher from this site because, based on my prior work with her, I anticipated that she might display some resistance to the work of the coaching project as it evolved; such tensions could make our interactions productive for examination and analysis of relational dynamics. Over the course of our project, Kirsten seems to develop consistent engagement with the activities and goals of the coaching cycle. She takes on increasing responsibility in co-teaching sessions and becomes more proactive in her requests for assistance and more confident and sophisticated in her presentations of pedagogical problems.

Researcher positionality

Investigation of two PD sites in this study allows me to offer varying perspectives from different locations on the participant—observer spectrum (Bogdan & Biklen, 2007). Each position has benefits and limitations, described below.

Overall, the difficulties and complexities in accessing teachers' and professional

developers' honest reflections about affective and relational concerns in PD interactions make this multiple approach desirable.

In the literacy coaching project, because I served as both researcher and professional developer, I am distinctly aware of the complexities in my positionality vis-à-vis the teacher participants. As a professional developer who regularly works in practice with teachers, I recognize that perceptions of power, authority and expertise affect PD relationships and interactions. As a researcher interested in *studying* these issues of relational dynamics in PD, my inquiry is further complicated by my involvement as a participant. For example, I expected that retrospective interviews with Kirsten might not reveal the full range of her perceptions, as she might understandably have been uncomfortable discussing *with me* any instances in which *my* coaching made her feel uncomfortable or did not address her needs. At this site I therefore chose to rely most heavily on observational data collected through videotape during the actual PD activities.

At the same time, I used a stimulated recall format for the interviews (Calderhead, 1981) as a strategy for offering the teachers more control in guiding the direction of the interview and the topics for discussion. That is, the teachers selected video excerpts from the coaching cycle to watch with me, and they chose when to pause the video to share their reflections. Stimulated recall interviews also have the benefit of allowing participants to revisit in detail the activities under study without having to rely solely on their memory of the events.

In the literacy coaching project, a benefit of my participant status is that it allowed for full access to my own intentions during PD activities, so that I could

provide a detailed picture of a literacy coach's perspective as I "work from the inside" (Ball, 2000). It also afforded me "an unusual degree of access to 'insider' meanings and practice" of the participating teachers as well (Horn & Little, 2010, p. 187). The danger is that my own subjectivity may have clouded my openness to diverse interpretations of the PD interactions—in particular, in analyzing the teachers' verbal and nonverbal contributions. I took a few steps to minimize this limitation: First, I used discourse analysis tools (as described in the analytic approach section, below) to provide structured guidance of my interpretations. I am conscious, though, of Moje's (2000) admonition in this area: "The fact that I was so much a part of the context makes an 'objective' analysis, even one that relies on an established procedure such as CDA [critical discourse analysis], difficult and suspect because the procedure depends on my analysis of the context" (p. 30). Therefore, I took additional steps to develop reflexivity. To that end I conducted member checks with the participating teachers through the stimulated recall interviews. Finally, I participated in a biweekly research group with graduate student colleagues who observed video data from this project and provided additional feedback on my analysis.

In the Learning Progressions project, my role was more of an outsider to the teacher – professional developer relationships. As a graduate student who joined the LP research team in year two of the project's implementation, I had not yet attended any of the PD or classroom instructional activities that involved interactions with the teacher participants. My data analysis of LP activities occurred primarily through observation of videos taken on site by various members of the research team, and occasionally by teachers themselves, on the west coast. Additional data sources

include teachers' reflective writing and email communication with project staff. As such, I have a more distanced perspective on the relational dynamics in the LP interactions, which may provide a helpful perspective on the analysis. As Atkinson and Delamont (2008) explain, "everyday social life displays principles of order that the analyst explicates and systematizes. The everyday actor has an implicit grasp of ordering rules and conventions, and it is the task of the analyst to explicate such tacit knowledge" (p. 301). At the same time, though, I am not purporting that distance allows me a stance of "objectivity" toward the data. Rather, I must also remain wary of "othering" the participants (Fine, 1994; Fordham, 1996), particularly through the gaze of video observation (Gallagher & Kim, 2008).

In seeking balance in my interpretations of LP data—in "working the hyphen between Self-Other" (Fine, 1994)—I have taken several steps to involve the participants both in sharing their voices and in member checking the data analysis. I conducted stimulated recall interviews with each of the focal teachers and one of the LP project facilitators. In addition, I participated in biweekly research meetings with LP staff, during which I had regular opportunities to share data and receive feedback. One complexity of which I remain continually aware is that some of the LP staff are in the data I analyzed; therefore, I have needed to be conscious of when and whether I sought their guidance in feedback on my analysis or requested their member checking.

Overall, the use of two data collection sites in this study—one in which I am an insider, and another in which I am primarily an outsider—offers a balance of benefits and limitations.

Data selection and analytic approaches

The quantity of data from these two sites is fairly large:

Project	Type of data	Quantity
Literacy	Debriefing/planning	6 hrs
coaching	sessions	
	Teacher interview	2 hrs.
	Email communication	10 emails
Learning	Summer workshop PD:	90 hrs.
Progressions	1 week in 2008; 2 weeks	
	in 2009	
	D: 11 0 1 1DD	00.1
	Biweekly afterschool PD	80 hrs.
	Classroom	130 hrs.
	implementation of	
	curriculum modules and	
	debriefing with project	
	staff from 3 focal	
	teachers	
	Interviews with focal	Approx. 10-
	teachers and project staff	12 hrs.
	Email communication	Unknown at
	with project staff	this time
	Teachers' reflective	Approx. 20
	writing	pp.

Table 3: Quantity of data sources

In order to manage the volume of data from the LP project in particular, I have content logged all videos and documents on a spreadsheet of episodes for transcription and further analysis. In the analytic approaches section below I detail my process for selecting episodes. From the literacy coaching project, all videos of debriefing/planning sessions (six in all) and the teacher interview have been transcribed.

Preliminary passes of the literacy coaching data allowed me to experiment with analytic approaches that seem fruitful for understanding the relational dynamics in those PD interactions. Based on initial analysis, I devised the following analytic

approach in revisiting the literacy coaching data and approaching the LP data:

- 1. 1st pass of reviewing the entire data corpus: Make an initial identification of episodes that represent Episodes of Pedagogical Reasoning (EPRs; Horn, 2005, 2007) or "openings" (Remillard & Geist, 2002) and shifts in discourse participation structure (Goffman, 1981) or disruptions in interactional flow (Hall & Stevens, 1996).
- 2. 2nd pass of data: Label each identified episode with keywords to mark salient themes or tensions for each teacher (Corbin & Strauss, 2008). After doing this chronologically through the data and keeping analytic memos, the number of themes began to coalesce to 2-3 for each teacher.

Note episodes that seem particularly significant and perhaps worthy of closer analysis because of:

- i. heightened affect from the teacher in the presentation of the problem;
- ii. the take-up and interaction with a staff development facilitator;
- iii. an illustration what seemed to be a primary theme or tension for this teacher.

Transcribe a handful of these episodes, undertake preliminary discourse analysis, and present the video clips and analysis to research group colleagues for feedback.

- 3. 3rd pass of data: Review episodes again and re-label according to the 2-3 identified themes. Continue memoing observations about relational dynamics. Make timeline of each teacher's "story." Select episodes for discourse analysis most illustrative of teacher's tensions.
- 4. Employ discourse analytic tools for close examination of selected episodes in terms of relational dynamics and negotiations of power and knowledge, including:
 - a. Footing (Goffman, 1981) or positioning (Davis & Harré, 1990)
 - b. Sequential organization of talk (Hall & Stevens, 1996; Schegloff, 1992)
 - c. Pronoun use (Bucholtz & Hall, 2005; Fairclough, 1989)
 - d. Other discourse elements that arise as relevant during data analysis
- 5. Examine overall patterns of tensions, participation, and relational dynamics over time for each teacher, and conduct cross-case analysis across the three teachers.

Table 4: Overview of analytic approach

In initial passes through the entire data corpus for each focal teacher, I identified episodes that seemed salient for further analysis based on two features:

they are Episodes of Pedagogical Reasoning (Horn, 2005, 2007) or "openings" (Remillard & Geist, 2002), and they represent shifts in discourse participation structure (Goffman, 1981) or disruptions in interactional flow (Hall & Stevens, 1996). As Horn (2007) has described, Episodes of Pedagogical Reasoning (EPRs) are identified using

the heuristic of looking for moments of perturbation, such as when a teaching practice was being rendered as problematic in conversation... Specifically, EPRs are moments in teachers' interaction in which they describe issues in or raise questions about teaching practice that are accompanied by some elaboration of reasons, explanations, or justifications. (p. 46)

EPRs may encompass a wide range of problems of practice, such as a teacher's questions about planning, management of materials, assessment, student behavior, curricular coverage, pacing, etc. They may manifest themselves as immediate concerns (*What am I going to teach tomorrow?*) or more general instructional problems (*How can I get more of my students to participate?*). And of importance to this study, EPRs may also directly implicate the PD relationship (*I don't understand what you want me to do next*; or, *What do you think this child needs help with?*). In that EPRs involve a teacher raising problems of practice, in the context of this analysis I take them to represent a teacher's affective concerns, either implicitly or explicitly. Although EPRs as defined by Horn may be short (one turn) or longer utterances, I am particularly interested in EPRs that initiate dialogue among PD participants and facilitators. I theorize that the ensuing conversations will elicit the tensions described earlier in my conceptual framework, representing negotiations of power/knowledge concerns around goals, feedback, expertise, or communication.

I share with Horn and Little (2010) the theory of action that EPRs are not

problems to be avoided but opportunities to uncover underlying tensions and support teacher learning. Similarly, Remillard and Geist (2002) identify such moments as "openings":

unanticipated and at times awkward points in the conversations through which [facilitators] had to navigate. These instances were prompted most often by participants' questions, observations, challenges, or resistant stands on issues that were important to them. (p. 13)

The goal is to examine how those tensions get navigated in interaction with facilitators. For Remillard and Geist, the PD facilitators in their projects engaged in a set of three activities that proved central to their sense of this navigation process: "(a) reading the participants and the discourse, (b) considering responses and possible consequences, and (c) taking responsive action" (p. 25). Davis and Harré (1990) explain this interactional process in terms of the concept of positioning:

The main relevance of the concept of positioning for social psychology is that it serves to direct our attention to a process by which certain trains of consequences, intended or unintended, are set in motion. But these trains of consequences can be said to occur only if we give an account of how acts of positioning are made determinate for certain people. If we want to say that someone, say, A has been positioned as powerless we must be able to supply an account of how that position is 'taken up' by A...

My own analysis seeks to examine the three activities identified by Remillard and Geist, and to expand upon them to consider a fourth step: (d) how the participating teacher does or does not take up the facilitator's responsive action. This is the consequential action I hope to examine with regard to whether or how relational dynamics influence teachers' participation and openness to learning opportunities in PD.

In making initial identification of episodes, I have taken up Horn and Little's (2010) notable features of EPRs:

we identified "problems of practice" through linguistic and paralinguistic cues that signaled classroom interactions experienced as troublesome, challenging, confusing, recurrent, unexpectedly interesting, or otherwise worthy of comment. Such cues included explicit references to trouble, expressions of emotional distress, or direct appeals for feedback or assistance, many of them marked by changes in intonation and emphasis. (p. 189)

In particular, at these moments of teachers raising a potential EPR, I found evidence of shifts in discourse participation structure (Goffman, 1981) or disruptions in interactional flow (Hall & Stevens, 1996). That is, the initiation of a new episode is marked by a change in the tone or direction of the conversation and may occur either within a teacher's conversational turn or with a new entry into the conversation. These shifts may be noted, for example, as prosodic shifts (tone, volume, speed of talk), type of entry into conversation (turn allocation, e.g., interrupting, raising hand, being invited to speak; Sacks, Schegloff & Jefferson, 1974) or nonverbal, gestural moves that change the trajectory of conversation. During this first pass of the data, I entered each episode on a spreadsheet including starting and ending time, relevant actors, memorable dialogue, and reason for tagging.

After creating three spreadsheets with comprehensive listing of EPRs for each focal teacher (74 for Bonnie; 128 for Stacy; 26 for Kirsten), I undertook a second pass of the data by reviewing the video clips of all identified episodes and labeling each with keywords that attempted to capture the teacher's main issues or tensions that arose in that episode. Through this second pass, as I worked my way chronologically through the data and kept ongoing analytic memos, the number of tensions began to coalesce around two to three at similar grain sizes for each teacher. I also noted whether or not the teacher's question was taken up by the facilitator, whether the response or ensuing conversation addressed the teacher's problem, and what the

teacher's (verbal or nonverbal) participation response was – that is, how the "opening" was "navigated" (Remillard & Geist, 2002). During this second review, I also noted episodes that seemed particularly significant and perhaps worthy of closer analysis due to a few considerations: because of heightened affect from the teacher in the presentation of the problem; the take-up and interaction with a staff development facilitator; or, an illustration of what seemed to be a primary theme or tension for this teacher. At that point I transcribed a handful of these episodes, undertook some preliminary discourse analysis, and presented the video clips and analysis to research group colleagues for feedback.

A third pass of the episodes resulted in a more solidified labeling of episodes using the two to three tensions that now seemed most applicable for each teacher. Memoing during this third data review focused on noting patterns in how the tensions appeared over time—i.e., separately or together; and making observations about relational dynamics—when and how the teacher's concerns were or were not taken up by the facilitator, and what the teacher's ensuing participation response was. Through these multiple reviews of the data, I came to an understanding of the "story" of each teacher's participation and the degree to which each did or did not make progress in resolving her tensions or taking up learning opportunities in the PD; I made a timeline to provide an overview of each teacher's participation over time. Simultaneously, I identified four to six episodes that seemed to best exemplify the tensions for each focal teacher. I would conduct discourse analysis of the relational dynamics to begin to understand how these dynamics may have been consequential for the teacher's participation.

At that point, I employed specific discourse analytic tools for close examination of the selected episodes in terms of analysis of interactions and negotiations of power and knowledge. (See Appendix B for detailed discourse analysis of one episode.) In this study I use two distinct approaches to discourse analysis—conversation analysis (CA, e.g., Schegloff, 1992) and critical discourse analysis (CDA, e.g., Fairclough, 1989)— in complement to support my analysis. CA offers specific, but non-normative, tools of micro-analysis, and CDA makes explicit connections to power/knowledge concerns. The following discourse analytic tools proved to be most salient: footing (Goffman, 1981) or positioning (Davis & Harré, 1990), sequential organization of talk (Fairclough, 1989; Schegloff, 1992), and pronoun use (Fairclough, 1989). In addition, I noted teachers' phrasing and affective presentation of EPRs—that is, whether problems were worded as indicative statements, imperatives, or interrogatives; and whether the teacher's tone and body language seemed to suggest, for example, curiosity, frustration, humor, anxiety, anger, etc.

Footing (Goffman, 1981) refers to how a conversational participant's "alignment, or set, or stance, or posture, or projected self is somehow at issue" (p. 128). Similar to Goffman's notion of framing and Davis and Harré's (1990) concept of positioning, this analytic tool of footing has most utility when it is considered in terms of shifts or changes: "A change in footing implies a change in the alignment we take up to ourselves and the others present as expressed in the way we manage the production or reception of an utterance" (Goffman, p. 128). This concept, then, takes on added import when considered in light of social interactions, as "relations jointly

produced in the very act of conversing" (Davis & Harré). Such footing shifts may include a speaker's code switching or changes in the "sound markers that linguists study: pitch volume, rhythm, stress, tonal quality" (Goffman, p. 128). Within PD conversations, attention to footing or change in positioning is useful for providing a marker of change in speaker's affect.

Analysis of sequential organization of talk includes attention to turn-taking in conversation and length of utterances (Fairclough, 1989; Schegloff, 1992). Within turn-taking, the following moves may be significant: how speakers enter and exit conversation, how turn allocation occurs, how interruptions or overlapping speech are received and repaired, and what happens with gaps or lapses—periods of silence (Sacks, Schegloff & Jefferson, 1974). These discourse moves invoke relational dynamics and power issues among participants in terms of, for example, who gets the floor and who cedes it, when conversational topics shift or persist, or when a speaker's interruption does or does not get taken up. As Fairclough (1989) explains, "the nature of the turn-taking system that is operative...depends on (as is part of) power relationships between participants" (p. 134).

Within a turn of talk, then, the length of a speaker's utterance or "turn size" is also relevant to this analysis (Sacks et al., 1974). Once a speaker has the floor, she may initially determine the length of her turn through the "sentential construction" or meaning-unit of her talk; that is, "it is in terms of this expandability of sentential construction, before first possible completion, that the 'projectable completion' feature...is to be understood" (Sacks et al., p. 709). In many cases, the length of a speaker's utterance directly relates to the perception of her position of power in that

moment; that is, a speaker who feels confident that she will be listened to may choose to express herself at length. At times, though, a less empowered participant may also produce a long utterance. This may happen, for example, when a less confident speaker finds an opening in a conversation and holds the floor to express everything she can within the "first possible completion" so that her thought is fully expressed before she gets interrupted by more powerful others.

Another marker of power in discourse can be seen in pronoun usage, though the particular implication of any pronoun is situationally and context dependent. (Bucholtz & Hall, 2005; Fairclough, 1989). In teaching and learning contexts, the most frequently used pronouns include first person singular "I," first person plural "we," and second person "you" (or the unstated "you" used in imperatives or directives). A speaker's use of I, for example, may have one of two seemingly contradictory connotations: On the one hand, a teacher or professional developer may use I to imply her own authority, as in, "The choice I make in my class in this situation is..." On the other hand, the pronoun I may be used as a hedge, or in deference to others' autonomy, as in, "In my experience, I've found it difficult to distribute writing materials at the end of the minilesson; how do you handle it?" Similarly, use of the plural pronoun we can have multiple connotations. At times, the use of we may "conflate" the speaker "to metonymically position himself as speaking on behalf of' his listeners (Bucholtz & Hall, p. 604); that is, a speaker may use we disingenuously to include the hearers in a unilateral directive, as in, "Of course, we will teach this lesson tomorrow." In other cases, we can denote a collective responsibility, participation, or action: "When we co-teach this lesson tomorrow, we

can focus on helping students come up with their own writing topics." In PD interactions, then, attention to pronoun use can help me make inferences about how participants are being positioned with regard to individual or shared authority and responsibilities.

Summary of analytic approach

After micro-analyses of selected episodes at the two PD sites, I move to a more macro-analytic level. First, I discuss the episodes for each focal teacher with regard to relational dynamics in PD interactions, that is, how the analysis addresses my research questions. Over the span of data for each teacher, I am interested in the qualities of each teacher's discourse participation, and under what conditions this participation does or does not change. Second, I look across the data for each focal teacher to determine whether or how interactions with PD facilitators become consequential for her participation: for example, if there are shifts in the ways each raises problems or issues related to her primary tensions. I am particularly interested in how and under what conditions the quality of teachers' participation does or does not change over the span of their time in each PD project. Finally, I look across cases to describe patterns across teachers and sites, to understand how relational dynamics in moment-to-moment interactions shape teachers' participation at these PD sites over time.

Chapter 4: Case Study of Bonnie

I've been teaching 26 years I've pretty much done it all

Well, if I may speak to that This all sounds great in theory But let's get back to reality

Can it be? Yes or no? I'm asking you A question Yes? No?

What I really like is When I said, "I got it" And someone said "yeah, yeah, yeah" And it wasn't YOU

The question still begs to be asked At what point are they going to be Taught something

Your answer is not really an answer It just poses more questions

As I was listening to the conversation I found the kids
Instead of tightening up
It was like when a glass of water spills
And the ideas are going
All over the place

And I'm like,
I don't know any of this stuff
And I have a kid asking me
Well, how do they get the hydrogen inside the tank?
And I realized, I have no idea
Just to be able to say, "I don't know, what do you think?"
Was really fun
So that's what we have to investigate now

I'm having dreams
That are just wild
Whoa!
It's science
And class is out of control
And I'm panicking

I had an a-ha moment Last year I was listening My goal was to listen I wasn't trying to understand them

I had an epiphany
The limiting factor in what the students discussed
Was
Me
I was the limit

Well, if I may speak to that
There is a certain body of knowledge
That is known
There is a need for knowledge
Along with thinking

If we're going to be practical Which obviously we're not I can't take this much time I can't Don't get me wrong They're having a great time But to me They're not really Learning anything

A student asked Well, can't you just look at the answers? And I said But that's not what I want to do I want to know

I was REALLY working this morning.
That's it
I'm not going to force anything
I can't bulldoze my way through it anymore
I'm just not going to worry about it.
It's kind of scary
It is.

The piece above is a found poem culled from data of one teacher's participation in the Learning Progressions (LP) project. Her words, expressed during PD sessions over her first two years in the project, appear in stanzas arranged chronologically. The

intent of the poem is to give readers a sense of Bonnie's voice and to offer, in her own words, a window into her thoughts and perspective.

Narrative Overview of Bonnie over Two Years in Learning Progressions PD

The purpose of the following interpretive narrative is to give an overview of Bonnie's participation in the LP project during years one and two; that is, what happened for her as a teacher participant in the Learning Progressions project. This chronological trajectory also introduces the types of interests, questions, and tensions that Bonnie raised and wrestled with during this project. The story itself focuses less on Bonnie's interactions or the relational dynamics between her and others in the project, but rather seeks to provide context for the fine-grained discourse analysis episodes that follow in the next section.

Summer One.

Bonnie joined the Learning Progressions project as a National Board Certified elementary teacher with over 25 years' experience and a strong sense of autonomy and expertise as a teacher. In fact, she introduces herself to the group on the first day of the project with, "I've been teaching 26 years, and I've pretty much done it all" (08.18.08). She brings an interest in and love of science and expresses confidence about her content knowledge. In the opening days of the project, she also establishes her expertise by sharing that she had been on the district's science curriculum selection committee. In addition to positioning herself immediately as an elderstatesperson in the group—one of only three teachers in the project with over 20 years' experience—Bonnie's declarations are delivered with a tone of challenge to the project facilitators. Despite

her enthusiasm for science and a self-professed love for continual learning, Bonnie enters LP with some wariness about what the project might offer, which she expresses numerous times during the first summer's weeklong teacher workshop.

The first LP summer workshop immerses teachers in introductions to the project's purpose primarily through "doing" science around motion of toy cars and the working of circuits, as well as observing and discussing videos of science lessons in elementary classrooms using a lens of attending and responding to student thinking (Levin, Hammer, & Coffey, 2009). During this week, there are nine instances where Bonnie raises questions that challenge facilitators' authority and/or their curricular approach. A particularly tense episode occurs on the morning of day two when Bonnie explains that two colleagues from her school had decided to quit the project after the first day. Bonnie raises a challenge to the facilitator's authority, as she requests a change of pace to the week's agenda in order to accommodate her desire to "get there faster." She also alludes to her willingness to grow and change as a teacher, particularly noting that her own adherence to district-mandated science curriculum in the past has not "serve[d] kids well." (This interaction will be examined in more detail in the discourse analysis section to follow.) Here, one of Bonnie's primary tensions comes through: on the one hand, she is open to modifying her teaching practices if it might "serve kids well," but she is hesitant to challenge bureaucratic expectations, or, as she says, "the demands put on us."

At the same time, there are moments during the week when Bonnie exhibits sincere interest as a participant in the workshop's science activities. Each morning, teachers investigate questions about how a battery, bulb and wire could be arranged to

light the bulb, and how to explain what is happening. Bonnie engages in this experimentation but expresses certainty that she already knows how circuits work. When the teachers are asked to come up with an analogy or model for the light bulb system, Bonnie and her group discuss the comparability of the body's circulatory system. Bonnie becomes enthusiastic in declaring that she has taught about circuits for years but never considered this analogy, which is helping her think about why the wire needs to return to the battery. In particular, Bonnie seems genuinely excited to discover novel reasons for scientific phenomena she thought she had previously understood.

By the end of that first week, Bonnie makes an explicit connection between the LP project's conception of science, the implications for student learning, and her own stance as a science learner:

I would like to speak to something that Andy brought up yesterday about the whole idea of the types of questions that are on the test, that many of the things kids can figure out just cause they're doing stuff like this ((Bonnie gestures toward batteries and bulbs on table)). This morning on the news, there is an exper-/ some research being done, and I'm sorry to say I forgot the name of the university, but they're thinking that in the future you're going to be able to move electricity through radio waves...My point is that a week ago, that would've just ((points to one ear, then the other)) and out. OK, because I don't even know how to use my phone, so I don't even know why THAT works, so I started thinking about this, and I thought, well, I can't put that thought together. (08.22.08)

Here, we see glimmers of Bonnie's shifting conceptualizing of science. She entered the week feeling that she already understood circuits, she "knew" the answer to how they work, and this is what it means to have expertise in science—to know "the" answer to how various natural phenomena work; now she realizes that perhaps she does not have deep understanding in the area. She is expressing that for herself as a science learner it is worth questioning things she does not understand and working to find consistency between ideas she understands (i.e., how a circuit works) and those she does not (how

electricity can travel without wires). At the same time, she seems to be connecting this conception with her thinking about the work that students ought to be doing in science classrooms as well.

Year One.

During the first year of PD and implementation of LP curriculum, Bonnie wrestles with many of the same tensions she raised during the summer workshop. At first, she struggles primarily with the additional time it takes to include more student discussion in her science instruction, which is something the project has been advocating. In a PD conversation reflecting on a classroom video of students investigating sinking and floating, Bonnie comments:

...as I was listening to the conversation, in the second part, I found the kids instead of tightening up, and coming up with some commonalities, it was like when a glass of water spills and the ideas are going all over the place; and I struggle with this in my own classroom because of time constraints, hurrying up to finish something. Or do I just let them sit on it? And I had that very thing happen today, I couldn/ I didn't have time to finish. So I said, we're just going to sit on this til tomorrow. And we're just going to think about it. And we'll finish it tomorrow. And that puts me now ANOTHER day behind. But I couldn't just go/ I couldn't just walk around, OK we're done. I couldn't do that...I struggle with that every day. It's constant. My lesson plans are already a mess and it's just the second week of school because I didn't get that done, I didn't get that done, and I have to remember to always pull those things back. And that's what's so HARD for me. Not the PLANNING, but the REplanning. (09.10.08)

The tensions for Bonnie in this episode arise around a number of issues. On the one hand, she is concerned about time and the extra workload in "replanning," a concern that implies that Bonnie feels she ought to be able to predict and control how much gets accomplished in a day's lesson. In addition, this sense for Bonnie of being "another day behind" suggests a belief that there is necessary science content she ought to cover, which is being made difficult by the LP approach to teaching science. It is unclear in

this excerpt how much of this tension is attributable to Bonnie's own conception of the goals of science instruction or represents her response to bureaucratic presses. On the other hand, Bonnie exhibits a sincere desire to linger on interesting ideas brought up by students.

For Bonnie, simply integrating more student discussion into science lessons is a new practice for her (and several of her colleagues). There are numerous examples during this first year when Bonnie exhibits unmistakable excitement as she describes listening to her students' questions and ideas. For example, in January, Bonnie brings in video from her class, where she modified an existing lesson on mixtures and solutions from the district curriculum, based on her understanding of how the LP project is proposing that they teach science.

Bonnie: Every single child in my class got to talk.

Donna: Every child got to talk?

Bonnie: Every single child said something.

Donna ((opens mouth agape)): You have how many kids?

Bonnie: Thirty-two.

Donna: How long did that take?

Bonnie: A long time... And, you know, they all listened to each other! There was not a single time when there was any child off task, not focused, not paying attention. It was really amazing. (01.14.09)

This episode illustrates how Bonnie is opening up science lessons to more student talk and active participation—a change of which she is proud—but toward certain predetermined endpoints. As she explains, "This module I've taught probably 14 times, just exactly as it's written... and I came up with a new activity this year... The [FOSS] script gives them the answers, and I wanted them to discover the answers, to come up with their own interpretations." Bonnie reiterates this stance at the end of year one, "I'm still hung up, this whole idea that there's a certain amount of information that they need

to have when they leave here. And I don't want to give it to them" (05.22.09). Her interpretation seems to be that she seeks to make her science classroom a more active learning environment for students, but that the goal of acquiring certain knowledge about canonical science concepts remains essential to her.

During this year, Bonnie's conceptions of science as a discipline and of science instruction are not stable. In April, she and the other fifth grade teachers in the project participate in a full-day session with project staff to prepare for teaching their upcoming LP module on the water cycle. Over the course of the day, they discuss many of the professional development activities they've participated in thus far (revisiting some through video clips and transcripts) and how these may inform their science teaching. During these conversations Bonnie on the one hand reiterates that "I just love sitting and listening to the kids." Later that same day, she raises questions about using discussions (what the project calls "science talks") as a core practice in science⁴: "Where do science talks take us? Does science really come into consideration in these conversations? Are they leading us to a deeper understanding of the world? Can these kinds of talks meet standards?" Bonnie seems to genuinely enjoy listening to her students and engaging them in discussions, but she questions whether that has value as a practice for *science*, both as a participant herself and in terms of an instructional practice with her students. As such, she also implies that her conceptions of science as a discipline and of science teaching, while a source of tension for her, are currently in

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⁴ In a previous PD session, participants engaged in over an hour of "science talk" around the question, "What's happened to the honeybees?" One LP faculty facilitated, as other staff participated alongside the teachers. This was presented as an "authentic" parallel to the work that LP wanted teachers to engage in with their students, facilitating discussions in which participants use their reasoning to work toward consistent, coherent, causal explanations of natural (scientific) phenomena.

alignment with each other. That is, Bonnie seems willing to consider that if science talks have value as a disciplinary practice in science, they may also be a worthwhile practice for classroom instruction.

At the last PD session of the first year, tensions become particularly pronounced for Bonnie. As she explains how "stressful" the year of teaching science while participating in LP has been, her voice quavers, and she struggles to hold back tears. From a veteran teacher who has established herself as such a strong presence in the group, this emotional declaration creates an immediate reaction from both teachers and facilitators. This episode, "I'm having dreams that are just wild," is examined in more detail in the discourse analysis section that follows.

Summer Two.

In the second summer workshop, Bonnie explicitly articulates many of the tensions she is experiencing as a participant in this project. In a conversation where returning teachers are explaining their experiences and expectations to a new group of teachers entering the project, Bonnie offers:

I have done science for over 20 years. This time, though, it's stretching me and stretching my thinking and how I teach in a way that is really making me uncomfortable, right? And now I've reached the point where I had some preconceived notions of teaching, what teaching should look like for a long time, and now I'm going into an area where it's kind of gray; but I'm sure the kids learned, they loved it. I mean, I could get them to do ANYthing...they just loved that opportunity to NOT know what the answer was. So so so, it put me/it's taken me to a new level. (08.10.09)

Bonnie seems to appreciate that "stretching" herself and "making me uncomfortable" are important for meaningful professional growth. She also implies here that she gives some credence to students' loving their participation in this kind of science as evidence

that they are learning. This is a shift from last year, where she characterized student participation as something distinct from their learning. At this point, she is perhaps unclear about exactly *what* they are learning.

By the end of the two-week workshop in summer two, Bonnie shares what she calls an "epiphany" about her science teaching: With a big smile on her face, Bonnie says, "while I was looking at all my videos... I realized that the limiting factor in what the students discussed was ME. I'm the limit. I was shopping for ideas instead of getting them to take that idea and go further with it" (08.19.09). This revelation builds on another reflection Bonnie shared a few days earlier, about her changing goals in teaching science:

Bonnie: I think last year my goal... was just to listen to student ideas. I just wanted to listen. So I offered no, or as little input as possible. "Uh-huh," and "OK, you're next" and I saw myself not even throwing out, "why do you think that?" I didn't even do that. I just sat back and listened to their ideas and where they went.

Janet: So Bonnie, how is that different from what you just suggested as a goal of understand/

Bonnie: I wasn't TRYING to understand them. I just listened to where their conversation took them... My goal this year is going to be more about understanding. (08.17.09)

As Bonnie describes, her goal in the science classroom is beginning to shift from "just listening" to her students to "understanding" their ideas. In this, she seems to be seeing value in eliciting and building on student thinking as a valuable practice in science classroom, perhaps even as a priority over the goal of helping students gain particular content knowledge. The video of this interaction shows a notable affective response from LP staff; in particular, we see Janet nodding, smiling widely, and turning around to other project staff, perhaps to acknowledge the success of this moment.

Year Two.

Despite her professed shift in beliefs and goals for science instruction during the summer, Bonnie continues to struggle with these tensions while in the midst of her actual teaching during the second school year. In particular, she still wrestles with what the end goals in science instruction ought to be and what student progress toward the end goals might look like; in other words, what should students learn in science, and how will she assess whether they have learned it? At a small group PD session of fifth grade teachers and project staff in October, these tensions come to a head for Bonnie. This is the content of the final discourse analysis episode, which concludes with Bonnie accepting the facilitator's analysis of what students have learned in her class. During this second year, Bonnie is increasingly more willing to see children's sense-making attempts in both her own and colleagues' data and to characterize that work as evidence of progress in science class.

As the second year continues, Bonnie offers more frequent recognition of the value of the LP science instructional approach to her students' learning. That is, her conception of the discipline for teaching is becoming more aligned with the project's view, as she seems less concerned about students acquiring specific content objectives at particular times. For example, in December she explains how students continue to build on the ideas that were initiated during her teaching of the LP water cycle unit earlier that fall: "Now it all makes sense to them... and they're going, 'Oh, we GET it now!'...but it really comes WEEKS after you do the teaching" (12.09.09). Bonnie appreciates how her students' nascent thinking and reasoning during one teaching unit

continue to resurface and inform their thinking as they make connections in future lessons.

Similarly, as Bonnie begins to prioritize student thinking and reasoning in year two, her tensions around bureaucratic demands such as testing lessen. For example, in a small group PD session with her fifth grade colleagues and project staff, she describes giving a recent quiz on which "the kids did really well on questions with reasoning, not so well on vocabulary." In the past, she would have seen this outcome as problematic, but, as Bonnie explains, "I see myself changing from where I was…I really tried to understand their reasoning, and I based their grade on what they were trying to say, not on the vocabulary they used" (1.20.10).

Increasingly, when Bonnie raises a question or tension in a PD session, she then describes in the same turn of talk how she has already resolved or managed this dilemma, as she did in the episode about testing above. Another example of this occurs at a fifth grade session in the spring, where Bonnie is bemoaning that her classroom is overcrowded with science equipment that she cannot put away, as she would have in the past. The facilitator asks, "and this is the first year that's happened?" Bonnie answers, "Oh, yes, because you know me, it all had to be put away, it had to go away. That's it, it had to go away. But they're not done with it, they're not" (03.17.10). This practice—resolving or "normalizing" her own problem of practice (Horn & Little, 2002)—happens only one time during the first year of data collection, but occurs 16 times—almost 50% of the tagged episodes—in year two. It is important to note that these are the same dilemmas that Bonnie has been wrestling with since the beginning of the project.

By spring of the second year, Bonnie describes with some assurance how this project has changed her practices in teaching science. In the context of a writing project that the staff have asked the teachers to engage in, Bonnie explains that she will address

how my teaching has changed, my teaching of FOSS ((the district-adopted science curriculum)) has changed...One of the biggest biggest issues I'm having is ((chuckles)) how much time it takes me to teach FOSS now. Whereas before, hey, I'm doing this this day and this this day and I mean I had it all rigidly laid out. And I JUST FINISHED my physical science unit. I just started life sciences, and we have CST [California's standardized test] in 2 weeks, so, am I worried about CST? Oh, yeah, but you know I said, they're gonna ACE the physical science part! ((Bonnie & all laugh)) They're going to get THAT part! And they're going to know the water, they'll be kind of weak on the life science part ((Bonnie laughs)) but I just said you know, I had to make some decisions, and the decision was, I have to make these changes, I can't bulldoze my way through it with them anymore because they aren't going to LET me, for one thing. They're like, "Well, we're not DONE yet!" We weren't done. (04.28.10)

Bonnie shows here that she has become more consistently responsive to her students as she makes teaching decisions about how long to spend on particular science topics or units; that is, her planning is guided less by how the curriculum "had it rigidly laid out" and more by her students' thinking. Following the curriculum's pacing, at this point, would cause her to "bulldoze" through her science lessons, an aggressive metaphor that envisions Bonnie unilaterally digging up the terrain of the classroom. Rather, Bonnie indicates the increased agency of the children in her science class, who "aren't going to let me" move on too quickly. She also positions herself in collaboration with her students, as marked by her use of the pronoun "we" when she concludes, "We weren't done." She also reacts light-heartedly to the upcoming standardized test. This is a marked shift in her stance toward bureaucratic presses, as the responsibility of preparing her students for this test was previously a source of significant anxiety for Bonnie

This is where Bonnie is at the end of year two, where data collection for this study concluded. So, what does this story tell us? According to LP staff, Bonnie has made progress and is considered a success story in this project. Bonnie herself describes the shifts she has undergone, for example, when she presents her "epiphany." How might we account for this progress? The design of the Learning Progressions professional development itself, as it exemplifies many of the characteristics of high quality PD (Hawley & Valli, 2007), is certainly a critical feature; and internal qualities of Bonnie—such as her self-motivation—are clearly influential as well. But neither of these can completely account for the dissolution of the potentially oppositional stance that Bonnie presented on her opening days in the project. In the following section, close discourse analysis of selected episodes from this data seeks to characterize the nature of the relational dynamics between Bonnie and LP facilitators and to examine in what ways these interactions may have opened up or closed off opportunities for Bonnie's learning in PD.

Discourse Analysis of Relational Dynamics in Bonnie's PD Interactions

The following section provides a close look at data episodes around the tensions Bonnie has experienced in the LP project. Analysis seeks to account for the importance of relational dynamics to the trajectory presented in the story above. Discourse analysis of these episodes uses the theoretical perspective of power/knowledge to investigate how relational dynamics were consequential to the teacher's participation; how these interactions played out in terms of stasis or shifts in the teacher's perspective on this tension (i.e., is there any move toward resolution or management of this tension?); and,

finally, whether the interactions seem to open up or constrain the teacher from learning opportunities.

The episodes I have selected for discourse analysis below exemplify Bonnie's tensions as described in the previous section. In addition, they offer particularly clear examples of how relational dynamics around these tensions play out for Bonnie in this PD project in that each episode displays heightened affect expressed verbally by Bonnie, which leads to some kind of interaction between Bonnie and the facilitator(s). Through the microanalysis of participants' verbal and nonverbal discourse, I seek both to demonstrate that relational dynamics may influence a teacher's participation in PD and to illuminate how these dynamics may be consequential to opening or constraining opportunities for teacher learning (Maxwell, 2004).

The first two episodes below both occurred during the summer one PD workshop and illustrate Bonnie's potentially oppositional entering stance in the project; each offers a window into how David navigated explicit challenges from Bonnie and laid groundwork for their relational dynamics over time. The third episode looks in more detail at the final PD session of the first year in which Bonnie made the emotional declaration that "I'm having dreams that are just WILD. Whoa! It's science, and it's, like, class is out of control, and I'm panicking." The fourth episode comes from the fall of the second year when Bonnie brought student work to a 5th grade PD session.

Analysis examines Bonnie's shift from initial frustration that students were "not learning anything" to grateful acknowledgement that she could see progress in their thinking about evaporation.

Episode 1: "You win."

At the launch of the Learning Progressions project for participating teachers, the first day of the week-long summer PD workshop begins with introductions around the room, followed by a brief description of the project's goals from David. He is one of the principal investigators, a physics education professor who facilitates most of the week's professional development activities.

David: So these responsive curriculum, you're going to see examples of it later in the week, is a set of possible things you can do and and and based on what we hear and see in the students, picking a direction to go and maybe adding new possibilities that aren't on the list to to further the learning that way. Rather than doing the next topic because it's the next page in the book. So that's the thing that we want to try to do, and that's responsive curriculum, and that's/⁵ I think that's enough just for this introduction. um, this is-- questions? or comments so far? It's all so vague.

((Bonnie raising hand)) David: So so so the-yes

B: Well, I just have a thought about that comes to mind after teaching 26 years on the whole idea of uh theory and actuality (..) that what you're talking about sounds great in theory=

D: Absolutely=

B: Right

D: Yeah

/ interruption or self-interruption

= latching (one person's words follow directly on the heels of another's)

overlapping speech

(.) 1-sec. pause

(()) nonverbal actions, gestures, etc.

(?) unintelligible

^ rising pitch

> falling pitch

CAPS emphasis on word or syllable

wo:rd colon shows that the speaker has stretched or elongated the preceding sound

⁵ Transcription notations:

B: So just want to [toss that out] there

D: [absolutely]

Bonnie establishes her standing to raise a concern that could be seen as challenging the authority of the facilitator by invoking her many years of experience; in other words, based on having taught for 26 years, her thought deserves merit in this conversation. She immediately sets up an opposition between the researchers' perspective ("theory") and her own as a practicing teacher ("actuality"), presuming that this project will challenge or create tension with her practical responsibilities. She perhaps implies at the same time that the researchers do not support or value the work that teachers need to do to manage their "actuality"—bureaucratic demands imposed by administrators. This is not, however, a strong challenge from Bonnie; she hedges by trailing off with "so just want to toss that out there," which she says in a quieter tone of voice.

David responds, "But that's part of what research is about...there are theoretical ideas and you go and try them out." This response seeks to soften the tension in Bonnie's question, by implying that the project will attend to supporting the teachers' implementation of these ideas, that project staff will work with teachers as they "try them out." David here seeks to bridge a connection between theory and practice, which Bonnie sees, rather, as oppositional. This early in the project, David must speculate about how best to build a relationship with Bonnie as he responds to this "unexpected opening" (Remillard & Geist, 2002). He is perhaps responding to an unstated concern in Bonnie's statement—that she may be implicitly invoking past PD experiences where outsiders come in and merely tell teachers what to do, sharing lofty "theories" without helping teachers implement in practice.

David continues:

D: Actually, I was realizing when you said you'd been teaching for 26 years I thought, "Oh, wait a minute, that's MY number" ((David laughing, while pointing at Bonnie))



Figure 2: David pointing

This is actually/ this will/ I guess this COMing year will be my 26th year at at various levels in various ways. Some/ I'm counting when I was a grad student teaching assistant, which may not be fair but it was still teaching=

B: = OK that's 27.

((D chuckles and nods, followed by 2 seconds of whole group laughter))

D: You have me beat [by

Fred: [You win.]

((louder group laughter lasting 3 seconds))

Here, David invokes his own experience, trying to establish his expertise in terms that Bonnie seems to value, and jockeying for position with her by offering the *same* number of years. As facilitator of this session, he has been standing as he speaks and points at Bonnie now—emphasizing this competitive positioning and himself as holding more power. Then, he hedges, when he says that some of his teaching years came as a graduate student, "which may not be fair." Bonnie then one-ups him by

declaring that according to this numbering scheme, she in fact has *more* years of experience. Through his laughter and his saying "you have me beat," David acknowledges in essence that, if they are going to play a game of establishing expertise simply with number of years, he will concede graciously. Fred, another senior investigator on the project, then joins in to acknowledge Bonnie's victory. Both David and Fred seem to defuse the tension by characterizing it as only a game. The group's laughter underscores this desire to make light of the situation.

David then regroups and tries another approach:

So so this is/ this is that/ we have a lo:t of experience teaching in this kind of way> in in uh college contexts, so this is/ when I teach university uh uh physics courses, in fact preservice elementary course for elementary school teachers and some inservice workshops for elementary school teachers, this is how I do it, this is in this kind of responsive way, and you're going to experience some of it here um in in this room um so it's not/ there HAS been some "actually" and there ARE teachers in the world doing a little bit of it on an individual basis, but what we HAven't done is the scale-up mass marketing built curriculum that will support it. And that's the challenge we're trying to take on in this. So that is/ you're exactly/ that is what we want to study.

David seeks to convince Bonnie that this project is not just theory, and he uses her own words— "there has been some 'actually"— to more explicitly address her concern. He emphasizes how much experience they have had by his elongation of the word "lot." In this sense, David validates Bonnie's concern that this project's curricular approach could legitimately be worrisome if it were untested. In fact, he replies, it is not purely theoretical, as there has been some enactment already and project facilitators do have some practical experience with its classroom implementation. Next, he establishes that he has also worked with the same kind of audience—elementary teachers—as Bonnie and her colleagues in this project. Finally, David attempts to address Bonnie's concern

about the theory/actuality tension by recasting it as a valid and already-identified area of study for this research project.

David ends this explanation by trailing off, "and so:" with falling pitch that gives a questioning tone, implying that he is looking for a response from Bonnie. She does not reply, but another teacher raises a comment and the discussion follows in that new direction. For most of this episode, Bonnie is blocked from view on the video, so without her verbal response or facial cues, it is difficult to make any claims about how she has reacted in the moment to David's explanation.

The following morning, Bonnie revives the same language as she explains the absence of two colleagues from her school who had attended the workshop the previous day:

I still have to come back to theory and reality, and you've touched upon it, but I have two people who, after yesterday they don't want to even come back. They're so frustrated with where you were because of the demands put on us...

Bonnie's saying "you've touched up on it," indicates her acknowledgement that David addressed this issue yesterday, but that the problem is not resolved for her. This time, as Bonnie speaks David moves from a standing position at the front of the room and sits down closer to the teachers who are grouped at tables. He is physically positioning himself on a more equivalent plane with the teachers, minimizing his authority as group leader and, in essence, welcoming her to elaborate. Bonnie does then offer more detail about the particular nature of her discomfort with the "theory and reality" problem:

I'll just show you ((holds up document)) we have 62 days to teach earth science. It's mapped out day by day. What you're saying is a:ll well and wonderful... I just/ I just think we need to get faster to what you're trying to do here for me to understand what you're doing, I need to get there faster than what you're doing right now. Yesterday was REALLY hard for me. And I understand that's what you're trying to do. But I don't see where it fits in with

this ((points at district document)), and THIS is what (...) I'm gonna need to accomplish. ((raises hands and eyebrows)) That's my frustration.

Bonnie is raising tensions about the bureaucratic presses she faces in her job, in terms of the district's curricular calendar and the ways in which it seems to conflict with the project's expectations. She seems willing to consider LP's approach but is uncertain at this point whether the project's ideas will resonate with her beliefs or address the realities of her position.

Bonnie: So, yes, I'm open for new ideas. I'm always open for new ideas, but I need to know the practicality of it as well. I really do. Sooner than later. (..) Maybe that's a discussion for lunchtime=

David: =NO, actually, well, what I want to know is, where are others in this respect because if what/what/what/ same as always, I need to understand where/ and in this sense, in this moment in this time for this week, you guys are my students, and I need to understand where my students are. So I w/ could I hear from others and/ I'd like to spend a moment on this to find out, can we continue? Do we need to stop? Where are you in thinking about all this?

As the latching notation indicates, David replies immediately and emphatically here—with noticeable emphasis on the word "no"— to assure Bonnie that he does find it important to address her concern right away. He puts the question to the group to assess how they feel about this issue: "I need to know what you are thinking right now about this,"—and opens the floor for a 45-minute discussion in which he participates very little. This move would seem to empower the teachers as meaningful participants in the conversation, and to signal that David truly values their input as he seeks to situate Bonnie's concern among the group. At the same time, though, by labeling the teachers as "my students," David may be sending a message that emphasizes his disproportionate expertise and reinforces his own status as the authority in facilitating this session. In response, the teachers for the most part express their support for the

project goals, offering thoughts such as, "I think as teachers we have to learn new things," and, "What I feel like you're doing here is trying to establish some basic concepts that I never really got when I was a kid, and so that's valuable to me, just that. Like, what is science about?" Many of the teacher comments seem to resonate with Bonnie, as she often nods her head and smiles as they speak.

Sharon, another LP staff, then enters the conversation to address "what the expectations or hopes are that you'll be able to do this year in your classroom." She continues:

So I don't think you should be concerned that we're hoping that you're going to change how you do things every day all day starting in a couple of weeks. But we want to find a way where you can kind of evolve comfortably and still meet the other real pressure that you have that we can't ask you to just give up on and dive into something else, you know, and just ignore all the expectations that you have... The materials that we're developing for each grade we anticipate will take about 20 hours of class time. Out of your whole year just for our little set, but there are things that we hope will leak over into your teaching in other areas, other than the materials we develop and the basis of that is all the things that we're doing this week.

Sharon's contribution to the conversation here provides a specific answer to Bonnie's concern in terms of the actual requirements she will be agreeing to in participation with this project. Sharon seems to have interpreted Bonnie's issue differently than David, and thus their attempts to resolve it play out differently; where he sees a need to bridge "theory" and "actuality", Sharon's response instead seeks to minimize the amount of "actually" that this project will entail. With emphatic nods and smiles as Sharon speaks, Bonnie seems to show relief at this information.

In this episode David takes Bonnie's question about the viability of this project head on; he likely demonstrates to the veteran teacher Bonnie that she is welcome in this project to express her concerns, even if they might violate typical norms in PD or

directly challenge the authority of the facilitator. The next episode presents a more direct exchange between Bonnie and David around their negotiations of authority and notions of expertise, both with regard to science as a discipline and within the relationships in this project.

Episode 2: "Can it be? Yes or no?"

This second episode comes just a couple hours after the episode above. Later that morning, teachers are "doing science," working as learners on one of the modules they will implement later in the school year—about how to get a toy car to start moving. In the context of a whole group discussion in which teachers are generating possible definitions for the concept of energy, Bonnie raises a question to David, who is facilitating this session. She asks, "Can all energy be measured in wavelengths?" It is initially unclear how Bonnie's unprompted question relates to the topic at hand. As such, she causes a disruption to the interactional flow (Hall & Stevens, 1996). Where the discussion in the previous minutes had been among many of the participants and with reference, too, to the whiteboard at the front of the room, everyone's gaze now turns to Bonnie and David as she asks a question directly of him:

Bonnie: ((looking directly at David)) Well, I just had a thought (..) OK, if (.) is ALL energy measured in different wavelengths? Can ALL energy be measured in wavelengths>

David: (..) um

Bonnie: ALL forms of energy>

David: So [so

Bonnie: [CAN it be? Yes or no>

David: All right>

((Kathy chuckles; several teachers begin laughing loudly; Bonnie raises her eyebrows at David

and begins laughing; lots of overlapping talk; laughter lasts 6 sec.))

Bonnie: ((sitting up taller looking at David, louder volume to be heard over laughter)) As a PHYSICS teacher [I'm asking you a question

David: [I / I

Bonnie: Yes or no?

((David silent-- off camera; teachers looking at him & begin laughing again))

In these initial turns, Bonnie controls the flow or pacing of the conversation. Four times David makes a bid to respond, but each time Bonnie interrupts or overlaps his words and restates her question. Bonnie's control of these turns is also underscored by her short utterances and emphatic syntax, which could be characterized as having an interrogation quality. For example, she asks, "Can it be? Yes or no?", she later repeats the question, "yes or no?", and she explicitly reiterates to David, "I'm asking you a question."

Initially, David seems uncertain about how to respond to Bonnie, as he pauses and utters, "um" and "so, so." Despite David's false starts and stutters, though, he gives no affective indication—in his tone or body language— of feeling uncomfortable or under attack from Bonnie; in fact, both of them participate in the group's extended laughter. The laughter is initiated by one teacher and is then picked up by the rest of the group. It seems to represent a feeling of discomfort from the teachers as Bonnie is confronting David, suggesting that perhaps Bonnie has broken a norm of how participants are expected to defer to facilitators in a PD context. This feeling is reinforced by Bonnie's response to the laughter: she playfully raises her eyebrows at David, as if she is asking, "Is it OK that I've just challenged you in this way?" David then begins laughing, too, which suggests his acknowledgement that Bonnie has not caused him any disrespect with her questioning.

111



Figure 3: Bonnie and David laughing

In this exchange, Bonnie clarifies that she is asking this question about measuring energy to David, in particular, because of what she sees as his disciplinary expertise: "As a physics teacher." Bonnie seeks to position David as the source of science content knowledge, which at that moment she would like to access. David seems uncomfortable with being placed in that role:

David: (..) There isn't a simple ans/ there is not a simple yes or no answer to that question (..) ((Bonnie taps her pen rhythmically on table during David's pause in speech)) as a/ if I/ if I think/ I'm/ you/ you've just asked me to play the authority as a physicist

Bonnie: mm-hm, mm-hm

David: and answer as a physicist that question, it would be misLEADing to answer that question either yes or no.

Bonnie: all right^ that's fair> so

In his response, David does a few things simultaneously. First, he provides a direct response to Bonnie's question; that is, when she asks whether all energy can be measured in wavelengths, David acknowledges her and responds that "there is not a simple yes or no answer." In this sense, David shows respect for Bonnie's question and for her authority to ask such a question in this setting. At the same time, David

maintains his own stance—which he proclaims often in these PD sessions—that disciplinary knowledge in science does not generally provide simple, definitive answers: "it would be misleading to answer that question either yes or no." He also implicitly challenges Bonnie's move to position him as a science expert when he says, "you've just asked me to play the authority as a physicist." David's use of the word "play" here suggests that he does not define his own identity in this group as a physics expert, but that he is willing to temporarily entertain that role for Bonnie's benefit.

There is some evidence that David's response seems to satisfy Bonnie and to leverage her further engagement in the discussion. First, she allows him to speak at length. She taps her pen on the table while he has paused, but she does not interrupt his turn. When it is clear David has completed his thought, she says, "all right. That's fair," acknowledging that she understands his response. She also keeps actively participating in this discussion topic, as evidenced by her saying "so...", where she keeps the floor and begins to extend her thinking.

Bonnie: [I'm trying] to look at (..) what is it that I have in MY brain that says there i/ there has to be to be something more that connects to what you were saying over here ((turns head and gestures toward teacher at table behind her)) than the ability to cause change. So what can I add to that definition that specifically says I'm talking about (.) energy>

David: So YOU'RE saying, I/ if I/ if I'm understanding you right, and I/ and I/ and I do want to say um under/ under most circumstances I would/ I would reject the move to put me in the position as the source of knowledge being the authority^, but I LIKE you> so I/ so I ((laughter from several teachers)) so/ so/ I/ and I kinda/ kinda like your saying, 'yes or no' ((David points with index finger; teachers laugh)) so I/ and I think if I had a 4th grader do that to me, I'd probably say, 'you win'. So um ((David scoots off the table and stands, as teachers laugh))

so, I/ I. All right. So/ so you're saying, I think, or I'm inferring from what you're saying that all these do a decent job of describing what they all have in common

Bonnie: ((nodding, whispers)) yes

David: You would like to do something that does the next step now that is what Dorothy was asking, which goes beyond what we've done, which is to say, what would I say that would exCLUDE things that would/ that would limit to things we think are energy.

Bonnie: Exactly.

Bonnie now changes the trajectory of the conversation back to the topic of definitions for energy. This move suggests that Bonnie feels she received a satisfactory enough response to her question about wavelengths that she is now able to re-engage her focus on the topic that was previously under discussion.

As David responds to Bonnie's bid to move the conversation back to the topic of definitions for energy, he first revisits her attempt earlier to position him as a science expert. He explains that "under most circumstances I would reject the move to put me in the position as the source of knowledge being the authority." This reiteration implies that David has strong feelings against serving as a source of science expertise in this group. However, he softens the tone of this statement by using humor, as he says with a smile to Bonnie, "but I like you." David then turns the conversation back to composing a definition of energy. Bonnie's continued verbal interactions with David in this exchange indicate that she stays engaged with him in this topic.

David's use of pronouns underscores his attempt to de-emphasize his content area expertise in his positioning within this group: "You would like to do something that does the next step now that is what Donna was asking, which goes beyond what we've done, which is to say, what would I say that would exclude things that would/ that would limit to things we think are energy." In this one sentence, David uses three different pronouns: first person singular "I", second person "you" and first person plural "we." First, David uses "you," referring to Bonnie, as he paraphrases her in order to check his understanding of what she has said. This type of paraphrasing often has the effect of making a listener feel heard and respected. In addition, David's use of the pronoun "we" places himself as a co-participant in this task of generating a working

definition of energy. That is, rather than saying, "things *you* think are energy," he says, "things *we* think are energy." In this sense, David positions himself alongside the teachers as being equally inquisitive about defining the concept of energy. Such positioning is consistent with David's belief that participation in a scientific community involves continual inquiry.

In sum, discourse analysis of this episode illustrates Bonnie raising a challenge to David, in which she invokes his disciplinary expertise. David's response encompasses multiple purposes: he answers Bonnie's question, simultaneously up-ends her bid to position him as a science authority, and embraces the humor of the exchange. Bonnie seems to accept David's response, as she remains engaged in the conversation and returns discussion to the topic that had been on the table prior to her question.

Overall, relational dynamics in this interaction demonstrate Bonnie's developing comfort with David and seem to imply, at this initial stage of the project, her openness to consider LP project ideas. The next episode, which occurs nine months later, exemplifies a major tension for Bonnie once implementation of LP teaching has been undertaken in the classroom. As we have seen through the narrative chronology of Bonnie's participation, she wrestles with concerns about the LP project's approach to teaching and learning in science.

Episode 3: "I'm having dreams, and they're wild."

At the last PD session of the first year, tensions come to a head for Bonnie. This afterschool session occurs during the weeks when Bonnie and the other fifth grade teachers in the project are implementing the LP module on the water cycle in their classrooms. That is, Bonnie is in the midst of her first experience with attempting to

teach "the LP way" over ten days in a row. During a whole group conversation reflecting on the first year of LP, Bonnie asks to share. She makes an emotional declaration in which her voice quavers and she struggles to hold back tears:

I'm not afraid of taking things on, OK? I wouldn't be here, but I will tell you, this is extremely stressful ((she starts choking up)). And I'm having trouble dealing with that. I just am... (05.20.09)

Bonnie's colleagues jump in to reassure her that they have struggled with having their teaching videotaped during the two to three week implementation of the LP module. Several of them share anxieties about being on camera constantly, as that makes them feel unsuccessful or incompetent when lessons do not go smoothly or students do not act perfectly. Sharon tries to reassure the teachers that LP staff do not hold those expectations and that, in fact, "we just think you are fabulous....We just think so much of you and we don't care if you have a bad day, we don't care if you have a bad week, we don't care if you say something inappropriate, we wouldn't share it with anybody."

When Bonnie re-enters the conversation, though, she implies that being on camera is not the source of her discomfort. She continues, "It's just so out of my comfort zone...I'm having dreams that are just WILD. Whoa! It's science, and it's, like, class is out of control, and I'm panicking." This is perhaps surprising language and imagery from a generally confident, veteran teacher, who is sharing anxiety dreams about teaching and admitting that she is in a state of panic. One of the project staff who attended that session reflected, "I think one of the striking things about this moment to me is that, Bonnie seemed to be doing pretty well, and then all the sudden we saw that she was really stressed out, and really upset, and it made her declaration that much more striking" (T. Sikorski, personal communication, 11.28.11). Presumably, then, the

previous reassurances from colleagues and staff have not addressed the underlying source of Bonnie's tension here. She seems to be expressing discomfort with responsiveness, the LP project's conception of science instruction as opening up questions and taking cues from student thinking rather than being more teacher directed or following a lock-step lesson plan, as feeling "out of control." And that is a strong enough feeling to bring her close to tears.

Several minutes of discussion follow in which, in part, LP staff share their own feelings of being out of their comfort zone in this project. Fred, one of the LP lead facilitators, expresses this sentiment at length:

Fred: We're all out of our comfort zones at different degrees and different times. I know it's a struggle for everybody. EVERYbody, staff and the teachers. But what I keep hearing, as an observer, not necessarily unbiased, but an observer, is that something reMARkable is happening in your classrooms. With the students. I mean, the students are doing something maybe a little different than what you have seen before. Everyone has talked about that off and on the entire year. And it's quite remarkable, and so in some sense, jeez, this is the kind of thing that we want to aim for. You know, part of our project, we have a three year project/((Bonnie tries to interrupt)) not because we think it's EAsy, but because we think it's HARD. And that we want to figure out how we can do this, share this with the greater teachers out there.

At this point Bonnie interrupts Fred, and she now speaks matter-of-factly: "So I've given this a lot of thought, and I think a lot of it is about the timing of this; the end of the year is really stressful..." The heightened emotion is gone, and Bonnie asks if she might reschedule her LP module for earlier in the school year during year two. In his comment, Fred shifts the perspective away from the stress many of the teachers are feeling, to the view that their students are participating and performing in their science classrooms in new ways that are "remarkable." Fred may gain additional credit for this view by invoking the teachers' own claims to this end: "Everybody has talked about

that on and off the entire year." Focusing on the students rather than on the teachers may alleviate some of Bonnie's discomfort. Fred's response may have tipped Bonnie into remembering that she, too, has experienced successes with student participation in her own classroom. Bonnie then shifts into a problem-solving mode of scheduling and timing for the following year.

In this episode, we see in Bonnie's language and affect how undertaking the new instructional approach promoted by the LP project has impacted her viscerally. At the end of her first year, she expresses feeling panicky and out of control. Her distress is met, first, with sympathy and validation from colleagues and facilitators, and then with a reminder from Fred that students seem to be benefitting. While it is difficult to give a specific attribution to the change in Bonnie's affect in this episode, it is noteworthy even that she felt comfortable to share such emotion with the group. Perhaps simply having a safe space to air her concern sufficed. As Bonnie herself expresses, "If we can't say this, then we can't get past that point." Within less than ten minutes in this episode, her anxiety seems to have abated.

Within the ensuing conversation about next year's scheduling of the LP modules, Bonnie also brings up another recurring tension, about standardized testing and content coverage. She expresses concern that implementing LP lessons has made it difficult to hold to her district's curricular calendar and that "when it came time for the CST I had not covered the things I should have covered, and quite frankly, my butt's on the line." Several of Bonnie's colleagues try to mitigate her concern by reminding her that the fifth grade science test largely assesses fourth grade skills, and that, therefore, their teaching of the LP modules would not be to blame for any low student scores. The

LP facilitators do not enter into this conversation. As we will see in the next episode, Bonnie's concern about whether students are learning sufficient content extends into the following school year.

Episode 4: "To me, they're not learning anything."

At an afterschool PD session in year two, a small group of teachers meets with four LP staff, including David on video chat, about the water cycle unit they are currently implementing. Sharon, the senior staff member in the room, opens the meeting by offering possible topics for teachers to discuss as science *learners*, such as "how is it that rain happens" or "what is the difference between steam and water vapor." This is a fairly typical activity for these PD sessions.

With a noticeably loud and urgent tone that cuts off overlapping speech from others, Bonnie interjects, "I ACTUALLY wanted to discuss the issue that I E:MAILED you about. I mean, if we're going to be practical, which we're OBVIOUSLY not being, at ALL, I don't see/ I CAN'T take this much time on just evaporATION, I CAN'T⁶." Bonnie is challenging Sharon's authority to set the agenda for this meeting, arguing that wrestling with science content would "obviously not" be practical right now. Within this lengthy talk turn she expresses twice, "I'm frustrated," and smacks the table with the papers she has brought to the meeting.

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⁶ Capitalization represents additional emphasis and raised pitch of Bonnie's voice in this utterance.



Figure 4: Bonnie with student papers

Bonnie explains that three weeks into this unit her students are "having a great time, but they're not learning anything," because "they don't have any better understanding of [evaporation] than they did when we started." This declaration contrasts directly with Bonnie's words during the summer, when she stated, "I'm sure the kids learned, they loved it" (08.10.09). Now she complains with exasperation and a tone of extreme sarcasm that students' "having a great time" has no connection to their learning.

Sharon responds directly, showing a willingness to suspend her initial plan in favor of deferring to Bonnie. She asks, "What do you want them to know?" With this question and her use of the second person pronoun *you*, Sharon seems to position Bonnie with expertise and authority for articulating the goals of her students' learning, a move that might confer agency or respect; alternately, it could signal distance or disapproval, if Bonnie interprets that her goals for student learning might not be "right" according to the project. Sharon continues, asking more detailed questions about Bonnie's goals, which Bonnie does not answer. Sharon then turns the question to the rest of the group who discuss their goals for student learning about the water cycle,

while Bonnie remains silent for the next 18 minutes. This silence may signal that Bonnie feels defensive or patronized by Sharon's questions; alternately, she may simply be quietly pondering her reply to what she wants her students to know. In either case, at this point Bonnie's initial concern has not been answered.

Twenty minutes later David, on ichat, enters the conversation and makes an explicit bid to change the trajectory and re-engage Bonnie:

So I guess what I'm asking is if we could pick up some thread of student thinking (..) and I'm most/ I guess Bonnie was saying you're feeling/ you're in a/ I hear the most frustration from you, Bonnie, and it might be to pick up a thread of what are your students thinking, where are they, and think, what would progress be for them?

First, David validates Bonnie's feeling of frustration. He then offers to look at the student work she has brought to the meeting and examine her students' thinking collaboratively, which presumes David's confidence that they *will* find evidence of student progress. It also may serve to share authority for determining the goals for her students' learning, though he risks making Bonnie feel corrected for a "wrong" interpretation of her students' writing.

When Bonnie reads a piece of student work⁷ that exemplifies her concern, her tone is similar to her original complaint to Sharon:

This little girl made a rain chamber. She MADE a RAIN chamber. That's what her experiment was... She didn't connect it [her thinking] to what she DID at ALL...

As she explains her frustration, David asks her to read the actual work that the student produced. This may represent an attempt on his part to remove the emotion from her

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⁷ Bonnie has brought a stack of student work to the meeting. It is an assignment that she had given in class just that day, and it is the source of her frustration. In fact, as she initially presents her problem, she smacks the conference table *with* this stack of papers.

presentation and move to a more objective realm of discussing student data; that is, to be able to respond to the student's work, rather than to Bonnie's frustrated interpretation of the work. As Bonnie describes what the student has written, she adds:

Bonnie: She made a cloud chamber. She made a (..) a container similar to what we did last year. They put water in the bottom of the container and then put a dish, covered the top of the container, and then put a rock in the middle, so all the water will condense at one point...and drop back into the dish underneath. Yet she doesn't reFLECT that in her thinking at all. So I'm thinking WHY are we doing all these experiments if it's [not]

David: [Wait wait] wait, BO:nnie, I have a different possible interpretation of the data.

David's choice of words here, "a different possible interpretation of the data," offers a value neutral way of addressing Bonnie's concern. Rather than challenge Bonnie directly (by saying something like, "I disagree with your opinion about the students' thinking"), David uses "scientific" words without any pronouns.

This is the first time during this session that anyone has successfully interrupted Bonnie. Once she allows David to take the floor, he directly addresses the heart of Bonnie's concern by offering an analysis of the student's reasoning:

David: One possibility is that what she's done is expanded her meaning of the word boiling. Like she doesn't think/ so when she says the sun is heating the water, she's thinking the sun is/ that boiling is somehow her word now for the water going up...and so she's seeing water disappear from the bottom, go up into the air, and maybe the word she's using to call that is boiling.

Bonnie nods vigorously at this analysis. In explaining this student's thinking, then,
David validates Bonnie's desire for students to show progress and demonstrates that, in
fact, this student is doing just that. Bonnie immediately accepts his analysis and
remains verbally engaged for the rest of the session. She comments at the end of the
session:

I'm GLAD I brought this up because I'm walking away with a sense of when they were doing this writing, it was AWESOME. I mean, the kids are like / I mean, there wasn't a peep in the room, and they're like ALL into it and ...I mean, they're just like goin' all into it and stuff. So I should take from that ... they were REALLY thinking, I mean they were REALLY struggling with this.

David's alternate interpretation of the student data seems to have tipped Bonnie into seeing that her students have indeed been engaged in productive scientific thinking.

In this episode we see a distinction between Bonnie's interactions with Sharon and David, both of whom seek to demonstrate respect for Bonnie and position her with some agency. Although each acknowledges Bonnie's frustration and takes time to address her concern, Sharon's approach of inquiring about Bonnie's goals does not resolve her problem in that moment, while David's move to examine her students' work does⁸. Bonnie may allow David to interrupt her in part because of their relational history; she may trust that he is likely to offer a useful response, as he has previously. I am not arguing here that David is simply a "better" facilitator, but rather that relational dynamics are particular to individuals, and that "who is speaking to whom turns out to be as important for meaning as what is said: in fact what is said turns out to change according to who is speaking and who is listening" (Alcoff, 1991, p. 12).

Conclusion

Bonnie's participation in the LP project is influenced by the particular negotiations of her affective and relational concerns in interactions with facilitators.

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⁸ It is important to note, though, that in this session one of Bonnie's colleagues also takes a lead in reading the work samples and finding evidence of sense-making in students' writing. Interactions *among* teachers in PD groups are presumably influential, too, to teachers' participation and openness to learning; a limitation of this study is its more narrow focus on relational dynamics between individual teachers and facilitators.

From the opening days of the project, Bonnie is assertive in declaring her own authority and does not hesitate to raise concerns about the project, at times in direct challenges to the PD facilitators. In multiple examples, we have seen Bonnie's questions and challenges addressed explicitly and directly, in particular by David. Bonnie seems to feel respected in this approach and responds to these exchanges with engagement and active participation. In relationship with the LP project over two years, and in particular through exchanges with David, Bonnie seems to make substantive changes in both her PD participation and in her approach to science teaching. She expresses some fundament shifts in her conceptions of the goals of science instruction and what it means to "really listen" to students, becoming more aligned with the project's view of responsive teaching in science.

Chapter 5: Case Study of Stacy

I still want to know what the answer was. I want closure.

I'm totally gonna start science this way because it gets them thinking. But at some point for scores and stuff I need to give them the answers. You still gotta teach.

Couldn't you have
why can't have you done that?
Can't you then
We can do that, right?
So is there anything
wrong
with that?

I have it written down
Wait a minute
in my notes
I have it written down
what you said yesterday
Don't you remember?

You know, I hang on every word you say

I am full on for doing this It has made my classroom very rich the last two years but I am almost two weeks behind

I got all excited when you said "now what"
and we still haven't gotten to "now what"
We said we were going to do "what's the student's idea" and the "now what"
and I wrote it down
and we still
and it's just
idea idea idea idea
and I want the "now what"

I made a list like you told us at the beginning so I'm waiting
But am I wrong?
and I could be TOTALLY wrong

How to take them on their own path when we have a 3-week deadline

So why not I don't know. I don't know. I'm just/ I don't know.

Not much was ever brought up about our unit and no video was ever shared to the whole group so I believe the unit was thought of as a failure.

Sometimes I feel I've let the project down Every once in a while I feel like I'm not being a 'good girl'.

Maybe I'm doing the project a disservice cause I do adore everybody, everybody on this project.
My intention's always been to help out. I apologize.

I don't think I fit in the box.

If anything scares me more it's the next moves, or maybe not the next moves but the transitions. That scares me.
You know, even still today, wait a minute, how am I going to get from here to here?

Why are you going there when you're trying to be here?
So I don't feel that we go back and answer, there is always the lingering question.
I don't think I've gotten the answer yet.
I don't know if I'll ever get it.

In the back of my mind,
I was thinking, were we right? What's the answer?
I still think, in the end, were we right?
What's wrong with that?

As with the previous chapter, the piece above is a found poem in stanzas arranged chronologically, culled from data of one teacher's words expressed during PD sessions over her first two years in the Learning Progressions project and during an interview I conducted with her the following spring. The intent of the poem is to offer, in Stacy's own voice, a window into the issues and tensions that informed her participation in this project and to give a sense of how these tensions played out for Stacy over time. What we see in the poem is that Stacy's concerns and questions—in particular, how to balance student progress in scientific inquiry with ensuring they get the "right" answers— as well as her own self-doubt, endure throughout her participation in the project.

The remainder of this chapter will first provide a more detailed, narrative description of this trajectory and then offer a systematic analysis of interactions with facilitators in PD sessions; the discourse analysis seeks to illuminate how relational dynamics between Stacy and PD facilitators are consequential to her participation and may help to explain her lack of significant progress in this project.

Narrative Overview of Stacy over Two Years in Learning Progressions PD

The purpose of the following story is to give an overview of the chronology and trajectory of Stacy's participation in the LP project during years one and two. It describes what happened for her as a teacher participant in the project and the tensions that emerged. The interpretive narrative primarily seeks to provide context for the fine-grained discourse analysis episodes that follow in the next section; that is,

through analysis of her interactions with facilitators I am ultimately seeking to understand how and why her trajectory played out the way it did.

Summer One.

When Stacy enters the Learning Progressions summer workshop in August 2008, she explains her initial desire to participate in the project. She shares that she is excited about the science inquiry approach she sees being valued by this project, which she views as offering more "hands on" activities in science and engendering more student participation. Stacy had been teaching middle school social studies and science for seven years and had signed on to this project along with her sixth grade partner teacher, a veteran teacher whom Stacy sometimes refers to as "Factoid Mary" for her expertise in science. In comparison, Stacy sees herself as relatively limited in her science content knowledge and often expresses insecurity about this.

In their first experience with "doing science" in the LP project, teachers have been investigating ways of getting a toy car to move, and they have a lengthy discussion of whether and how attaching a pinwheel to the car would make it easier or harder to move. There is some light-hearted discussion and confusion among the group about what kind of pinwheel, how it is attached to the car, etc., and Stacy laughingly inserts, "I want to know... I need closure!" (08.18.08). She seems uncomfortable with the amount of time the group has spent investigating a question without receiving a definitive answer. David, the facilitator for this session, jokes in reply, "Oh, well, Stacy, closure." Several minutes later, David responds more sincerely that "in science, closure is often a long way away" and that in his

experience adults have more need for authoritative, right answers in science than children do.

By the following day, one of Stacy's colleagues ribs her about closure, and this theme emerges as a long-running joke throughout the three years of the project.

Often, Stacy is willing to laugh at herself; she makes the joke as least as often as her colleagues. For example, on the third day of the summer workshop, Stacy empathizes with a student in the classroom video the group has been watching:

And I kind of feel sorry for Felix, cause Felix is like ((Stacy raises her arms in mock surrender))
'Dude, I am/ STOP! Somebody stop talking and just draw'
cause he's just, again you've got that 3 or 4 kids who are taking over...
And he wants closure! ((lots of group laughter)) I'm Felix! (08.19.09)

What Stacy seems to mean by closure is receiving a resolution to the explorations and investigations of a scientific phenomenon by getting the "right" answer—the canonically accepted explanation. In this sense, her epistemological conception of the discipline is in tension with the LP project's conception, in which science is often defined with Einstein's words as "the whole of science is nothing more than the refinement of everyday thinking." Stacy's desire for closure could be described, then, as tension about conceptions of what it means to know in science.

For Stacy, her epistemological conception of the discipline often dovetails, too, with tension arising from her views about the role of the teacher in a science classroom. As she expresses during this first summer workshop, "At some point, don't you have to teach them? I mean, you want them to investigate, you want them to do this and do that, but at some point you want to teach them..." (08.21.08). Here, Stacy distinguishes "teaching" science from allowing students to "investigate,"

implying that for her, "teaching" means imparting particular content knowledge to students, which she distinguishes from engaging students in the processes of science such as investigation. These two tensions—what is important to know in science, and how to envision the role of the science teacher— arise continually over Stacy's years of participation in the project, and are analyzed in greater detail in the "Can't you just lead them?" episode in the discourse analysis section of this chapter.

Stacy's emphasis on right answers in science class does not stem solely from her own conception of the discipline but is often attributed to (what she sees as) a need to meet the bureaucratic and logistical demands of her school. She says that she values the LP project's emphasis on student engagement, thinking and reasoning, yet she views this as something separate and apart from learning science. Stacy invokes standardized testing—"scores and stuff"—and the time pressures at her middle school of having just one semester to teach a year's worth of science curriculum. She also bemoans the lack of flexibility with time that comes with teaching multiple classes of students per day in the middle school, as opposed to her elementary school colleagues in this project. These presses cause Stacy to view implementation of the LP project's responsive teaching approach as unrealistic or irreconcilable with her charge.

Consistent with her compliance to bureaucratic expectations, Stacy demonstrates deference and a desire to please those she considers authority figures. This includes her school principal and other school system administrators, the facilitators of the Learning Progressions project, and veteran teacher colleagues. At times Stacy interprets the expectations of these various authorities as conflicting, and this seems to make her extremely uncomfortable. Stacy also exhibits a general

insecurity and deference to authority as she seeks reassurance from the LP facilitators about whether she is meeting their expectations. She takes copious notes during PD sessions and often quotes the facilitators' words back to them in seeking to clarify the goals or expectations of a task. Despite these insecurities, Stacy is not shy; she is a vocal participant in the teacher PD sessions and is not hesitant to express either her enthusiasm or concerns as they arise.

In many ways, these tensions expressed by Stacy during the first summer workshop are not surprising. In fact, they were articulated by many of her colleagues that week as well and, indeed, are reflected more broadly in published research on the challenges that classroom realities place on school reform (e.g., Kennedy, 2005). Reenvisioning science instruction to be responsive to student thinking and foregrounding practices of inquiry over giving students canonically correct explanations of scientific phenomena was anxiety-producing for most of the teacher participants as they entered the LP project. Similarly, many of the teachers initially felt that the project's envisionment of science instruction was in conflict with their school and district administrators' demands for content coverage and standardized student achievement measures—as we saw with Bonnie in the previous chapter.

What is noteworthy about Stacy's story is that these tensions do not resolve or change substantially for her over the years of her participation in the project. As one of the LP project facilitators expressed after the completion of the project,

Stacy's the one that I feel bad about. She's the one in the project-- I think, we should've reached Stacy. And we didn't... She seemed like someone who throughout that we're going to reach, we're going to help her, she's going to do something different, and we didn't. (D. Hammer, personal communication, 12/21/11)

If we envision a teacher's growth as learning to manage dilemmas of practice (Ball, 1993; Lampert, 2001; Remillard & Geist, 2002), then we would see little evidence of progress in Stacy. What this chapter seeks to explore—through the discourse analysis in the section that follow this chronology— is how and why she continues to wrestle with the same tensions over two years, and how relational dynamics between Stacy and the LP facilitators affect her trajectory.

Year One.

During much of the first year's PD sessions, the participants meet as a whole group—12 teachers with five LP faculty and four graduate students— as they had for most of the summer workshop. Activities in these biweekly afterschool sessions include sharing classroom video from LP teachers and analyzing student thinking in the video clips as well as occasional sessions of "doing science." As the teachers analyze student thinking in video clips, Stacy often asks questions to clarify what the teacher ought to do next, to visualize how this might work in her own classroom, or to seek reassurance about whether she's doing what the facilitators expect. She particularly seeks to understand the role of the teacher in supporting student inquiry, "going on whatever pathway they're taking us" without "leading them" to particular answers. Stacy implies—and seems to accept—that the LP project envisions science instruction as about more than getting students to particular "right answers." At this point, though, she expresses uncertainty and anxiety about how to implement instruction in way that LP would advocate.

In January of year one, Stacy for the first time brings a video clip from her own classroom to a PD session. In her description of the lesson, Stacy raises several

dilemmas: First, she invokes bureaucratic presses as she bemoans the amount of time it takes to engage 35 students in discussion measured against demands for content coverage. She is also concerned about how to give students opportunities to share their thinking and resist the temptation to give them the answers, while managing her concern that they not walk away with wrong ideas. In addition, tensions arise around Stacy's desire to please competing authority figures, as she explains that she planned this lesson primarily because the Maryland LP staff were visiting that week: "Well, that's 20 minutes that I honestly don't have right now, but I did it because you guys [gesturing toward LP staff from Maryland] were going to be here." Although Stacy cites the LP visitors as her reason for constructing this lesson, she has clearly been energized by the students' participation and notes the difference from how her classroom typically operates: "They were a lot more engaged in today's discussion because they were trying to figure out if they were right or wrong." Stacy is very animated as she recounts her class's discussion, and there is smiling and laughter throughout in response to her description both of unexpected student ideas and of her frustrations during this lesson. During this 40-minute section of the workshop, there is little verbal involvement from the LP facilitators who offer only two brief comments. Most of the conversation comes from Stacy's teacher colleagues. While there are any number of reasons that the facilitators may have stayed relatively quiet during this discussion, it would be in character for Stacy—who has demonstrated a desire to please authority figures— to potentially interpret their silence as a lack of validation or negative evaluation of her lesson.

In late spring, the sixth grade team—Stacy and her partner teacher Dorothy along with three LP facilitators (two faculty and one doctoral student)—begin meeting as a small group to prepare for their upcoming module implementation. April presents the opening question, "What happens if you throw a match in a forest or canyon?" and explains the goal that the class will pursue the topic of what makes something burnable or not burnable. The unit is also likely to investigate producers and consumers in biological systems, building on projects with terrariums, elodea and snails that Stacy and Dorothy have used in past years. April emphasizes that the primary goal is to support students in observing, brainstorming, questioning, and explaining their reasoning.

Stacy's questions during these planning sessions range from logistical (e.g., how to keep track and document student ideas from three separate classes) to pedagogical (e.g., "I can't see great discussions happening every single day...unless there is more hands-on.") to disciplinary (e.g., "What is actually burning when we burn calories?"). In response to Stacy, Janet and April provide general reassurance that sustaining discussion will not be difficult as the students will have plenty to say, and they try to abate Stacy's concerns about planning ahead by reminding her that future lessons will emerge from listening to her students.

On the first day of teaching the module, Stacy modifies the prepared opening question and instead asks her students, "What is burnability? What does it mean to burn?" Despite this modification-- which worried Janet and April as less likely to spur student conversation— both Stacy and the LP facilitators assess the lesson overall as having sparked some productive thinking. Over the following three weeks,

Stacy and Dorothy continue to implement the burnability module. April is present for one class period each day, where she primarily observes from a corner of the classroom, and she and Janet (over the phone) debrief with Stacy and Dorothy after almost every lesson. Debriefing sessions often focus on Stacy's questions about what to teach the following day, and about whether or how the trajectory of lessons is bringing the students closer to understanding the important ideas of the module. On many days Stacy self-assesses a lesson as having gone poorly based on her sense of the students' affect or whether their responses were correct. April and Janet instead try to steer both Stacy and Dorothy to examine students' responses more objectively for evidence of their reasoning, and to build next lessons from the substance of students' ideas or questions.

At an afternoon PD session during this month, Stacy presents a video clip from the module to the entire LP group. She professes insecurity about whether she is doing a "good job," which she attributes in part to her lack of clarity about the focus of the unit: "To be quite honest, at this point, I wasn't even sure where we were going, I was flying by the seat of my pants" (05.20.09). She also expresses discomfort about how LP's responsive teaching approach takes her out of her comfort zone of planning in tandem with Dorothy: "I take notes after we debrief, and they don't match, not that they're *supposed* to, but the way we are trained and the way we have done things for the last seven years the way they like us, Sarah [the principal] likes us to match, and so we work better when we match together". In crafting lessons that springboard from students' thinking, Stacy indicates concern that she may be out of

compliance with her administrator's expectations. And, she adds, "it's time consuming. I'm exhausted." At the same time, though, Stacy assures the group, "it's awesome in the same point. By no means am I saying, 'I'm out'." While Stacy has often praised the project for giving her tools to get her students talking and showing more engagement in science, she also offers compliments in the form of vague testimonials—similar to this quote—that may reflect her general desire to please authority figures and meet other's expectations. As she explains in her interview with me two years later, "I do adore everybody, everybody on this project... so my intention's never been to be disrespectful" (05.11.11).

Throughout the three weeks of this module, Stacy often raises her own sense of insecurity in her science content knowledge and sees this as problematic to her implementation of the unit. While Janet and April continually seek to reassure Stacy that she knows enough content to listen attentively to her students and build productive lessons off of their thoughts and questions, Stacy is not convinced. At the end of the module, she explains to Janet and April:

To be quite honest, the most frustrating thing to me is not knowing what I was teaching. Burnability, I don't know what burnability was, and I'm still confused. Calories, the night before I'm learning and I'm going on the internet looking for calories and figuring out what's going on and making those connections myself. Not knowing it 110% myself and not knowing how to answer questions because I myself don't know it. And not that we always have to know the answers cause I can guarantee I don't always know the answers. But not having more of a background on the subject that I'm teaching was very frustrating to me. (05.29.09)

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⁹ Interestingly, it was Stacy who shared with colleagues during the first week of the Summer One LP workshop, "but you have to remember that our principals are on board with this" (08.20.08). Indeed, LP staff had gotten clearance and approval from all of the site principals before approaching teacher participants for this project.

Stacy implicates what she sees as a largely unsuccessful unit on her own deficient content knowledge and her lack of understanding of the conceptual goals of the module. She feels that this prevented her from being as effective and responsive to her students as she would have liked. And she expresses frustration that it does not seem to be within this project's agenda to *build* her content knowledge. Interestingly, Stacy's partner teacher Dorothy also expresses disappointment with this module but feels quite confident in her own content knowledge. If anything, Dorothy attributes the disappointing outcomes of this module to her *students*' inability to offer productive reasoning about the scientific topics. For Stacy, on the other hand, it is precisely her students' participation and reasoning that gives her the most excitement: "It was cool, though. Did you see the kids? The clarity today, there was just so much" (05.29.09).

At this point in the project, the end of the first year, Stacy's beliefs about effective science instruction seem at times inconsistent and contradictory. There are both pieces of the Learning Progressions approach and pieces of her own traditional teaching that she favors, but when these two approaches come into direct conflict, Stacy struggles to resolve this manage this dilemma; rather, as we have seen from the burnability unit, she is likely to assess the unit and her own teaching as a "failure".

Summer Two.

During the second summer workshop Stacy and her teacher colleagues spend two full-time weeks in the same types of activities as the previous year: doing science, looking for evidence of student thinking in video clips, and planning in grade level groups for modules. In whole group introductions, Stacy expresses enthusiasm

for her students' generative discussions last year. As the teachers set goals for their LP project work for year two, Stacy explains that she wants to work on better keeping track of student ideas and moving from those discussions to right answers. She also asks for support in improving her ability to respond to students in the moment of teaching, which she believes would include getting "sentence stems," lists of phrases or questions she has heard LP staff using to effectively draw out discussion when she and her colleagues as working as science learners. Several instances of Stacy asking for "catch phrases" are analyzed in more detail in the discourse analysis section of this chapter.

At the same time, Stacy continues to emphasize her contextual challenges in implementing this instructional approach, which she attributes to: having multiple classes and large class sizes, having less flexibility with time than her elementary colleagues, and struggling to record and keep track of students' ideas from multiple classes. She is also quick to identify what she sees as her own deficiencies or areas for progress. Again, she does this with self-deprecating humor, as when she chimes in after a colleague:

Bonnie: I was shopping for ideas instead of getting them to take that idea and go further with it.

Stacy ((raises arms in the air as if testifying at church, and speaks while laughing)): Hell, yeah! (08.19.09)





Figure 5: Stacy in whole group PD session

During this second summer there is some evidence of Stacy engaging animatedly with science as a learner, and seeking to make connections from her science learning to her own teaching. For example, she reflects on the way that April, the LP facilitator at the time, recorded and revisited the teachers' ideas about composting: "It helped us as learners be able to go back and make connections." She adds, "I LOVED that process, and I loved that thinking, but man, ...I'm lost as a teacher how to take such a viable tool and put it into my three classes" (08.17.09). When Janet probes to get more detail about how this process was helpful, Stacy replies,

We took our eight questions [about composting and decomposition] and tried to see how many we could answer...I found with one question, I could answer another question... and that was so cool...I don't think we ever really deFINED anything, but I felt satisfied that I knew more about decomposition.

Here, Stacy seems to indicate that she sees herself shifting in her stance toward what it means to know in science; that is, she feels more comfortable (at least in this moment) with the ways of coming to deeper understanding in science that are promoted by this project—at least for herself as a learner. She then adds, while laughing, "Like that, David?" With self awareness and humor, Stacy is noting the significance of her remark— that she felt satisfied despite the lack of being given

answers— in light of the recurring jokes about her desire for closure. Stacy then brings the conversation back to her teaching needs, reiterating her request for help with how she would do this in her own classes. Janet responds, "We can keep track of this/ other questions that kind of address how do we really begin to support this in the classroom. I will put that in a little parking lot that and we can start to keep track during the week." Stacy replies, "I would LOVE that." Over the rest of the week, though, it does not appear that this topic was revisited.

Working in the 6th grade group with Janet and April during this second summer workshop, Stacy and Dorothy request to discontinue the burnability unit from the previous year. ¹⁰ At one point during these planning conversations, Stacy says under her breath, "Thank god we're not doing THAT again" (08.17.09). In its place, they begin to create a new module around the topic of composting, which has been the focus for the teachers' own science learning and investigations during this summer workshop. In their initial planning discussions about how they might implement a composting unit with their sixth graders, Stacy says she is satisfied with the primary outcomes for the module being students' progress with scientific processes—such as productive participation in scientific discussion and argumentation—over specific content outcomes.

Year Two.

During afterschool PD sessions in the project's second year, at least half of each session is devoted to working in smaller groups, generally organized by grade

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¹⁰ It is interesting to note that requests for alternative module topics did not arise from any of the other grade levels; rather, those teachers seemed to take as given that the module topics were a fixed part of the project.

level. Stacy continues to express discomfort about the ways in which LP's responsive teaching approach, in her view, risks not providing students with "right answers." As she explains:

I feel like-- sorry, Janet-- last year we just questioned & questioned & questioned & questioned and yeah we fed them but, I walk up to one of my 7th graders today and she's like, 'Mrs. R____, I'm still confused about what we did with State [one of the universities running this project] last year.' I just don't want to fall in that again. (01.06.10)

Stacy seems to feel a sense of responsibility to students that includes definitive answers or resolutions to questions. Her statement here also suggests that Stacy is uncertain about how she might explain to her students (or, indeed, to herself) the purpose or value of this project's approach to science instruction.

Beginning in January of year two, the 6th grade group meets more regularly to plan their upcoming composting module. Stacy's questions during these sessions predominantly concern logistical details, such as "where will we get the dirt?" or "are we just using bananas or other decomposers, too?" or "how would we use the journals?" Almost always Janet and April respond to these questions by reminding Stacy that specific day-to-day decisions like these will arise out of what happens in class that day, and that "the students will decide" what kinds of materials they may need and how they will use them to answer questions they themselves have raised. Stacy's reaction to this type of response is often to continue asking follow-up questions about how this approach will look or be implemented. One of these interactions, the "Oh, Lord" episode, will be analyzed in detail in the discourse analysis section that follows.

In February Stacy and Dorothy spend approximately two weeks teaching the composting unit to their sixth graders. During this second year LP staff are not present in the classroom, and there is no daily debriefing, though Stacy and Dorothy do videotape one class period a day, and April reviews those videos. In addition, there is some email communication between Stacy, Dorothy, Janet and April during these weeks; unfortunately, data of email exchanges in the LP project—unlike the video records— were not collected systematically. This second year, in debriefing sessions and reflective writing activities, it is Stacy more than Dorothy who assesses the unit as not having succeeded. For example, Stacy critiques the experiments students conducted in this unit and second-guesses their decision to have students focus on one item, a banana; she bemoans that students did not learn much about composting and that "there was not much reasoning behind why they did it" (03.17.10).

For the rest of the afternoon PD sessions during year two (from March – early June), LP staff ask teachers to watch and reflect on video from this year's module and to do some bigger-picture writing in which they share their thoughts, reflections or feedback on this project as a whole that might be shared with other teachers, administrators, or educational stakeholders. Most of this writing time is spent individually, with LP staff floating and offering support to teachers as they need. Stacy's written reflection includes the following excerpts:

I feel more of a buy in when I start a unit with a good thinking question. Students turn and talk and share their ideas first with each other and then as a large group. I use this time to first load some vocabulary that will be needed with the unit. Students start to think a bit about the subject matter and begin to access any background knowledge they may have on the subject.

I want the year to flow and this year- IT HAS NOT FLOWED AT ALL!!!!! Discussion is good. I see the value in it, but when a discussion takes 2 days – now I am 2 days behind.

I do believe that I have learned to better listen to my students more over the last 2 years- and I feel good about that. I would like to figure out a way to record their ideas better and in a more organized way.

Sharon asked me why do I need to focus on curriculum so much? I do not have an answer- except to say- I have always done it that way. It is how I move through the year, knowing that they have learned something that is a key part of their development.

Last week I looked at my Science journals from the past two years and compared the timeline and content that was covered and when. I was very shocked by my findings. I am not convinced that I have prepared my students as well in the past two years. Can I say that the students were talking and sharing ideas as well as they have at times this year? No, I cannot.

Not much was ever brought up about our [burnability] unit and no video was ever shared to the whole group, so I believe the unit was thought of as a failure. (06.09.10)

In these excerpts, from the end of year two, Stacy expresses conflicting feelings about her participation in the LP project and its effects on her students and her teaching. On the one hand, Stacy celebrates how the inclusion of more discussion in her science classes has increased her students' participation and sharing of ideas. And she recognizes her own progress in listening to her students. At the same time, though, Stacy still bemoans the time that class discussions take and continues to characterize this activity as putting her "behind" in terms of "content" that needs to be "covered." As we have seen since summer one, Stacy continues here to make a distinction between listening to students' ideas and "prepar[ing] my students" or "knowing that they have learned something." Despite her own engagement in doing science during LP sessions, Stacy's beliefs about what students ought to learn in science have not

markedly changed. In addition, her insecurity and lack of self-confidence continue to cloud her sense of progress, and, in particular, to assume that LP staff view her teaching as a "failure." Interestingly, as Stacy reflects on the burnability unit, she is incorrect in asserting that "no video was ever shared". As was discussed earlier in this narrative, a whole group PD session in May of year one was dedicated to analysis of video from one of Stacy's burnability lessons. Stacy's sense of this unit's failure, then, has become pervasive enough to cause her to mis-remember that "no video was ever shared."

This is where Stacy is at the end of year two, where data collection for this study concluded. But the project continued for another year, and Stacy voluntarily returned to participate for the third year. The tensions that Stacy experiences all became evident within the first summer's weeklong workshop and persisted throughout her three years in the project. These include:

- insecurity about what Stacy sees as her own deficient content knowledge in science;
- uncertainty about the role of the teacher in the science classroom, which manifested in multiple considerations:
- imparting information about canonical scientific understandings versus giving students opportunities to participate in the work of scientists,
- being able to plan ahead versus being responsive to student thinking;
- keeping track of student ideas versus managing her contextual conditions,
 especially large class sizes and multiple classes.

 deference to authority, which in part causes Stacy to position LP facilitators with authority in a way that conflicts with their epistemological stance toward science; and which causes tension for Stacy when she sees LP practices as in conflict with her school or district-level expectations.

So, what does this story tell us? How might we account for Stacy's trajectory? In the following section, close discourse analysis of selected episodes from this data seeks to characterize the nature of the relational dynamics between Stacy and LP facilitators, and to examine in what ways these interactions may have opened up or closed off opportunities for Stacy's learning in professional development.

Discourse Analysis of Relational Dynamics in Stacy's PD Interactions

The following section provides a close look at data episodes around the tensions Stacy has experienced in the LP project, seeking to account for the importance of relational dynamics to the narrative presented above. I use the theoretical perspective of power/knowledge to investigate how relational dynamics were consequential to the teacher's participation; how these interactions played out in terms of stasis or shifts in the teacher's perspective on this tension (i.e. is there any move toward resolution or normalizing of this tension?); and, finally, whether the interactions seem to open up or constrain the teacher from learning opportunities.

The episodes I have selected for discourse analysis below exemplify Stacy's tensions as described in the previous section. In addition, they offer particularly clear examples of how relational dynamics around these tensions play out for Stacy in this PD project in that each episode displays heightened affect expressed verbally by Stacy and leads to some kind of interaction between Stacy and the facilitator(s).

Through the microanalysis of the participants' verbal and nonverbal discourse, I seek both to illuminate how and why Stacy seems to have held on to the same tensions throughout her participation during the two years of data collection for this project.

Seeking guidance and asking for permission.

This first set of episodes highlights a discourse pattern in which Stacy seeks guidance from facilitators about how to implement LP practices in her classroom. She repeatedly does so by asking questions in a way that requests their permission.

Discourse analysis of this group of episodes examines LP facilitators' responses to these deferential requests, and seeks to address how these interactions may affect Stacy's further participation.

Episode 1: "Couldn't I then? We can do that, right?"

In an afternoon PD session one month into the first year of the LP project, teachers are discussing student thinking in a video from Bonnie's lesson on pendulums. At one point, Stacy builds on the discussion to describe a lesson from her own class the previous day:

I was under the impression that we were, we are feeding off of what they're saying. And we're going on whatever pathway they're taking us. And not having a slew of questions to feed off of...[but] I want them to know, and if they didn't do it right, if I don't say something, then they're going to think that that answer's right too. Um so I was a little confused yesterday when I did that.... Not that I was, trying not to lead them too much, I mean I realize I'm not supposed to be leading them, but I'm a little confused on how much praise I give them if they're going the right way. (10.08.08)

Stacy is asking for clarification about how a teacher might implement the type of responsive approach LP is advocating. David replies by characterizing Stacy's comments as a request for "options about what a teacher should do," and assures her

that is fine, but asks that they address this in the context of data from one of their classrooms, rather than giving an answer to Stacy's particular concern. Stacy says, "right...OK, OK," and seems content with David's reply.

As the discussion winds down, Bonnie explains what she might do next with her students, based on the group's analysis of the video and transcript. Stacy asks:

Can't you then if, interjecting, trying to get them to go in another way, like gravity, pose another question, you're interjecting, pose another question to get them to go this way? We can do that, right?

Stacy's questions here are noteworthy for two reasons. First, Stacy is reviving the issue she raised several minutes earlier about the role of the teacher in "leading" students to particular understandings or answers. This gives us an indication that David's previous response did not resolve this concern for her, and that it is still on her mind. She has not, as David suggested, been able to table this concern until a time when they might discuss it in light of specific data. Second, the discourse patterns of these questions may give us additional insight into Stacy's intentions underlying this request. Her first question is uttered with a negative phrasing, "Can't you then..." Had the question been asked instead with a positive phrasing, such as "Can you pose another question?", one might expect either a yes or no response as equally likely. The negative phrasing "can't you then," rather implies that the speaker has a strong desire for a yes response. Similarly, ending the second question with the addition of "right?" sets up the discursive expectation where the respondent would affirm, "right." The discourse pattern of both of these questions, then, underscores Stacy's

147

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¹¹ For example, when my son asks, "Can I stay up late tonight?" he recognizes I might answer yes or no, but when he asks, "Can't I stay up late tonight?" or "Can't I have more ice cream?" he dearly hopes I will say yes.

desire for approval from LP leaders and her hope that they will give her the answer she desires, permission to lead students in a particular direction.

So soon into this project, it may seem natural for teachers to ask clarifying questions and seek reassurance about whether they are on the right track. In fact, it is on this same afternoon that Bonnie asks the LP facilitators, "I wanted to ask because this is our third or fourth session, are we progressing in a direction that you were HOPING for?" What becomes noteworthy in light of examining Stacy's participation is that this discourse pattern of deferential questioning with negative phrasing persists over time, with numerous examples throughout the data. In addition, Stacy, unlike Bonnie, does more than seek feedback about the facilitators' expectations; she is asking LP facilitators' permission to make particular teaching moves. For example, in May of year one Stacy asks, "Can't you ask them, what do you know about burning calories?" And in January of year two, she asks, "Wouldn't that be a next move? I mean, could that be a next move?" Furthermore, not only the phrasing but also the content of Stacy's questions often remains the same over time—raising Stacy's recurring insecurities around the role of the teacher in "leading" students to particular understandings and around specific next moves or activities to implement in the classroom. That is, Stacy does not seem to gain confidence over time in her enactment of the LP instructional approach. Alternately, she may be implying that she does not accept the project's underlying assumptions about what and how students ought to be learning in science.

In response to Stacy's question, "We can do that, right?", David—who is participating in this meeting via videoconference—explains:

David: All right, so so, this is now, having this conversation, and I think this is the first time we've done this: of, of having watched a clip, had a discussion about the students, interpreting what's happened with the students' conversation, the students' thinking and then thinking about what might the teacher do. And so I want to enter into this part, because it's a difficult part of the "game," I want to enter into it carefully... But the thing that I want to be careful about, in having this conversation that it would be a mistake to have, to to to think there is A right thing the teacher should do. Whatever the teacher did do, there are always gonna be other possibilities. So I, the language that that, one kind of language that we use is a menu of possibilities: What are possible choices a teacher can make at this moment, rather than what is THE choice the teacher should make. So I just want to be careful to frame the suggestions in conversations like that. ANY choice is going to have advantages and disadvantages.

Stacy has asked what perhaps seems like a simple and direct question: in essence, can't a teacher pose a question to lead students in the direction of discussing gravity? David does not give a direct, yes or no, answer to that question but rather implies that it depends—on context and the teacher's purpose. David's response instead characterizes Stacy's question as moving them into "difficult" territory and emphasizes that in this project there will never be solely one right move for a teacher in response to students' thinking. His lengthy response generalizes from rather than answers Stacy's question and addresses the whole group to express the project's approach to teacher decision making within a responsive curriculum.

Stacy does not reply to David here, and she stays quiet for almost ten minutes. When she next enters the conversation, we get some evidence about how she may have interpreted David's response:

Stacy: And, David, can't you do that, anyway, though? If like you just said. It's based on their discussion, or and and their ideas. Well, like I'm saying, LEAD them. You've got the arc, that's THEIR idea, I didn't put that that idea in them, the swing's there, the arc's there. That's their discussion. Then, I take my question, I still need to get to the standard, but I'm basing it off THEIR discussion, and I'm basing off what THEY'RE thinking. But I lead them into a

way that's going to get my standard met or my concept out there, but it's based on their thinking. So is there anything wrong with that?

On the one hand, Stacy reiterates her earlier uncertainty about how much a teacher might lead or direct students to particular lines of thinking. In fact, she repeats the same discursive questioning patterns: "can't you do that" and "is there anything wrong with that?" At the same time, though, she does seem to have incorporated some of David's earlier response, as she takes on the position that teachers would listen to students and build their next moves or questions on students' thinking: "It's based on their discussion...I didn't put that idea in them." This time, her question becomes more pointed, as she asks whether a teacher might move from listening to students' thinking to "get[ting] my standard met. Is there anything wrong with that?" David's response is more definitive: "What I, I, I mean, no. I mean in this/ in this circumstance, if the curriculum is after this standard, I think that's what you've GOTTA be doing..." After having raised the same question three times over the span of this session, Stacy's question has now been answered. David says that when Stacy faces mandates within her curriculum or standards, he affirms her need to follow these mandates. This is an answer that may momentarily resolve Stacy's ongoing discomfort with conflicting authority (between the project's goals and her school's) by assuring her that she has David's "permission" to follow the bureaucratic charge.

David then indicates that this project seeks in the long term to change that:

I, but I'm just using, I'm just trying to use this as a moment to/ and I'm GLAD/ If instead of having a curriculum about variables, you guys had right now a curriculum that was about a curriculum that had FOUR different choices of things you could do next. One thing you could do next is you could talk about energy. Or you could go in this direction that heads in the direction of your students talking about energy. Another thing you could go is head in THIS direction that that gets into thinking about periodicity. Another thing you

could do is talk about error control doing experiments. And you could find all kinds of different directions. Pendulum, the topic of pendulum could go in hundreds of directions. If you had a curriculum allowed you to CHOOSE a direction that was most fitting for what the students are already doing anyway, it would let you, it would let you not have to have the trouble of finding something they're doing that kind of fits in the thing the curriculum wants you to have to, you'd have an easier time.

David describes the LP project's vision for a responsive curriculum that would allow teachers to build more organically from students' thinking. He seems to be attempting to use this moment to leverage a more general conversation with the whole group about larger goals of the project. His use of the speculative "if" and the conditional "could," however, does not offer a specific sense of when in the future these curricular changes might occur. It is difficult to gauge Stacy's reaction, as she does not respond verbally to this explanation; however, based on her discomfort with conflicting authority and desire to meet others' expectations, it is likely that she pays more attention to David's earlier approval for her to follow her school's mandate. Stacy may misinterpret David's assent of "that's what you've gotta be doing"—his one direct answer to her repeated question—as supporting her own view of maintaining the status quo, that is, getting her standards met.

This is not to imply that David made a mistake in the way he responded to Stacy; rather, that he was in a difficult spot here, in line with what Remillard and Geist (2002) have described: "Facilitators...need to consider possible consequences of actions they might take... we argue that each approach has consequences for the interaction and how it develops, as well as for what and how participants learn" (p. 30). David's options in the moment seem to have included: (a) to dodge or ignore Stacy's question, which he tried two times, but she kept bringing back up the

question; (b) to answer that she should not be driven by reaching standards and only be responsive to students, which would likely have made her more resistant; or (c) to answer as he did, which was met by Stacy with a sense of relief but perhaps closed her off from considering the remainder of his response.

Stacy's questioning pattern in this episode demonstrates, on the one hand, her deferential approach to the facilitators' authority; on the other hand, the phrasing and repetition of her questions indicates the persistence of her desire for direct answers. Stacy is not satisfied until she eventually receives a direct answer, which likely appeared her but may have given her the (false) impression that implementing the project's approach to science instruction is untenable in her context.

Episode 2: "But, see, I'm confused then."

During the late spring of the first year, Stacy again raises tensions about the goals of science instruction and the role of the teacher in supporting students' science learning. This second episode occurs within the context of the sixth grade level group: Stacy and her colleague Dorothy, along with LP facilitators (both science education professors) Janet and April. After the first three days of implementing the burnability module, Stacy speaks with frustration that her students are "done" with discussions of burnability, and she wants to discuss how she might proceed (05.14.09). April and Janet spend a few minutes advocating for the productiveness of her students' thinking that they have observed in these opening days' lessons. When Stacy continues to protest, however, they shift into recommending that both Stacy and Dorothy move to the new topic of burning calories and work with the students on experiments with yeast, a pathway of possible lessons that the group had discussed during their

planning sessions. Janet and April's acquiescence to Stacy here likely stems from a desire to abate Stacy's frustration in this moment, and a feeling that confirming her description of the students as "done" may be the most expedient or, perhaps, respectful way of doing so.

While Stacy had initially been the one pushing to move on from burnability discussions, she now points out an inherent tension in this shift: "but see, I'm confused, then. I thought the whole point of this was to have them [the students] just run with it. We're supposed to be going off where they run." As she did months ago with David, Stacy is again seeking to clarify the LP project's expectations for the role of the teacher in a responsive science curriculum. While it had seemed to Janet and April that Stacy was hoping for their confirmation in her assessment of her students as "done," the opposite now seems to be the case; that, in hearing the suggestion to shift from what burns to a new topic, Stacy becomes confused rather than placated. Stacy challenges Janet and April's suggestions and, ironically, seems to view it as a sign that they do not value their own stated pedagogy.

Janet replies, "Yeah. That's a really good question, and I guess I would say, yeah, so that's your decision if they're burned out, let's maybe try to change it up a little bit but connect it and we can connect back to it, but you're right. Very good question." Janet's multiple uses of discursive fillers—"yeah", "I guess I would say", "yeah"— may indicate her stalling for time and suggest that she is initially uncertain about how to reply to Stacy here. In the moment, Janet reaffirms her previous suggestion: "let's maybe try to change it up." In doing so, she may be seeking to demonstrate trust for Stacy's own assessment of her students and respect for Stacy's

authority as a teacher to make and enact decisions about her classroom. Janet's use of the second person pronoun "your" in "that's your decision" underscores this positioning. That is, a facilitator's choice of pronoun usage can offer a variety of stances toward decision making in this or other professional development projects: (a) collaborative between facilitators and teachers, that is, "our decision;" (b) determined by the facilitator, that is, "my decision;" or (c) managed by the teacher, that is, "your decision." In this sense, then, the use of "your" may indicate a move by Janet to position Stacy with more authority in their relationship. At the same time, though, this phrasing at least implicitly shifts responsibility for the consequences of this decision making away from Janet and April and instead onto Stacy.

April reinforces and builds on Janet's response: "So reacting to the students, it's time to change it up and move on...and so it's responding to a need they have." April is re-characterizing their recommendation to shift the lesson focus as in fact being responsive to the students; that is, if their discussions of burnability are no longer productive, then it is responsive to students to shift to another approach. It is possible, though, that Stacy and Dorothy view this move as disingenuous in that just moments ago Janet and April were advocating to interpret students' responses about burnability as productive. In any case, Stacy revisits the burnability topic a few moments later, which seems to indicate that this issue is unresolved for her. As we have seen numerous times before, she does so by asking specific, detailed questions about lesson planning:

Stacy: I do have another question, though. How am I wrapping up burnability? AM I wrapping up burnability? Is it enough, Janet, can I just end it there with their exit slip, what is burnability, and do I need to come with some

consensus? Do I need to chart, look at their ideas that they made in the exit slips and ...do I need to clarify burnability any more?

Janet: I think/ you probably/ look, I'm not there, my sense from listening is ...we're going to come back to this question... Let's give them more experiences and more context to think about it then come back to it.

Stacy: So as of right now, drop it/not drop it but kind of like phase it out.

At this point, Stacy uses the first person "I" in asking what her next moves will be.

Whereas earlier she used the first person plural "we" when she said "we're supposed to be going off where they run"—suggesting a collaborative association—she has now taken up the pronoun "I". This suggests that she may feel independently responsible for what happens next in her classroom. Another example may reinforce the ways in which the relational dynamics among this group is less than helpful for Stacy in planning for her science instruction. In addition to the alternation of pronouns, LP facilitators often use conditional rather than indicative verb forms and phrase their instructional suggestions as questions rather than directives: "You could ask, so do plants eat? Do they burn calories?" (05.26.09).

At the same time, Stacy continues to seek Janet's suggestions for specific next moves in her lessons, which suggests that, for Stacy, being positioned by project staff as the authority for instructional decision making is actually undesirable. Stacy seems to be requesting that LP staff more explicitly direct her in what and how to teach within this project. And in another repeated pattern, Janet responds by providing a more generalized suggestion for how Stacy might move forward: "let's give them more experiences and more context." Janet seems reluctant, perhaps she sees it as presumptuous, to be pointedly directive with Stacy, in part because she is not physically present in Stacy's classroom to share the responsibility for teaching. At the

same time, Janet's first person plural, "let's give them more experiences," indicates a desire to be inclusive and help Stacy feel supported. Janet's response—which alternates between first person "look, I'm not there" and third person "we're going to come back to this question"—suggests lingering tension for her around issues of positionality and where decision-making authority lies between her and Stacy.

Ten minutes later, April wraps us this debrief session by saying, "So, I will be here tomorrow, and sounds like you guys have a plan." As the teachers are packing up to leave, Stacy whispers, under her breath to Dorothy, "Do we have a plan?" From Stacy's perspective, then, there seems to be continuing uncertainty about what to do next in her instruction. Similarly, in a planning session of the same group the following year, after an hour and forty minutes' discussion of lesson ideas, Stacy turns to Dororthy and asks, "So, do we know what we're doing tomorrow?" (02.17.10). Dorothy replies, "no," and Stacy, while laughing, says, "OK." Janet protests, "I don't want you leaving this room before you know what you're doing, because I thought we KNEW what we were doing." They then spend the next ten minutes walking through a specific plan for the next day. Janet's remark indicates a continuing mismatch between the ways that she and Stacy envision what it means to prepare a lesson. This episode highlights tensions around Stacy's desire for clear expectations about what to do in her classroom and for approval from project staff, in light of project staff's unwillingness to provide that direction, since it is not the model being encouraged. These lingering tensions seem to be an obstacle to Stacy developing confidence or independence in implementing this approach to instruction.

Episode 3: "Oh, Lord."

A sixth grade session in winter of year two, focused on planning for the new module on composting, highlights well Stacy's lingering tensions: her continuing insecurity about her content knowledge and ability to teach responsively, as well as her ongoing desire to be given more direction about specific lesson ideas and activities from LP staff. Additionally, this episode illustrates recurrent negotiations of authority between Stacy and Dorothy on the one hand, and Janet and April on the other.

In introducing a visiting grant evaluator to this session, Janet explains, with nervous laughter, "Let me give R____ some background; last year's sixth grade module totally flopped, miserably" (01.20.10). Stacy and Dorothy interrupt:

Stacy: Well, no shit, ((laughing)) we've never seen our videos, c'mon, it's so obvious, they haven't watched our video/

Dorothy: We haven't seen ONE of our videos.

Janet: But YOU guys said it flopped. Wait wait, I'm taking that from YOU.

On the one hand, Janet seems to want to validate Stacy and Dorothy's assessment of last year's unit and their decision to switch the sixth grade module to a new topic this year; on the other hand, by emphasizing the second person pronoun "you," Janet rejects them trying to position *her* as having assessed burnability as a failure. This exchange illustrates differing views about how and why last year's module might be considered a failure, and against whose criteria—the teachers' or the LP facilitators'—this work is being evaluated; indeed, this exchange perhaps indicates a disconnect between Stacy and Janet about what the criteria for determining success of

one of these modules might be. Janet continues, "One of the things YOU guys came up with this summer..." is to plan a new module on composting. Again, this emphasis on the second person pronoun "you" could be interpreted as Janet's move to position Stacy and Dorothy with respect for their authority to choose the direction for their planning based on their expertise and knowledge of the students; on the other hand, it could signal to Stacy and Dorothy that Janet and April are separating themselves from any accountability for the unit's eventual success or failure.

The session then moves into planning for the upcoming composting module and brainstorming possible lessons. After approximately 30 minutes of this planning, Stacy places her head in her hands and asks, "So are we/ are we/ are we, oh Lord, are we giving them this too as a class, the banana peel and this, ...or are we having them do their own thing and then discussing or..."





Figure 6: Stacy in planning session for composting module

Stacy expresses distress that this discussion is not, to her satisfaction, creating her preferred kind of specific, detailed lesson plans. That Stacy continues to raise this type of request—which we have seen repeatedly from her since her entry into the project—suggests her discomfort with the facilitators' approach to planning and, by extension, a tension about the role of the teacher in science instruction. It also suggests that, for Stacy, her questions are not being sufficiently addressed.

- J: I think we're talking about the very opening thing, like, and then, just like how to begin engaging them in considering something that could be generative enough that *maybe* could get them thinking about decomposition
- S: So then what are our other/ what (..) what else do we want to accomplish in the TWO weeks, what are we going to hit on?
- J: So so I have, I mean YOU listed/
- S: Cause [these are] just questions
- J: [you] you, so so, well these are not necess- yes, they're [questions]
- S: [well they're beginning]

As Janet tries to respond, we see a series of short talk turns characterized by overlapping speech and interruptions, demonstrating that Janet and Stacy are vying for the floor here. This shows that Stacy is willing to express her desire for a different kind of planning and suggests an insistence on Stacy's part to have her lingering questions addressed. That is, Stacy does show some assertiveness and does not passively or tacitly accept what project facilitators say when it is not working for her.

J: so there's lots of ideas about where it's going to go... You know, we have like, draw a picture of where it's going to go... so you can have them draw pictures of what's happening, you can have them share and challenge each other's, and in those/ I think we have seen that it's in those type of conversations where you often have opportunities to do more controlled variables...do you know what I'm saying?[...] do you know what I'm saying? So it's not/ our goal is not learning about controlled experimentation for the purpose of controlled experimentation; our goal is to engage in controlled, like controlling variables in *order* to make an argument or to think about a model. Does that make sense?

Janet's lengthy response here goes without interruption or comment from Stacy or Dorothy. First, she reiterates what she has heard as lesson ideas she thought they were going to try; then she moves to a more generalized explanation of what their goals in planning activities ought to be—contextualizing their specific activity choices in the underlying beliefs of this project. That is, Janet seems to have interpreted Stacy's question as meaning, what are our goals in this unit? Again, we see Janet's fluctuating use of first, second, and third person pronouns, suggesting continued discomfort with authority and ownership for decision making in this relationship. The repeated questions within Janet's response, "Do you know what I'm saying?", "Does that make sense?" go unanswered and may suggest that Janet's reply has not resonated with Stacy. Perhaps sensing discomfort, April then enters the conversation and tries paraphrasing what *she* hears as Stacy's concern, about "topics" rather than unit goals:

April: I hear Stacy saying, I've got two weeks, what topics am I going to get into in those two weeks?

Stacy: Well, and how is it going to LOOK? I mean, because we're talking worms, we're talking about dirt. If I need dirt, where am I getting the dirt?... Am I going to have worms?

In this paraphrasing, April succeeds in bringing Stacy back into the conversation. And then Stacy clarifies by asking for something even *more* specific—at the activity and materials level. Here is the crux of the underlying tension, I think, between Stacy and LP staff: Stacy is extremely persistent in asking for particularities about lessons or activities. On the contrary, LP staff do not want to pre-approve (or disapprove) activities or materials, because for them these decisions necessarily need to be informed by responsiveness to student thinking and an underlying goal of supporting students in engaging in scientific processes and reasoning. So, in a sense, their answer about this level of specifics will always be something like "it depends." And that is fundamentally frustrating and baffling to Stacy—and ironically, it actually creates an obstacle to her being able to engage with taking on the goals of this project.

Indeed, Stacy becomes emotional as the conversation continues:

Stacy: I'm just in panic mode again ((she chokes up))...there's just a LOT that's expected of us.

Janet: Stacy, if I were you guys I'd be scared to death because it's January 20th, and we meet with you once before we start, so what can we do to help you?

Stacy: I don't know, I need to wrap my head around it.

In response to Stacy's distress, Janet attempts to empathize, "if I were you guys, I'd be scared to death," presumably with a desire to validate Stacy's anxiety while offering additional support. That empathizing, however, may have the opposite effect; it may instead feed into Stacy's anxiety if it signals commiseration rather than collaboration, or if it illustrates to Stacy that neither she *nor* Janet, a project leader, has confidence about this unit. At this point, Dorothy starts making suggestions of questions for class on days one and two, and she seems quite comfortable about how they might launch the module. As the meeting comes to a close, after Stacy packs up and leaves, Dorothy then comments to the two facilitators, "And I will give her lots of strokes." April: "She's stressing?" Dorothy: "She's stressing. I try [to help]."

This episode from year two illustrates Stacy's continuing uncertainty and anxiety about her enactment of science instruction in this project. In this interaction, we again see a mismatch between Stacy's requests for specific activity planning and Janet and April's articulation of the broader project goals of responsiveness to student thinking. In contrasting Stacy's affect with Dorothy's in this episode, we also see the individual nature of relational dynamics within professional development; that is, the

ways in which Janet and April interact with these teachers impacts Dorothy quite differently from Stacy.

Taken together, the discourse patterns in three episodes may demonstrate Stacy's repeated requests for specific suggestions about what and how to teach and LP facilitators' tendency to respond with more generalized explanations of the project's approach. Stacy seems to interpret this type of response as the lack of a direct answer to her questions. We also see ambiguity—through the use of pronouns and conditionals— in the negotiation of authority between Stacy and facilitators that contributes to Stacy's continued discomfort.

Asking for catch phrases and denying success.

The following episodes track one particular discourse interaction pattern that occurred on multiple occasions between Stacy and both April and Janet. In these episodes, in response to positive feedback from the LP facilitators, Stacy repeatedly denies that she is successful in managing science discussions that draw out her students' thinking. A close look at her protestations, and her interactions with LP facilitators around this issue, offers further insights into Stacy's participation in this professional development project.

Episode 4: "I will show you clips where you do that beautifully."

One illustrative example of the "mismatches between what teachers have come to expect from professional development and what they encounter" (Remillard & Geist, 2002, p. 19) arises around Stacy's repeated requests for "catch phrases," the language she hears LP facilitators using effectively to promote student thinking in science discussions. During the summer two workshop, this topic first arises in a

small group discussion (08.14.09) about how the project might develop online curricular materials. Stacy's partner teacher Dorothy offers one resource that she believes would be helpful for teachers not familiar with the project's teaching approach:

Dorothy: I'm going to use the word 'stems', these little/ "explain that to me', 'what is your evidence?'

Stacy: ((pointing for emphasis)) THAT would be helpful. Catch phrases.

As Dorothy continues, Stacy nods continually and gives multiple verbal agreements,

"yeah", "yes." While the group had been discussing how to introduce new teachers to
the project, Stacy shifts into addressing what she herself currently needs. She
emphatically chimes in after Dorothy, "I TOTALLY, TOTALLY agree," and
expounds to April, "I need the TECHNIQUES to help me to draw people out." With
this request Stacy again seeks specific suggestions for the discussion techniques that
she has seen April use, to implement in her own classroom.

April: I think the technique is my motivation. I think the technique is not about the stems. I believe it's about the motivation. My motivation is to TRULY understand your idea, to see your reasoning. That IS my motivation. And my second motivation is do other people understand your idea.

Stacy ((taking notes while April speaks)): So we need/ so also is teaching us how to faCILITATE that to eventually get the kids to talk to each other.

April responds to Stacy in a similar way to what we have seen previously from both Janet and David: she does not provide specifically what Stacy requests—the "sentence stems"—but rather gives a more generalized response that speaks to the underlying belief of the project that drawing out students' (or teachers') reasoning comes by seeking to understand their ideas. In this conversation, Stacy does not resist or reject April's response—as she stays engaged in the conversation and takes notes

throughout—but instead seems amenable to requesting strategies for developing this motivation that April has described.

As April asks the group to consider what teachers new to the project will need, Stacy's response is telling about her own feelings. She describes an area of an LP website that would display video clips of three different students' thinking, with explanations from LP staff of possible teacher moves that might follow from each:

Stacy: Stating what their [the students'] thinking was, and then giving "possible", and I know you don't want a cookie-cutter thing, but giving possible ways/ you have to trust... You've got to trust that/ you would think that a teacher would do that. If a teacher is not *there* yet, then they might use one of these ideas. There's nothing *wrong* with using one of those, or at least you're taking one of those ideas and then seeing where it goes and maybe something else.

Stacy's assertion, "I know you don't want a cookie-cutter thing," indicates her sense that LP facilitators are reluctant to offer prescriptive tools to teachers. For Stacy, this reluctance implies a distrust of teachers' expertise and professional judgment. It also, by extension, suggests that Stacy herself feels distrusted by LP facilitators who continually deny her the kind of explicit suggestions and strategies she has been requesting. Stacy instead makes a bid here that she and her colleagues are to be trusted with the professional judgment to employ such tools productively in their own classrooms. April nods continuously as she listens to Stacy here, suggesting at least tacit agreement with this proposal.

Just a few days later (08.17.09), Stacy brings up the topic of sentence stems again, in response to another LP facilitator asking how the teachers would assess their current abilities to support students in science inquiry. Stacy replies, "I struggle with, and we brought this up with April, which she did really well all week, was drawing

out their thinking." Dorothy clarifies, "coming up with the right stems or comments for drawing out OUR thinking." As Stacy continues, "And I haven't mastered that yet. I'm trying/" Janet interrupts,

Janet: Stacy, I will show you clips where you do that BEAUTIFULLY/

Stacy: OK> ((turns head away from Janet)), but but ((teachers begin laughing)) what/ I I just feel. no/

Janet: where you really are trying, where it appears you were really trying to understand what they were saying.

In this exchange, it seems important to Janet to offer Stacy an alternative assessment—that, according to Janet, Stacy does indeed already possess some skills for orchestrating productive science conversations in her classroom. In this, Janet may be seeking to position Stacy as successful, in contrast to Stacy's own assessments of her LP implementation as a "failure." When saying "OK," Stacy drops her pitch and volume and turns her head away from Janet. This tone and body language suggests Stacy's dismissiveness of what Janet has just said. In essence, Stacy seems to be saying to Janet, "OK, I hear that *you* believe this, but I don't at all." Stacy is indicating that she disagrees with Janet's assessment and does not believe that she does this beautifully. And Janet does not, in fact, show Stacy evidence or clips where she does this. At the same time, the other teachers' laughter seems to indicate their discomfort with this exchange.

Stacy: ((looking away from Janet)) but then, clarify this: it doesn't come NATURAL to me...It's that refinement of talking to the students and drawing out their thinking that I'm still struggling with.

As Stacy responds, she does not counter Janet directly; perhaps for Stacy that would seem too disrespectful of the facilitator's authority. Instead, Stacy offers what she

calls a clarification as she describes her struggle with the practice of "drawing out their thinking." Janet does not verbally reply here, and after Sharon affirms for Stacy that this is a worthy goal, the conversation then moves on to other teachers' self-assessments. There is no indication during this episode of how or when the project might address Stacy's request.

This episode illustrates that the approach of answering Stacy's request for help with an assertion that she already does this, does not work to alter Stacy's self-assessment or make her feel that she is successful with this teaching strategy. Instead, Stacy disbelieves Janet's assessment and may leave this conversation feeling that she will not receive the help she desires, if LP staff believe she already knows how to employ this teaching strategy. Stacy has also suggested, in being denied these sentence stems, that she feels a lack of validation or support from project staff.

Episode 5: "I still don't believe you."

Two months later, in the fall of year two (10.14.09), Stacy is participating in a small group of fourth and sixth grade teachers facilitated by Janet (on videochat) and April. In response to a teacher's concern about how hard it is to sustain good conversation among students, April offers one strategy she uses when she herself feels "stuck" in this way and concludes:

April: ... and that's one of many, many techniques that people can try/

Stacy ((interrupts)): and this is what Dorothy and I were telling you guys this summer

((Dorothy smiles, Stacy smacking on desk for emphasis.))

You and David do that very well. This whole idea is, "This is what I think I just heard you say." You have these prompts that just come natural to you, they're just like five or six catch phrases that we want you to WRITE DOWN/

Stacy again requests to be given the "catch phrases" that she clearly believes will help her make progress in supporting productive scientific conversation in her classroom.

That she interrupts April to make this request suggests that her ongoing strong desire for these prompts has not yet been satisfied. And April again rebuffs this request:

April ((interrupts)): but but remember, I tried to explain that I [it wasn't/ I don't THINK about them]

Dorothy: [You said that we're using them, too]

April: / you ARE using them when you're REALLY trying to understand what Tommy is saying, you start using them, too. It's when you're not really, really trying to understand Tommy's idea and you're just letting Tommy share and then bouncing to the next kid that you say you want the phrases, but we have EVIDENCE that you HAVE these things,

((April smiling and pointing at Stacy; Stacy smacks table and smiles while shaking her head.))

and when you really want to take the time/

Stacy ((interrupts)): I still don't believe you. ((laughs))

April: So it's really a matter of your goal or purpose or [S: yeah] reason for having the conversation in the first place.



Figure 7: Stacy responding to April

In this exchange, April expresses to Stacy that it is not a formulaic use of "prompts" that helps her as a teacher, but rather her sincere attempt to understand a student's thinking, "when you're really trying to understand what Tommy is saying," that elicits productive questions in the moment of teaching. In this sense, then, Stacy may feel that April is refusing to provide specifically what she's asking for—writing down those five or six catch phrases; instead, April tries to give Stacy the underlying approach and strategy that she believes will empower Stacy with exactly this ability— to more productively engage and develop students' thinking. April also piggybacks on Dorothy's statement by reiterating that Stacy has already demonstrated her own ability to enact this kind of questioning in the classroom. She echoes Janet's language from the summer as she says, "We have evidence that you have these things." Stacy again rejects this assessment and asserts, "I still don't believe you." Stacy's assessment of her own teaching practice does not match what she hears from April here, and from Janet during the previous summer. In her denial, Stacy may be making an implicit request to see the evidence that they are invoking in videos or transcripts of her teaching practice. I can find no record in the data of such an examination of Stacy's teaching practice for evidence of her successful questioning. It is plausible, then, that Stacy may remain unconvinced.

At the same time, this exchange is marked affectively by smiling, joking, and laughter. There is a light-hearted tone between April and Stacy. Neither seems outwardly frustrated or angry, despite the recurrence of this disagreement. And Stacy quickly acquiesces to April wrapping up the conversation without having received any new or more helpful reply to her concern. She does not seem to want to prolong

her complaint. Stacy seems to be demonstrating a continued deference to the authority of LP facilitators as well as a desire to maintain a friendly atmosphere and an image of herself as a helpful and compliant. As she shared in her interview with me the following spring, Stacy explained, "I do adore everybody, everybody on this project... I've gotten close to all of you guys, you know... so my intention's never been to be disrespectful" (05.10.11).

Taken together, these multiple episodes about sentence starters show Stacy repeatedly denying that she knows how to build on students' thinking in science discussions and implicitly asking to see the evidence to which Janet and April refer. Simply hearing from them that they have seen her demonstrate this skill does not work to convince her, or to give her the confidence that she might employ this skill in future lessons. By extension we may infer that Stacy might benefit from more explicit support, such as collaborative analysis of video clips that show her use of these practices or LP facilitators' modeling of these discussion skills in practice in the classroom.

Conclusion: Recurring Tensions

Over the time of her participation in years one and two of this project, Stacy's tensions remain unresolved. Although Stacy's stance as a learner in science does shift somewhat over the course of the project, as we saw with her response to the teachers' composting investigation in summer two, her increased comfort with participating in authentic scientific inquiry does not transfer into her teaching. Discourse analysis has helped us see Stacy make ongoing, repeated requests for specific directives about

what and how to teach science in a way that would meet LP project goals—and that these requests are met with generalized rather than direct answers.

An episode from spring of year two (03.17.10) exemplifies the ways in which Stacy continues to wrestle with many of the same tensions using the same discourse patterns as she has since her entry into this project. First, Stacy maintains insecurity about deficiencies in her own science content knowledge and pedagogical skills, and what she sees as their negative impact on her teaching, despite declarations to the contrary from LP facilitators. At this PD session, the sixth grade group is reflecting on the composting module that had recently concluded. As Stacy expresses, "For me, the uneasiness STILL is to follow them on that path and not have/ not feeling comfortable enough to take them there... I feel like I have to, not that you guys are telling me I have to—I feel like I have to go and learn and get some background information about them." Stacy acknowledges that her desire for additional content knowledge is not shared by project facilitators, yet she maintains that this need is important to her in supporting her teaching.

There is also continued tension between Stacy and LP facilitators around issues of expertise and authority. While Janet and April repeatedly seem to be trying to demonstrate respect by positioning Stacy (and her colleagues) with authority for instructional decision making, Stacy is uncomfortable with this positioning. On the contrary, Stacy seems to desire that Janet and Stacy take more of the lead in prescribing what she ought to do to enact their responsive approach to science teaching. As she explains in reflecting on the sixth grade LP modules from years one and two:

Stacy: We're the only ones who don't have a unit. The last two years we've had to start from ground zero. Everybody else has had their units planned, and we've had to come up with our units from ground zero, and that's been frustrating for me.

The irony here is that "starting from ground zero" largely arose as Janet and April gave in to requests from Stacy and Dorothy to make changes to the planned modules—in year one modifying opening question for the burnability unit and in year two dismissing burnability and creating an entirely new unit. But now Stacy is complaining about that, in two senses; (1) that it has been more work for them to "create new units" each year when other grades already have theirs planned out; and (2) using that as an excuse for the perceived failure of the unit.

Stacy also continues to struggle with the implications of her deference to the authority of the LP project leaders. Throughout the project, Stacy seems torn about how to manage her feelings of respect for LP facilitators in the midst of her own dilemmas about how to implement some of the practices they are recommending. In her interview with me a year following the composting unit, she explained:

Sometimes I feel I've let the project down in like, when I got frustrated with Fred—Fred was like, what about this, what about this; I'm DONE, and sometimes I feel like we CAN be done. I took the Learning Progressions as far as I felt that I wanted to go, and I moved on to something else. So every once in a while I feel like I probably do do it a little disservice or I'm not being a 'good girl' and doing what they want me to do. (05.10.11)

While giving this reflection, Stacy began to cry. The tension of maintaining her sense of identity as a "good girl" in the LP project along with her desire to meet sometimes-conflicting expectations of her school raise heightened emotion for Stacy. As seen throughout the discourse analysis, her strong motivation to be perceived as helpful and compliant influence her acquiescence to facilitators' suggestions, perhaps before

she has truly had her questions answered. This tendency likely interferes with Stacy's opportunities to make progress in this project.

At the same time, Stacy continues to cite bureaucratic demands such as testing, content coverage, and having multiple classes in the middle school as obstacles to her enactment of the LP approach; she has not made progress in managing this tension over the course of her participation in the project. As she explains:

Stacy: I have to TEACH them something, I have to get the vocabulary in, I have to do that, but find a way to take the units we have standing and use this program and embed it in there... What we're doing here with getting them to think and kind of taking their own path, but how to take them on their own path when we have a three week deadline. You know what I mean? I haven't figured that out yet.

This distinction between what Stacy characterizes as "teaching" and "what we're doing here" echoes her language from the first week of the project. Stacy keeps asking the same kind of question because it doesn't get answered in a way that seems satisfying to her; and so she cannot or does not make progress in adopting LP practices that would involve her thinking about planning and teaching in some new ways that seem to her in conflict with the expectations of her school. This does not mean the LP staff are ignoring or dismissing her questions; rather that there is likely tension for *them* in how to respond to her: When Stacy asks for specific directives and materials for upcoming lessons, LP staff worry that giving her those answers may undermine their very goals of encouraging more responsive teaching.

Although Stacy does not hesitate to verbalize her questions or concerns during this project, her discourse pattern of hedging questions underscores her deference to authority. Stacy's desire to be perceived as a "good girl" seems to pervade many of

her interactions with project staff and likely influences her acquiescence to facilitators' suggestions even when she does not find them sufficiently helpful for her own practice. A close look at the relational dynamics between Stacy and LP facilitators has allowed us to identify this mismatch. What we see through microanalysis of discourse is how Stacy's repeated discursive moves— asking the same kinds of questions over time—suggest that without direct answers to these questions, Stacy is unable to make significant progress and concludes that her participation has been a "failure."

Chapter 6: Case Study of Kirsten and Carla

I wanted to ask you some questions about how our coaching cycle went and maybe how it compares to other PD you've done

Most PD is just like it's not differentiated and it's not, oftentimes, it's not relevant.

You know, it's just very generic and that makes you feel like you want to do a generic job.
You know?

I knew we were
actually
going to talk
about what worked
and what didn't work
and how it could be better
and what needed to be changed,
what the next steps are

That was really important to me Where do I go from here

Let me see if I'm getting this quite right.
The nature of knowing
that you were collaborating and being observed
made you want to work
harder?

Yeah.
It didn't feel like pressure.
It felt like,
what are we going to do
to make this
the most excellent.

So I don't want to give negatives but I also don't want to give a lot of positives because I feel like sometimes that creates neediness for people. I don't think I gave you very much praise

You were paying attention
You were in tune with what I was doing
It was important enough
It gives value to what we were doing

It's like knowing that you were showing up to do your part when I was showing up to do my part.

The above poem comes from the text of an interview between me and Kirsten, a second grade teacher whom I had been coaching in a six-week professional development project on writing workshop. This, then, is a poem for two voices, mine and Kirsten's. Unlike the previous two chapters, I am present in the data of this third case of teacher-professional developer interactions. At the same time, the short duration of this coaching cycle (two months, as opposed to the two years of data from the Learning Progressions project) allows for a more detailed examination of each session. As such, the narrative tone of this chapter will necessarily differ from the previous ones, as I seek to understand how the relational dynamics between myself and a teacher created both openings and obstacles to her learning opportunities. As Moje (2000) explains, in a study of her collaborative research relationship with a classroom teacher, "It is, however, a complicated endeavor to reflect on one's role in a relationship without othering, through re-presentation, someone else's voice and experience. Although I use Diane's words and actions in this paper, I do not interpret what she meant by them; rather, I reflect on what they meant to me" (p. 29). My

involvement in this data, on the one hand, offers an insider's perspective on the professional developer's intentions while, on the other hand, it complicates my analysis of a relationship in which I was a participant.

Narrative Overview of Kirsten and Carla's Coaching Cycle¹²

This story, then, begins in advance of my meeting with Kirsten and her colleague Randy to launch this coaching cycle. Although the implementation of our coaching cycle during January – February, 2009, predates my involvement with the Learning Progressions project, it was informed by my own emerging theoretical framework about relational dynamics in professional development. That is, I was conscious and intentional about the relationship I sought to develop with Kirsten, the interactions we had around the teaching of writing, and the coaching moves I made during our six-week coaching cycle, in light of my desire to build a trusting relationship that I theorized would support her openness to learning. At that time, which coincided with my early doctoral studies, I defined my beliefs about minimizing resistance and building relational trust with teachers in professional development along the following precepts:

- Always let the teacher "drive" the coaching process; for example, listen to the teacher articulate her beliefs and build coaching goals from these beliefs;
- Respect the teacher's expertise, in particular about her own students;

¹² In the previous two chapters, I kept as much as possible to chronology of the story in this section, with minimal analysis. As I am present in the data of this chapter, I also include explanations of my own intentions. To set these personal observations

apart in the text, I mark them with brackets and use italicized font.

176

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- Offer nonjudgmental feedback that focuses primarily on the specific learning of children, rather than on "fixing" the teacher or the lesson;
- "Walk the walk" by sharing in the teaching, planning, and other responsibilities of the teacher;
- Provide a gradual release of responsibility—from demonstrating to coteaching to observing— to support teachers' use of new pedagogical practices;
- Explicitly develop norms for communication that are comfortable and convenient for the teacher. (See Finkelstein, 2008, reprinted as Appendix C, for detailed explanation of these recommendations.)

In particular I was driven by the Foucauldian (1980) notion of attempting to minimize the power differentials between myself and the teachers, in part by positioning teachers with respect for their authority and in part by seeking to limit teachers' perception of me as embodying institutional authority of surveillance over teachers.

Because of my own involvement in this relationship, the nature of the episodes I have marked in this data set varies somewhat from the previous chapters. Rather than noting only episodes where the teacher raises a question, problem, or tension (an Episode of Pedagogical Reasoning, EPR; Horn, 2007), in this chapter I have also noted instances where *I* initially raised questions or tensions, as I was aware at the time of seeking to model language for how teachers might "normalize problems of practice" (Horn & Little, 2010). Indeed, this was one of my intentional moves in seeking to develop a trusting relationship with teachers—by pre-empting the teacher's likely concerns or complaints about problems that I could predict were likely to arise in our lessons. By reflecting analytically and nonevaluatively on problems that arose

in my *own* teaching in Kirsten's classroom, I hoped to minimize the potential for the teachers' fear of evaluation or criticism in this PD. Instead, I aimed to create a safe space for developing the practice of taking a stance of curiosity (West & Staub, 2001) toward analyzing and improving instruction.

Initial goal-setting meeting.

Early in January 2009, I arrive at Solomons Hill for an initial meeting with Kirsten—and her grade level team partner Randy—where I will propose to conduct a four to six week literacy coaching cycle and simultaneously to study our work as a research project. The structure for our work, which is typical for literacy coaching projects, involves one PD facilitator working simultaneously with a grade level team or other small group of teachers, using one teacher's classroom as our lab site.

Though this chapter presents a case study of my relationship with Kirsten, her grade level partner Randy was a participant during all of our coaching and debriefing activities. [I generally plan coaching cycles of a longer duration—10-12 lessons—but was conscious of balancing this project with my other commitments of doctoral study and part-time staff development at another school. The smaller scope of this project, I realize later, contributed to a sense of urgency on my part to ensure teachers see progress in themselves and their students during this relatively short time.]

While I wait for the teachers' arrival, I take some fieldnotes about the general school atmosphere:

I walk around three of the "pods," open space groups of six classrooms, walls separating their sides to the neighbor classroom but completely open to the wide center hallway. The second grade teachers have

hung blinds (most likely at their own expense) from ceiling to floor across the expanse of the back of their classrooms, creating a visual barrier to the hallway.

I had forgotten how depressing the physical presence of this building is: the fortress-like exterior, open space classrooms, cinder block walls, hardly any windows, and the terrible, reverberating acoustics, making the running, screaming children and yelling adults even louder than normal. So noisy! (Field notes, 01.07.09)

Kirsten and Randy arrive, and I explain my purpose. My hope in this initial meeting is to gain the teachers' consent for the IRB and, if possible, also to establish our goals and focus for the coaching cycle. They quickly agree to participate in the study. Of course, it was their principal who set up the meeting, and, though she did not attend, I cannot determine to what extent the teachers' consent comes as a result of their feelings of obligation to her. I have not brought a videocamera to this meeting, as I had not yet established the teachers' consent. I realize afterwards, though, that I have missed an opportunity to record our goal-setting conversation and examine the emerging relational dynamics evident in this initial interaction.

Based on my minimal notes from this session, I see that I ask Kirsten and Randy to share their goals for improving student writing in each of their classrooms. Kirsten explains that she is interested to see how writing workshop operates and is looking forward to receiving resources and materials for teaching writing that she feels have been missing from their current curriculum. [My reason for asking the teachers' goals is to address one of my trust-building precepts: to let the teacher drive the coaching. I am attempting to give the teachers agency and minimize our power differential by eliciting and respecting the goals they articulate for our work together. This move also intends to demonstrate that I am not trying to "fix" any deficiency in their practice but instead to support the professional growth they

identify.] Then, I explain how the coaching cycle will operate: we first establish Kirsten's room as our lab site classroom and set dates/times for our work together, including my first demonstration lesson the following week. [Modeling and coteaching are intentional coaching strategies I use in part because they may allow teachers to see me "walk the walk," taking on the same teaching responsibilities they have and demonstrating the writing strategies I am advocating with their own students.]

Next, I explain how I will communicate with them and with their administrators during this cycle. I follow up that evening with an email to the teachers reiterating what we discussed and seeking their input on a draft memo to their principal describing the goals of our work together. [My intention in this move is both to establish transparent communication with Kirsten and Randy and to demonstrate that I will not be a "spy" for their principal.] Neither of them replies to my email.

Week one.

The next Monday I arrive a few minutes before our scheduled time for my first demonstration lesson, to be followed by a debriefing conversation. There has been some miscommunication about our schedule, though, and Kirsten has not made the arrangements we had discussed, so contrary to my expectations, we have 45 minutes of planning time *before* the lesson. [I feel both frustrated about this change—how I will use the planning time productively—and uncomfortable about how I will address the scheduling problem with Kirsten—I want her to fix the problem but don't like the idea that this early conference could set a tone of my chastising her.] I

Kirsten that I hope we can plan for debriefing *after* the lesson in future weeks—which she seems to receive very matter-of-factly— I begin by walking the teachers through the demonstration lesson I am about to lead, giving them a guide sheet for note taking while they observe. Because Kirsten's classroom will serve as our "lab site," I ask her about some of the lesson logistics and materials, such as whether students are used to sitting on the carpet and talking to partners, and how she'd like me to distribute and collect papers and pencils. [These are sincere questions on my part, though I am intentional in asking them at this time and in this way for two primary reasons: first, I want to model the level of detail with which I prepare so that the writing lessons are likely to proceed smoothly, and second, I want to position Kirsten with respect and authority for decision making in her classroom.] Kirsten readily answers my questions. She seems to run an organized classroom with close attention to procedures.

Next, I give the teachers some suggestions about how they might want to follow up on my lesson in the coming week. [This is what I had initially planned for our post-lesson conversation.] I introduce Kirsten and Randy to the curriculum book we will be using as our guide in this work and walk them through its format and features. My talk predominates this conversation, and it is only I who initiates any shifts from one topic to another. As I wrote at the time in my fieldnotes, "I feel like I do an awful lot of one-sided talking to explain today's lesson... what I will be doing at each step of the lesson and why...I feel very much like a teacher delivering a lecture" (01.12.09). While my intention is to provide clear expectations and model the

practices I hope they will take up, I wonder if my talk here serves instead to promote my own expertise positioning and make Kirsten feel disempowered.

After fifteen minutes, I ask the teachers to share what they are thinking. Kirsten expresses some management concerns about the pacing of the lesson and how I will manage students' independent work time. I explain that I anticipate students declaring, "I'm done," and ask Kirsten and Randy to observe how I will address that with students. With almost ten minutes remaining in this prep/lunch period, Kirsten eats her lunch and we chat about personal topics.

During the one-hour lesson ¹³ (see lesson plans in Appendix D), I ask the teachers to sit nearby as I lead the minilesson and then walk with me as I circulate and confer with students during writing time. I also use a coaching strategy that I learned from the Teachers College Reading and Writing Project's coaching institute of voice-over, where at times during the lesson I speak directly to the teachers about my intentions for particular instructional moves with the students. After the minilesson I send children to their tables to write. My notes indicate that there were four students who had notable difficulties during this writing time, and that there were "lots of kids asking about spelling. I remind them about what I did [in the minilesson] to spell the word *whooshed*." I anticipate that I may discuss this with Kirsten and Randy at our debriefing the following week. Students write for about 20 minutes, and

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¹³ As discussed in chapter 3, I do not videotape the actual classroom coaching, out of concern that the presence of the videocamera during instruction for such a short coaching cycle may be a significant distraction for the second grade children. Descriptions of what happens during the lessons, then, are recreated from fieldnotes rather than from actual transcriptions.

I then bring them back to the carpet to celebrate how many of them wrote true stories from their own lives using the process I modeled.

As the lesson ends, I remind Kirsten and Randy of our plans for the following week and then ease out of the room quietly as Randy returns to his classroom next door, and both teachers begin their next lessons.

Week two.

I have scheduled a field trip for Kirsten and Randy to see writing workshop in action. We meet at The Green School, a public charter school that colleagues and I founded a few years prior. My reasons for arranging the trip at this time include: getting Kirsten and Randy out of their school building and away from the daily responsibility of teaching their own classes, which tends to be a rare opportunity for teachers and may help them feel like they are being treated as professionals; and allowing them to see successful implementation of this instructional approach in another school with similar demographics of students. Although Kirsten and Randy have opportunities to see me model during our coaching cycle, it can take a long time before their own students will develop independence and facility in writing. Often, in my experience, teachers become resistant because they do not see immediate progress from their students, and they do not believe these practices will work in their own classrooms. This visit may give them a more concrete visualization of their goals for this work.

Before visiting classrooms, we debrief from the previous week. Randy indicates that he tried out my first lesson with his students, as I had suggested, whereas Kirsten has not. For the first ten minutes, my talk again predominates. At

that point, Randy raises a concern about getting students to write longer pieces, and he asks about an assigned research project at their school. As Kirsten answers Randy, I participate only with occasional nodding and murmured assent, "mm-hmm." [At the time, I noted that I saw Randy positioning Kirsten as the expert in local school knowledge, and I intentionally stayed quiet to give implicit support for this positioning—in line with my belief that teachers are likely to feel more trusted in PD relationships when they feel their own expertise is valued.] During Kirsten's reply, she segues into sharing her own reflection on our previous week's lesson: "What I took from your lesson was...I tried to use some of your strategies to build management and to like extract those ideas [from students]." She then presents a request for help getting more on-task participation from students, "the issue of everyone should be writing the whole time." I offer a lengthy reply that in part seeks to minimize her concern, "I don't expect that every seven year old can sit and write for half an hour the first day that we're teaching them that." I also seek to empathize with Kirsten, "It's a really hard thing to do, isn't it? To let go of that?" and to offer a longer-term approach to the problem. This episode will be examined in more detail in the discourse analysis section to follow.

During this conversation, Kirsten asks my suggestions about whether and how to use writing folders. I notice that all of her expressed concerns thus far in our coaching cycle could be characterized as issues of what many would call "classroom management," that is organization of materials and students. My responses seek to provide direct answers to her questions, for example saying that we will use writing folders to organize students' work; at the same time, I expand on these responses to

provide a broader rationale, for example explaining how we use folders to help students keep track of their own writing over multiple days and make decisions about revision.

After observations of writing workshop in two Green School classes, we return to an empty classroom to debrief and plan next steps. When I ask whether they might teach any writing workshop lessons in the next few days—so that I may be prepared with an appropriate lesson when I return to demo again the following Monday— Kirsten quickly and assuredly points to the follow-up lessons she would like to do with her students. I then suggest that she and Randy examine the lessons right now to decide specifically how they will want to implement them in their classrooms. [My intention here is to make sure Kirsten reads through the lesson ahead of time, rather than what I fear she might do, which is to teach it without having previewed and simply using the curriculum as a script. This worry emanates from my previous experience with Kirsten during the year I worked at her school, as well as from concerns shared by her principal, that she sometimes comes to school unprepared and without lesson plans. In her engagement with this instructional approach—and with our work together in our coaching cycle—I want to ensure, as much as possible, that Kirsten experiences these lessons succeeding, so that she is more likely to take up these practices.]

At this point I leave the room to make copies for them of the upcoming lessons. During my absence—as I observe later in reviewing the video—Kirsten tells Randy that seeing these lessons in action and having time with the curriculum book is giving her confidence to teach writing workshop now. With frustration, she expresses

the importance of having access to the necessary resources, which they had not received previously from the school. As Kirsten expressed later that spring in our interview, "the modeling part was probably the biggest part for me just to see you do it, to see other teachers do it, and then to apply, you know, and to know it's not going to look exactly the same, but there is a guideline and I can apply all those things to my kids" (04.20.09).

Week three.

On Sunday I email Randy and Kirsten with a reminder of my visit for the following day and questions about logistics and materials needed for the lesson. Kirsten replies with an answer to my specific question about whether we will use clipboards or whiteboards with students. This is the first time she has responded to any of my emails. I wonder, hopefully, whether this is a first step toward expanded conversation between us outside of my visits.

During this second demo lesson, I have planned an intentional opportunity to begin the "gradual release of responsibility" (Keene & Zimmerman, 1997) by slightly increasing Kirsten and Randy's participation in the lesson. I model the first portion of the minilesson and have them take over the final portion, each addressing half of the class at the same time. There is no pre-planning necessary for the teachers to do this, and they both seem comfortable to revoice to students what I've just taught and what the students' writing task will be.

After the lesson, Randy asks if he can skip our debriefing to attend to other work. After agreeing, I remind the teachers that I would like them to collaboratively plan and coteach the minilesson the following Monday. As Kirsten brings her

students downstairs to the cafeteria, I set up the camera and start to prepare notes about my agenda for debriefing with her. It takes longer than I expect for Kirsten to return to the classroom, and as she enters, she exclaims loudly and angrily, through tears, "I can't believe Mr. R yelled at me in front of the whole cafeteria for bringing my students to lunch at the wrong time!" Kirsten sits down at our table and starts crying. [It seems too voyeuristic to videotape this conversation, so as unobtrusively as possible, I take my finger off the record button and instead put the camera back in its bag. I realize that the arrangements we have made to switch the periods for Kirsten's students to have writing instruction followed by lunch have not been communicated to the assistant principal. I worry that perhaps I had offered to make these arrangements.] Kirsten is mortified and furious that he "called her out" in front of children. After approximately ten minutes of Kirsten's emotional reaction, during which I attempt to empathize and comfort her, we briefly discuss the students' writing in today's lesson. I remind Kirsten once again of their "homework assignment" for the following week and leave her my copy of the writing workshop curriculum book, as their school has not ordered it for them yet.

Later that week, I send an email reminding Kirsten and Randy that they will coteach the minilesson at my next visit. I do not get a reply and am anxious that they may not be prepared when I come the following Monday. [This presents a dilemma, which I have faced in the past: should I plan a lesson on the chance they do not? If they have not prepared, and I swoop in at the last moment with a lesson, then I may be encouraging their dependence; on the other hand, if neither prepares a lesson, then what will happen during class time? Will I sit back and force them to scramble

at the last minute? That move would likely engender their disaffection for me, as it could send the message that I do not ultimately share their responsibility for instruction. After much hand wringing, I decide to take a leap of faith and do not plan a back-up lesson.]

Week four.

When I arrive on Monday morning and enter Kirsten's classroom, she apologizes that she and Randy were not able to plan together, but she is prepared to teach the writing minilesson herself. I am hugely relieved. I quickly explain to Kirsten that I'll sit by her side during the minilesson and may offer her suggestions in real time if that's comfortable for her. She assents. After the minilesson, I take the lead in conferring with students while they write, as Kirsten and Randy shadow me.

Our debriefing begins with my guided reflections of Kirsten's teaching. I compliment her pacing and her articulation of the teaching point she had chosen. [I struggle with whether or not to offer compliments, as this practice is contradictory to the precept of avoiding evaluative feedback in coaching—either praise or criticism. I have found, though, that a complete absence of praise can unintentionally imply criticism. My compromise has been to deemphasize praise as much as possible and instead offer detailed feedback about the teacher's progress toward her articulated goals.] I then ask Kirsten how it felt when I "whispered in" (Demonstrating and coaching, 2008) to her while she was teaching, because I know from past experience that teachers often feel awkward with a coach literally whispering in their ear with prompts of what to say in the moment. Kirsten responds not about how it felt, though,

but rather that what I said at that time made sense and was helpful. I take this as implicit confirmation that the whispering in did not make her uncomfortable.

After ten minutes, I ask the teachers what else they want to discuss, though without a pause I say that I had given them some notes that day to think about conferring. Kirsten says she's realized the difficulty of conferring for her because, as she describes, her inclination is to push students to be more productive or focused; with light-hearted concern (she laughs as she speaks), Kirsten describes some of her difficulties with students who frustrate her: "I know that this kid might be lazy sometimes... it gives me a little rise in some sense... there's some kids that just drive me nuts." She asks for my support in identifying and communicating more productive guidance to students about how to improve their writing. In explaining this difficulty, Kirsten gives specific examples of some of the students' participation today. I respond by looking at one student's writing with Kirsten, articulating what I notice that he has done well and identifying possible next steps. We continue in this vein, and with one student Kirsten takes the lead in offering her own idea about what the child may need next. The debriefing session ends with confirmation that Randy will lead the minilesson next week and some discussion about what lessons Kirsten will teach in the interim.

During this fourth week, I see a notable shift in Kirsten's participation. (This episode, "There's some kids who just drive me nuts," will be examined in more detail in the discourse analysis section that follows.) First, the concerns she raises are primarily about supporting students' learning, rather than logistics and management. Second, her presentation of problems has gotten longer and more detailed. She is

talking about specific students—tied to student work, and articulated in "normalizing" language that is not emotional or critical, but expressed with a stance of curiosity and a problem-solving approach.

Week five.

On the fifth week, Randy leads the minilesson, modeling for students how to use multiple pages for planning and writing longer stories. During writing time, I again have Kirsten and Randy shadow me as we confer with individual students. Either during or after each conference, I discuss with the teachers what I'm noticing and how I'll make a choice about what to teach that student next.

The debrief begins by my asking Randy how he felt his lesson went today; we reflect on Randy's lesson for ten minutes, with minimal participation from Kirsten, and then I shift topics by asking, "What else do you guys want to talk about today?" Over the next ten minutes, Kirsten presents two different problems that have arisen in the past week. In each, she provides a detailed description using normalizing, problem-solving language. The turn taking and quantity of talk in our discussion of these problems is equivalent between me and Kirsten. This is a shift from earlier weeks, when my talk predominated.

After Randy leaves to prepare for his next class, Kirsten picks up one student's writing and initiates reflective conversation about her work. This is quite similar to what I had done the previous week, but this time it is Kirsten who takes the lead, explaining what she notices in students' work and speculating what each might benefit from learning next or allowing me to jump in and offer a suggestion. The

conversation proceeds in this manner for the next 20 minutes, and the tone feels very collegial.

Week six.

For our final meeting, I suggest an extended planning session—rather than our typical model lesson with debriefing—so that I can support Kirsten and Randy in reflecting on their progress and doing some long-range planning. I bring lunch for all of us, as a celebration of the culmination of our work. [I do this in part to assuage my guilt about the freedom of movement that my position affords me, and which Kirsten and Randy do not share —often a sore point for classroom teachers who can feel less than professional in their inability to control time and movement during their work day. While I cannot erase this component of the power differential between us, I can at least use my freedom of movement to do something nice for them.]

We spend a relaxed hour planning out the end of this first unit, their writing units for the rest of the year, and how they will assess their students. During this time Randy occasionally integrates the conversation with topics particular to their school, such as testing, field trips, etc. Several times, it is Kirsten who returns the conversation to the topic at hand or initiates a new topic related to her interests in writing instruction. This is new, as on previous weeks it was I who exclusively facilitated our meetings and initiated any shifts in topic.

I end the session by asking the teachers to reflect on our coaching cycle. We discuss what their initial goals and expectations were, and what they feel they and their students have learned. Kirsten describes having wanted to learn about writing workshop as "a complete idea…not just writers workshop as that's the time that we

write." In explaining what she has learned, Kirsten focuses primarily on her students: "I learned like the assurance of giving kids an identity as a writer... that they really will take ownership of it." She adds:

It's really exciting to see how much progress has been made in such a short period of time and I've just really been, the thing I really like about this is that it's so, it's really simple, it makes sense, and it's really structured. It gives you, like, I think it gives you a really relevant layout. You know, you do a minilesson, you maybe talk about what someone else was doing in their writing, you know, use a reference, and you give them a task, and they go do it. And they have time to write.

In contrast to the beginning of our coaching cycle, when Kirsten's focus was primarily on logistical concerns such as the management of materials and student movement, she now succinctly articulates a bigger picture view. Though she asked about and learned a number of management strategies throughout our meetings— for example, keeping students on the carpet who need extra help thinking of a story topic, using writing folders labeled "done" and "still writing"—she contextualizes them here within a larger structure and purpose. Kirsten describes what she has learned in terms of engaging students in meaningful writing, which is indeed the view of writing workshop that I had hoped she might embrace.

So, what does this story tell us? It appears that Kirsten has gained confidence with implementing this curricular approach and that she now characterizes student difficulties in writing as opportunities for future instruction rather than as frustrating problems. How might we account for Kirsten's trajectory? In the following section, close discourse analysis of selected episodes from this data seeks to characterize the nature of the relational dynamics between Kirsten and me, and to examine in what

ways these interactions may have opened up or closed off opportunities for Kirsten's learning in our coaching cycle.

Discourse Analysis of Relational Dynamics in Carla and Kirsten's PD Interactions

The following section presents discourse analysis of selected episodes of interactions between Kirsten and me. As in the previous two chapters, I have selected episodes exemplifying the questions and tensions that arose in our coaching cycle. For Kirsten, these include issues of classroom management and how we navigate authority for decision making within Kirsten's classroom, as well as tensions around her desire to get all students to write productively.

Answering questions and navigating authority for decision making.

This first brief set of episodes focuses on classroom management concerns and how these are navigated in interactions between Kirsten and me. Knowing that teachers often prioritize classroom management issues, I pre-emptively seek to set the tone for how we will discuss these issues in our coaching cycle during the preconference to my first demonstration lesson. Kirsten raises similar questions about management of students and materials a number of times as well. In each of these episodes, issues of positioning and authority for decision making are prominent.

During our first preconference I say, "Here are my questions for you guys that I can't answer by myself" (01.12.09); I ask Kirsten a series of questions about, for example, whether her students have assigned partners, whether they are used to sitting on the carpet, where they keep their pencils, how she distributes papers. This request also follows a lengthy lecture in which I have explained how and why I will be

teaching the demonstration lesson to come; so these questions are the first opportunity I have given the teachers to offer any input in this conversation. I have two primary intentions with this move: first, I am deliberate in trying to position the teachers with some authority in our relationship, in particular by showing respect for their authority to organize and manage their classrooms—demonstrating that I am a guest in their space. Second, I want to model for the teachers how I contextualize concerns about management of children or materials within larger instructional beliefs and goals not rules for rules' sake alone, but as a means to a particular end. Kirsten answers my questions comfortably and readily, for example saying, "Yes, they have assigned areas. That should be familiar to them," and, "Yes, that's usually how we do it." She seems confident making decisions about routines and materials in her classroom. I think perhaps I have guessed rightly that asking Kirsten to make these logistical decisions may have successfully positioned her with some respect and authority. Had this move not accomplished that—had she, rather, been uncertain or insecure about these questions—I would have considered seeking additional ways of demonstrating respect or building trust with her.

Throughout the first several weeks of our work together, it becomes clear to me that many of Kirsten's questions or concerns revolve around management issues. There are numerous examples of her asking questions about whether and how to use folders for students' work, where to keep papers and pencils, etc. An exchange from our debriefing of the week three lesson (02.02.09) is representative of her presentation and our interaction around this type of question:

Kirsten: Do you think, well, even today, I was like, oh, where do I put their papers? Do I put it in the bins with the idea that at some point I was going to

tell them, you know, teach them how to get their own paper? But yeah, I don't know, What I saw in that first grade class that the kids were just getting up and going and getting a 2nd sheet of paper if they needed it, or a new sheet, and that they all had their folders in bins somewhere. I'm wondering (..) like in terms of things that we use every day, their journals are at their seats already, would that be appropriate, or do you think that would maybe get it mixed up or I don't know?

Carla: I think whatever system you feel like you can manage, you will manage. It's helpful to have their actual writing in a place that's not hard for YOU to get to when you want to read it.

In this immediate response, I am again seeking to position Kirsten with authority for decision making in her classroom. I then connect her concern to the larger rationale of why it is important to consider where student papers go in this type of teaching. I notice this is a pattern in the ways that I answer Kirsten's management questions—giving a direct answer, and then expanding to explain the rationale.

Kirsten continues the conversation with more troubleshooting about where to keep writing materials, and how she's beginning to give students choice about what kind of paper they need based on how much they will write. I see in this evidence that Kirsten is integrating idea that students' independence and self-management is a goal for her in this instructional approach. I like to think that had Kirsten instead followed my response with another question such as *Ok*, *but where should I put their papers?* I would have given her a more direct answer. But since she seemed satisfied with my response, I took that as an indication that she felt her question was answered.

The following week, Kirsten again raises an issue with managing materials during writing time:

The other thing I was concerned about was figuring out um a good routine for the folders. I did what I liked about the first grade class that we saw was the red and the green [stickers] cause that makes sense, and then you know, which is, which, and they can, you know. So I really liked that. Umm, but the

transition from, what I think I'm going to have to do is make sure that their folders just stay at their tables because sending, you know, 27 of them to get a folder and then back to their seats just gets to be madness. And so I think that I have to find a way to keep their folders at their seats and then they can just go there and get started. (02/09/09)

In this statement, I see Kirsten beginning to "normalize" the problem herself; that is, she first presents her concern—about finding a routine for the folders—discusses how she has been addressing this in her classroom, and then what she believes she needs to do next. Though she has raised this as a concern, I see that she is not explicitly asking for my advice or approval; rather she seems to be brainstorming her own solution and using me more as a sounding board. I would then characterize this episode as an indication of Kirsten's increased autonomy and confidence in implementing the instructional approach that we are working on in this coaching cycle.

Getting all students to write.

This group of episodes highlights a recurring concern of Kirsten's about ensuring that all students are engaged in productive work during writing time.

Initially, Kirsten characterizes herself as the kind of teacher who desires to control that students stay on task at all times and expresses frustration with students who are not doing their best work. As the coaching cycle proceeds, Kirsten begins to focus more on analyzing students' work for specific evidence of what each is doing well, what their current strengths and needs are, and what each might benefit from learning next. Discourse analysis of four episodes below explores how relational dynamics between myself and Kirsten in the interactions may have affected this shift.

Episode 1: "OK, I'm done."

During the planning session that precedes my first demonstration lesson, I talk for fifteen minutes about the upcoming lesson and some of the curriculum resources we will be using during this coaching cycle. In this turn, below, I am explaining to the teachers what I anticipate from students during the demonstration lesson, and what Kirsten and Randy might then teach in the time before I would return the following week:

...in the first lesson, you will have some kids who will say, "I'm done! I'm done!" And so the next lesson makes sense that it's about what writers do when they think they're done. So you might want to try that on your own. Or, you might want to try [a lesson about] how to make hard-to-draw ideas. It depends how the kids react. There's going to be something that's difficult for them. (1/12/09)

In this statement I am describing how problems, such as children saying, "I'm done!", are to be expected in teaching. This statement sets out language for problematizing teaching, in the sense of how students' difficulties are to be expected and planned for, as when I say, "There's going to be something that's difficult for them." This phrasing expresses that talk about teaching practice need not evaluate the "performance" of the teacher but instead may share specific, nonjudgmental observations that help plan for the following lessons. In setting forth this conception of teaching as a cycle of planning-instruction-assessment, my intent was to model language that established nonevaluative feedback language as the norm for our coaching interactions—that specific, detailed observations of classrooms are the essential feedback that can serve as the springboard for planning; reconceptualizing teaching not as a performance to be evaluated according to whether everything

happened as planned, but rather as a cyclical process in which observations of instruction (formative assessment) can inform future planning.

A few moments later, I ask the teachers to "tell me what you guys are thinking." Kirsten replies, "I'm curious to see what the timing will look like... managing the independent time. Making sure that everyone doesn't after a few minutes say, 'OK, I'm done.'" Kirsten's discourse suggests that she has not taken up my conception of problematizing the activity of teaching. Her expression, "making sure that everyone doesn't after a few minutes say, 'OK, I'm done'," implies that Kirsten believes a professional developer can and should somehow compel students to perform in a particular way. At this point she has not taken up the framing of student difficulties that I initiated previously as an expected part of teaching, but rather implies that she is looking to me for techniques for avoiding this "I'm done" problem altogether.

I launch into a lengthy response of almost three full minutes in which I hope instead to help Kirsten recharacterize this concern from a stance of curiosity and as a problem-solving opportunity:

C: yeah, yeah. So notice what I do with kids who have those issues. Um offhand I would say my tendency is to get um really, really invested in and excited by their stories. So then they would want to add more. [K: mm-hmm; R: mm-hmm] Um that will be my tendency with these first lessons in particular. In general, I find that an effective way to get them to engage more with something like that where it's hard if they say they're done, it's kind of hard if they're writing about themselves, right? To validly say no, you're not done. [K: mm-hmm] Unless you draw them out first about their story and you genuinely hear them explain details that could go in there. So that will be my tendency today. That's what the second lesson addresses also, what to do when you're finished? Um they have a little pithy phrase, 'when I think I'm done, my work has just begun' is the little catch phrase that they use, and they have a little, like a process chart for kids that you can make that says 'When I think I'm done, my work has just begun. Add to my pictures, add to my words,

start a new story.' So it is OK to start a new story, but we do want to teach them about what it's like to add to your picture, add to your words, and you can do that by modeling from your own story. So, for example, if I were here two days in a row, I would go back to the story I wrote today, and I would add more to it, to show them how to do that. So you'll see today when I do my demonstration story, I will tell a lot of the story, but I won't write a lot because I want it to look like what they're likely to do. Um I also don't want to keep them on the carpet forever cause then they'll get antsy, so we want them to be excited [K: right] about their own work. But that's generally what we want to do about having them genuinely excited about what they have to say. It won't work for everyone on the first day, we can't get to everyone on the first day. Um sometimes I might stop everybody in the middle, keep them at their seats, but sort of just give them a reminder or say, "Your teachers and I are noticing that a lot of you feel like you're finished. I'm going to ask you to go back in and see what you can add to your sketch. [K: mm-hm] Close your eyes and really picture who was there and what did it look like around you." Something like that. We'll see if we think we need to do that for the whole class or if we can just tell a few individuals. Or we might even be able to say in the middle of the lesson ((C holding up paper)), "I want to show you what Lakeisha did! She thought she was finished, and then she realized"-- even if she didn't realize it, even if we told her to do it, we tell them she realized she wasn't done. She had more she could add. "Right now if you think you're finished, can you zoom back in and add to your picture?" So we'll try one of those things if that seems to be an issue.

I cringe in reading this response because of its length, and I worry that the teachers may have felt lectured at, or, at best, that the suggestions were meaningless at the time because Kirsten and Randy have yet to see this type of classroom in action. In analyzing my intentions, I see my attempt to normalize the problem Kirsten has presented by offering numerous possible solutions that exemplify a range of strategies and techniques offered through this type of writing curriculum. At the same time, I believe I am also trying to contextualize the problem Kirsten raises within the larger philosophy of this instructional approach, in which teachers create structured and supported opportunities for children to do the authentic work of writers. In this, our first day of coaching, I am seeking to model an analytical lens and nonjudgmental language for discussing problems in teaching, but I think I have done so over-eagerly

and heavy-handedly and ought to have held off on many of these suggestions unless and until they arose in context of an actual classroom situation.

I have little evidence of what Kirsten makes of this response in the moment, as I end the conversation at this point, and we then relax for a few minutes before heading to the classroom for the writing lesson.

Episode 2: "Everybody should be writing the whole time."

During our debriefing session the second week, Kirsten describes her initial attempts to implement writing lessons following up on my first demonstration and explains one aspect that she finds challenging:

K: The thing that I need to work on the most, I think, is the (...) um, like circling the room and monitoring because (...) I still have the issue of everyone should be writing the whole time and so (..) you know, if you're playing with your pencil or you're talking to your neighbor, you're not writing. Sometimes for some of them I know it's because (...) they're waiting for me to get to them to check their work or, but saying, 'OK, well, why don't you write a little bit more, why don't you add to it, why don't you draw a picture,' you know, doesn't seem to be catching on. (01/21/09)

In her presentation of this problem, I can infer that Kirsten feels comfortable raising a difficulty in her teaching, though the numerous pauses in her speech imply that she may lack confidence in this type of talk, or that she has not prepared ahead of time to discuss this problem. (I do not seek to claim that her comfort with raising something "I need to work on" results from any modeling I have done, as this lack of ego may, of course, predate her participation in this coaching cycle.) Kirsten describes the problem here solely in negative terms: that students are unable to stay focused on their writing, that she becomes distracted by their off-task behavior, and that her words of redirection are unsuccessful. I seek to recharacterize this problem, instead, as an expected tension that I myself have experienced:

C: The tension I hear you talking about, Kirsten, in terms of noticing kids who are off task to me is just a sort of a philosophical or pedagogical mind shift about this way of teaching is that again, because we're doing it every day and because we have this little whole class instruction at the beginning and at the end, is that if things aren't going the way we want them to go, is just to file that away and say, Oh here's the thing that's not going well today, or here's the thing that is going well today. How am I going to use that as a teaching opportunity, instead of um individually dealing with each child/

K: OK.

C: ... Basically they're telling us they don't know how to do their best work as a writer right now. [K: mm-hmm] We just want to file it away and say, Oh, what does that mean I need to teach them?

By advocating that the teachers consider, "How am I going to *use* that as a teaching opportunity," my response does not direct Kirsten to "fix" this problem, but rather models how to reconceptualize it as part and parcel of the work of teaching.

The use of pronouns in this exchange may give some insight into the ways in which I am seeking to position Kirsten in relationship with me and our coaching work. First, there is an absence of 2nd person pronoun you; a "you" response to the teacher's request for help would be a directive suggestion—for example, had I said to Kirsten something like, "You should keep your focus on the students you are conferring with." Such a directive suggestion would presume my authority and would underscore the power differential between the coach and teachers. Instead, the use of "I" and "for me" represents my intention of positioning myself on a more similar authoritative plane as the teachers. I am sharing my own teaching experiences, not as a distanced expert but more as an equal. In the case of this coaching cycle, these "I" statements do not simply refer to some past teaching experiences, but instead invoke my teaching of Kirsten's students in her own classroom, which both Kirsten and Randy observed. The demonstration lessons in

this coaching cycle allow for increased use of pronouns "I" and "for me" because the teachers have opportunities to observe me teaching in one of their classrooms. This practice of teaching in real time with the teacher's own students may lend credibility to the coach's observations and feedback, as well as build trust by showing the coach's participation in and respect for the daily work of teachers. By demonstrating lessons I show willingness to engage in the same risk-taking as the teachers in making our practice public.

At the same time, the use of the first person plural "we" as in "we just want to file that away" suggests a positioning of shared responsibility, collegiality, and collaboration between myself and teachers. Alternately, though, it could feel disingenuous if the teachers interpret my use of "we" as simply a disguised or softened way of actually giving a directive—as in, *of course WE will do this*. Kirsten spoke to this issue of shared responsibility in our interview two months after the coaching cycle concluded:

I think that ...kind of the posture that you set and ...just how you positioned yourself as collaborating with us, and you had a lot of the information, you had all information to give us, but you were still really valuing what we contributed, and it wasn't intimidating, and I knew that when you were sitting there, when I was doing my demonstration lesson, you were going to be giving me that feedback on which direction to go in, and it wasn't like wasn't scrutinizing and it wasn't belittling. It was just very supportive. It was just like, well, why don't you try this. It didn't feel like pressure. It felt like, what are we going to do to make this the most excellent. (4/20/09)

Here, Kirsten presents her conception of the power dynamics in our coaching relationship. First, she describes "collaborating" and "valuing what we contributed"—a notion of shared authority in which Kirsten believes we each bring different types of expertise to the relationship. Next, she explains that the

nonevaluative nature of my feedback felt "supportive." As Kirsten describes the collaborative feeling she had of our coaching relationship, she also takes up the pronoun we as she explains, "It felt like, what are we going to do to make this the most excellent." Kirsten's language illustrates her sense of our shared responsibility for improving teaching and learning in her classroom. At the same time, though, I need to remain aware that she says this in response to me, and that norms of niceness, pervasive often especially for women (Moje, 2000), may well cause Kirsten to self-censor her true thoughts.

Throughout the initial discussion of Kirsten's problem—that all her students ought to be writing the whole time— I do most of the talking, with virtually no verbal interaction from the teachers. This domination of talk positions myself as controller of the conversation and the teachers as subordinates. The next interaction, however, does suggest a marked shift in participation, as Kirsten becomes more verbally involved in the topic of teachers being distracted by students' off-task behavior:

C: So that was a big shift for me, too, is really not clamping down so much on individual kids who aren't doing their best work

K: Right

C: It's a really hard thing to do, isn't it? To let go of that?=

K: =Yeah. ((chuckling))

C: Yeah. It's just in our field of vision.=

K: = Right.

C: Right? Like that's what we've sort of been trained to do [as teachers]

K: [Right]

C: is notice those things and fix them.

K: ((chuckling)) Right.

C: Right.=

K: =Immediately. ((laughs))=

C: =Immediately. Right. But this kind of teaching is so much about teaching kids to self regulate.



Figure 8: Kirsten laughing

Visually, this interaction displays a noticeable change in turn taking, with Kirsten inserting her voice considerably more often than during the earlier parts of the conversation, resulting in more equal length and amount of comments between Kirsten and me. There are additional indications here of a shift in the quality of Kirsten's participation to a more active engagement in the conversation. First, the pacing of Kirsten's insertions displays overlapping and latching, a conversational move where one's comments come directly on the heels of another's talk, indicating Kirsten's interest in entering into this line of conversation without concern for stepping on my words. This latching contrasts with previous utterance patterns and suggests some renegotiation of power in that Kirsten seems less deferential to my talk turns. Additionally, Kirsten's gaze in this interaction has shifted: her head is raised and looking at me. Most significantly, throughout this exchange, Kirsten smiles and chuckles, as we share in framing as an in-joke this issue of how natural it is for both of us as teachers to seek to "fix" children's off task behavior.

After this joking exchange, another shift occurs as I begin offering directive suggestions using the pronoun "you":

C: So I think that's really good and I think that if you can do something like give yourself a goal to circle the room, and when you're circling the room to even keep track of how many compliments you can give kids on the writing work they're doing, or um to take note for yourself of how many times you were able to refocus kids by drawing them into their stories. You might want to try ... one little column where you keep track of, can I get to all of my kids to at least say something or check in with their work, once a week or once every week and a half [K: mm-hm]That can sometimes help focus us and help relax us, too, that it's not that we need to know what every kid is doing on every day.

K: OK. That's been another issue that I have. Yeah.

This use of the pronoun "you" to give directive suggestions comes only after several minutes of discourse moves that first seek to build teachers' trust in my nonjudgmental approach to coaching. Kirsten's participation in the "fix them immediately" joke offers some indication that she may be embracing a normalizing view of problems of practice. That is, it suggests that she shares with me the disavowal of teaching as performance (that this conception is, literally, a laughable idea) and agrees that it is not the enterprise we are engaged in during this coaching cycle. It opens the door to my offering directive suggestions because I have some reassurance that Kirsten will situate these suggestions within a non-evaluative conception of problems of practice. Even then, the suggestions are softened by hedges in my language, in the forms of the qualifier "if" and conditional verbs "might" and "can": "if you can do something like give yourself a goal" and "you might want to try". Through these qualifiers, I again seek to position Kirsten with the authority for decision making in her own classrooms.

I cannot know with certainty what Kirsten thought of my directive suggestions to her in this particular episode. However, we did discuss this issue more generally in our interview, when I asked what she thought of my giving assignments or direct

suggestions during our coaching work. She replied, "Actually, I liked getting assignments because they were specific things for me to practice that were things I could do better. The things you gave me to do were always connected to my goal, and were like next steps for me. Plus—and this relates to the kind of PD I've often gotten—I knew you would be back to give me feedback on how I was doing" (4/20/09). Here, Kirsten explains how directive suggestions in this coaching context did not strike her negatively, as judgmental or evaluative, but rather as productive in that the assignments laid out steps toward helping her reach her own goal. In addition, Kirsten explains the importance for her of knowing that she will later receive my feedback about her work on these assignments. She therefore situates the feedback within the ongoing nature of our work. She contrasts this with the kind of feedback she generally receives at her school, which she describes elsewhere in our interview as irrelevant, infrequent, and often negative. In Kirsten's words, feedback she receives at school is "just very generic, and that makes you feel like you want to do a generic job, you know?"

Episode 3: "There's some kids that just drive me nuts."

During debriefing after the fourth week's lesson, Kirsten raises a problem about conferring, the practice of meeting with students one on one during independent work time to coach them on improving their writing. She explains:

I feel like um (...) it's really difficult for me to be objective about um (...) what they're doing, in the sense that like, OK I know this kid might be lazy sometimes, and so I'll feel less inclined to play into it, you know, and so I think that gives me a little rise in some sense, and then there's some kids that just drive me nuts, and I feel like ((she laughs)) conferring with them will just drive me MORE nuts (...) so um yeah like Makhaia was on the carpet today, but I really wanted him to be at his seat so that you could confer with him, so that I could see what you do.



Figure 9: "Some kids just drive me nuts."

In the presentation of this problem, Kirsten begins with her generalized frustration about students who "might be lazy sometimes" and states a desire to watch me work with one of those students in particular. In this, I see her expressing confidence that I would have an effective strategy to support Makhaia. As I begin to recommend that we focus on this student in class next week, though, Kirsten interrupts:

Because did you notice that he stayed on the carpet, then he didn't write for a very long time, didn't even draw for a very long time, and then there was the whole distraction with Antwan, who is like a whole other issue. So like, and Makhaia is so brilliant and that makes me so frustrated, like he should have had two pages written by now, and I just like, I don't know what to say.

She clarifies the presentation of her problem to offer more specific detail about Makhaia's actions in class. Her interruption implies assertiveness on her part and a sense of her confidence that this additional information is important. It may also indicate Kirsten taking on a practice I have modeled, of looking closely at what students do and say in order to diagnose and suggest next steps for their learning. In response, I first thank Kirsten for bringing this concern to my attention: "it's great and helpful for me to know who's hard for you, and we should continue to focus on

those people." My intent, again, is to normalize this problem—not as a complaint or something to be avoided, but as an expected part of the work of teaching.

Next, I seek to leverage Kirsten's expertise by asking her to share what she knows about Makhaia personally and socially— through her relationship with him as his classroom teacher— that might help us diagnose why his work production seems minimal. She explains that he is perhaps reluctant to write about personal topics (in this writing workshop unit, we ask students everyday to work on nonfiction personal narratives) as a "self esteem kind of thing... because he's kind of off beat." I give a generalized suggestion that students often respond well when we find ways to "be genuinely excited" about what they *do* produce. At this point, Kirsten shifts the topic and asks about my interaction with another of her students. This shifting may indicate that she is not finding the generalized discussion helping in thinking about Makhaia; alternately, it may signal that Kirsten values these conversations about specific students and so asks about another who's been troubling her as well. We discuss suggestions for this second student, and a few minutes later, I find Makhaia's paper in the stack and read from his writing that day:

Carla: Now what I noticed. I'm just kind of glancing at Makhaia's. When I woke up I played my video game and I won. And I excitedly knocked over my game cube and I said, 'Oh no!' That's tremendously more advanced than we're seeing from any other kid in here! [K: yeah] We haven't talked about any of those things in minilessons yet, about including dialogue, about this vivid language, about strong verbs. So... we can really compliment him on the vivid language that he's using that really helps readers picture his story in their mind, just the same way as the stories you read for read-aloud. Wow, that's working like an author! That readers can visualize what he's saying.

In this talk turn, I identify what is specifically good about Makhaia's work, and then generalize to how the teachers might use exemplary student work like this to teach the

rest of the class. Next, I return to how we might support Makhaia in appropriate next steps:

C: You know him as a kid, but maybe he's one of the first kids you teach how to make a booklet.

K: ((nodding)) OK.

C: Cause I bet there's a page two. *I excitedly knocked over my game cube and I said*, "Oh no!" [and then you could say]

K: [Then what happened?]

C: Oh my gosh, I want to know what happened next!

K: Right.

C: I think you're the kind of writer who needs page two.

K: Right.

C: And maybe that's the kind of motivation that will push him to do more.

In this exchange, while discussing specific suggestions for what to do next for Makhaia, the turn-taking and overlapping talk marks Kirsten's more active participation in the conversation and may imply her engagement in and openness to this learning opportunity. In our interview later that spring, I asked Kirsten what she took from looking at student work during our coaching cycle:

I just think it gave me some alternatives in how to view what they'd done and how to respond to it in a productive way that wasn't necessarily grades or wasn't necessarily any kind of criticism, but just what are we going to work on next to become a better writer, just that kind of thing.

At this point, Kirsten starts reading through the stack of today's student work, as we continue discussing what we see. In one instance, Kirsten theorizes next steps instructionally for a child:

I was glad that [DeShawn] was amenable to writing more, instead of just saying, like, there was nothing else to say. You know. Umm (..) and I think that might be something that I would encourage him to practice, just putting in more about the particular idea, um, so that he's not just telling the story, because I feel like that's what he's more inclined to do, say this is what happened and then this happened and then this happened.

Kirsten's voicing of what to do next with DeShawn is somewhat tentative—marked with the filler "umm" and the qualifying language, "I *think* that *might* be something"—and represents what Horn has called a teacher's "rehearsal" of new problem-solving language about a complex teaching situation (Horn, 2010). This is the first time in our coaching cycle that Kirsten has taken the lead in offering her own suggestions about what to teach a child next.

In response, I notice that I do not give Kirsten direct feedback either one way or another about whether I find her suggestion viable. Rather, I piggyback on what she has said to mention upcoming lessons in the writing curriculum that take up some of the ideas we've been discussing as next steps for many of the students. I do not believe that this was an intentional move on my part, but I speculate that this response to Kirsten positions her as more of a colleague whose idea is taken at face value and spurs another idea from me.

Overall, this episode indicates Kirsten's taking up several of the practices I have been modeling in our coaching interactions: most notably taking a stance of curiosity toward student struggles as opportunities for future instruction, and looking at the classroom not in terms of "fixing" the teacher but rather for improving student learning. We also see Kirsten beginning to take the lead in these practices and becoming more active and participatory in her quantity of talk.

Episode 4: "That makes me so excited."

During the fifth week of the coaching cycle, Kirsten initiates a discussion about a difficulty she had in her writing instruction during the previous week. This is a notably long utterance for Kirsten in our planning conferences and represents a shift in her discourse with regard to her presentation of a problem of practice.

C: What else do you guys want to talk about today?

K: So I've been, I did another day of how to think of ideas and we actually did the talking to someone else because I was saying, "Oh something reminded me, I was talking to someone and it reminded me of one time something happened." And so they did a turn and talk, um and they just said, you know, somebody said about something they liked or something they wanted to share, and so they had an idea and so they went [to their seats]. People who didn't have any ideas sat on the carpet, and that was a little bit like pulling teeth, because they were just like, "Well, what do you mean? What do you want me to do?" So I was thinking, well sometimes it helps to get to know someone by talking about yourself and asking them questions about themselves, and then a story will come to you. And so I told them some story about my nephew, and Nolan said, "Oh, that reminds me of a story about my nephew." (??) But the others were still stuck. There are still maybe 4 or 5. (2/09/09)

In this episode, Kirsten not only takes the risk of raising a teaching problem and asking for help, she frames her problem of practice in a new way. In contrast with her earlier presentations of problems, Kirsten's discourse here is more specific in her recollections of the lesson and is less judgmental of herself or her students. It is also devoid of the pauses, hedges, or conditional phrasing noted in some of her previous problem presentations. In her description of this writing lesson, Kirsten shares several ways that she approached students who were having trouble coming up with a story topic. In each case, she describes what she did and how the students responded with nonevaluative language and a stance of curiosity toward how she might help these students. She is no longer asking me to "fix" this problem, but rather is seeking

additional ways to think about what these students might need next to progress as writers. In response, I offer two brief suggestions, which Kirsten writes down, and then she shifts the topic to another issue. I take this new topic initiation as evidence that Kirsten has received an answer she finds satisfying.

Later in this session, after Randy has left to pick up his students, Kirsten initiates looking at student work. She picks up the stack of writing from today's lesson and begins commenting on what she notices:



Figure 10: Kirsten looking at student work

Kirsten: ((holding up a student's paper)) I love that she used (??), she's just writing. She's not [worried about spelling] 'surprise,' 'vacation.'

Carla: yeah, um there's a lesson [that

Kirsten: [crazy] that makes me so excited, but I really just like, for so long it's either been 'sound it out' or 'let me tell you what it is' or 'use the word wall.' But just to give them permission to write it, whatever you hear (...) I just think it's liberating for some of them.

Here, Kirsten is not raising a concern but rather is sharing collegially with me. When I jump in to recommend a lesson that addresses the issue she has noted, she interrupts and overlaps my talk, regaining the floor to complete her observation. She wants to express her excitement about her students' growing strategies for spelling and

writing. When she has finished, I simply validate her sentiment, "Yeah, it's nice that it builds independence for them." As Kirsten reflected in our interview about such discussions of student work:

So I think that it was helpful just to see what your response was, to kind of frame the kind of responses I had to their work, so that it was more along the lines of the kind of experience this is for them as writers, not like a graded or you know, formally evaluated per se, that it's what am I doing to help them move along in the direction I want them to move in, and are they doing that.

Kirsten then flips to the next paper and begins commenting on that student's writing.

In this conversation, there is an equal balance of talk between Kirsten and me, as each of us initiates some of the comments about what we notice in students' work.

Conclusion

It may seem that Kirsten's progression during this coaching cycle was clear and neat. And in many ways it was. Over the relatively short, six-week duration of this project, Kirsten appears to have made numerous shifts. Both the quantity and quality of her participation have changed. During our planning sessions she gradually talks more and becomes more active at initiating topics for discussion. From the start, her primary tensions have been about keeping control of classroom management issues and about pushing those "kids who drive me nuts" to produce more and better writing. Discourse analysis has shown that, during our coaching interactions, Kirsten has been able to reconceptualize and normalize these problems.

For Kirsten, it seems that the modeling and feedback techniques in our coaching relationship felt helpful and may have leveraged her openness to the learning opportunities in this PD project. Affectively, she seems to have felt valued

and supported. In particular, she notes the impact of receiving specific feedback about her teaching and her students' progress:

When we talk about what's going on in the classroom, you are observant and you can tell me what was going on, so I think it's more acknowledgement that you were paying attention, or you were in tune to what I was doing... it gives value to the work that we're doing... maybe it's like knowing that you were showing up to do your part when I was showing up to do my part.

This reflection validates for me that teachers do not need praise (or criticism) to make change, but that specific, nonjudgmental feedback can feel helpful and support progress.

On the other hand, in reflection on this coaching cycle, I notice that I am more directive than I have been in past coaching relationships, and this creates great tension for *me*. At the time I was interested in using the "gradual release" coaching model (Casey, 2007), in which the coach—like a classroom teacher—initially models and then gradually gives more responsibility to the learner. I had read about this model for literacy coaching and had had one successful experience with it the previous year. My control in structuring and running the planning and debriefing conferences through this coaching cycle, in retrospect, seems to highlight my authority positioning and is quite contradictory to my theorized recommendation to be as nonhierarchical as possible with teachers in PD. It felt uncomfortable at the time, as it seems counter in some senses to my beliefs about respecting the authority of the teacher. In our interview that spring, I asked Kirsten about my "leading of the agenda." She replied:

I have no problem with that... I think generally speaking, when it comes to PD, I'm usually looking for someone to lead. You know, most likely, I would be there because I don't know. Honestly, I *don't* like when I go to a PD and they're like, "Oh, what do you guys, why don't you guys lead the sessions?" But I'm here because you're the professional developer because you have some information that I don't.

Kirsten's take here expresses her preference for a more directive teacher-student relationship in professional development. At the same time, she highlights elsewhere in the interview how important is was for her to feel respected in the coaching relationship:

...just how you positioned yourself as collaborating with us, you had all the information to give us, but you were still really valuing what we contributed... Like, it wasn't even really like you're starting off knowing nothing, like, "I know you don't know anything so let me," you know. "You do know, and I'm going to give you some tools to make that better." You know what I mean? I just kind of feel the acknowledgement and the respect that was set beforehand just gave that motivation to say, "OK, well, how am I going to improve?"

My argument in this chapter has been that numerous factors supported Kirsten's engagement and progress in this literacy coaching cycle. In describing that she felt "the acknowledgement and the respect," I take her to mean that her concerns were validated, that she felt *heard* in our relationship. In addition, the modeling and immediate feedback on lessons in her own classroom seem to have provided Kirsten with explicit answers to many of her questions about implementation and management. However, my own involvement as both professional developer and researcher in this coaching cycle makes analysis of Kirsten's participation challenging. Kirsten's awareness that I was also studying our coaching work may have prevented her from fully revealing any discomfort or disaffection with me. At the same time, though, this limitation may be offset by any additional insight into the PD facilitator's intentions gained through the inclusion of my own perspective.

Chapter 7: Discussion and Conclusion

The previous chapters employed moments of teacher questioning as the unit of analysis for investigating relational dynamics in interactions between the three case study teachers and their respective PD facilitators. This heuristic of Episodes of Pedagogical Reasoning (EPRs; Horn, 2007) resonated with Remillard and Geist's (2002) notion of "openings"—unanticipated questions or tensions raised by teachers in professional development, which PD facilitators must navigate in the moment. This study has sought to expand upon Remillard and Geist's analysis by looking beyond the facilitators' moves in response to these openings, to the ensuing reaction from the teacher; that is, whether and how the interactions between facilitator and teacher around these moments of tension opened up or constrained the teacher's participation in the PD activities. As we have seen through discourse analysis in the previous three chapters, relational dynamics supported progress for both Bonnie and Kirsten but were less successful for Stacy.

Categorizing Teacher Questions

While analysis in this study has focused on individualized interactions between each teacher and the PD facilitators, it is also important to establish that these relational dynamics are more than idiosyncratic. There are some similarities across the data in the types of questions and tensions that the teachers raise. As such, comparisons between and across the three cases may offer some argument for generalization.

Logistical and implementation concerns.

Kirsten and Stacy both raise a number of logistical and management concerns. During planning sessions about the composting unit, for example, Stacy asks questions such as where to get dirt, whether to focus on one banana peel or the whole compost pile, etc. LP facilitators Janet and April usually respond that the answer will depend on what ideas the students contribute that day. On many occasions, they also offer Stacy a variety of possible options, expressed in the conditional, *you could do...* Their intent seemed to be two-fold: first, to reinforce the fundamental idea of LP as a "responsive" curriculum, that is, that all logistical and instructional decisions will emerge in response to student thinking; and second, to position Stacy with respect and authority for decision making in her own classroom.

In a similar vein, Kirsten asks management questions about when and how to use writing folders, where to keep paper in the classroom, what to do about students who cannot think of a writing topic, etc. On most occasions, I offer a direct answer and then expand to explain the instructional rationale for my choice—for example, explaining that I like to keep students' folders in a place where they are easy to access, so that I can examine students' writing regularly for ongoing assessment and planning. In that sense, I hope to demonstrate that my suggestion—say, keeping students' folders in their desks—is but one possible solution. My intent is to help Kirsten see the choice as a means to end, not an end in and of itself. Within the LP project, facilitators expressed a similar sentiment—that implementation choices should be driven by the project's larger instructional goal, in LP's case leveraging students' productive scientific thinking. In contrast with my tendency to provide

Kirsten with explicit suggestions, April and Janet disfavor offering specific answers or instructional strategies, which they worry could falsely portray that there are simple, correct choices that they know and the teachers need to acquire. Instead, they encourage Stacy—and, indeed, all of the LP participants—to make her own choice, as they believe that any number of pedagogical approaches could leverage productive student thinking. It is important to note that this approach did resonate comfortably for most of the LP teachers, including Bonnie. For Stacy, however, such open-ended responses, paired with her already-existing insecurity, seem to have caused her to feel more uncertain, rather than empowered.

Reform-oriented, standards-based curricula—like both of those examined in this study—depend upon teachers acting as critical thinkers and decision makers. At the same time, certain teachers may feel reassured and comforted by directive suggestions that provide clear expectations about new practices. For example, Kirsten explained:

I like this [writing workshop] book so much because it's really explicit. I wish all PD were like that. Most PD I've had, they're not explicit, so when you go to try something, you're left with a lot of questions, and you don't really know exactly what to *do*. Then, someone comes in your room and tells you you're not doing it right. (Debriefing conference, 02.02.09)

The tension for PD facilitators, then, is how to validate and address teachers' direct requests for advice without falsely implying that there are rigid answers applicable in any situation. As Stacy herself noted, "I know you don't want it to be some kind of cookie-cutter thing."

A similar pattern holds true with advice about instructional practices as well.

For example, we have heard Stacy's repeated requests for a toolkit of "catch phrases"

to help her better support productive scientific conversation among her students. In response, Janet and April resist providing Stacy with the sentence stems she desires because they see it as antithetical to their larger purpose. They worry that such a prescriptive response would undermine Stacy's dedication to the very thing they most seek to promote: to listen deeply to students in the moment and ask follow-up questions that, rather than being pre-planned, emerge from the teacher's genuine desire to understand students' ideas. Instead of providing these sentence stems, then, April and Janet assure Stacy that she already knows how to attend and respond to students' thinking, that they have seen her do this on multiple occasions. And conversation with Janet and April suggests that they do truly believe Stacy has this skill. Their intent seems to be to highlight and scaffold Stacy's existing skill as a means toward helping her develop confidence in this practice. Stacy does not experience their move in this way, however, as she responds, "I still don't believe you." Inherent in Stacy's protestation may lie an implicit cry for more detailed examination or demonstration of this kind of discussion. That is, Stacy may benefit from observing—either in her teaching or that of others, by watching a demonstration lesson or analyzing transcript—what this instructional work looks like and sounds like in practice.

Considering the similarities between Kirsten and Stacy's tensions around classroom management and organization of materials, I was interested to realize that Kirsten, unlike Stacy, does not raise questions or tensions about lesson planning. In re-examining the data, I notice a few reasons why this might be so. First, I see that in almost every debriefing conference, I initiate conversation with Kirsten and Randy

about what they might teach next. That is, I pre-emptively address this issue and may, therefore, eliminate any need Kirsten may have otherwise felt to raise these kinds of questions. For example, during our initial coaching session, I explain:

In the first lesson, you will have some kids who say, "I'm done! I'm done!" And so the next lesson that makes sense that it's about what writers do when they think they're done. So you might want to try that on your own. Or you might want to try, *How to draw hard-to-make ideas*. It depends on how the kids react. There's going to be something that's difficult for them Whatever you decide is the best next step. (01.12.09)

Again, this statement does not come in response to a question from Kirsten; rather, I offer this suggestion unsolicited, with the intention of modeling the practice of planning future instruction based on what the teacher has observed in students. This utterance points to an additional reason why Kirsten may not have raised questions about lesson planning in our interactions: in this literacy coaching project I have chosen to use a published curriculum resource as a guide. Although we are not using that resource as a script, it does provide a structure for Kirsten that perhaps offers the kind of comfort – missing for Stacy—about what to teach next. This is not to say that the Learning Progressions project ought to have offered a detailed, written curriculum guide for teachers- just that for teachers like Stacy, for whom this type of instructional planning often felt overwhelming, having some type of similar structure could have eased her tension in this area.

Some may argue that this discussion thus far points simply toward a need for improved skills on the part of the professional developers, such as providing rationales for instructional decisions and modeling lessons for teachers. I maintain that this is relational work, though, in that effectively addressing teachers' questions and tensions takes consideration of their individual, affective concerns. In choosing

how to respond to teacher solicitations for specific advice, for example, a PD facilitator may benefit from reflecting on the relative level of confidence or insecurity of the teacher, or on her reaction to the facilitator's positioning moves. In this study, we have seen a variety of ways that the PD facilitators have addressed such questions from teachers about what they ought to do:

- A direct, imperative response with a connecting rationale: Do x, because...
- The facilitator's recommendation from her own experience, followed by a connecting rationale: *In my experience, x works well because...*
- The facilitator's encouragement of a variety of options, based on reflection of students' participation: *You could do x or y or z. It depends on what happened today*.
- The facilitator's scaffolding of the teacher's emerging use of these skills:

 We've seen you do this beautifully, so you are capable of increasing and

 improving on this practice.

Relational dynamics and analysis of a teacher's affect may inform a professional developer's choice of a next move in responding to a teacher's question, concern, or challenge. Such analysis will also take into account issues of positionality and power. For example, it is important to both of the PD projects in this study that the facilitators are not seen simply as all-knowing transmitters of knowledge but that teachers are positioned with the expertise to incorporate, modify for their context, and develop independence with new practices. At the same time, though, both Kirsten and Stacy seem to object to this positioning and desire instead that professional developers acknowledge their own expertise and exercise decision-making authority.

And there is a shared discomfort among all of the PD facilitators in this study with being authoritative or directive in our relationships with teachers. This is noted in our discourse patterns of shifting pronouns when discussing lesson plan ideas or decision making for the teacher's classroom. This tension can be particularly difficult for facilitators to navigate, as it then falls, paradoxically, on the facilitators to use their own authoritative positioning to encourage teachers to take on more authority in the relationship. As with Moje's (2000) invocation of Foucault (1997), I contend that others may ascribe power to those in particular positions and that "even attempts to deny power can result in oppressive relations [which] is perhaps the most troubling notion for a stance that calls for closeness, rapport, and collaboration" (p. 28). In order to best leverage teachers' productive participation, then, it is important for facilitators to recognize if or when an interactional move does not seem to be effective—based on the teacher's discomfort, resistance, denial, repetition of questions, or perhaps even silence or changing the subject. They might then reflect on the underlying causes of the teacher's discomfort and select a different approach, such as one described in the bulleted list above.

Concerns about teaching and student learning.

A second category of teacher questions and tensions in this study involves the ways in which teachers challenge the PD facilitators to demonstrate improved student learning or provide effective teaching strategies. Both Bonnie and Stacy, who work in the same school district, share a concern that bureaucratic and administrative expectations—particularly with regard to high-stakes testing mandates—may constrain their ability to implement LP practices. If a responsive science curriculum is

to be effective in their classrooms, they argue, it must not undermine their charge to raise student achievement as evaluated by their site-based administrators. Bonnie initially raises this challenge in the first week of the project, commenting, "This all sounds great in theory, but let's get back to reality." She invokes district demands, pacing calendars, and benchmark tests as necessary drivers of her instructional decisions. Similarly, Stacy notes numerous times throughout the project that she is "weeks behind" and that, though she appreciates the focus on investigation and student talk, "at some point, don't you have to teach them?"

These tensions do not come as a surprise to LP facilitators, who have experienced them in previous projects and have planned for them by design. In its PD pedagogical model, the Learning Progressions project uses a combination of engaging teachers in "doing science" as well as analyzing student thinking in video and transcripts to demonstrate how progress in scientific understanding can result from participation in this kind of instruction. During the biweekly PD sessions, Bonnie and Stacy each share moments of sincere excitement with their own growing scientific understanding and with their students' increased curiosity and verbal participation when they were teaching "the LP way."

This is not just a PD design issue but is relational work, too. Informed at least in part by relational history, affect, and personality, a facilitator's response to a teacher's questions may or may not resonate with the teacher or cause her to feel "heard." For example, in response to Bonnie's "theory-reality" challenge, we saw David acknowledge Bonnie's question, sit down among the group, and ask, "What are others feeling?" David's read of Bonnie in that moment—just the second day of

the LP project—spurred him to those moves, which seemed effective in providing respect and validation to Bonnie and in keeping her engaged. For Bonnie, the "theory-reality" tension gradually dissipates over the next two years as she begins to recognize progress among her students. As she explained near the end of her second year in the project, her teaching of the district's science curriculum has now changed, and she would no longer match her pacing to the demands of the state standardized tests: "I have to make these changes, I can't bulldoze my way through it with them anymore because they aren't going to LET me, for one thing. They're like, 'Well, we're not DONE yet!' We weren't done." Bonnie is able to manage this tension because of her confidence that her students are indeed learning, which she came to recognize at least in part because of her interactions and relational work with David.

Stacy, on the other hand, does not come to a similar understanding. In planning conversations with the 6th grade team, Janet and April's suggestions to Stacy about possible activities in her modules are often met by Stacy with anxiety, exasperation, or numerous additional questions. On many occasions Stacy finds fault in every suggested activity by repeatedly invoking bureaucratic mandates or contextual constraints, such as addressing academic vocabulary or keeping track of student ideas in three separate classes. These anxieties, along with Stacy's desire to please authority figures, seem to interfere with Stacy's openness to facilitators' suggestions. Significantly, this stands in contrast with her partner teacher Dorothy, whose bureaucratic concerns do not cause similar anxiety or impede her willingness to design lessons in the LP modules. This helps us contextualize Stacy's concerns as more internal to her own anxieties rather than as objective realities at her school.

While Stacy perhaps feels her concerns are not truly heard by Janet and April, she, too, contributes to the not listening. Over the course of the LP project, facilitators do not find an effective way to break through this with her. At the end of data collection for this study, Stacy retains significant worries about expectations for student learning that stand in the way of her embracing the LP model:

Last week I looked at my Science journals from the past two years and compared the timeline and content that was covered and when. I was very shocked by my findings. I am not convinced that I have prepared my students as well in the past two years. Can I say that the students were talking and sharing ideas as well as they have at times this year? No, I cannot. (06.09.10)

In this reflection Stacy seems to indicate that she shares the externally-imposed expectations about content and timelines for what she ought to be covering with her students in science. She maintains this overriding concern despite her acknowledgement of increases in students' "talking and sharing ideas." In contrast, during the years of her participation in the LP project, Bonnie has been able to separate out her accountability to bureaucratic mandates from her own convictions about what students ought to learn.

For Kirsten, administrative or bureaucratic presses never arose as a tension in our writing workshop coaching cycle. This may seem surprising, as Kirsten was working in a low performing, urban public school that had not made AYP and was under constant pressure to meet district and state-level mandates. Coming into this project, I was well aware of the school's struggles, having worked there as a part-time staff developer the previous year, and I anticipated that administrative oversight and surveillance of classrooms could impede teachers' openness to our work. My plan to focus on writing workshop, rather than reading or mathematics, was intentional, as

writing is not assessed on the state's high-stakes, standardized tests. Knowing that I would have only a short time span for this coaching cycle, I hoped to maximize our time together building instructional practices in an area the teachers were less likely to feel external pressure. In initial planning conversations with the school principal, I also secured her agreement that she and other administrators would refrain from walk-throughs of Kirsten and Randy's classrooms for the weeks of our work together; I wanted to give the teachers time to try out new instructional practices without fear of evaluation. My attempt here was to pre-empt a potential tension that I anticipated was likely to arise for Kirsten.

Another shared tension, for both Kirsten and Bonnie, centered on complaints that their students were not learning. By extension, they are implying that the instructional approach presented by the respective PD projects may be problematic, or that their own implementation is not effective. One strategy that seemed effective in alleviating both Kirsten and Bonnie's concerns about teaching and learning involved looking closely at student work. For Kirsten, this issue presented multiple times. On one occasion, for example, Kirsten asks about Octavia, a work-avoidant student who on that day had gotten another student to do her writing for her. After looking at her paper, we see that Octavia has composed her own story *idea*, and then we make plans for prodding her into writing over the coming days. With this move, I hoped to accomplish a few goals: minimizing any sense of blaming the teacher for the student's struggles, modeling a nonjudgmental stance of curiosity in planning next steps, and demonstrating a willingness to share accountability with the teacher for improving students' learning.

In another notable example, Kirsten presents her problem with Makhaia, whom she describes as "so brilliant and that makes me so frustrated, like he should have had two pages written by now." After examining his work—and noting the ways in which his writing is actually more sophisticated than that of many of his peers—Kirsten actively participates in discussing how we might use Makhaia's writing as a model for the class. We also then discuss specific strategies to support continued improvement for this student's writing, a practice Kirsten later began taking on independently. Implicitly, then, Kirsten confirms her recognition that Makhaia's work from that morning is commendable and that this concern has been resolved for her.

In a similar episode, Bonnie raises her own frustrations that, near the end of the water cycle module, her students are "not learning anything" and "don't have any better understanding of [evaporation] than they did when we started." Sharon responds, "OK, so let's address that," and, "So let's be specific about what's happening in your class... What do you want them to know?" This response acknowledges Bonnie's concern as a valid topic for discussion; however, by placing the focus on Bonnie herself, I speculate, it may have caused her to feel vulnerable or defensive. Through discourse analysis of this episode, we have seen that Sharon's move to ask Bonnie about her goals for students' learning does not immediately engage Bonnie in addressing her problem, whereas David's examination of one student's work does. David makes a different move to re-engage her later in the conversation first by validating her emotion: "I hear the most frustration from you, [Bonnie]... what are your students thinking?" In response to Bonnie's extreme frustration, David repeatedly uses value neutral language—"it's an interesting thing,"

"can we talk about the evidence of the student's thinking?", "I have a different possible interpretation of the data"—and offers an analysis that demonstrates the student's productive reasoning. This seems to defuse Bonnie's anger, as she agrees with David's assessment and then celebrates the students' work from that day: "it was awesome... they were really thinking."

In these cases, PD facilitators look closely at student work with teachers and point out ways in which a student has, in fact, learned something or demonstrated progress. Or, with regard to Octavia, that we have a plan and fully expect her to demonstrate progress in the near future. In retrospect, this strategy served to validate the teacher's question—in a sense, saying, you're right to be concerned about lack of progress for students—and then leveraged that concern by modeling a lens for analyzing student work, looking for evidence of learning, and planning for next steps. This is not, of course, a revolutionary practice; many professional development programs advocate looking at student work in order to establish evidence of learning. As these examples with Kirsten and Bonnie demonstrate, analysis of student work can also have an important trust-building benefit in the relational work of PD. It is understandable for teachers to feel frustrated if they do not observe progress in their students. But for many teachers there is a reasonable worry that they will unilaterally be blamed for such lack of progress, and that their own effectiveness may be called into question. Placing attention on students' work can reduce the risk for teachers that their performance is going to be scrutinized and evaluated. They may then engage in interactional work with professional developers with less fear of judgment and more openness to examining instruction.

Guiding Questions in Building Productive Relationships

The strategy of selecting episodes in which teachers have raised questions or tensions has allowed me to examine moments of particular concern—and, often, heightened affect—for teachers. Building on the work of Horn (2005, 2007) and Remillard and Geist (2002), I theorized that interactions around these moments of tension would serve as critical cases for analyzing the impact of relational dynamics on teachers' participation in PD. In looking across cases at the types of tensions raised by the focal teachers in this study, I realize that three guiding questions have influenced my analysis:

- Does the teacher feel her questions get answered?
- Does the teacher feel competent to enact this instructional approach? (Is her sense of self-efficacy maintained or encouraged?)
- Does the teacher recognize progress in her students?

If relational dynamics and a teacher's participation in PD result in affirmative answers to all three questions, I speculate, then we may assess the teacher as having made productive progress. Affirmative answers to fewer than three of the questions, on the other hand, may indicate a misalignment in the relational dynamics and interactions between the teacher and professional developer.

For example, we would answer in the negative on all three of these questions for Stacy. Her repetition of similar questions and problems over two years implies that her questions are not getting answered. She expresses more than once that she needs help orchestrating science talks and encouraging productive student thinking, and that she does not believe facilitators' assessments that she can do this. In terms of

self-efficacy, then, we would say that Stacy doubts her ability to reach this goal of teaching responsively, that her interactions in this project have not encouraged in her a stronger sense of self-efficacy. And she has indicated that she sees even less learning among her students after her participation in this project than before. But realigning Stacy's concerns and desires with the goals of the LP project would not be easy. The tension around Stacy's participation has been that facilitators worried that answering Stacy's questions—in a way that she would feel they'd been answered—would compromise the core beliefs of the project and would, ironically, negate any possibility of her enacting the LP instructional approach or causing progress for her students.

But facilitators may not have to answer Stacy's questions by giving her the kinds of directive activities or tools she explicitly requests. Perhaps a closer look at the desires underlying her questions could have helped professional developers identify an alternative approach in responding to her concerns. That is, as Stacy has presented her own feelings of inability to implement responsive teaching practices, she may have meant, "I can't imagine how this kind of instruction could work with my students in my classroom setting." An effective response, in this case, might be for facilitators to demonstrate activities or tools in action, for example by modeling science discussion lessons in her classroom. Such a response may also have built her self-efficacy by giving a clearer demonstration of what responsive teaching looks like and offering smaller, scaffolded steps to engage Stacy in believing she might enact this practice successfully.

For Kirsten and Bonnie, we may give affirmative answers to each of these three questions. The ways in which PD facilitators interacted with Kirsten and Bonnie seem to have effectively addressed the tensions underlying the questions and challenges they presented. Meaningful, individual relationships between Bonnie and David, Kirsten and Carla supported both Kirsten's and Bonnie's engagement and belief in their abilities to enact the practices promoted by the respective PD projects. For example, one of the reasons that Kirsten was able to recognize the progress that some of her more challenging students were making in writing was a result of her relationship with me, in which she had become open to my feedback; similarly, when Bonnie complained that her students "were not learning anything," she trusted David enough to listen to and accept his interpretation that they were in fact making progress in their thinking. And in fact, by the end of each project, both Kirsten and Bonnie begin to answer their own questions, thus independently taking on the skill of normalizing problems of practice (Horn & Little, 2010).

Reflection on the three guiding questions, then, provides a useful frame for determining whether or not a teacher has made progress in a professional development project. These are yes/no questions, which by themselves can tell us only whether progress has been made. Close analysis of PD interactions between teachers and facilitators, as we have seen in this study, also allows us to address *how* and *why* – for example, how and why Stacy's questions were not answered for her in the LP project. With this insight, we can begin to unpack the ways in which relational dynamics have been consequential for each teacher's participation.

Returning to the original research questions for this study, then:

- What concerns, questions, or tensions do teachers raise in professional development?
- How are these tensions presented, affectively, by teachers?
- How are these concerns negotiated between professional developers and teachers in PD interactions?
- How do issues of power and knowledge affect the negotiation of these concerns?
- How do these negotiations open up or constrain teacher participation in PD and influence opportunities for teacher learning?

Discourse analysis of episodes between the three focal teachers and their respective professional developers has addressed these research questions. Close attention to both verbal and nonverbal discourse moves in PD interactions has indeed given us a window into the ways in which relational dynamics influenced Bonnie, Stacy, and Kirsten's participation. And discussion across cases has begun to help us determine some patterns for potential generalization.

What, then, might we take from the three focal cases in this study to support the work of professional developers in helping to engage teachers? Most simply is empirical confirmation that relational dynamics do matter to the quality of teachers' participation in PD. What practitioner literature has touched upon—with regard to the importance of minimizing resistance and building trust with teachers in PD—is operationalized here through close discourse analysis of interactions around teachers' questions and problems. There are a number of ways that professional developers or

other stakeholders might transpose this study's findings into their practices supporting teacher learning.

Implications

Overall, I recommend that professional developers engage in some of the same kinds of analytical work that were conducted for this study. Underlying this recommendation is a call for explicit attention to relational dynamics in the *preparation* of PD facilitators. We can expect that PD facilitators will need support and practice in learning to respond productively to the kinds of questions, concerns or tensions that teachers raise in PD. Similarly, the preparation of PD facilitators may include—for example, through video case studies, transcript analysis, or role play—activities that build their skills in recognizing and addressing teachers' underlying questions, while moving teachers toward affirmative answers to the three questions presented above.

While it may not be realistic to require that PD facilitators study sociolinguistics or become discourse analysts, I do suggest that they undertake systematic reflection of the interactions in which they and their PD colleagues are participating. There are two primary areas in which I believe this reflection by PD facilitators may be most fruitful: pre-empting likely teacher tensions and conducting video or transcript reviews of PD interactions. An *a priori* assumption of this study is that teachers participating in PD will encounter problems, concerns, or tensions, and that these moments of tension can offer productive opportunities for growth (Remillard & Geist, 2002). At the same time, though, there are certain predictable tensions that PD providers may be able to address more quickly by preparing for them

in advance. One of these areas is helping teachers to see how the new instructional practices will look in action in their own or similar classrooms. For Kirsten, this happened by design in our coaching cycle through my demonstration lessons in her 2nd grade classroom and our visit to another school. And while Bonnie seemed comfortable implementing the LP module and getting feedback from project facilitators, Stacy may have benefitted from more explicit modeling of responsive teaching in her own science classroom.

Another predictable area of tension arises from teachers' desire (and, to be fair, their accountability) to see growth in student learning. For Bonnie, this tension was resolved as David provided convincing evidence of a student's progress in reasoning. However, that interaction was spontaneous. PD facilitators may also consider preparing for such tensions by designing opportunities where teachers are likely to see student growth, for example visiting classrooms and observing video of students (over time) who are making progress in classrooms with similar demographics to the participating teachers, or having facilitators conduct demonstration lessons where teachers can observe progress in their own students.

Facilitators may benefit from collaborating with colleagues both before and during the implementation of PD projects to predict likely areas of teacher tension, and to brainstorm how they might address them. For example, in the literacy coaching cycle, I observed little progress for Randy, the first-year teacher who was on the grade level team with Kirsten. Had I invested more attention to his concerns and questions at the outset of our PD work, I may have been able to better predict and mitigate his tensions. In reviewing the transcripts, I see that during our initial

conferences Randy expressed a number of generalized concerns about student behavior, desires to create a calm classroom environment, and "establishing the expectation that they [the students] have to have like a certain amount of stuff done" (01.12.09). In addition, I notice that in the numerous interactions around questions that Kirsten raises in the coaching cycle, Randy participates little to none. That suggests to me that he does not feel comfortable or prepared to add anything to those conversations, or that Kirsten's needs are so different from his that he feels unable to contribute. Looking at the transcripts with his potential growth in mind, I am beginning to speculate that Randy might have benefitted from some individualized planning and coaching time dedicated to addressing his specific concerns about classroom routines and student behavior.

Another area for facilitator collaboration would involve systematic reflection on teachers' presentations of problems during PD sessions. As Remillard and Geist (2002) explain, moments where teachers raise questions are openings that represent "tensions among competing goals" and that

facilitators need to learn to uncover and understand the tensions underlying openings. At the same time they need to have opportunities to... understand the range of tensions at play in any one opening. It would also involve helping facilitators expand their repertoires within an opening. (p. 30)

Occasional videotaping of PD activities may provide opportunities for future review and analysis, in particular looking at teacher affect and relational dynamics between teachers and facilitators. Including colleagues in this work may open up new insights that facilitators working directly with those teachers may not notice. As Davies and Harre (1990) explain,

We have shown that what seems obvious from one position, and readily available to any other person who would only behave or interpret in the correct way, is not necessarily so for the person in the 'other' position. The relative nature of positions not only to each other but to moral orders can make the perception of one almost impossible for the other, in the relational position, to grasp.

That is, an accurate interpretation of a teacher's underlying tensions may not be "readily available" for the facilitator conducting the PD activities to "grasp." As was afforded by the discourse analysis in this study, collaborative viewing of video or review of transcripts may allow facilitators to identify teachers' concerns or tensions and make plans to address them.

The three guiding questions presented in the previous chapter may provide a framework for professional developers undertaking this analysis: Do the teachers feel their questions (explicitly stated or underlying) are getting answered? Are teachers coming to feel competent to enact this instructional approach? Do the teachers have opportunities to recognize progress in their students? As facilitators conduct this reflection—particularly with regard to any teacher who exhibits resistance or is not making progress—they may be able to identify new strategic or relational moves to better align with the teacher's needs and to support his/her openness to learning.

Limitations

This study has addressed the participation and progress of three teachers by examining interactions around the problems each raised in PD. The heuristic of analyzing EPRs, however, is dependent upon teachers verbalizing their concerns.

Identifying—and then seeking to resolve—areas of tension for less verbal teachers is a challenge left unaddressed by this study. For example, two of Bonnie's colleagues

who did not express any concerns or problems during their LP participation left the project after only one day. And some other LP teachers were simply less verbal than Bonnie and Stacy, and therefore were less desirable as focal teachers for this study. As a research issue, additional sources of data—perhaps journal writing during PD sessions or email communications— may provide an opportunity to investigate this type of participant. It is also worth considering, from a practitioner standpoint, how professional developers might intentionally build in non-threatening opportunities—such as partner sharing or exit tickets—for less verbal teachers to share any concerns.

A second limitation has involved both logistical and relational challenges in incorporating participants' own intentions and perspectives into analysis of the data. While stimulated recall interviews occurred with all three focal teachers, I ran into difficulties soliciting similar feedback from the LP facilitators. This was largely a logistical challenge of time and place, as stimulated recall interviews became less and less feasible as time passed after initial implementation and data collection. Additional insight into facilitators' intentions and reflections would add credibility to the analysis.

In a study of relational dynamics, some of the participants may also have felt discomfort in offering honest feedback to me, the researcher, because of our personal relationships. As discussed in chapter six, my involvement as the literacy coach may well have caused Kirsten to self-censor her reflections. In the LP cases, while I did not know the teachers, I did have close working relationships with the faculty, having served as a research assistant on that project for multiple years. An added complication, therefore, comes in the upending of power and positioning as I—the

graduate student—may be seen as critiquing my professors' work through the discourse analysis. In considering how I might then conduct their reflections on the selected episodes, I also felt distinctly uncomfortable about potentially drawing attention to some less-than-successful PD interactions. In this type of study, employing a less well-known researcher to conduct the interviews may allow participants (and researcher) to feel comfortable sharing comprehensive and honest reflections.

An additional limitation relates to the number of people presented in the episodes under analysis, as this study has examined relationships between individual teachers and one or two PD facilitators. For the most part, though, these interactions occurred among other participants as well, in groups of anywhere from three through twenty. The Learning Progressions project, for example, included twelve elementary and middle school teachers, five science education faculty, and multiple graduate students. On many occasions, teachers spoke directly to each other in sharing advice, offering their own opinion, or raising additional questions. Within this group, differences in participants' years of expertise, levels of education, content knowledge, employment status—among other sociocultural and personal characteristics suggest the existence of complex dynamics in power and positioning. The literacy coaching cycle included myself and Kirsten, along with Randy, a first year teacher with markedly different concerns. In both projects, PD facilitators measured their responses in terms of how they might be received by the larger group, not solely by the focal teacher. The influence of additional participants—both teacher colleagues and facilitators—is worth consideration that is beyond the scope of this study.

Professional development rarely takes place in one-on-one interactions, and thus more complex group dynamics are often at play when fully considering the influences on a teacher's participation.

Next steps

At the conclusion of this study, numerous areas for future research are apparent. First, as mentioned above, a systematic examination of larger group dynamics in PD interactions would add to the considerations offered in this study. Another compelling research project would not only examine relational dynamics within PD activities but also could follow or revisit teachers over time in their classrooms; such a study might search for correlations between particular relational dynamics or teacher participation patterns with any changes in teachers' classroom practice.

This study has made some headway in determining how relational dynamics are consequential for teachers' participation in professional development. Continued investigation of relational dynamics with teachers in different contexts and various types of professional development projects could expand the findings shared here. And an additional next step could be an intervention study constructed to examine systematically the recommendations from this study. PD facilitators would seek to address teachers' tensions through specific attention to relational dynamics and the intention of creating productive, trusting relationships that minimize resistance and open teachers to learning opportunities.

Conclusion

Teacher professional development is considered a primary mechanism for improving learning opportunities for students. The contention of this study has been that teachers are more likely to participate productively and learn from PD when relational dynamics address teachers' tensions in nonjudgmental, nonthreatening interactions. And we have seen that teachers' questions can require individualized responses from PD facilitators, based in relational history and with consideration of affective concerns.

The final word about affective concerns, relational dynamics, and desires for professional growth in PD goes to the three focal teachers:

"I want to take what I've got out of [the PD] and tweak it to best fit me and my situation. And I feel like this last year, that's what I've done. And sometimes I think when we get back in the [LP] class I feel like because I've stepped out of the class, when I get back I'm trying to squeeze, fit back into the box cause I don't think I fit in the box. And then sometimes I think it comes across as being bitchy, and that's not my intention, I've kind of taken the project in to a different level with me, and then trying to get back into that box, I don't fit. So, that's what's hard."

-Stacy

"For professional development, teachers need to know, what is it that you really want us to accomplish? What is it that you're looking for? And value what they <u>are</u> doing, and then point them in the direction of ways that they can take what they're doing and improve it."

"So kind of like what we're doing here... I think that whole idea of respect:

Know that I'm passionate about what I do and I <u>want</u> these kids to do better

and so do most of the people I work with. That has to be the premise on which
you guide yourself."

-Bonnie

"I feel like a big contributor to my lack of motivation [is when] not only am I not getting any feedback, the feedback that I do get is kind of textbook, 'Your objectives are not on the board.' ... It's very generic, that's what I'm saying...You know, it's just very generic, and that makes you feel like you want to do a generic job, you know?"

"I knew that when you were sitting there, when I was doing my demonstration lesson, you were going to be giving me feedback on which direction to go in, and it wasn't like, wasn't scrutinizing and it wasn't belittling. It was just very supportive. It was just like, well, why don't you try this. It didn't feel like pressure. It felt like, what are we going to do to make this the most excellent."

- Kirsten

Appendices

Appendix A: Structure of the writing workshop

Minilesson- The teacher gathers the children close on the carpet for 10-15 minutes to tell them what the upcoming lesson aims to teach, to explain how this lesson fits with previous lessons, and to convey why the teaching matters. Each minilesson includes the following components:

Connection- Children learn why today's instruction is important and how it relates to their prior work. They hear the teaching point that crystallizes the lesson.

Teaching- The teacher shows children how writers go about doing whatever is being taught. Usually this involves a demonstration, which the teacher sets up and explains.

Active Engagement- Children are given a chance to practice briefly what has just been taught. The teacher scaffolds their work so they can be successful.

Link- The teacher crystallizes what's been taught, adding it to children's growing repertoire. Children are reminded that today's lesson pertains not only to today but to every day. The teacher often summarizes conditions under which a child would reach for this new knowledge.

Writing and Conferring- Students generally have 30-40 minutes to write, using a variety of materials and tools. They may be at various stages of planning, drafting, revising, or editing, though all students are usually writing within a particular genre that has been selected by the teacher as the focus for a unit of study. The teacher confers with individuals or small groups of students, coaching them to improve their writing with targeted strategies. Conferences generally follow this pattern:

Research- The teacher observes the student working and often listens as the student responds to the teacher's question, "What are you working on as a writer?"

Decide- The teacher quickly synthesizes what she has learned during the research phase and decides what to compliment the writer on, and what one writing strategy to teach that will best help this student progress as a writer.

Compliment- The teacher compliments one specific thing that the writer has done well and names that thing in a way that helps the student replicate that strategy in future writing.

Teach- The teacher explicitly teaches the child one thing that she hopes will help the student in future writing. The teacher may use demonstration or guided practice. The conference ends with the teacher reiterating the teaching point.

Teaching Share- The lesson always ends with a whole-class share session, which provides one more opportunity to revisit the teaching point from the minilesson or invoke another important strategy that the teacher observed during writing time. Usually the teacher will highlight one child's work as a model that other students could follow.

Excerpted from:

Calkins, L. (2006). *A guide to the writing workshop, grades 3 – 5.* Portsmouth, NH: Heinemann.

Appendix B: Discourse analysis transcript

 5^{th} grade group (2^{nd} half of a Wednesday LP meeting) 10.14.09

Attendance: Sharon, Victoria, Jen, + David on ichat.

Bonnie, Carolyn, Donna, Chris (who leaves early) & Kerri

I'm using this episode as evidence that relational dynamics in PD interactions are significant to the quality of teachers' participation, in opening up or constraining teachers to learning opportunities. I think this meeting is good data for me for 2 reasons:

1. Bonnie enters really, really frustrated b/c her kids "aren't learning anything" and leaves the meeting feeling instead that they are showing progress toward scientific goals that both she & the project care about.

There's an interesting dichotomy btw Bonnie's interaction w/ Sharon B and w/ David that I think can allow me to explore how relational dynamics are in some senses particular to the individuals involved. (Questions for the group: * using low inference descriptions of behaviors, tone of voice, etc?)

* *

[00:03:56.15] SB: When we left off last time we were talking about evaporation, and what is evaporation? [00:04:05.00] Sharon: When we left off a few minutes ago, we were talking about clouds and how it is that rain happens, and another piece that's come up in Chris' class this time, but I've seen it come up in other places too, is what is steam and what is water vapor, and are they the same or different. So

- Sharon opens the meeting. (had it been decided ahead of time that she would facilitate?)
- Sharon making a bid to do a science talk

Donna: I think that's great.

Sharon: [..] which ones, which one would you guys like to talk about?

Donna: We can only do one? Sharon: I'm free until bedtime.

[00:04:40.16] Bonnie: Well, I actually/

• Bonnie trying to interrupt. Her tone is serious, in contrast with David and Sharon's jokiness.

David [on ichat]: I'm game.

• I've seen David characterize science talks before as "game" or "play" thinking about how that gets interpreted by the teachers. Here, Bonnie does not want to "play".

Carolyn: not you.

[00:04:45.17] Bonnie: I actually wanted to discuss the issue that I emailed you about. I mean, if we're going to be practical, which we're obviously not being, at all, [David laughing] um

 Bonnie's tone: louder volume, very frustrated, urgent tone that cuts off overlapping speech from others • Bonnie challenging Sharon's authority to set the activity: she's saying it would "obviously not" be practical to have a science talk right now

Carolyn [sotto voce]: Wait a minute, I have to hear this. [00:04:59.13] Bonnie: I don't see/ I can't take this much time on just evaporation, I can't. I'm already 3 weeks into it, and we've moved no further, and they don't have any better understanding of it than they did when we started.

- Bonnie describes her frustration as about time and goals for student learning
- B's iterations of [n't]; repeated negative phrasing

Sharon: All right, [so]

[00:05:13.07] Bonnie: [So now] I'm frustrated. After looking at their comments, they're no better than where we were. So, to me, we're not/we're not. Yeah, they're having a great time, don't get me wrong. They're having a great time. They think this is all cool. But they're not real/ to me they're not learning anything/

- Bonnie interrupts, co-opting Sharon's use of the word "so"; Bonnie's not ready for Sharon to address her problem yet.
- She describes her students' work as showing no progress; by "not learning" she seems to mean that they do not have solid conceptual understanding (i.e., what FOSS or curriculum standards expect) of evaporation
- Bonnie describes students "having a great time" disdainfully. The fact that students are engaged and enjoying their participation is seen by Bonnie as unconnected to learning science.

Sharon: All right, so/ Bonnie: and I'm frustrated.

• Sharon's made 2 failed bids to speak, but Bonnie won't let her until she's completely finished describing her frustration.

[00:05:32.13] Sharon: OK, so, let's address that. What do you want them to know.

- Sharon directly addressing Bonnie's concern. Wanting to validate Bonnie's frustration?
- Sharon showing a willingness to suspend her initial plan in favor of deferring to Bonnie.
- Use of 2nd person pronoun "you"—"what do **you** want them to know" seems to position Bonnie with expertise and authority for determining the goals of her students' learning,
 - o a move that might confer agency or respect
 - o alternately, Bonnie could read it as signaling distance or disapproval—that is if she perceives that Sharon/LP already know wants they want students to know but are withholding asking a "teacherly" question that Sharon already knows the answer too, that Bonnie could get right or wrong.

[00:05:35.28] Bonnie: I want them to/ to have a sense that when you put/ when you spend time in something, and you're thinking about something, that your thoughts should grow. And they're n-/ thoughts aren't growing.

• Bonnie answers without pause, but the multiple stops & starts may indicate that she's not sure what to say. Does she feel put on the spot?

Sharon: So

Bonnie: Their understanding is not developing at all=

[00:05:50.09] Sharon: So let's be specific about what's happening in your class. So that's a great general goal, we want them to grow. OK. So what do you want them to know about evaporation? [...] What do you want them to know?

- "great general goal" Sh rewinds—trying to be complimentary.
- Sharon may be unsatisfied with Bonnie's response—or, Sharon doesn't know what to do with it. So she asks for a more specific, content-related goal. Why?
 - Does Sharon think that she'll be able to help Bonnie see that her students ARE making progress toward better understanding of evaporation?
 - o It seems like a more "teacherly" or patronizing question

[7 sec. silence]

[00:06:13.25] and it's not just Bonnie, it's all of us. What do we want the kids to know?

• Sharon sees that Bonnie is not going to answer. She turns the question to the rest of the group.

[00:06:20.14] Donna: we want them to know that/

• Is Donna trying to help Bonnie save face, or is she unaware of how Bonnie is feeling & jumps in b/c she's genuinely interested in the topic?

David: could/

[Sharon waves off David]

• Power dynamics btw David and Sharon—she wants to keep facilitating right now & sees David's interruption as possibly taking the conversation off on a (unproductive?) tangent—and David accepts her waving him off. He too stays quiet for the next several minutes.

[Bonnie does not speak for the next 18 minutes. Intermittent eye contact with Donna, looking at papers (student work?) in front of her, some nodding while Carolyn talks] [David silent]

[Sharon asking same kinds of questions to Donna, Carolyn: "What do you want them to know?"]

[00:12:40.21] Sharon: What do you want them to/ I genuinely don't know what you want them to know, when you say, it's a gas...

...

[00:21:46.13] David: I have trouble/I have trouble saying what the goal is I want for the students until I hear what they are. What are THESE students doing right now?

When I hear what these students are doing right now, then I can start to have a goal for THESE students for how I want THEIR thinking to progress... [00:24:04.23] David: So I guess what I'm asking is if we could pick up some thread of student thinking [..] and I'm most/ I guess Bonnie was saying you're feeling/ you're in a/ I hear the most frustration from you, Bonnie, and it might be to pick up a thread of what are your students thinking, where are they, and think, what would progress be for them?

[Bonnie nods]

[00:24:30.01] which I think IS having the conversation that Sharon was introducing originally.

- This whole talk turn v. long (almost 3 min.); David's explanation with lots of rewinds and rephrasing, as he works to get B back in conversation.
- David trying to re-engage Bonnie. Empathizing with her, "I hear the most frustration from you, Bonnie." Also, perhaps he's sensing from her silence that she is still feeling this frustration.
- "I have trouble": Implicates himself that this is hard for him too; aligning himself with Bonnie.
- David also trying to help Sharon save face; saying that "Is having the conversation that Sharon was introducing"—David implying that he is not contradicting Sharon; power issue between David and Sharon

Bonnie: mm-hmm

[00:24:36.29] Sharon: I think Bonnie's students are probably having some progress and I/ that's why I wanted to um [..] talk about what it/what her expectations were, I suppose um but also what/ what her students seem to be learning already. So I don't /

• Repetition of 1st person pronoun "I"—Sharon justifying (to David?) how/why she approached Bonnie the way she did earlier. Perhaps positions her as defensive/subordinate to David; that is, Sharon interprets David as questioning her.

[00:24:55.03] David: What are/so, can we do that? What are they thinking? Where are Bonnie's

[00:25:00.28] Sharon: Bonnie will have to tell us

[00:25:03.26] Bonnie: I/ I don't know. I don't know. Honestly, I don't know. After I read this [leafing through student papers; Carolyn picks up the pile], I don't know. They certainly aren't using what we've been talking about, and it's/ I think they would have written EXACT same thing had I given this to them the very first day.

• Bonnie willing to re-enter the conversation, but with short, choppy sentences. Repetition of "I don't know." She's perhaps implicitly asking for help with how to "see" what her students are thinking in this student work. Reiteration (from beginning of this meeting) that they would have written the same thing on the first day of the unit—this is the same concern she presented at the start of this meeting; indication that her question/problem has not yet been resolved.

Sharon: So you're going to have to tell us what "this" is.

Bonnie: It's that/ it's your opening question.

• 2nd person pronoun "your" in "It's your opening question" signaling Bonnie distancing herself from LP opening question, which she used for her assignment

[Carolyn has stack of student papers, reads assignment and starts looking at student work]

[00:25:37.13] Bonnie [shrugs shoulders]: and they're still back to water/ the sun heats up the water, so it BOILS. [shrugs]

Sharon: That's what everyb-

[00:25:45.02] Bonnie: not EVERYone, but there's still a sense/ a strong sense of, a lot of them are saying it soaked into the ground. Somebody drove over it. So, NOW after reading this, I'm frustrated. With what I see in the CLASSroom, uh, [....] [00:26:05.11] what I see as a thread, they LIKE this whole idea of exploration on their own, ok? They ARE exploring. They DO have an idea of [...] there is SOME way they can show that evaporation is occurring. There IS some way they can show that.

- Bonnie interrupts Sharon; she's willing to acknowledge that it's only coming from some of the students.
- Bonnie acknowledging that some learning (about evaporation) is happening for her students, but she does not see them showing that in this assignment.

Sharon: They LIKE the idea?

[00:26:27.01] Bonnie: Well, that's what they're trying to show right now. That's their experiment/ the [question was

Sharon: [evaporation]

[00:26:32.21] Bonnie: correct. The question was, how can you show that evaporation is occurring? [turns toward Jen] And they've got some very good ideas. They've got some very good experimental ideas, and they've got them ready to go. [..] But where they're going to go from HERE is/ I'm not sure what to/ what it's going to do from here.

[00:26:53.03] David: There's a thing that I don't understand, and it's very practical. What/what Carolyn's looking through right now is something you just gave them recently?

- David has been quiet for the last several turns of talk; he brought Bonnie back into the conversation but then let Sharon interact. Another example of David trying to show respect for Sharon's authority? Trying not to undermine her?
- David re-enters here by asking Bonnie to clarify what papers she's looking through. I believe a genuine question on his part, but also effective here in moving into a more objective realm—a question Bonnie can answer factually, with no threat of fear or defensiveness.

Bonnie: today. TO-DAY.

David: Today.

Bonnie: just today.

David: so and the question that was posed to them is what happens to the puddle?

[Bonnie: mm-hm] [Carolyn: yes.]

[00:27:10.10] David: so, so, there's just/ now/ so it's an interesting thing, it doesn't fit with what you've been hearing them say in class, is what you're saying/

Bonnie: mm, no

David: they SAY these things in class, but it's not appearing in writing.

Bonnie: No. not at all.

David paraphrasing Bonnie's presentation of the problem. Whereas
Bonnie's been calling this problem "frustrating," David calls it "interesting."
David reframing/ taking a (more neutral) stance of curiosity in contrast
with Bonnie's negative evaluation of the situation

[00:27:24.12] Sharon: Well, there COULD be a problem with the assessment. I mean, somehow, it didn't trigger (David starts to interrupt) the knowledge that they've been developing.

• David's interruption: he's perhaps worried about Sharon's judgment of calling B's assessment a "problem"?

[00:27:35.05] David: is what I'm thinking, too, is that/ is that, Bonnie, it's possible this might be a topic/ I mean, I'll tell you, god. I had it happen to a group of high school students

• D telling a story about himself as a teacher; Ist person anecdote, aligns himself on similar plane/positioning as Bonnie

Bonnie: (sotto voce) mm-hmm

[00:27:45.26] David: where they were having these FAbulous conversations, and then/ and then something happened that I didn't even really pick up on, and I found them copying over each other's answers [..] and I asked them, "WHAT are you DOing? We've been doing so well in here and suddenly you're copying over/ what is HAppening here?" and they said, "yeah, we wondered why you were making us do this." [..] and I said, "WHAT about what I've done is making you do this?" and so I found that it had nothing to do with their physics understanding. I had accidentally tapped into/ something that I had said had CUED them into a school routine that they just adopted the school routine and wondered why I was changing the way I was teaching. And I found out that that/ and I could say to them, "Oh no, I didn't mean to say that, I didn't mean to do that." I wonder if because it's in writing, this kind of assessment/ you might even have as a question for them, "Why is what you've put in writing not reflecting your conversations? We've had all these conversations about other possibilities, and I don't see it in writing."[Bonnie looking directly at David, nodding and subvocalizing mm-hmm throughout.]

- David aligning himself with Bonnie as a teacher who has had a similar problem himself. He also implicitly implicates himself as FALLIBLE. This may defuse Sharon's interjection that Bonnie's assessment may have been a "problem" which Bonnie might interpret as a criticism of her.
- Bonnie visually engaged with David—hard to say if his story resonates with her, but she is certainly listening actively.

Carolyn, you have something to say.

[00:28:58.03] Carolyn: I also think it depends on what you expect to find because as I'm reading these, there's things that I'm going, oh my gosh, what a cool thing, and had they elaborated on it, I would know that they knew even more. [00:29:10.24] This one says 'I think most of it just evaporated into the air but some sunk into the ground.' My kids actually got test tubes, put some water in it to see if it would actually go through the dirt, and when they found the water droplets at the top as well as the dirt wet, they're going, 'ok, it goes both ways.' So, this child know that if it's on the dirt, it IS going both ways. 'Sometimes when a car drives over it the puddle spreads out and dries up quickly.' This child's saying if it spreads thinner, it's going to evaporate faster. But he's not articulating it that way, he's using his own language. [00:29:44.21] [Carolyn continues in this fashion, reading from student papers & commenting on what she sees as the reasoning]

[00:31:34.13] Carolyn: So, looking at the sense-making, there might actually be more in here than you think.

• Carolyn taking up the work David hopes Bonnie will do.

[00:31:41.02] Bonnie: OK, well take this one. Wow, am I having a deja-vu here. Take this one, though. This little girl MADE a rain chamber. She MADE a rain chamber. That's what her experiment was. And yet NONE of that is reflected in here/

 Bonnie's tone of frustration just like when she first spoke at the beginning of the meeting. Provides some indication that she feels that her concern has not been satisfactorily addressed yet.

[00:31:57.27] David: Would it/ can you read what she says?

- David wants to hear the actual student data rather than letting Bonnie talk ABOUT the work.
- Again, moves the conversation to a more objective (safe) rather than affective or interpretive (and therefore risky) realm; Bonnie can participate just by reading from the student's work.

[00:32:24.20] Carolyn: It says, 'I chose this diagram because when you're boiling water, you see bubbles. That is from the heat of the stove. Then if you put your hand over the boiling water and keep it there for one minute or two, then you could feel your hand'-- [??] talking about this blowing it-- 'your hand all sweaty. That is from' and she puts an arrow over to the puddle/

Jen: Ba/ no, turn the page. It's on the back side.

[00:32:49.01] Carolyn: OK. 'Heat of the stove and is making the water evaporate.' [00:32:53.10] So she knows that heat's getting to it and is sending it up. And then she's got the puddle, she's got these rays coming up, and it says, 'there is heat on the ground, which is boiling the water because of the heat on the ground and the sun, it boils the water turning it into clouds. Heat from the sun.' and she's got the sun and showing the heat.

[00:33:14.11] David: OK, so so, BO:nnie

Bonnie: so/ OK, go ahead

[00:33:18.04] David: can we talk about the evidence of the student's thinking in that/ in that example? Is that/ that's an example that's frustrating you.

• David validating Bonnie's frustration. Yes, it's OK from his perspective that she is feeling frustrated. He asks for more information from her, suggesting he'll need to know more about why it is frustrating.

[00:33:24.26] Bonnie: Yes. Because of what her exPERiment was. She didn't connect it to what she DID at ALL. Her/ she made a cloud chamber. She made a [..] a container similar to what we did last year. They put water in the bottom of the container and then put a dish, covered the top of the container, and then put a rock in the middle, so all the water will condense at one point/

• Syllable emphasis and complaining tone that Bonnie's been using since the opening of the meeting.

David: yep yep yep

• David's active listening, and with validating language, "yep" – more affirmative than, say, something like "mm-hmm," which would simply indicate that he's listening; "yep" suggests also his agreement with her.

[00:33:55.15] Bonnie: and drop back into the dish underneath. Yet she doesn't reFLECT that in her thinking at all. So I'm thinking, why are we doing all these experiments if it's [not

• Bonnie challenging LP approach—she has been spending so much time on water cycle, doing "all these experiments" in the module without seeing significant progress in student thinking

[00:34:07.11] David: [Wait wait] wait, Bonnie, I have a different possible interpretation of the data.

- David comfortable interrupting Bonnie—and she lets him.
- "interpretation of data" is a value neutral way of addressing Bonnie's concern. Rather than challenge HER (by saying something like, I disagree with your opinion about the students' thinking), David uses "scientific" words without any pronouns.

Bonnie: All right.

David: this paper's data/

Bonnie: OK

David: that we can interpret.

Bonnie: OK.

[00:34:16.15] David: One possibility is that/ I mean it's VERY hard for us to find words to to say all these things

• language of "one possibility" also value neutral—David careful to stay away from a perception that his interpretation is right and Bonnie's is wrong. And "possible interpretation of student data" is consistent w/ LP language that teachers have already heard many times.

Bonnie: OK

• Bonnie's multiple "OK"s give an indication not only of active listening, but also of agreement with what he is saying.

[00:34:25.09] David: One possibility is that what she's done is she's expanded her meaning of the word boiling. Like she doesn't think/ so when she says the sun is heating the water, she's thinking the sun is/ that boiling is somehow her word now for the water going up.

[00:34:45.05] The cloud chamber experiment that she did that you're talking about has water going up, and then [condensing

Bonnie: [yeah]

just like when you hold your hand over the boiling pan and it gets all sweaty/ Carolyn: but I think/

[00:34:56.07] David: and so she's doing the thing that Donna's after, which is seeing water disappear from the bottom, go up into the air, and maybe the word she's using to call that is boiling. [Bonnie nods vigorously]

• Bonnie seems to accept David's interpretation, though she does not give an extended response here. She says "yeah" and nods.

[00:35:06.29] (Carolyn explains that the student might also have been confused by the particular question about the puddle and not have tapped into what she learned about water cycle from her experiment)

[00:36:06.01] (Donna wonders if a more open-ended question, such as "what do you know about water now?", might have elicited more of their thinking. [00:37:07.19] Bonnie responds, "I think you're right. I think that's a really good point."

[00:37:26.17] Bonnie adds, "I feel like I put a roadblock right there in their thinking."

• Bonnie willingly takes responsibility for influencing her students' responses with the wording of her assignment.

[00:41:22.15] Donna: We could sit on this subject all year long, we could. We could go this way, that way, and we would be doing scientific thinking. We would be doing immense amount of reasoning. You know, we would be doing all these things. Um the unfortunate part is that we've got content that sits over our head going "Booga booga booga booga" [laughs]

Carolyn: that's why/

[00:41:47.20] Donna: and unfortunately, I was looking at 5th grade compared to 4th grade and in 5th grade I can feel the pressure because there are these things/ there's a lot, it seems to me, a lot more that's expected for them to get, but, but, like, you know, with this/ I mean, we're looking at experimentation and how to come up with experiments, which is going to last them ALL year long

• From min. 35-41, Bonnie does not say much, but she seems v. engaged, mostly sitting forward, making eye contact with speakers, lots of "mmhmm"

[00:42:11.26] Bonnie: yeah, you're right. That's a very/ and I appreciate/ I'm GLAD I brought this up because I'm walking away with a sense of [.] when they were doing this writing, it was AWESOME. I mean, the kids are like / I mean, there wasn't a peep in the room, and they're like ALL into it and/

Jen: and they were getting their journals, flipping through [their journals]

[00:42:31.17] Bonnie: [Aw, yeah] I mean, they're just like goin' all into it and stuff. So I should take from that [..] that there WAS something/ they they were REALLY thinking, I mean they were REALLY struggling with this.

• Bonnie recasting her perception of students' participation in this assignment. At the beginning of the meeting, she described them "having a great time" but "not learning anything." Now, she describes their participation with much more enthusiasm, genuine pleasure in their engagement. And she seems to be making a connection between students' participation and their reasoning; that is, that when students are so engaged in their writing, she might presume that they are doing important thinking.

Appendix C: Finkelstein (2008) unpublished manuscript

C. Finkelstein

BUILDING TRUST WITH TEACHERS IN LITERACY COACHING

I poked my head into Stephanie's classroom during her planning period and asked, tentatively, "Got a second?"

She looked up from the computer screen but didn't move. "OK," she said, then went back to typing.

I waited a moment. "So, did Mrs. Turner let you know that I'd be coming by to talk about us starting a coaching cycle?" She nodded. The principal at this urban K-8 school where I'd been working as a literacy professional developer for a year and a half had agreed for me to coach Stephanie but cautioned that she had concerns about this teacher's performance: she characterized Stephanie as alternately enthusiastic and under prepared, genuinely engaged by her second grade students yet defensive with many of her colleagues.

"Well," I continued, "before we get into the details of coaching, it would help me to get a feel for your classroom. Can we schedule a time that I could come in and do an interactive read-aloud? It will help me get to know your students, and you'll get a chance to sit back and observe and then share with me what you've noticed."

"OK, when do you want to come?"

In this anecdote are threads of teacher resistance and a literacy coach's initial attempts to anticipate this resistance and begin to build trust. In my experiences over the past half dozen years as a professional developer, I have seen various iterations of teacher distrust, which can slow or derail the progress of instructional coaching.

Trust is an essential feature of instructional coaching, whose success depends as much on coaches' relational skills as on their content and pedagogical expertise. However, the training provided for many in the role of literacy coach does not specifically address this relational element of the work. Instead, it focuses largely on content, that is, building coaches' expertise in literacy. Topics such as adult learning, coaching, and conversational skills generally receive less attention— and are primarily addressed through informal troubleshooting with colleagues.

Who are literacy coaches and what do they do?

Literacy coaching models have proliferated in recent years, for a number of reasons. First, recent research into professional development has shown the benefits of job-embedded staff development (Hawley & Valli, 2007). Instructional coaching meets researchers' definitions of effective staff development as "grounded in inquiry, collaborative, sustained, connected to and derived from teachers' work with their students, and tied explicitly to improving practice" (Neufeld & Roper, 2003, p. 3). At the same time, many school systems have undergone a paradigm shift, particularly since the passage of NCLB, in which improvements in student achievement are viewed as more efficiently reached indirectly through *teacher* support, rather than previous models of direct services to struggling *students*. With the rapid proliferation of coaching models, demand for coaches often outpaces supply, and many people hired for these positions are transferring from the ranks of student support positions, such as reading specialists and classroom teachers.

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Dozens of school systems are investing millions of dollars in instructional coaching initiatives as cornerstones of larger, systemic reform efforts; for example, the Boston Public Schools recently "devoted \$5.8 million from general school funds to support seventy-five coaches in ninety-seven schools" (Neufeld & Roper, 2003, p. 5). With such a significant financial investment in instructional coaching, school systems necessarily feel pressure and urgency for these models to succeed. Often, however, coaches receive only minimal and idiosyncratic training for their new roles.

Despite this consensus about the value of coaching to support teacher learning, there is no standardized profile of instructional coaching positions, and in fact coaching is sometimes just one responsibility within the broader role of professional developers. Among district- and university-based instructional coaching models, there is one noteworthy difference in philosophy between those who believe coaching "teaches educators how to use proven instructional strategies" or to implement specific curricular reforms (cf. Kansas University Center on Research and Learning), and others who promote the view of coaching as "providing [teachers] with the confidence and know-how to maintain themselves as decision makers. [Coaches] reveal practical ways for teachers to become more thoughtful, deliberate, and essentially smarter about the work they do" (West & Staub, 2003, ix). This may seem a subtle distinction, but it has implications for whether one views coaching as a means to an end—i.e., only certain teachers, unfamiliar with particular techniques "need" coaching—or as an integral feature of the collaborative and reflective nature of teaching. This, in turn, influences one's beliefs about who ultimately "drives" the coaching relationship—the teacher or the coach. In my view, instructional coaching is a collaborative, ongoing process that supports all teachers' capacities to think reflectively about their practice toward the goal of improved student learning.

Teacher resistance

Teachers' resistance to coaching should not come as a surprise. Much of it stems from the hierarchical structure of schools, which reinforces power differentials such as those between teachers and literacy coaches. For example:

- Coaches often sit on the school leadership team, where they have access to the principal and hear privileged information.
- Coaches generally make more money than teachers.
- Principals may assign coaches to particular teachers with the goal of improving their practice ("fixing" the teacher).
- Coaches, unlike teachers, have considerable control over their own schedules.
- Teachers, not coaches, are seen as directly responsible for student achievement.

This organizational structure, in which teachers almost always hold less power than coaches, fosters teacher resistance to coaching.

Gonzales et al. (2004) sought to delineate specific causes of teacher resistance within their field of consultative school psychology. Although teacher resistance is often attributed to teachers' "inflexibility, irrationality, and poor motivation" (p. 31), the authors explain that teachers reasonably exhibit resistance when they view the costs of engaging in consultation as outweighing the benefits. The authors hypothesize the following causes for teacher resistance: (1) time demands of consultation; (2) a teacher's perception that needing help is a public admission of inadequacy; (3) fear that problem identification might expose professional incompetence; (4) anxiety produced by change; (5) discomfort over interpersonal processes involved in consultation; (6) discomfort over losing control of the problem; (7) fears associated with confidentiality; (8) incurring the principal's admonishment; and (9) risking the possibility that deficiencies unrelated to the presenting issue will be revealed to the consultant (p. 32). It is noteworthy that most of these causes relate to teachers' anxieties about being judged or exposed as deficient in their practice. Indirectly, they suggest a school culture in which teachers feel primarily (if not solely) responsible for the successful achievement and productive behavior of all of their students. These causes are remarkably similar to those observed in teachers' work with instructional coaches.

It is the coach's responsibility to mitigate these causes for teacher resistance by explicitly attending to building trust because without this crucial work many teachers never sincerely engage in the coaching process at all. In my experience, this distrust may manifest itself in several different ways: by teachers practicing avoidance, overt hostility, or shallow acquiescence. When coaches describe teachers who show resistance to coaching, there is a tendency to blame the teachers for being hostile or defensive about examining their practice; however, it is my belief that this resistance is most often due to the preventable circumstance of a teacher distrusting the *coach* or the *coaching process*. In my experience, principals as well as coaches often blame "failed" coaching relationships on disinterested or inadequate teachers. It is my contention, instead, that far too many instructional coaching relationships fail because the *coach* did not take an appropriate stance toward building trust with the teacher.

Literature on trust building

Currently, there is a lack of empirical literature on literacy coaching and even less on the relational aspects of coaching. In one of the first empirical studies of literacy coaching, Rainville & Jones's (2008) "Power and positionality" explains situated identity construction for coaches in their relationships with different teachers. The authors describe one tense coach-teacher relationship in which the teacher (Mr. Blue) demonstrated resistance to the coach's (Kate's) enactment of authority:

In this instance, however, we see that Mr. Blue positioned himself as powerful and in charge of the situation while positioning Kate as someone who was wasting his time ... Mr. Blue positions himself as someone with the right to determine how both his and the 'support' person's time is spent. Instead of taking on the role of a learner, he has become impatient with the coaching process—possibly because Kate isn't working with him on something relevant and meaningful to him at this time... Mr. Blue might see her as a tool that can assist him in his daily mandated workload, not as a tool for additional learning and growth (Rainville & Jones, 2008, p. 445).

The authors use this example to introduce the need for future studies to focus on developing a process for minimizing such power struggles and mitigating teacher resistance, by looking more specifically at *how* coaches might build trust and negotiate effective relationships with teachers.

In contrast to the limited number of empirical studies, practitioner literature on instructional coaching and literacy staff development has abounded in the past decade. These how-to books often present typical stages within the coaching process, which are generally described as: (1) building a trusting relationship; (2) setting goals for teacher learning and/or student progress; (3) establishing a coaching cycle of pre-conference, teaching, and debriefing, in which the coach gradually releases responsibility to the teacher; and (4) reflecting on teacher learning (Casey, 2006; Lyons & Pinnell, 2001; West & Staub, 2003). While existing literature provides detailed accounts of steps 2 – 4, there is minimal attention paid to the process of developing trusting relationships with teachers. For example, Dole (2004) offers one sentence of advice for reading

coaches on the issue of trust: "Once this coach had built a positive rapport with teachers, the teachers would be comfortable inviting the coach into their classrooms for feedback and coaching" (p. 467). By its lack of attention to *how* coaches might build trusting relationships, such literature simplifies this complex process and implies to coaches that trust may be easily achieved.

There is one branch of coaching literature that discusses trust building by embedding it in discussions of goal setting and teacher beliefs, as coaches who engage teachers through establishing "a safe environment in which teachers can strive to improve their practice ... by approaching their own work as continuous learners and admitting they are not experts" (Neufeld & Roper, 2003, p. 9). In this viewpoint, coaches can build a collaborative relationship with teachers when they respect teachers' beliefs, remain explicitly nonevaluative, and maintain a stance of curiosity about student learning (West & Staub, 2003, 1-17).

I have developed a schema for building trusting relationships with teachers that emanates from my own coaching experiences as well as from two disparate fields both related to teacher support, consultative school psychology and organizational management for school reform. The field of consultative psychology is similar to instructional coaching in that school-based psychologists are available to teachers for consultation in modifying classroom practices to better meet the behavioral and academic needs of struggling students within their classrooms. Because teachers' participation in consultation is usually voluntary, psychologists in this role necessarily give significant attention to initiating relationships and building trust with teachers; thus, the research on this topic can be particularly instructive for instructional coaching. The literature on school reform leadership and organizational change (Elmore, 2000; Fink & Resnick, 2001; Fullan, 2001) also holds applicable messages for instructional coaches, as it suggests that: (1) effective school leaders pay explicit attention to building relational trust with teachers; (2) effective leaders acknowledge valid causes of teacher resistance, and use that resistance as a springboard for collaborative problem solving; and (3) reform-minded leaders arrange for structural features of schools to support the enactment of their mission. Empirical work in these two fields has influenced my framework for trust building.

Building nonhierarchical relationships

In my view the overarching means for literacy coaches to build trust comes through establishing and maintaining nonhierarchical relationships. By this I mean relationships in which the coach does not impose her expertise on the teacher, but rather where coach and teacher genuinely value what each brings to the collaboration as essential to improved student learning. My belief is that all other specific recommendations for creating effective coaching relationships stem from this framework. As Tschannen-Moran (2004) describes in her case study of school reform leaders:

Because of the hierarchical nature of the relationships within schools, it is the responsibility of the person with greater power to take the initiative to build and sustain trusting relationships. Because of their greater feelings of vulnerability, subordinates seem to be hypervigilant in their trust assessments of superiors so that even relatively minor gestures take on considerable importance (p. 35).

The connection to instructional coaching here needs to be clarified. Although staff developers or instructional coaches mostly do not have formal evaluative authority over teachers, they are often *perceived* by teachers as holding more power. Instructional coaches are wise to recognize

teachers' perception of this power differential as they work to build nonhierarchical coaching relationships.

Recommendations

In this paper, I will present four major recommendations for how literacy coaches may effectively build nonhierarchical, trusting relationships with teachers, contextualized within the story of one coaching relationship:

- 1. Let the teacher "drive" the coaching.
- 2. Focus on student learning, not on "fixing" the teacher.
- 3. Walk the walk.
- 4. Communicate clearly and transparently.

Let the teacher "drive" the coaching

Stephanie is a second grade teacher at an underperforming east coast urban school. She is currently on a P.I.P. (Performance Improvement Plan) for sporadic attendance, poor lesson planning and lack of rigor in her teaching, and the principal has asked me to work with her. Before having a initial goal-setting conversation, I visited Stephanie's classroom two times—once to lead an interactive read-aloud (during which Stephanie was called out into the hallway for an unscheduled parent conference) and once when she invited me to watch her class in whole group and small group reading lessons (which were interrupted by a cell phone call from her daughter's school). During these sessions, as well as through earlier conversations with the school's Leadership Team, I had gotten some ideas about possible goals for this coaching cycle.

As Stephanie and I sat, knees bumping the small second grade desks, I explained that our purpose in this conversation was to set goals and establish clear expectations for the coaching cycle. First I explained that we would schedule regular time in Stephanie's classroom twice a week, as well as one planning/debriefing session a week, and I asked Stephanie what her goals were for our work together during this time. She hesitated. I rephrased, "What would you like to see your students be able to do this year in reading or writing?"

Stephanie looked up and started talking energetically about how she wanted her students to show deeper comprehension and to be able to engage in meaningful conversations about their books. She added that she wanted her classroom to be a place where students were reading books they enjoyed and practicing how good readers think, talk, and write about their reading.

"Wow, that's fantastic!" I said. "Our goals for this coaching cycle can fit right in with your ideas. I'd love for us to launch a reading workshop in your classroom. Can we talk about how that might go?" As adults, teachers are more likely to engage in coaching and respect others' observation of their practice when they have authority in determining the goals for their own learning. Often the instructional coach has some ideas about goals, based on observations of the classroom, such as I did with Stephanie when conducting the interactive read-aloud. I call this having a "back pocket" idea that I bring out only if the teacher is having great difficulty articulating her goals. Literacy coaches can begin to engender trust by holding initial conversations in which they elicit teachers' deeply held beliefs about literacy teaching and learning and use those beliefs as the springboard to determine coaching goals. In my experience, this can be effective not just with teachers who are predisposed to thinking reflectively about their practice but with any teacher who, with a coach's assistance, can explain her beliefs or hopes for student learning. This does not mean that the coach has no input into the direction of the coaching cycle, but rather that the coach's job in the goal-setting conversation is to search for points of commonality with the teacher, and to direct them in ways that will produce positive results in the coaching cycle.

Another issue in letting the teacher drive the coaching is that, as part of establishing nonhierarchical relationships, both coach and teacher bring valued expertise to the table. One may ask, what is the teacher's expertise that is equivalent to or different from that of the coach? I do not mean that we expect teachers to share the coach's expertise about literacy practices, although many do, but rather that the teacher holds the critical knowledge about her own students as learners and as people, and that accessing this knowledge is essential to the success of the coaching.

This view echoes that of Instructional Consultation Teams (IC, a team-based, problem-solving model from the field of consultative psychology), which emphasizes the creation of a nonhierarchical process between consultants, referred to as case managers, and teachers: "The focus of [case managers'] responsibility in the professional situation shifted from telling teachers about their students to concentrating on the teachers' beliefs and perspectives and asking teachers to be the authority regarding the student" (Knotek et al., 2003, p. 320). This approach benefits teachers, who bring more trust and engagement to the IC process when they feel case managers authentically trust and actively listen to them. From the literature on school reform leadership, we learn of the importance of respect for each stakeholder's expertise and ideas: "Genuine conversation of this sort signals that each person's ideas have value and that the education of children requires that we work together cooperatively" (Bryk & Schneider, 2002, p. 23). The coach's responsibility is to access and value this teacher expertise. In this way, coaches are contributing to the creation of a nonhierarchical relationship and are truly collaborating with teachers toward the goal of student learning.

The coach also needs to take care to respect the teacher's autonomy by offering feedback only in the areas established collaboratively in goal setting. As tempting as it can be for coaches—or any passive observers in a classroom—to identify areas for improvement, unsolicited suggestions carry a great risk of arousing defensiveness in the teacher.

Focus on student learning, not on "fixing" the teacher

Stephanie and I met to debrief the morning's lesson, in which I modeled (for the students and for Stephanie) the routines of reading workshop and, in particular, the components of the mini-lesson.

"So, our goal today was to launch reading workshop and to introduce the routines we'll want your class to follow every day. We also wanted to see how long they'd be able to read, so we could set a goal for building their stamina. What did you notice during the lesson?" I asked.

"The kids were really excited to get into the book baskets, but a bunch of them were just playing the whole time, not really reading," Stephanie replied.

"Really? Who? And what do you know about those kids? Why might they not have engaged with reading?"

^aWell, Malik and Shemar and Darrell, for sure, and, hmm, Jazmin and Brianna, too. Those are my lowest readers, and I think they were just flipping through books they can't really read. What do we do about that?"

"So, we need to know what kinds of books these kids <u>can</u> read, and make some decisions about how to organize leveled books in your classroom; we also need to talk about what mini-lessons should come next..."

In my view, the job of the instructional coach is not to "fix" a lesson or a teacher but to support teachers' abilities to meet the needs of their students. This view is critical to mitigating teacher resistance to feedback, which most teachers expect will be evaluative. The key is to focus on what students have learned, rather than on how well or poorly a teacher has executed her lesson plan. Such language effectively models for teachers how to take a reflective stance of curiosity about the work of teaching (cf. West & Staub, 2003; Cochran-Smith & Lytle, 1999).

Coaches can frame the job of all educators as continual problem solvers, where the surfacing of dilemmas does not indicate any deficiency on the part of the teacher, but rather is part and parcel of teaching and learning. Along these lines, school reform leaders, for example, support teachers who demonstrate this belief and "value the tensions inherent in addressing hard-to-solve problems because that is where the greatest accomplishments lie" (Fullan, 2002, p. 19). From the IC model, an important part of the consultant's role is to support the teacher in "reconceptualizing the work problem" not as a weakness on the part of the individual teacher, but as a joint dilemma which is at the heart of the educational enterprise:

One of the central goals of IC is to change how consultees (teachers) frame students' school problems away from viewing them as internal, student-centered deficits, toward understanding student learning as a result of the interaction of instruction, task, and student entry skills (Knotek et al., 2003, p. 305).

Redefining student struggles as a *mismatch* between the instructional delivery, the assignment or task, and current student skills—rather than a teacher deficiency—places the focus for student improvement on the consultant and teacher collaboratively realigning all three elements of the mismatch (p. 306).

It is our goal as coaches to help teachers internalize the thought processes of effective planning: What am I teaching? Why am I teaching this now (i.e, based on what I know about my students)? How will I teach it? How will I know if the students have learned it? Through the coaching process, we scaffold teachers' learning so that these questions go from being explicitly presented by the coach to becoming second nature to the teacher.

The coach can create valuable opportunities to model such nonevaluative feedback in conversations debriefing her *own* teaching, as happens through demonstration lessons during the coaching cycle. For example, the coach might say, *Did you notice how Keshawn explained what he did as a good reader today?* instead of, *How could I improve the way I asked students to*

explain what they learned today? In this way, the norm for feedback language gets established through discussions of the coach's rather than the teacher's practice, further diminishing possibilities for teacher defensiveness.

Walk the walk

12.21.06 Excerpt from my weekly email to Stephanie:

In our debriefing time this afternoon, these are the next steps we discussed:

- Next week we will begin creating individualized book bags for each student. I've
 attached a chart with the guided reading levels collected by the reading
 intervention teacher.
- I'm also attaching a bunch of books at Level C (for Montrice, Jazmin, Krysta and Maurice) and Level F/G (for D'Andre and Michael) and a basket of <u>Frog & Toad</u> books (for Erin, Briana, and Deonta).
- When I return on Wednesday, we will team teach the mini-lesson we discussed on how good readers have a conversation about their books. (I will type the lesson plan for this.)

I also had a chance to speak to Mrs. Turner about having the French teacher dismiss your students from his classroom at the end of the day on Thursdays, so we can extend our planning time. You just have to remember to pack them up before they go upstairs.

Coaches need to work just as hard as teachers in every phase of the planning, teaching and assessment process; that is, they need to walk the walk, not just talk the talk. As discussed above, teachers are likely to be resistant when they perceive coaches as having more flexibility in their schedule, more time, and minimal accountability for school bureaucratic mandates or for student performance. It is the responsibility of the coach to dispel this perception that the coach's job is easier and more relaxed than the teacher's. We can do this in part by sharing responsibilities with the teacher during our coaching cycle, such as composing lesson plans for any demonstration lessons in the same format that the teacher is expected to use; collecting books and other materials to support our lessons; and assisting with assessment, grading or other paperwork in the subject we are supporting. Even more importantly, we should teach the same standards to the same children in the same classroom where the teacher works every day.

Another important part of the coach's work is to plan strategically each day not only for the *students*' learning, but for the *teacher's* learning as well. As coaches plan, we explicitly consider the appropriate scaffolding to support the next layer of the teacher's learning, such as what we will ask teachers to pay attention to or when we will ask them to jump in to the lesson. Then, as we model or co-teach, we focus not only on the ongoing lesson but also keep an eye on the opportunities for teacher growth that we will want to address during the post-lesson debriefing. As coaches manage these multiple goals for our work, we may implicitly demonstrate to teachers that our job is not an easier version of classroom teaching but actually entails numerous responsibilities.

Coaches also "walk the walk" by using the access to authority we have in schools to advocate for the teacher. This gains coaches credibility and builds trust with often-overburdened teachers. As Bryk and Schneider (2002) explain with regard to school reform leaders, teachers

may experience respect when they see school leaders following through on administrative promises that help support teachers' work. For example, when professional development is an element of school reform, respectful principals make scheduling arrangements to allow teachers to work collaboratively during the school day. Although instructional coaches are not school administrators, they can advocate for working conditions—such as planning sessions and professional resources—that would better allow teachers to have the time and intellectual energy to devote to the coaching process. As evidenced in the anecdote above, I was able to procure additional books for Stephanie's classroom and made arrangements with the principal for a resource teacher to dismiss her students to increase our uninterrupted planning time. Teachers are likely to view these actions as an indication of the coach's support of the teacher's professionalism, which may itself build trust.

Communicate clearly and transparently

It is well worth the coach's time to create an early opportunity to define expectations about the work of the coaching cycle in a clear and transparent way, as this goes a long way toward establishing trust. An explicit discussion of expectations should happen at the end of the initial goal-setting conversation and would likely include:

- Reiterating the goals and time frame for the coaching cycle;
- Planning a weekly schedule for classroom coaching and planning conversations;
- Establishing when, why and how the coach will observe and take notes in the classroom;
- Discussing the nonevaluative nature of feedback, examples of what that will look like and sound like:
- Deciding with whom the coach will and will not share feedback with others in the school
 community.

The coach needs to be particularly sensitive about any writing done in the classroom, as teachers—especially those in underperforming schools—often hold a deep wariness toward outsiders "intruding" into their classrooms. In addition, many teachers associate visiting adults who write in their classrooms with the formal teacher evaluation process, which is often viewed as reductive or dismissive of the rich complexity of their practice. One remedy to this distrust is for the coach to be willing to share anything she writes with the teacher. As Katherine Casey (2006) recommends, "If you don't feel comfortable showing the notes you take to the teacher, they're probably more evaluative than informative" (p. 72). Fordham (1996) also points out that there is often a "deep distrust of what appears in print, of what is written as well as those who write" (p. 8), which may, in part, speak to urban teachers' distrust of outsiders "intruding" into their classrooms and their anxiety around writing connected to principal evaluations.

Coaches should also assume that teachers may perceive us to be "spies" for the school administration, and that our language can reinforce or refute that perception. The coach needs to consider school culture in terms of communication with the teacher. For example, many schools are rife with gossip. As Katherine Casey wisely points out, though, "As tempting as it may be to [gossip] ... or to be the conduit to win the favor of others, don't compromise the trust you are trying to build. If you gossip about the principal with the teachers, won't the teachers wonder if you gossip with the principal about them?" (p. 37).

There are also socio-cultural issues of language that are significant to the creation or erosion of trust, since the success of coaching depends on effective communication. Oftentimes,

coaches differ from teachers in one or more of the following components that may affect discourse: race, ethnicity, cultural background, age, gender, or educational background. Skillful coaches carefully consider the influence of theses various socio-cultural components on discourse as they work to minimize instances of misunderstanding, which can contribute to distrust; specific processes for mediating socio-cultural influences on language, however, are beyond the scope of this paper.

Implications

Currently, there is no standard model for preparing or supporting instructional coaches to work effectively with teachers. In particular, instructional coaches may receive little or no formal training in the relational aspects of coaching. The four recommendations presented here—let the teacher "drive" the coaching; focus on student learning, not on "fixing" the teacher; walk the walk; and communicate clearly and transparently—hold promise for developing a preparation model for instructional coaches that attends to the essential features of building trust with teachers

Conclusion

Trust is not something that coaches can "achieve" at some magical point in a coaching relationship and then cease to address; the four recommendations in this paper are ongoing, recursive, and interconnected. Trust is something that effective coaches attend to at all times in their working relationships with teachers.

On a wintry Thursday afternoon, during our 9th week of work together, I let Stephanie know it was time to wrap up our coaching cycle. As we revisited her initial goals, lesson plans, and notes to reflect on the changes both she and her students had made, she seemed relaxed and pleased. Stephanie's students were reading "just right" books and had increased their stamina, and Stephanie agreed that she now knew how to confer with her readers and deliver purposeful mini-lessons targeted to her students' needs. Next, I told Stephanie I would be sharing her progress with the principal, who had mostly stayed out of Stephanie's classroom during this cycle—at my request—as she tried out new practices. Now she seemed anxious. "Don't worry," I counseled, "I'm going to write exactly what we just talked about, and I'll cc. you on the memo."

The next morning I sent the write-up via email. It was a one-page memo, in fairly objective language, detailing what the principal should expect to see in Stephanie's classroom as a result of her engagement with the coaching cycle. A few minutes later I got a message from Stephanie—who had **never** before responded to any of my weekly emails—saying she couldn't open the attachment and asking if I could resend it. I did. This time, she wrote, "thank you...you are awesome!!!" When I replied, "I was simply writing the truth," Stephanie wrote back again, "thank you SOOO much... for the truth!:-)"

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10

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Appendix D: Literacy coaching lesson plans

1.12.09 Second Grade Writing Workshop Mini-Lesson: Starting the Writing Workshop MATERIALS:
1 chart paper; 1 marker
copies of student writing paper
pocket folder?
Meeting area?
desk/table organization?

Use voice-over to teachers—point out each part of the minilesson

Connection: Writers, today we are starting something very exciting in the classroom called writing workshop. Every time I am here with Ms. J and Mr. S. we will start our writing workshop by gathering right here for a little meeting.

Explain to students that there are times that I will be talking to them, and other times that I will be talking to their teachers.

Also, have students practice turning & talking.

This year during writing workshop, all of you will be authors, doing the work that writers do to write stories, and letters, and books. Today we are all going to be authors, and I will show you what authors do.

Voice-over Teaching. Watch what I do when I write. [Pick up marker, close my eyes and think.] Hmmm, what should I write about? I could write about rainbows... but you know what, I never did anything with a rainbow! I want to write about what I do and what I know. I know! I go to the playground with my son Josh a lot, and sometimes funny things happen when we're at the playground. I can tell about what happened one day at the playground.

Let me draw my story. [Think aloud while drawing.] One day earlier this winter, there was some snow on the ground, so Josh & I bundled up in our warmest clothes and ran over to the playground. He wanted to go sliding in the snow. He climbed up to the highest slide, then slid down so fast because of the snow. He flew right off the end of the slide and went flying through the air for five feet before landing in a heap on the snowy ground!

Now I'll write my words. [Label Josh, me, slide] Josh and I went to the playground on a snowy day. He wooshed off the end of the slide and flew through the air!

Writers, did you see what I just did? Did you notice how I first thought about something I did and got it in my head? (At first I thought about rainbows, but then I realized I never did anything with rainbows.) And did you notice how I thought about the times I went to the playground and then I remembered one recent time at the playground? And did you notice how I sketched my idea and then wrote words to go with the story?

I'm telling you this because today and every day you can do the very same thing. You can think about things from your life and you can write about them. I wrote about how Josh flew off the end of the slide and you are probably not going to write about that, but you will think of something you do—like maybe today when you were getting ready for school you couldn't find your shoe. Or maybe your baby brother or sister spit up on you. Or you stepped in a big puddle in the rain. Or you helped your mom make pancakes for breakfast this weekend. If anything like this happens to you, then you definitely have stories to tell. You can write about any little thing that happens in your life.

Voice-over Active Engagement: Can you close your eyes right now and think of something from your life that you could draw and write about?

Now, please tell someone what you might write about today.

Voice-over Link: Writers, when I call you, could you please come up here and get your writing paper and pencil, and then you can go back to your table and get started doing what writers do—writing a true story about something that has happened in your life.

Conferring: Lots of kide asking re: spelling. I round from about what I did to spell "wooshed".

Share: Bring students (in small groups) back to the meeting area.

[Celebrate how many students did write true stories from their own lives. Share 2-3 specific stories and emphasize how writers followed the process of thinking of time when something happened to them, sketched, then wrote the words.]

Frustrated re: spelling of frustrated re:

Tikiana Ochavi

Trouble of narrative?

1.26.09 Second Grade Writing Workshop Mini-Lesson: Starting the Writing Workshop MATERIALS:
2 chart paper; 1 marker;
prepared drawing
copies of student writing paper
whiteboards & dry erase markers
sharpened pencils

Use voice-over to teachers—point out each part of the minilesson

Connection: Remind students that there are times that I will be talking to them, and other times that I will be talking to their teachers. Explain to teachers that I want them to pay attention to language today, and that they will be in charge of the link. Have students practice turning to their "special" teacher for the link. Practice distributing whiteboards and markers.

Writers, I am so excited to be back with you for writing time today. When I was here last time, I was SO impressed at how all of you worked like real authors to think of topics that are true stories from our own lives. I got to hear fantastic stories about playing football, and going to the park, and a trip to the aquarium. Then I got to watch as you drew those stories and then wrote about them.

When I was here last time, some writers had some wonderful, interesting words in their stories, but when they were writing, they got frustrated and thought, "I don't know how to spell that." Today I want to show you that when we write words, we need to say, "That might not be perfect yet, but I'll just spell the best I can and keep going so I can say more." You can get a lot of writing done when you write your words the best you can and keep going.

Voice-over Teaching Point: Today I'm going to write the words that go with my picture about what happened when I came to S_______ this morning. I want you to watch what I do when I get to tricky words. I think I'll write, "When I walked to the front door, I struggled to balance my heavy workbag, my coffee mug and my water bottle." Begin dictating to myself and writing. Move quickly, every now and then slowing down a bit to stretch a word, then shrug, look at what I written, and say, Oh well. I'll just leave it like that for now and keep on going.

Writers, did you notice how I just did the best I could and kept going?

<u>Voice-over Active Engagement</u>: [Distribute whiteboards and markers.] *I'm going to give you whiteboards now so you can join me in doing this same work for the next page.*

Hmm, what will I write on this page? I think I'll write, "Then I reached carefully for the doorbell. My water bottle dropped and rolled down the walkway." Let's do this together. I'll say the word, and you write it the best you can. "Then..." "I..." "reached..." "carefully..." "for..."

Writers, let's stop for a second. Hold up your boards so I can admire what you did! Look how much you got down! Let's read what we've written. Everyone put your finger under the first word then. Let's read it and keep going.

Voice-over—have students turn to teachers who will do the link Link: Children, now your "special" teacher will remind you of what you've learned today that you can do today and every

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thean at least 3 students saying

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day in your own writing. Then you'll get to go to your tables and work on your own wonderful stories!

Conferring: Have teachers shadow me.

Conferring: Have teachers shadow me.

Graph of Something one time when Dedrewn Octavia - I they like to do it then choosing one time when Share: Bring students (in small groups) back to the meeting area. Share 2 students who did a seed job with melling the bott the could and bearing on gains.

good job with spelling the best the could and keeping on going.

7 children trouble of topics

Stikiara 1 Octavia

Deshown

Micatah

Engelre

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