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A qualitative investigation of the long -term effects of a staff development project on two middle school science teachers' literacy practices

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**A QUALITATIVE INVESTIGATION OF THE LONG-TERM EFFECTS OF A STAFF
DEVELOPMENT PROJECT ON TWO MIDDLE SCHOOL SCIENCE
TEACHERS' LITERACY PRACTICES**

by

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**Bachelor of Journalism
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**A dissertation submitted in partial fulfillment
of the requirements for the**

**Doctor of Philosophy Degree
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ABSTRACT

A Qualitative Investigation of the Long-term Effects of a Staff Development Project on Two Middle School Science Teachers' Literacy Practices

by

Lisa Patel Stevens

**Dr. Thomas W. Bean, Dissertation Committee Chair
Professor of Literacy/Literacy Education
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The focus of this study was to explore the changes in literacy practice that occurred after two middle school science teachers completed their participation in a long-term staff development project on content area literacy. There were two participants in this study, were a sixth-grade life science teacher in her 22nd year of teaching, and an eighth-grade physical science teacher in her 4th year of teaching. Multiple data sources were collected, including field notes from the staff development meetings, interviews of participants and other school personnel, classroom observations, descriptive surveys, lesson plans, exit slips and evaluation forms.

Qualitative methodologies were used to guide analysis, classification and interpretation of the data collected. The data were read and reread to construct domains and themes (Spradley, 1980) found in each teacher's literacy practices and beliefs. Additionally, the methods of critical discourse analysis were used to analyze the data for issues pertaining to the influential social and political structures of secondary schools (Fairclough, 1989). This second type of analysis afforded opportunities to regard the

teachers' literacy practices as social in nature and assumes asymmetrical power distributions within and among three different social contexts – an immediate local context (e.g., the science classroom), a wider institutional context (e.g., teaching, middle school), and the larger social contexts (e.g., Discourses of literacy, adolescents, and schooling). The results showed that the teachers' epistemological stances toward teaching and learning had profound impacts on the strategies they continued to use after the staff development. Findings also indicated that the larger societal Discourses about adolescents, high stakes assessment, and teachers as individuals were reflected in the teachers' decisions to use particular instructional approaches.

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CHAPTER 1

INTRODUCTION

The field of content area literacy has been in existence for almost a century. Since its inception, the field has undergone changes in both conceptualizations of what constitutes effective content area literacy strategies and how those strategies should be practiced (Moore, Readence, & Rickelman, 1983). In the 1970's and 1980's, efforts were concentrated on experimental and quasi-experimental strategy validation with little effective transfer and carryover into school settings (Alvermann & Moore, 1991). Most recently, calls for further strategy exploration and potential validation have raised the need for projects that maintain ecological validity while examining content area literacy practices (Moore, Bean, Birdyshaw, & Rycik, 1999).

As with many calls for changes in teacher practice and belief, staff development has been one way of working with inservice teachers. Many theoretical pieces and research studies have been published which explore various frameworks and methodologies for designing and implementing effective staff development projects (e. g., Richardson, 1994; National Staff Development Council, 1999; Tikunoff, Ward, & Griffin, 1979; Costa, 1994). However, not as prevalent in the staff development literature is information about what transpires with change in literacy beliefs and practices after formal staff development support is no longer provided (National Reading Panel, 2000). This study examined what teaching strategies are adopted, modified, and/or discarded by

content area teachers after the opportunities to learn (Tuyay, Jennings, and Dixon, 1995) that were presented and embraced in a staff development project are no longer supported through school-sanctioned activities. Further, this study examined the various discourses that facilitated the adoption of those opportunities to learn, including those that contributed to the opportunities' sustenance, modification, or demise.

Content area literacy and teacher resistance

The research area of content area literacy has gone through several stages of development. The recent era of 1980s and 1990s was marked by experimental and quasi-experimental validations of reading strategies (Alvermann & Moore, 1991). More recent studies have examined content area reading practices in more ecologically valid contexts (e.g., Moje, 1996); however, resistance to widespread adoption of content area literacy strategies is still perceptible (Moore et al., 1999).

While researchers have shown the effectiveness of strategies such as ReQuest (Manzo, 1969) to promote interactive teacher-student discussion of text, content area teachers have proven resistant to infusing secondary literacy strategies (O'Brien & Stewart, 1990). The resistance to this infusion is neither irrational nor simply a case of not having seen the light of content area strategies. Rather, teachers have quite naturally resisted the products of the experimental era of 1970's and 1980's, in which researchers proved strategies effective in settings unlike school classrooms (Alvermann & Moore, 1991). The transfer of any educational concept from the theoretical to the practical involves localization. In the example of content area literacy, the strategies that have proven to be so successful and attractive in settings outside the classroom are often perceived to be at odds with the social and political structures of secondary schools. For

example, the tenet of small group discussion that runs through many content area literacy comprehension strategies can be logistically cumbersome in classrooms with more than 35 students each hour-long period.

For many core content area teachers, content area literacy instruction is seen as an additional responsibility to their already burdensome canons of curricula. Also inherent to this resistance is the association of a model or step-by-step set of directions with many content area literacy strategies. These sets of procedures are presented as such so that content area teachers, often faced with more than 100 students during a school day, can quickly and efficiently implement strategies. When the procedures of these strategies fail to reach all students' needs, as any one strategy undoubtedly will (Hinchman & Moje, 1998), the strategies often are relegated to a status of being familiar by name to teachers but not occupying a useful place in their pedagogy. The most notable example of this is the commonly noted but seldom used linear textbook reading strategy known as SQ3R (Walker, 1976). Through association with these types of strategies that are incongruent with the realities of secondary schools and teachers, the field of content area literacy has experienced significant dissonance with secondary school climates and consistent resistance from secondary content area teachers.

This resistance from secondary content area teachers reflects social, political, and epistemological stances of secondary schooling in general. Segmented schedules, strong regard for curricula steeped in canons of knowledge, and cognitivist approaches to learning and instruction (Hinchman & Moje, 1998) have proven to be formidable obstacles that are perceived to be contrary to the tenets of content area literacy. This perception of oppositional forces and ideologies is especially sharp when the recent surge

of academic inquiry into adolescent literacy is taken into consideration. Concepts such as the sociocultural context of classrooms, students being active participants in meaning making processes, intertextuality among school and home texts and contexts, and the discursive nature of learning (Alvermann, Hinchman, Moore, Phelps, & Waff, 1998) are decidedly out of sync with the stratified, linear, and didactic systems of secondary schools. This dissonance is also reflected in the stark differences between single-task, paper and pencil classrooms and the expanded notions of multiple literacies and critical literacy called for in the technologically-driven New Times (New London Group, 1997; 2000). At the surface, it may seem that the break between research-based concepts of adolescent literacy and classroom practices arises from the teachers.

However, even traditional, didactic classrooms are social in nature and have the potential to capitalize on the sociocultural nature of learning. In fact, it is precisely that sociocultural context of the classroom (Au, 1998) and the potentiality of each teacher to be a change agent (Fullan, 1993) that underscores the vital role of the content area teacher as a potential source of effective literacy practices. While some states currently require secondary literacy courses for middle and high school preservice teachers, (Romine, McKenna, & Robinson, 1996), this requirement is inconsistent and sporadic, at best. This lack of preservice training, coupled with the social and political structures of secondary schools, further underscores the need for staff development to support the infusion of effective literacy practices into the content areas. Increasingly, staff development projects are being considered as vehicles for furthering teachers' learning (National Research Council, 1999).

The STAR Grant Project: A Case of Effective Literacy Infusion

In the 1998-1999 school year, eight middle school content area teachers, a literacy specialist, and a university researcher collaborated in a year-long staff development project to explore content area literacy strategies, known as the Students Turning into Achieving Readers, or STAR, project. This collaboration was approached from a constructivist framework and used principles of collaboration and discursive teacher research to guide the project (Richardson, 1994). The project supported and documented dynamic change in teacher beliefs and practices (Stevens, 1999). Findings from this action research project suggested that the small group size, trust-building and collaborative meetings, and consistent support provided the necessary environment for teachers to reconsider their underlying concepts of pedagogical content knowledge (Shulman, 1986) and change their classroom practices. However, since by definition, staff development projects are bounded by constraints of time, funding, and resources, this project came to an end. To date, seven of the eight original STAR grant participants continue to teach in this middle school, but without the formal support they experienced during the project's implementation. The eighth teacher continues to teach the same subject and grade, but in a different school within the same urban setting.

Teacher research and teacher change

Using the relatively small body of research that has examined content area literacy strategies and their uses in specific sociocultural settings as a basis for infusion of literacy practices (e.g., Hopkins & Bean, 1998; Moje, 1996), the STAR grant encouraged the content area teachers to explore literacy strategies in their classrooms and then use the grant meetings as forums for discussing the strengths and weaknesses of the strategies.

These sharing sessions also explored the nature of content area instruction, modifications for particular classrooms, students, and content-specific tasks. By adopting a recursive process in which teachers shared existing notions and learned about specific areas of content area literacy instruction, received support from the project facilitators, tried out strategies in their classrooms, and collaborated in dynamic conversations to evaluate the strategies, these teachers were engaged in a collaborative form of teacher research (Cochran-Smith & Lytle, 1999) known as practical inquiry (Fenstermacher, 1994). This collaborative staff development project was successful in facilitating teacher change in both beliefs and practices (Stevens, 1999).

For example, changes in teachers' beliefs about the role of literacy engagement in their classrooms was noted through the types of questions that were asked during grant sessions. During the initial sessions, questions were asked that focused on what types of strategies "worked" and requests were made for "quick and dirty" solutions to students not comprehending their content textbooks (Stevens, 1999, p. 25). However, during project meetings held later in the year, the teachers asked questions that contained desires to engage students more in classroom-based learning. Phrases like "actively learning" and "interaction between the students and text" appeared frequently in teacher discussions (Stevens, 1999, p. 25).

The STAR project in effect provided opportunities to learn (Tuyey, et al. 1995) for the teachers, through the use of the collaborative and responsive elements already explicated. This notion of opportunities to learn goes beyond a linear flow of information. Instead, this term, opportunity to learn, as used by Tuyay et al. (1995), and as it will be used in this study, brings to light the notion that "in order to learn, a person needs to

make his or her own sense of the information that is presented” (Tuyay et al., p. 76). The presentation of this information is found in the collaborative, discursive exploration of content area literacy topics and strategies which characterized the STAR grant project.

During the course of the yearlong project, the teachers appropriated these opportunities to learn in different ways (Stevens, 1999). Combining these initial results with the framework that change and movement in teacher beliefs is actually a constant condition and that staff development projects only serve to guide and support those changes (Guskey & Huberman, 1995) begs the questions of what happened to the dynamics of change in beliefs and practices after the conclusion of the project.

While staff development projects focusing on literacy are commonplace, especially in light of the attention that literacy, particularly early and/or emergent literacy, receives on political agendas, no studies thus far have examined the lasting effects of a content area literacy project on teachers’ beliefs and practices.

Significance of the study

This qualitative study adds to the small field of socioculturally-situated studies of content area literacy strategies whose ecological validity is sorely needed (Alvermann and Moore, 1991). This study also fills a current gap in the literature that exists in examining the long-term effects of a successful content area literacy staff development project in a secondary school setting. While results from the similarly formulated Reading Instruction Study (Richardson, 1994) offer promising hope that teachers who have had in-depth exposure to opportunities to learn in a collaborative project may carry through with adopted ways of processing change in beliefs after the project has ended, a qualitative analysis of the long-term dimensions of teacher change stemming from the

STAR grant would further extend knowledge and thinking about teachers' change of literacy practices through professional development.

This study of the dimensions of teacher change following a staff development project not only informs future literacy staff development projects but also contains potential implications for similarly-constructed staff development projects overall. Considerable amounts of funding in school districts worldwide, and particularly in the United States, are earmarked for staff development. However, few studies have documented the long-term effects of literacy-oriented staff development (National Reading Panel, 2000).

This study also provides a departure from past studies that have examined only the personal and professional knowledges that influence content area teachers' literacy practices (e.g., Moje, 1996) by examining the local, institutional, and societal discourses at work in the teachers' pedagogical decision-making processes. As van Dijk (in press) explained, people constantly use discourses to enact ideological stances and provide links between text and society. As such, discourse samples can be viewed from micro levels, in which local and immediate meanings are conveyed, but also from macro levels, where larger, societal Discourses (Gee, 1996) are either challenged or reinforced. By conducting a critical language study into the teachers' classroom-based discussions and conversations about their instruction, this study brings to bear the various institutional and societal influences at work in the teachers' decision making processes.

The focus of this study was to explore the opportunities to learn that were taken up, modified, or excluded by two science teachers after a staff development project and its support had ended. The two teachers were Mrs. Dawn Scolari, a 6th grade life science

teacher in her 22nd year of teaching, and Ms. Tamala Cook, an 8th grade physical science teacher in her 4th year of teaching (The names of all participants and locations have been replaced with fictitious names to protect participant identity). The following research questions guided the study:

1) Given the backdrop of a discursive, collaborative staff development project exploring content area literacy, what opportunities to learn were taken up, modified, and rejected after the project has ended?

2) What local, institutional, and societal forces influenced the teachers' content area literacy instructional decisions?

Because both of these questions required analyses that stemmed from the teachers' participation in the staff development project, a description of the project is warranted. The following chapter provides an in-depth narrative description of the staff development project that served as the basis for subsequent inquiry. In addition to the narrative, an illustration of the project's activities and formats is provided.

CHAPTER 2

THE STAFF DEVELOPMENT PROJECT

Much of the literature on teacher change through staff development is typified by assuming oppositional positions on programmatic issues. Debates over whether the change process begins in beliefs or practices (e.g., Berliner, 1994; Griffith & Tan, 1992; Huberman, 1989), should be instigated by in-school (e.g., Joyce & Showers, 1988) or outside authorities (e.g., Clune, 1991) have tended to position the field at various points around a linear model of change and growth. Throughout the various viewpoints, a basic assumption has permeated the literature that presumes the flow of change proceeds from outside authorities to teachers.

However, a few research studies have explored the process of change from a dynamic, constructivist perspective. Most notably in the field of literacy is the Reading Instruction Study, a long-term, in-depth staff development project designed by Virginia Richardson and colleagues to study the role of research-supported practices in teachers' classrooms (Richardson, 1994). The researchers used the Practical Argument Staff Development (PASD) process, designed to help teachers, both in groups and individually, inquire into their beliefs and practices concurrently, in relation to current research on reading and practices. In essence, the process sought to construct a collaborative action research project.

Foundational concepts for the project included a long-term span over which meetings, reflection, and observations were spaced, voluntary participation by the teachers, collaboration among teachers and change facilitators, and intensive consideration of teachers' beliefs as they relate to practices. Using these guiding concepts, the PASD program was developed as a collaborative project, as defined by Tikunoff, Ward, & Griffin (1979). Richardson and her colleagues used Tikunoff et al.'s four necessary conditions for successful collaborative action research: (a) clear and specific goals should be carefully negotiated at the beginning of the process; (b) strong leadership by someone who can model democratic processes; (c) recursive cycles of planning, execution, and fact-finding; and, (d) the school environment should be one with a collegial atmosphere, in which teachers are free to identify problems and experiment with solutions.

Using these four conditions as the framework for the PASD model in five urban elementary schools, the researchers found results that suggest teacher change occurs in extremely dynamic ways. For example, Richardson and Anders (1994) found that when teachers are involved in examining both beliefs and practices in a practical argument model (in which an Other supports a teacher in examining beliefs and practices, change and develop new beliefs, and experiment with new practices – Fenstermacher, 1994), changes can occur in either area first, or they can occur simultaneously. Richardson and Anders concluded that, in keeping with the teachers' needs and diverse funds of knowledge, the staff development project's responsive design allowed for teacher change to occur in ways that were most fitting in individual cases.

The tenets of the reading instruction study and Tikunoff et al.'s (1979) four conditions provided the theoretical framework for constructing the STAR grant project. This discursive, collaborative staff development project allowed participants to explore content area literacy strategies as a group and individually in their classrooms and assumed that the existing practices and beliefs of the teachers warranted space for discussion and consideration in this context. A major underpinning of the project was its solicitation of and respect for the teachers' existing professional knowledge landscapes, the backdrop of localized experiences, beliefs and activities that influenced the interactions (Clandinin & Connelly, 1996). This acknowledgement of the situated learning context of the teachers (Putnam & Borko, 2000) ensured that the project would follow the needs and desires of its participants, rather than yielding to traditionally influential outside influences, such as school district or state objectives, that may or may not have been valid for that particular context. The structure of the grant consisted of day-long meetings which included sharing of strategies explored in classrooms since the last meeting, discussion of an area of content area literacy (e.g., notetaking, vocabulary), orientation to several strategies, brainstorming of possible lessons to integrate strategies, and goal setting for the next meeting (Stevens, 1999). While the logistical structure of the grant project laid the foundation for a collaborative, reflective process, the interaction within the projects' meetings also played an integral part in fostering teacher change through staff development.

The following is a case in point of the initial staff development session. This example is told with Tikunoff et al.'s (1979) four guidelines as an analytical backdrop to the narrative.

The STAR Grant: Setting

The middle school which served as the context for the STAR grant is located in a large, southwestern city that had been most notably marked by rapid growth in the year of the study and the recent years preceding the grant and the study. Within this large, urban school district, newly-built schools open each year in an effort to keep pace with the city's growth. As such, teacher and administrator transfers among schools are commonplace.

Lincoln Middle School (all participant and location names have been replaced with pseudonyms) is a modern, recently-built school that houses over 2000 students. At the time of the grant, it was in its second year and used a year-round schedule to accommodate the growing student population of 6th, 7th, and 8th graders. Following the year of the study, the school switched to a nine-month schedule, which had many effects, including sharpening the overcrowded nature of the hallways and classrooms.

Lincoln Middle School's population of students comes mostly from middle class socioeconomic backgrounds. While the slim majority of students are of European-American heritage, each month in the school's first three years of existence has marked a steady increase in the African-American and Asian-American student populations, according to the school's principal, Phyllis Jefferson (personal interview, May 2, 2000). Phyllis also noted during this interview that the school is located in a growing section of the city, so overcrowding conditions are common, with class sizes averaging from 30-40 students, depending on the grade level, and other schedule constraints.

Although the school carries the moniker of middle school, the curricular and instructional practices more closely resemble a traditional junior high school. Students

and teachers teach and learn in disparate, stand-alone classes, and the days are comprised of six hour-long periods, including the basic core subjects of math, reading, English, science, and social studies and the choice of an elective such as physical education or band. The following vignette describes the activities and tone of the first grant session, which set the pace, mood, and focus for the subsequent sessions.

The STAR grant: Session one

Negotiating clear and specific goals

As the eight teachers, representing science and social studies courses taught in grades six to eight, filter in, they orient themselves to the large room with tables, one of which has coffee, juice, and bagels set aside for the participants. The teachers and the facilitators chat informally about school, home life, and other quotidian topics. Even though the contract time has begun for the teachers, this start to the day sends the message that this project will be marked by a respect for the collaborators; in fact, the project will be driven by its members. Throughout the daylong session, old relationships as colleagues are revisited, and new relationships begin to be forged. Comments like, “Oh, I didn’t know you did that in your classroom, too,” highlight the dearth of interpersonal relations in school contexts, actualizing, for these teachers, Britzman’s (1991) descriptions of the teacher as rugged individualist, in which the teachers worked as individuals to overcome any pesky conditions like overcrowding or unwieldy textbooks. However, these exploratory and sharing comments also began to typify the repositioning that occurred as the participants redefined notions of themselves, the other participants, and their professional relationships.

The collective conversation is led by the school's learning strategist, who revisits the processes that led to the formation of this group: soliciting interest, selecting the voluntary participants, collaborating on goals of the grant, applying for and being awarded the grant. She then moves the group onto a collaborative discussion that will come to typify their interactions.

Modifying Chance's (1992) guidelines for developing a personal vision, the strategist guides the group in constructing a mindmap (using images and words to represent concepts and beliefs) to describe the ideal setting for concept learning in the middle school. This activity sets the stage for drawing on participants' funds of knowledge (Moll, 1992) as guiding concepts for the project. Then, the participants brainstorm what specific skills students should have to operate within this setting. As the information moves to a more concrete level, the facilitator interjects research-based notions when necessary and helps to probe ideas, restate common notions, and synthesize statements. In general, her role as facilitator is to provide a language for tacit understandings and bring into the conversation potentially alternative ways of thinking and acting. Once the brainstorm is completed, participants work together to prioritize learning about student skills and map out a tentative schedule for the rest of the yearlong project. These activities cement the notion that while there is an inherent, overall purpose to the grant, each teachers' conceptions of this agenda must be explored as part of the examination of practices.

The strategist and university collaborator then guide the participants in the creation of a content area reading inventory to assess the needs of the students in this particular school. Using the university researcher's content area reading textbook as a

model (Readence, Bean, & Baldwin, 1998, pp. 66-70), each item's placement and wording is negotiated by the grant participants. This exercise further underscores the collaborative nature of agenda construction for this grant project, and in particular, the essential input from participants in shaping specific goals.

Democratic leadership

If a passerby were to walk into the room at any point in the day, it would be difficult to ascertain quickly who were the designated leaders of the group. All of the participants are seated at tables, so no physical dominance is demonstrated through spatial positioning.

More subtle, and perhaps more critical, indicators also show the fluid collaboration in the room. The conversation is not dominated by either the strategist or the university collaborator. In fact, their input is comprised more of open-ended questions posed to the participants than of expository explanations of content area reading. This type of leadership mimics the role of the Other, as described by Richardson (1994) in the Reading Instruction Study, where the project coordinators strove to facilitate conversation and contribute as equal members of the group.

Action research

This initial session served to establish trust and to highlight specific goals for further exploration by the group. Subsequent daylong sessions focused on topics in content area literacy, such as vocabulary and notetaking. See Appendix C for a schedule of the project's meetings and topics. These topics were explored in what became a typical pattern, consisting of: (a) extensive sharing of classroom experiences and examples of

strategies implemented from the last session, (b) information about and exploration of the session's topic, (c) modeling of strategies that fall within that topic, (d) brainstorming specific classroom applications of strategies, and (e) goal-setting for implementing strategies in anticipation of the next session. This pattern reveals the action research nature of the STAR grant project. The most meaningful and discursive elements of the sessions arose from sharing the applications of strategies in the teachers' classrooms. These applications served as both the catalyst for initially exploring content area literacy topics and as the vehicle for assessing specific strategies. Similar to Richardson's (1994) findings, the changes in teachers' beliefs and practices occurred dynamically as the action research environment supported various change processes (Stevens, 1999).

School environment

Although general support from the school's administrators allowed this grant project to be formulated and carried out, little attention was paid to the grant by anyone at the school who was not a grant participant. Beyond a few curious questions about what the STAR group did in its meetings, only a few teachers expressed an interest in the grant, also in keeping with a rugged individualist notion of teachers, in which nonessential topics fall away from attention (Britzman, 1991). In this junior high-like setting, the grant was perceived as an entity unto itself, one that met periodically while the rest of the school proceeded through the hourly class sessions. The most critical elements of environment were fostered within the grant sessions themselves. In fact, in many respects, the setting of the grant more closely resembled a middle school philosophy in which teachers collaborate, than did the outside environs of the school. As was noted in the initial description of the day, care was taken to establish an informal and

accepting setting so that salient aspects of beliefs and practices could be explored in a trusting environment. This environment was greatly enhanced in later sessions that were held in participants' homes and included more interpersonal discussions characterized by respect and trust.

Also enhancing the situated context of the grant project were the many discussions that occurred among the participants between meetings. Participants began interacting with each other, discussing their practices, during informal chats between classes, sharing lunches and prep periods and in more structured ways. Many such structured examples are found in the response log that rotated among grant participants between sessions (Stevens, 1999). In this log, participants read and responded in writing to a professional article about literacy. At the conclusion of the grant project, many participants cited the collegial atmosphere as the critical element to their successful involvement in this project (Stevens, 1999).

After the STAR project folds

The preceding description provides an in-depth view of the components, participants, tenor, and activities that comprised the STAR staff development project. At the conclusion of this staff development project, all of the participants, including the facilitator, described specific and general areas of growth in teaching (Stevens, 1999). As in the Reading Instruction Study (Richardson, 1994), the change occurred in different ways for different participants. However, in keeping with one of Guskey's (1986) criticisms of staff development projects, this collaboration came to an end. What remains to be seen is what has happened and what will happen in the ensuing months and years when formal support from the project no longer exists. Initial findings from Richardson's (1994) study show that once supported in consistent, collaborative ways, the participants

in the Reading Instruction Study were able to continue to support the change. These findings are, of course, unique to that situation. This study has investigated if similar or different findings occurred after the STAR grant project came to an end. Of further interest is investigating what factors, or discourses, influenced the teachers' decisions to continue or abandon strategies and collaborations initiated during the project.

By examining these issues, this study informs the intersection of three areas of inquiry: teacher change through staff development, content area literacy, and critical discourse analysis. By examining the post-project decisions and beliefs of the participating teachers and the reasons behind their decisions, this study sheds light on the seldom explored areas of lasting teacher change and its influences.

CHAPTER 3

METHOD

Theoretical Framework

As detailed in the previous chapter, the STAR grant was approached from a constructivist, collaborative framework in which participants worked together to explore strategies, rather than a didactic instructional framework. In keeping with this approach, this qualitative research study was conducted from the same standpoint. Rather than assume that the changes in beliefs and practices observed during the course of the project, which stemmed from the opportunities to learn, will either remain completely intact or dissipate after the absence of formal support, this study approached the research from the standpoint that the teachers continued to interact with these opportunities to learn in a variety of ways, for a variety of reasons. The psychological and social process of change, as with any psychological process, undergoes constant changes in thought and behavior (Vygotsky, 1978) and reflects the level of concern the teacher has for the innovation at hand (Hall & Hourd, in press). Therefore, the study examined current teacher beliefs and practices in relation to those documented during the course of the grant project, when opportunities to learn about literacy in the content area were first presented and appropriated.

Also inherent to this study is the belief that there is a relationship between teachers' beliefs and practices. In fact, as Konopak, Readence, and Wilson (1994) noted,

there is often an incongruence between content area teachers' expressed beliefs and the subsequent practices used in classrooms. Both supporting and contradicting relationships of intertextuality between expressed beliefs and observed practices informed the examination of which literacy instruction opportunities were appropriated by the teachers. The qualitative methodology of constructing domains and themes (Spradley, 1980) afforded the opportunities to analyze and classify the intertextuality between the teachers' literacy beliefs and practices and the relation of those to the STAR project.

Lastly, another underlying concept in the theoretical framework undergirding the study is critical literacy. Critical literacy regards texts, spoken, written, and physical, as the tools that are both shaped by and influence ideologies. Critical research theories assume asymmetrical distributions of power in societal institutions and regard the examination of how these distributions are actualized as one possible method to arguing against these inequities (Fairclough, 1992). Critical language studies provides discourse analysts with a perspective for analysis and description of instances of discourses, in order to theorize how various ideologies are enacted through social interaction. In this study, critical discourse analysis (CDA) was used to examine the teachers' socially situated discourses about teaching, learning, and literacy instruction. The two teachers' literacy practices and their discussions about their practices are forms of meaning making, and hence are social practices that can be examined through a critical literacy lens (Fairclough, 1989).

Fairclough describes social interactions as both the heart of interpersonal meaning making and the fractured reflection of society's ideologies. Examining the more localized personal and professional discourses (small "d") and the larger, societal Discourses (large

“D”) about teaching, literacy, and adolescents afforded opportunities to describe the motives and motivations behind the decision-making processes of the two teachers. Using Fairclough’s (1989) Critical Discourse Analysis provided opportunities not only to characterize the teachers’ adoption of opportunities to learn, but also to explore and connect the various social and ideological forces that enter into their decisions.

Data Gathering

Participants

While all eight teachers who participated in the staff development project expressed interest in and support of this research study to examine dimensions of change over the passage of time, the in-depth nature of this study precluded research in all eight classrooms. Instead, purposeful sampling (Merriam, 1998) led to the selection of two teachers to participate in the study. These two participants met the criteria of posing information-rich sources of data through their initial and ongoing enthusiasm for the STAR project, their continued teaching assignments as middle level content area teachers, and the high levels of trust and rapport that already characterized their relationships with the researcher. These critical components (Janesick, 1998) to this qualitative research study laid the foundation for the in-depth inquiry into the teachers’ beliefs and practices posed by both research questions. Existing baseline data from their classrooms documented during the course of the study helped to inform the findings of this study. These baseline data served as an anchor to which adopted opportunities to learn will be tethered. Further, the two participants were at quite different points in their teaching careers, one with three years of experience, and one with twenty-two. Other studies have demonstrated that teachers filter instructional decisions through both

personal and professional areas of expertise and experience (Moje, 1996). As such, these two teachers embodied wholly different perspectives on teaching, in respect to professional background, and as such represented variation in the sampling (Glaser & Strauss, 1967).

Setting

At the time of publication of this study, both teachers continue to work in the urban, southwestern city in which the yearlong staff development project was conducted. This southwestern setting has undergone massive growth in population that continues to stretch the public schools facilities. Average class sizes often hover around 35-40 middle school students per class period, and massive transiency in the student population results in almost constant changes in the student enrollment. One teacher, Dawn, teaches 6th grade life science in a middle school close to the project's original school and is in her 22nd year of public school teaching. The other teacher, Tamala, teaches 8th grade physical science, is in her third year of teaching, and continues to work at Lincoln Middle School, the original project's site. Both Tamala's and Dawn's school serve a fluctuating and growing population made up mostly of European American students (49%), Asian American students (18%), Hispanic (24%), and African American students (9%), (Phyllis Jefferson, personal interview, 9/6/2000).

While one class in particular from each teacher's daily schedule was visited regularly in each teacher's classroom to construct sociocultural profiles of the literacy activities in a particular learning community, visits to the other class periods were also conducted sporadically to get a sense of the literacy activities across the class contexts of both teachers.

Data collection

Beginning almost a year after the project's completion, each teacher's classroom was visited once a week during instructional time for a period of twenty-five weeks. The first ten of these weeks encompassed the latter half of a school year. The other fifteen instances of classroom visits occurred during the first half of the following school year. Spreading the study over two academic years' context allowed for instrumental inquiry into the institutional contexts. This duration of the study was particularly salient to the examination of Mrs. Scolari's classroom, as she changed middle schools during the course of the study.

During the classroom visits, participant observation techniques were used to document the literacy activities in the classroom. The researcher sat in the back portion of each room and recorded field notes on a computer, noting the classroom environs, activities, physical factors, and particularly the discourses during the class sessions. After the field notes were collected, the researcher immediately transcribed all field notes into detailed descriptions. A one-page summary of each observation was created and sent to the research participants, to keep the participants apprised of the research and to gain response data from the participants. See Appendix D for an example of the one-page summaries submitted to the research participants.

Interviews, both structured and unstructured, were conducted to inquire about specific literacy practices, general notions of literacy in the content classroom, and about perceptions of the staff development project and its components. Unstructured interviews, which occurred primarily directly before and after each classroom observation, were noted using field notes and follow the same transcription process as the observation field

notes. Periodic formal interviews of the participants were conducted beyond the school day and were audiotaped and transcribed.

Interviews of the research participants were supplemented by structured and unstructured interviews of other school personnel to inquire about the institutional and societal contexts at work in the participants' schools. All interviews served as both sources of pertinent data and as triangulation to data from other sources.

Artifacts were collected and also used to triangulate data from other sources. The artifacts included: lesson plans, written responses to informal surveys about content area literacy practices, curricular frameworks and benchmarks, anonymous student samples of literacy-related class work.

Role of the researcher

All qualitative researchers exert varying amounts of influence and effect on the settings that they visit (Merriam, 1998). Because as the researcher, I also bring to the setting histories of being the facilitator of the STAR project and former learning strategist at Lincoln Middle School, my presence in the participants' classroom was perceptible. As such, key aspects of my lens played significant roles both in my relationship with the participants and in the collection, analysis, and reporting of the study's data. As the school's former learning strategist and as a literacy educator interested in adolescent literacy, it was my role within Lincoln Middle School to help improve the students' access to content area and other texts. Past interactions between the researcher and the teachers were marked by collaboration in lesson planning, discussions about literacy, and team teaching specific lessons. The majority of the class visits for the purposes of this research study were spent solely observing and gathering qualitative data of the literacy

learning facilitated by the classroom teachers. During these visits, the researcher was a participant as observer (Merriam, 1998), largely taking in information without actively participating in the activities of the classroom. Although regularly scheduled visits occurred, the teachers also invited the researcher to visit their classrooms at any time, communicating a high level of trust and discouraging the notion that the teachers were significantly altering instruction during observations.

From time to time the researcher and teachers chose to team-teach or work cooperatively. During these class sessions, the researcher's role was that of an observer as participant (Merriam, 1998). Field notes that arose from such collaborations were also used. Application of the constructivist and sociocultural frameworks used to shape the grant project and this study supported the use of this data as a potential source of findings about beliefs of literacy and collaboration. Response data and interview data from the participants helped to shed light on the role of the researcher within these two classrooms.

As with all qualitative researchers, my subjective lens proved to be a critical component of the research study. Employing the theoretical frameworks of ethnography and critical studies, I examined and interpreted the discourses of the teachers in this study according to my own resources, i.e., my personal belief systems influenced by past experiences and ideologies (Fairclough, 1992). This blatant description of ideologies and the use of these in analysis have been criticized by some theoreticians as being overly determined (e.g., Lenzo, 1995; Lather, 1986).

To address these concerns, I used many strategies (a) to make sure that my ideologies were clearly explicated to myself and my participations, (b) to ensure that my

participants had ample opportunities to provide member checks (LeCompte & Preissle, 1993), and (c) to provide opportunities for colleagues from various theoretical frameworks to review the analysis, including a fellow doctoral student familiar with discourse studies and a senior researcher more familiar with ethnographic perspectives.

First, because of the longstanding relationship I had with each research participant, we held certain shared perspectives about teaching, learning, and the constraints of conducting these processes in secondary schools. At the onset of the research study, I reiterated these salient perspectives and informed the participants that I would analyze their classroom interactions through this lens. Both participants expressed their comfort with this perspective, although each took the time to explain that as classroom teachers, they did not spend as much as time as I did thinking about the societal influences that may or may not be refracted in their instructional decisions. They reiterated that point throughout the course of the study.

After each classroom observation, the participants were provided summaries of my field notes. We then spoke about these summaries, providing opportunities for member checks from the participants. These discussions offered opportunities for the teachers to argue against any characterizations that they did not see as accurate. As we discussed these summaries, and during these discussions, I shared my initial thoughts about what institutional and societal Discourses may have been present in a portion of the lesson's ongoings. For example, after a classroom observation in November of 2000, Dawn and I were discussing her highly structured use of notebooks with her 6th graders.

Researcher: I wonder if this schoolwide emphasis on organization can even be somewhat stifling for the students who don't value that way of learning.

Dawn: Maybe, but that's what they need to get through the system and be successful, don't you think so?

Researcher: Without a doubt. I think what I'd like to question, though, is how the system might be too narrow in how it defines success for all students.

Dawn: Yeah, maybe.

This conversation shows how I shared my themes and domains with the teachers as I observed them at work in their classrooms. Also, as I analyzed the field notes and transcripts of interviews for themes about societal Discourses, I discussed these with both of the aforementioned academic colleagues. These conversations helped me to refine my thinking about the teachers' local, institutional, and societal influences, as both colleagues offered perspectives from their resources. However, the preceding conversation also demonstrates the pervasive presence of hegemonic relationships in institutional settings, and the relationship between the researcher and participant is not immune from this characterization. It is quite possible that Dawn and Tamala concurred with my expressed views of teaching and learning, as Dawn did in the preceding dialogue, as participants in a research project crafted, conducted, and fueled by a researcher. It is precisely this type of influence and presence that as a critical language analyst I must consider as a very real possibility.

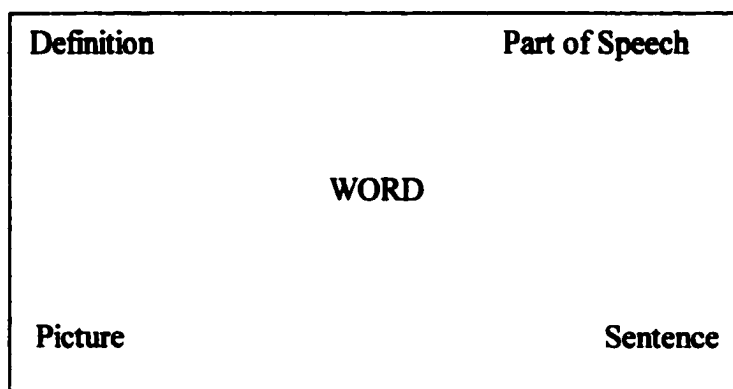
In fact, according to Fairclough's description of the position of the analyst researcher, the goal of the critical discourse analyst is not to assume a position that lacks any reflection or refutation of layered discourses. Rather, the role is to develop "self-consciousness about the rootedness of discourse," (1989, p. 167). To that end, discussions with peer researchers and family members helped me to keep my perspective, including my ideologies and prior experiences, at the forefront of my awareness as I analyzed these two teachers' discourses.

Data Analysis

The data analysis, although inherently recursive and repetitive in nature, occurred in two general sweeps of the data. First, an ethnographic domain analysis of the two teachers' appropriation of the opportunities to learn from the grant project was based on the qualitative methodologies of examining the teachers' use of language describing literacy practices, and the patterns of instructional literacy practices. The field notes and interview data were read and reread after sessions, using content analysis, to construct themes and patterns in the words, actions and events related to literacy. From these patterns, domains were constructed to explain "the parts, the relationship among the parts, and the relationship to the whole" (Spradley, 1980, p. 85).

For example, in an informal conversation between myself and Dawn, the veteran 6th grade life science teacher, we discussed her use that day of vocabulary cards to help her sixth graders learn the terms for discussing invertebrate animals. During the course of the STAR grant, vocabulary cards were explored as a strategy to help make semantic, structural, and representational connections to content area terms and concepts. The

figure below delineates the structure of the vocabulary card that was used in the grant and that Dawn continued to use in her classroom.



She commented that “I still use a lot of the stuff we did, but I used a lot of that before. I think mostly I’ve learned better ways of using the strategies,” (personal communication, February 9, 2000). This brief collection of references to her literacy practices contains within it many possible themes: that she perceives the opportunities to learn from the project to have remained, that the opportunities to learn presented by the staff development enhanced her prior use of the strategies, and that she positions these enhanced strategies within the overall context of her career-long professional development. This type of data gathering and analysis was completed in cycles, so as to construct domains and patterns that are saturated across several cycles.

This text example also contains within it potentiality for analysis from a CDA framework. Using Fairclough’s (1989) process of description, interpretation, and explanation, this excerpt yields a deeper analysis of the discourses at work in Dawn’s comment. A description of the comment is quite similar to the ethnographic description,

however, the added detail that Dawn leaned in close to the researcher and smiled provides additional information suggesting a perceived intersubjectivity and shared interests. This analysis is further corroborated by the use of the pronoun, “we,” used to refer to Dawn and the researcher, implying a shared intersubjectivity about the role of strategies in a secondary content area classroom. Also notable is the use of the chronological referencing of Dawn’s appropriation of strategies as occurring “before” the grants’ exploration, thus positioning her level of expertise as somewhat preemptive to the STAR grant. Using the larger Discourse of teacher as rugged individualist (Britzman, 1991), this self reference to a pre-existing level of expertise reinforces the notion that teachers individually gain expertise through time and experience in their disparate classrooms. This one comment draws into analysis Dawn’s personal stance to the project, her professional background, and a larger Discourse about how teachers learn throughout their careers. Through the CDA-specific cycles of description, interpretation, and analysis, discourses of personal, professional, and societal natures were examined.

The data were thoroughly analyzed first through the two approaches to analysis, ethnographic domain analysis and Critical Discourse Analysis, through the use of multiple data sources, and lastly through analysis from a peer researcher.

Data Reporting

The results and findings of the qualitative research project are communicated through the use of two comparative case studies. Each teacher’s sociocultural context, documented changes in beliefs and practices during the course of the staff development project, and subsequent conceptions of and references to these opportunities to learn are richly described in a case study (Merriam, 1998). Since the potential audience for this

study includes practitioners and researchers from the fields of literacy, staff development, and administration, the rich description of the two cases is critical in allowing readers to judge the relevance of the study and its findings to their own circumstances. While being rich in description, these case studies are also instrumental in nature from the narrowed focus on the appropriations of literacy-related opportunities to learn (Stake, 1998). Having two case studies allows for comparisons across themes and domains constructed from the data.

The discourse samples collected from observations and interviews with each teacher were then examined and represented through conclusions found through Critical Discourse Analysis. The CDA findings unpacked the various discursive forces evident in, and at work in teachers' classroom literacy decisions.

CHAPTER 4

ANALYSIS AND DISCUSSION: QUESTION ONE

This study of two middle school science teachers' literacy decisions is guided by two research questions. The first of these questions, given the backdrop of a discursive, collaborative staff development project exploring content area literacy, what opportunities to learn are taken up, modified, and rejected after the project has ended, will be addressed in this chapter. A case study of each teacher is presented, including descriptions of a typical science lesson involving literacy, descriptions of the themes or domains found in the data that exhibit what opportunities to learn were taken up, modified, and rejected during the staff development project, and descriptions of what transpired across the longitudinal research study following the project. In addition, as discussions of how to engage students with their textbooks was a constant throughout the STAR staff development sessions (Stevens, 1999), a discussion of the role of the text in each teacher's classroom will also be provided.

Dawn Scolari

Dawn Scolari is a trim, European American woman in her mid 40's. A pragmatist with a strong sense of professionalism, Dawn's appearance is always orderly and neat; typical outfits of matching slacks and blouses allow her to dress professionally and deftly manipulate the various materials found in a science classroom. Her sixth grade life science classroom is permeated with a sense of order and routine. Each wall has a few

commercially-produced posters, exhibiting key concepts in life science. The black top science tables, which seat two students, are arranged in rows, with space in between each table so that Dawn can circulate easily around the classroom.

Each day, the 10, 11, and 12-year olds file in through the classroom door used for incoming students. They find their assigned seats, unpack their science textbook, their science notebook, and their daily planner, in which they begin to jot down the day's objectives and homework assignment, consistently found in the upper right hand corner of the left markerboard. As the students are copying down the day's objectives, Dawn follows a simultaneous routine of taking attendance, distributing the necessary handouts for the day and answering the few errant questions that students might have. After roughly five minutes of this preliminary action, Dawn gains the attention of the whole class and proceeds into the daily lesson, which might be a lab activity, lecture with accompanying notes, or time for in-class reading of the textbook. Whatever the lesson's focus, instruction is largely delivered through teacher-centered, whole-class activities. For example, on a lesson observed in November of 1999, Dawn gave a lesson to the class about arthropods. The lesson followed a pattern in which Dawn would talk to the students about a concept, help them, through discussion, to connect the concept to previously learned science concepts or out-of-school metaphors and then display typed notes using an overhead projector.

Dawn made judicious use of the chances to relate concepts to students' more immediate experiences. When explaining the current classification system used in science, she solicited examples from students of how they organize their clothes at home. After five or six answers provided by students who had raised their hands, Dawn drew a

parallel that all the systems for organizing clothes were valid if they served their purposes, just as the scientific classification system currently sufficed for organizing known organisms. In this instance, much of the classroom discussion was one-sided, with Dawn providing the prompt, fielding one-sentence or single phrase responses, and then tying the responses together for students. At the end of this class, and all other lessons, Dawn reiterated the homework for the day, which the students had already copied down as part of the beginning lesson activities, and mentioned any upcoming events, such as quizzes or tests.

Throughout the five class periods a day, five days a week, this routine of whole-class instruction rarely wavers. Students are expected to follow the routine of the daily procedures. Their adherence to Dawn's clear rules about raising hands before speaking or leaving an assigned seat, and remaining on task also help her to cleanly maneuver her students through the day's tasks. In keeping with the overall emphasis on whole-class orchestration, Dawn requires her students to keep three-ring binders that are identical in contents. Together, Dawn leads her students through numbering the pages in their notebooks, which include in-class notes and handouts, homework activities, and laboratory experiment write-ups. This type of uniform instructional support exemplifies Dawn's management of her classroom, her students, and the instructional activities she chooses.

Dawn's Participation in the STAR Grant

During the course of the STAR staff development project, Dawn played a pivotal role in modeling participation for the other content area teachers. As the then science department chairperson, she led by example, not overtly stating what other teachers

should do but always offering concrete examples of how she shaped her participation. In an interview about halfway through the staff development project, Dawn explained that she viewed the project as a “great opportunity to actually talk with each other. It doesn’t matter so much what we’re all doing in our classrooms if we can’t benefit from each other.”

As described in Chapter 2, the professional development session followed a typical pattern of activities, consisting of: (a) extensive sharing of classroom experiences and examples of strategies implemented from the last session, (b) information about and exploration of the session’s topic, (c) modeling of strategies that fall within that topic, (d) brainstorming specific classroom applications of strategies, and (e) goal-setting for implementing strategies in anticipation of the next session. Each session, Dawn participated in each of these activities, offering concrete student examples of strategies from the last session, participating in the discussion of the current session’s topic, and offering suggestions on goals for the next session. As a staff member who met regularly with the school principal as a department chair, Dawn had in-depth knowledge of the entire school’s function and offered suggestions about school-wide activities that might impact the staff development’s scheduling.

Dawn regularly implemented strategies in her 6th life science classroom following each staff development session. Because a variety of strategies around a particular topic were presented each session, Dawn and the other participants were able to choose which strategy or strategies best suited their students and their own teaching styles. Dawn consistently chose strategies that she had either tried before or those that could be modified to fit into her existing style.

For example, following the November staff development session on vocabulary strategies, Dawn selected the vocabulary card strategy. According to a December interview when we discussed this strategy, Dawn explained that in the past, she had provided a list of vocabulary terms for each chapter to the students. The students then copied the words' definitions from the textbook glossary. Using the vocabulary card strategy, Dawn had students use a 3 x 5" index card to display the word, the part of speech the word represented, its definition, a contextually-rich sentence containing the word, and a picture of the word's meaning. This strategy allowed students to personalize the process of learning the content area terms, through creating original sentences and pictures to demonstrate the words' meanings (Blachowicz & Fisher, 2000). At the next staff development session at the end of November, Dawn explained to the group that this strategy worked well for her because, "I'm still able to get the vocabulary done in a single lesson, pretty much, and the students seem to get the words better."

Dawn's use of the vocabulary card strategy exemplified her appropriation of strategies explored in the staff development project. She tended to choose strategies that allowed her to accomplish the same learning objectives in the same amount of instructional time that she would have normally used to teach the objective, while boosting student engagement with the content area concepts. At the conclusion of the staff development project, Dawn indicated on a written survey that she had tried over ten new strategies, and modified 11 strategies that she had learned previously (Stevens, 1999).

Dawn's Instruction after the Staff Development Project

The classroom instruction in Dawn's class continued to follow the same patterns as before and during the course of the staff development project. Dawn continued to conduct her classroom in a routinized, predictable pattern that led students through individual record-keeping activities, whole-class learning, and review of the day's homework and upcoming classroom events. Throughout this pattern, the center of the instruction in the classroom was Dawn, who provided cues for students' actions and discussions.

Field notes from weekly observations of Dawn's classrooms showed that over the course of two school years, Dawn continued to use roughly one strategy a week from the staff development sessions. The most common strategies used were the vocabulary cards, anticipation guides for introducing a science concept (Head & Readence, 1992), and the use of graphic organizers for notetaking (Moore & Readence, 1984). Because an example of Dawn's use of the vocabulary card strategy was provided at the start of this chapter, two examples of the remaining strategies will be provided.

In a lesson observed in March of 2000, Dawn used the anticipation guide strategy to help students explore ideas about ecosystems. After the students had completed the beginning activities for the class session, Dawn displayed a series of statements using the overhead projector. Students were to respond if they agreed or disagreed with each statement on scratch paper at the desks. The following statements were provided:

1. Ecosystems are found in both arid and marine environments.
2. An ecosystem is a classification system for animals.
3. Ecosystems are areas that are in danger of overdevelopment by man.

After giving the students a few minutes to respond to the statements, Dawn solicited statements from students that explained their positions. Dawn entertained one to two explanations per anticipation guide statement. She then provided a definition of an ecosystem, which students copied down into their notebooks, and then revisited each statement, examining its accuracy based on this definition.

Dawn's use of the anticipation guide strategy marks an instance in which she took up the learning opportunity from the grant, but modified the strategy to suit her purposes. As she explained in an informal interview following this strategy, "I like the way this strategy lets the kids get to know the topic a little before reading." When asked why she chose to limit the in-depth discussion that normally accompanies this strategy and offer the clarification traditionally provided during the post-reading stage, she explained, "If I let them go back and forth and argue about the statements, we'd never get on to the meat of the lesson." This statement demonstrates how Dawn's modified use of this strategy allows her to engage her students at a deeper level with the science content without sacrificing the more highly valued goals of reading the textbook chapter and achieving the day's objectives.

Dawn also used graphic organizers in her classroom. During the course of the staff development grant, graphic organizers were offered as tools for supporting student learning before, during, and after content area reading. Suggestions from the participating teachers included allowing students to use colored pencils to indicate subtopics and related concepts. In a lesson observed in March of 2000, Dawn introduced this strategy to her students by leading them through the procedures for creating a graphic organizer. The lesson proceeded as Dawn gave verbal instructions to the students, waited for visual

observation that most of the students had followed the instruction, and then gave the next instruction.

Dawn: OK, everybody place their papers so that the holes are at the top
(Pauses and observes for student compliance).

Dawn: OK, now write nonvascular plants and give yourself a definition
(provided on the marker board) and then put a circle around it big,
but not gigundo.

(Pauses and observes for student compliance).

Student: In the middle?

Dawn: Yes, in the middle. Smack dab in the middle.

(Pauses and observes for student compliance).

Dawn continued to lead the students through the activity in this manner. She provided explanation of a key concept, sometimes referring to the textbook, and then she gave students instructions on how to record this information on their graphic organizers, including precise wording and positioning on the organizer. Students were able to exercise choice on what colored pencil to use as they took notes about various subtopics.

During an informal interview that followed this lesson, Dawn explained that she found the strategy useful because “it lets them see the organization of the topics.” She also noted that she did not allow students to design their own graphic organizers because she wanted to model the process, but that she might do so in the future. In two subsequent observed lessons that used graphic organizers, Dawn continued to lead students through the construction of the graphic organizers.

There were several strategies that Dawn chose not to appropriate from the STAR staff development project. Often, these strategies were left behind because they did not fit with Dawn's teaching style and/or how she viewed her teaching duties. In an interview in April of 2000, I asked Dawn about the lack of writing strategies in her instruction.

Researcher: I haven't noticed too many of the writing strategies. Any reason why?

Dawn: Yeah, I like those, but it is just way too time consuming to let students choose their own topics, help them through the writing process, and then have to read and grade 150 papers.

Researcher: Mhmm. It can be very time consuming

Dawn: It's like we discussed in the grant. We'd like to, but who has the time with all these objectives to cover?

Strategy Use

Dawn decided to continue and/or modify the use of strategies explored in the STAR grant based on their synchrony with her teaching style. A veteran teacher seen as a master educator by both of the principals during the course of this study, Dawn is the undeniable leader in her classroom. She makes all the classroom decisions. Therefore, only those strategies that could be conducted whole-class and be commenced and completed within the time constraints of 50-minute class period were incorporated into her instruction. Further, Dawn regularly modified strategies so that they met fit closely with these criteria. Because of the heavy emphasis on order and routine in Dawn's

instruction, the chosen opportunities to learn tended to fit the criteria rather than challenge them.

The Role of the Textbook

The school district-adopted textbook for 6th grade life science, Life Science, was regularly present in Dawn's instruction. A traditional textbook, the recently published hardcover textbook, is over 300 pages in length and contains many reader-friendly text features (Readence, Bean, & Baldwin, 2001), including pre-reading questions, highlighted vocabulary, graphic features, a glossary, and an index.

In an interview in March of 1999, Dawn voiced concern about science textbooks' generally difficult reading levels.

"Most of these things are written way above what they can read," she explained.

In an effort to help her students access the information in these books, Dawn consistently provided in-class time for reading. During this time, students could approach her with questions about the reading. She also allowed students to sit in pairs and read aloud to each other. Although staff development sessions included regular discussions about the potential benefits and disadvantages of asking students to simultaneously read aloud and comprehend, Dawn used this strategy in pairs to help students "get through the material" without asking them to decode text in front of all their peers (Personal interview, March, 1999).

Concepts covered in the text were always reviewed by another form of instruction, including vocabulary lessons, lecture, and homework assignments. These assignments most often asked students to filter through written text and copy down key terms or phrases in fill-in-the-blank exercises.

Overall, Dawn took up many opportunities to learn from the grant. She did so by modifying them slightly or generously so that they fit her established teaching style. She rejected those strategies that would have forced great ruptures from the routine of her classroom. In a survey administered at the end of the grant, Dawn indicated that she strongly agreed with the statements that the grant helped her “to become a more effective teacher,” and that she used “more strategic literacy practices as a result of this grant,” (Stevens, 1999, appendix A).

Tamala Cook

Tamala Cook is an attractive European American woman in her early 40’s. Tamala had worked in the health industry before making a change to education about four years ago. Like Dawn, Tamala values professionalism, which is exhibited not only through her appearance and behavior, but also through her willingness to collaborate with other teachers. Her eighth grade physical science classroom’s walls are covered with student samples of work, homework papers without student names, and snapshots of past and present students. The traditional blacktop tables are arranged in rows, tightly together in order to maximize space and fit in as many students as possible at each table.

Much like in Dawn’s class, students come into Tamala’s class and begin the daily work of copying down the day’s objectives and homework into their school-issued planners. As the students do this, Tamala sorts through paperwork, calling students up to her desk to take care of logistical tasks, including distributing paperwork from the office, scheduling makeup test times, and answering student questions. Once students have finished copying their objectives, they begin talking quietly with each other. Tamala calls the attention of the class and commences with her lesson, typically delivered in whole-

class fashion. The lesson begins with a review of the previous night's homework, usually comprehension questions from the textbook. Using student volunteers who offer the answers to questions, Tamala leads the whole class through the answers, clarifying offered responses when necessary. The lesson moves onto the learning objective for the day, and this normally involves reading from the physical science textbook. In this activity, Tamala introduces the topic of the chapter or section and provides students with a bit of background about the content. Then, student volunteers read aloud paragraphs from the textbook. Tamala interjects between or amid paragraphs to repeat key concepts, ask comprehension questions, help the students relate the concepts to their own experiences, or make connections between the reading and concepts already covered in class. This activity lasts the duration of the class period, at the close of which Tamala reminds students to complete the homework assignment for tomorrow and then converses informally with students until the bell sounds, indicating the end of class. From a total of 26 classroom visits, 23 lessons followed this pattern of activity. Overall, Tamala's instructional approach and use of text position her at the center of instruction and use the textbook as a preeminent keeper of valued knowledge in the classroom.

Tamala's Participation in the STAR Grant

During the course of the STAR staff development project, Tamala exhibited high levels of enthusiasm and engagement. She was one of the most vocal participants, often communicating her appreciation of being treated as a professional who could collaborate with others and grow in her own teaching. In an interview during the course of the staff development project, Tamala stated that she greatly enjoyed being able to meet off-campus and went on to describe why this was so important, "It's like we're all getting to

know each other in a different way. Not that we knew each other that well before, but I've gained respect for all of my fellow science teachers and have learned so much by just being able to talk."

This opportunity to break away from the rugged individualism that secondary school structures often impose (Britzman, 1991), was exhibited by Tamala's personal and professional contributions to each staff development session. During one session in March, she brought pictures of the house that she and her partner were building in Mexico. She had been describing the house to the group throughout the school year and everyone delighted in viewing the pictures, telling Tamala how beautiful the house was and asking for specific details. Tamala also took charge of organizing food and drink responsibilities for the pot luck lunches that the group enjoyed during each meeting.

Tamala keenly valued the opportunities to collaborate that the staff development project provided. When each session commenced with sharing, she normally had classroom examples of lesson plans and student work from at least two strategies to share with the rest of the group. For example, in sharing three notetaking strategies, she explained that she tried, "all three with different classes, so I'm not sure which is really the best because each class reacted to theirs differently." While other group members occasionally forgot to bring classroom examples of their lesson plans, handouts, or other artifacts, Tamala consistently brought examples, including enough copies for the entire group.

Tamala implemented strategies that fit into her traditional whole-class methodologies and those that required restructuring the typical lesson's formatting.

For example in the month following a staff development session on writing strategies, she implemented use of traditional essay questions on a chapter assessment and the RAFT strategy, a strategy that helps students to use creativity in content area writing (Shearer, 2000). Based on the information shared in the staff development session, Tamala decided to revise her use of essay questions to pose open-ended questions that allowed students to demonstrate connections between physical science concepts and their personal lives. One essay question from this assessment asked students to “Examine the uses of kinetic energy that you encounter on a daily basis. Describe how daily life would be different without the benefits of kinetic energy.”

From this prompt, Tamala shared exemplary essays in which students went to great lengths to explain their answer. In that staff development sharing session, she noted that she was particularly pleased to see the students quoting or paraphrasing the book less often and using more “real-life language” to discuss what they had learned.

Tamala also incorporated the use of the RAFT strategy, in which students were assigned a role, and audience, a format for the writing, and a topic. Students assumed the role of the scientist Newton and wrote a letter to the current monarch explaining their recent discovery of the three laws of motion and how these laws might be evident in a medieval context. The examples that Tamala shared not only impressed the other group members with the accuracy of the concepts, but also to what lengths that students had gone to make the letters look like antique documents, including burning edges to resemble aged parchment and the sealing the letters with dried candle wax. Tamala’s pride was more than evident as she beamed while the other teachers passed these samples around and marveled at their high quality of demonstrated learning.

Tamala tried many strategies throughout the project, consistently going beyond the typical goal of implementing one strategy between each session. In a survey distributed at the close of the staff development project, Tamala indicated that she had implemented over 30 strategies in her classroom (Stevens, 1999). Because she was a relatively new teacher and had not had the years of exposure to teacher in-services that Dawn had, these strategies were by and large new to Tamala, and therefore to her students. In fact, it is important to note that Tamala's enthusiasm to try many different strategies may have led to a resulting confusion on which strategies to continue using.

Tamala's Instruction After the Staff Development Project

The classroom instruction in Tamala's class after the staff development project is most fully described in the vignette initially presented to describe her teaching. Heavy emphasis was placed on reading from the textbook, usually by volunteer reading from students in the class. Tamala's instructional techniques were mostly comprised of her interjections during this read-aloud time. For example, during a lesson observed in April of 2000, Tamala began the lesson by instructing the students to open their books to page 492.

Tamala: OK, so now we are on 19 dash 3 (the chapter and section number). The flow of electricity. What do we know about the flow of electricity?

(pauses and waits for students' responses)

Student 1: It helps keep your walkman talking.

Tamala: OK (chuckles). It helps your walkman make tunes.

Student 2: It can go through the Earth

Tamala: OK, it goes through the Earth. What else?

Student 3: It makes life easier.

Tamala: Ok, yes, what else?

(pauses and waits for students' responses)

Tamala: OK, now when they put lightning rods on the top of the building, how does that help? What causes the electricity to be attracted to it in the first place?

Student 1: Is it because the Earth is negative?

Tamala: OK, it's just the opposite. But why is it attracted to it?

Student 1: It's attracted to points.

Tamala: It's attracted to points, not flat surfaces, good, what else?

Student 6: Because it's higher

Tamala: Yes, yes, yes! You all made me pull teeth for that one!

(smiling)

I need a volunteer to read. (one student in the front of the room raises his hand). Go ahead, Stefan.

(Student reads one introductory paragraph about electricity)

Tamala: OK, so the difference between point A and point B is ...

(waits for student response)

Students: Potential difference

Tamala: So, a negative potential difference is like rolling a ball downhill? No

It's harder to move it, because you have to create more force to move it.

Does that make sense to you that the positive one is harder and the negative one is easier? (A few students nod).

OK, so we need to continue. Look at the figure on this page. Would you guys like a car like that?

(students murmur their disapproval of the car's image)

Sandra, you have a question?

Sandra: I want to read.

Tamala OK, go ahead.

(Sandra begin to read the next paragraph in the text).

Tamala: (interrupting) We're at the paragraph before that one, Sweetie. It's OK.

(Sandra continues reading from the correct paragraph)

Tamala's in-class instruction relies heavily on lessons such as this one, where students read aloud from a new passage in the textbook, and sometimes respond to factual level questions about the text, posed by the Tamala and in the text's comprehension check sections. In an interview in August of 2000, we discussed Tamala's judicious use of reading aloud, which was not recommended during the course of the staff development project. Tamala explained that she felt that the instructional approach was strengthened by the use of her questions and by only allowing student volunteers to read. However, the classroom excerpt just provided suggests that, at least with the case of

Sandra and perhaps several other students who did not read aloud this day, comprehension of the passage is, at best, limited during this instructional approach.

Strategy Use

Of the other strategies that Tamala explored in the staff development session, only the RAFT writing strategy was observed to be in continued use. However, in a follow-up survey given in April of 2000, Tamala indicated that she continued to use twelve of the strategies introduced in the staff development project. When daily summaries of field notes were supplied to Tamala, she agreed with each observation's summarized notes and did not use this opportunity to point out other strategies that may not have been seen by the researcher, a topic that was broached on each summary. Overwhelmingly, the many opportunities to learn presented in the project and initially tested by Tamara were abandoned once the project's formal support ended. However, Tamala's continued use of certain approaches such as questioning for student comprehension and reiterating main ideas found in the textbook points to an adherence to some general theories about content area instruction. These theoretical approaches crop up in Tamala's teaching, but not with a large degree of variety or effectiveness as demonstrated through student participation.

The Role of the Textbook

As had been discussed, the school district-adopted physical science textbook, Physical Science, was a mainstay of Tamala's instruction. Issued by the same publisher as the book used in Dawn's classroom, this book boasts many of the same reader-friendly text features. Tamala pointed out many of these features to her students, especially pictures and diagrams, during the whole-class readings of chapters.

On the few occasions when the textbook was not the centerpiece of the day's instruction, Tamala often experienced classroom management problems. During an observation in February of 2000, when students were to be working on the rough drafts of their RAFT writing assignments, more than half of the students appeared to be off-task, talking with friends, distracting other students, and sometimes sleeping as Tamala attempted to hold individual conferences at her desk. In an informal interview following this lesson, Tamala indicated that she debated whether to use this strategy again because, "It's just too difficult with this many kids in a class. I can't keep them all focused."

Discussion

If the success of this staff development project were to be assessed based on these two teachers' continued use of the presented strategies, results would be mixed at best. However, an examination of how these teachers took up, modified, and abandoned the opportunities to learn presents intriguing findings.

Dawn, an experienced teacher who had already established a firm pattern in her daily instruction, appropriated only those strategies that provided a good match with her teacher-centered instruction. While she valued student engagement with content concepts and the text, she was not willing to use those strategies that might maximize that engagement at the expense of daily learning objectives or the routinized nature of her classroom. What Dawn experimented with during the course of the staff development project closely resembled what remained in her teaching up to two years following the project's cessation.

Tamala, on the other hand, tried many strategies throughout the course of the staff development project. However, her abundant experimentation left her with little direction

in how to choose which strategies to continue using. In the final staff development session, during a discussion about what next steps could be taken by the teachers individually, Tamala expressed her frustration by stating, “I just really wish that we had another year of this. I feel like I’ve tried all this stuff and now I need another of really figuring how to make it all work together.”

In lieu of additional staff development support, Tamala chose to abandon almost all of the strategies presented in the project. This abandonment may have resulted from other constraints, such as the school district’s increasing emphasis on standardized test achievement and Tamala’s continued classroom management problems, but the lack of formal support in infusing these strategies surely played a factor that is substantiated by Tamala’s own words.

CHAPTER 5

ANALYSIS AND DISCUSSION: QUESTION TWO

This study of two middle school science teachers' literacy decisions is guided by two research questions. The first of these questions was explored in Chapter Four. The second of these questions, what local, institutional, and societal forces influenced the teachers' decisions regarding classroom literacy instruction, will be addressed in this chapter. The research perspective and methodology of Critical Discourse Analysis (Fairclough, 1989, 1992) was used to answer this question. Critical Discourse Analysis (CDA) considers language as a social practice that reflects and/or rejects socially situated ways of knowing, being, and doing (Fairclough, 1989). CDA allows the researcher to consider participants' discourses (discourse with a lower case "d" indicates artificially bounded units of language, such as a teacher's introduction of a strategy to a class), including their resources, i.e., their past experiences, and how the language is used to represent and construct teachers' decisions. This analysis also affords opportunities to shed light on the larger societal Discourses (Discourse with an upper case "D" indicates the reference to a commonly held belief or position) that also influence the teachers' decision, either through reflecting those Discourses or challenging them.

In this research perspective, three stages of description, interpretation, and explanation, although not necessarily followed linearly, provide the structure for the researcher, or analyst to explore how institutional social practices of teaching and

learning, and the larger societal Discourses of teachers, adolescents, and assessment influenced the teachers' decisions about literacy instruction. The three larger societal Discourses of teachers, adolescents, and assessments will be explored, with contextual descriptions of discourse scenarios from each teacher that illustrate the local, institutional and societal Discourses forces within each teachers' decision-making processes.

Rugged Individualism

Throughout Dawn and Tamala's discourse about their instruction, the societal Discourse of teacher as rugged individualist resonated. This commonly held Discourse positions teachers as bold practitioners of their craft who work in the trenches and idealized those teachers who consistently go above and beyond the call of duty, and glorifies personal sacrifice for the good of instruction (Lortie, 1975; Britzman, 1991).

During the course of the grant, this Discourse was supported as Tamala and Dawn, along with the other group members, commented upon the privileged status they felt as teachers who were able to collaborate and talk with each other. In a staff development session on January 25, 1999, Tamala noted, "It's such a treat just to be able to talk with each other. We're going to get really spoiled by this and then we're going to have to go back to getting our jobs done all by ourselves." In fact, Tamala's words were quite prophetic in predicting that the teachers' negotiation of the opportunities to learn from the grant would be largely influenced by the return to the profile of teacher as rugged individualist. This Discourse that positions teachers as sole practitioners who are "in the trenches," is firmly upheld by institutional forces. Even in the middle school where the staff development project took place, teachers negotiated their days, weeks,

and months much more as individuals than as collaborators, only conversing with colleagues outside the direct contexts of teaching and learning.

Dawn

Although Dawn positioned herself as a peer leader through her role as department chairperson, she also clung to notions of teacher as rugged individualist. She rarely initiated professional discussions about teaching and learning with other teachers beyond logistical conversations about meetings and supplies. This was exemplified clearly in a personal interview in March 2000 when Dawn explained, “We have to use the strategies that work best for us. And that’s gonna be different for each of us.”

Dawn’s use of the pronoun, “we,” as exclusive in this case, that is, not including the recipient of the discourse (the researcher), but rather other science teachers, denotes a shared experience of content area teachers that requires them to filter opportunities to learn according to personal and professional constraints of their local classrooms. Her discourse also reflects a strong tolerance for the varied practices of other teachers. Because teachers work in such figurative and tangible isolation from each other, the Discourse of the rugged individual perpetuates a tolerance and even a tacit ignorance of what occurs in classrooms down the hallway.

Tamala

Tamala further also exhibited this Discourse as she fervently touted the staff development sessions as opportunities to share and lamented their demise for the very absence of those opportunities. In an interview in April of 2000, Tamala explained the efforts that she and a few other teachers had gone to challenge this Discourse.

“A few of us were meeting for lunch everyday in my room. We’d bring in lessons and stuff of stuff we’d done, just like we did in the grant meetings, but you know, it was just hard to do consistently,” she offered. In the case that Tamala described, the teachers’ attempt to argue against the Discourse of the rugged individualist gave sway to the overwhelming demands placed on teachers’ shared lunch and planning times. This instance provides a clear example of how institutional forces can efficiently support a larger Discourse through the structures that have been developed.

During the course of the staff development project, the teachers were able to, in effect, argue against this Discourse by working together to explore instructional strategies for content area literacy. However, once the project ended, the Discourse of teacher as rugged individualist, along with sheer compartmentalized structures of secondary schools (Hinchman & Moje, 1998), emerged as Dawn and Tamala either chose strategies that mimicked their pre-existing practices or abandoned strategies altogether.

These decisions were also supported by the expectations that these teachers’ principals held for their teachers. In an interview on May 2, 2000, Phyllis Jefferson, Principal of Lincoln Middle School, explained that she expected teachers to do their best in their classrooms.

“They are working under a lot of constraints, like overcrowding and a highly transient student population. I expect them to take the resources we can give them, shut their door and get their students to reach the learning objective. That way, we get the kids ready for high school,” Dr. Jefferson offered. In a subsequent interview on June 15, 2000, with Peter Olsen, principal of Miller Middle School, the school to which Dawn transferred during the second year of this research study, he echoed Dr. Jefferson’s

sentiments, adding that “they [teachers] are pretty much on their own. Staff development helps to enrich them, but they are still really the only ones responsible for the learning that goes on in their classrooms.”

Throughout both principals’ comments are strewn the notions that teachers must function as rugged individualists. Therefore, Dawn and Tamala’s decisions to choose only those strategies that fit within their individual styles were logical, considering the emphasis on their roles as solitary practitioners.

The Myth of Adolescents as Bundles of Raging Hormones

Sharing the vocation of a middle school teacher often inspires looks of awe, admiration, and sometimes fear from noneducators. These reactions are due, in part, to a large societal Discourse that characterizes adolescents as bundles of raging hormones, virtually devoid of rational thought as they are at the will of their changing physiologies. This Discourse is present not only as a commonly held notion, but also goes largely unchallenged in educational settings (Finders, 1998). Ascribing to this notion that adolescence is a life stage that amounts to little more than a hormonally induced bricolage contains common sense implications for instruction, including positioning the teacher as agent of control in the classroom, choosing activities that allow for minimal student interaction, and using unidirectional, didactic instructional strategies.

Dawn

This Discourse was readily apparent in Dawn’s instruction. Using the discourse scenario transcribed on page 37 of this dissertation report, the overwhelming predominance of Dawn’s turntaking (Fairclough, 1989) and the series of unidirectional directives underscores Dawn’s consistent role as decision maker in her classroom. The

Discourse is also apparent in the highly structured routine and formatting that her students followed. There was little to no room for students' individual identities to have voice in her classroom, the implication perhaps being that as bundles of raging hormones, the adolescents had little sense of identity to offer.

In conversations about teaching 6th graders, Dawn often referred to her duty to "train" them, including showing them how to organize their notebooks according to her system and teaching them how to behave in middle and high school classrooms. Expected behaviors included only speaking during the course of a lesson and only after raising their hands, asking the teacher only those questions deemed pertinent, by the teacher, to the daily lessons, and following teacher-given directions (Field notes, 3/26/00, 4/15/00, 8/28/00, and 10/12/00). During an interview in March of 2000, Dawn also used several discourse metaphors (Fairclough, 1989) of adolescents as animals to describe the characteristics of her sixth graders.

Dawn: It takes me a good month or two to just rein them in.

Researcher: Um, can you tell me a little more of what you mean by that?

Dawn: Well, you know, they come not knowing anything, not how to organize their backpacks, what forms to use, where the bathroom is (laughter), anything!

Researcher: So, they have to be reined in to learn those things?

Dawn: Exactly. I get them under control, herded up, and then we get onto the business of learning, reading and writing.

This discourse sample reveals that Dawn's contentions that the "business" of learning, which includes the use of literacy in the content area can only happen once students, seen here as animals in need of herding and control, are rounded up. This metaphor highlights the appropriation of the Discourse of adolescents as bundles of raging hormones.

Tamala

The dozens of snapshots of past and present students that cover Tamala's classroom walls speak volumes of how highly she values her students and views them as individuals. In fact, before and after school and during passing periods, Tamala can usually be found in the school's hallways, talking with students about the events in their lives, how their families are, who they like, and what movies they've seen lately. In fact, in those instances, Tamala is, in effect, talking back to a societal Discourse that characterizes adolescents as monolithic bundles of raging hormones. However, the same level of regard for individuals is not as readily apparent in the discourse of her instruction.

In a lesson observed in September of 2000, Tamala used the typical pattern of reading aloud from the textbook. Outside of the portions of the text read aloud by students, the infusion of student voice was nonexistent in Tamala's class that day. Students were simply not afforded opportunities to discuss the text. Instead, Tamala interjected examples and explanations throughout the reading of the text but asked no questions of students, avoiding input from students throughout the lesson. In an informal interview following this lesson, Tamala explained that she chose to lead the lesson so strongly because, "they've [the students] just been acting their age lately. I don't know if

it's a full moon or what, but they are out of it. It's just easier if I do the talking for them when they're like that."

Tamala's description of her students as acting their age, shows that rather than seeing her students' individuality and creativity as the norm, she sees the manifestations of these characteristics as aberrations from the more dominant life stage mentality, or lack of mentality. Supporting the societal Discourse of adolescent as a bundle of raging hormones provided Dawn and Tamala with rationalizations for didactic modes of teaching. Because this Discourse is so prevalent, it is doubtful that entertaining instructional methods that challenge this Discourse even seems like a viable option to either teacher.

High Stakes Assessment

The district in which Dawn and Tamala teach increasingly had been emphasizing the results of students' performance on standardized assessments as across-the-board indicators of learning. The state had also passed legislation that allowed for the removal of a school's administration if the school consistently was found to be inadequate, a label that could only be attained by performing poorly on standardized assessments. Having been in effect for a few years at the time of this study, this new emphasis on high stakes assessment was keenly felt by both principals interviewed for this study. In interviews in May and June of 2000, both Dr. Jefferson and Peter Olsen stated that they expected their content teachers to use reading and writing throughout their instruction so that students would be able to perform on standardized tests that used reading passages and comprehension questions to assess student ability.

While many educators argue against the validity of a standardized assessment for high stakes purposes, compliance with these expectations is far more common than challenges, as was the case with these two teachers.

Dawn

In an informal interview in November of 2000, Dawn explained that her recent experiences as a graduate student taking library science courses had prompted her to rethink how she helps her students prepare for their assessments.

Dawn: Being a student again has really made me rethink what I do to these guys, though.

Lisa: What do you mean?

Dawn: I haven't been preparing them nearly as good as I should be.

Lisa: Go on.

Dawn: I wasn't spending nearly enough time telling them what would be on the assessment or helping them to study for the tests.

Lisa: So what do you think you should do differently?

Dawn: Well, I need to help them learn more information and be able to recall it for the assessments.

Lisa: Are we still talking about the tests that you give them?

Dawn: Yeah but more the Terra Nova [the standardized assessment used by Dawn and Tamala's school district]. That's ultimately what we're preparing for.

- Lisa:** So, during the grant, you started using more essay questions on your assessments. Does that still fit?
- Dawn:** Not so much, because... because that's not how they'll be assessed on the Terra Nova.
- Lisa:** What do you think is more important?
- Dawn:** (smiling) According to who?
- Lisa:** Isn't it according to you?
- Dawn:** Not at all... you know that. It's up to whoever decides that these tests are the best measure for learning.

Within Dawn's discourse in this interview, her own experiences as a student and beliefs about the nonvalue of standardized assessments have contributed to her realization that she had not been preparing her students sufficiently for their high stakes assessments. Although Dawn clearly wants to challenge this Discourse that positions a single assessment as ultimate indicator of student learning, she also resists the challenge by naming an elusive, nonspecific "whoever" as the agent behind the Discourse's reality, at the interaction level. Conversely, Dawn's use of the pronoun, "we," positions teachers in the middle school as removed from the other party of "whoever."

As Dawn expertly explains, adhering to the Discourse of high stakes assessment means that classroom-based assessment must not only resemble those standardized tests but also do away with more in-depth and subjective measures of student learning.

Tamala

Tamala, like Dawn, had also tried infusing short answer and essay questions into her classroom-based assessments, as methods for allowing student to demonstrate

connections between science concepts (see page 43). However, in a classroom visit in October 2000, Tamala was reviewing the answers to a criterion-referenced assessment with her students, and the assessment lacked any questions or prompts that went beyond a factual recall level. In an informal interview following this lesson, Tamala explained the role that the Discourse of high stakes assessment had played in her instruction.

Tamala: We're using a backwards assessment model, and that means aligning our assessments so that they are the same so that we teach the same objectives.

Researcher: So everyone in your department is using the same assessments?

Tamala: Yeah. It's actually very helpful because we don't have to create our own tests and it helps the kids get ready for the Terra Nova.

Researcher: Have the kids been doing better on those assessments?

Tamala: We'll find out next year when we give the test again, but for now, they're getting a lot of practice with reading these types of questions.

Tamala's explanation of the role of the high stakes assessment Discourse, like Dawn's, positions the teacher as receptive enactor of decisions carried out by other, unnamed entities. In this case, the decision to use the backwards assessment model, while being actualized by individual teachers, was made by another agent, who is neither directly nor indirectly named in Tamala's discourse.

Through these examples, the discourse samples demonstrate how the two teachers mostly appropriate societal Discourses about teachers, adolescents, and assessment and how these appropriations are reflected not only in their talk about their teaching but also demonstrated in classroom instruction. While these Discourses are without a doubt, not the only societal ideologies at work in these teachers' decisions, there were dominant themes in the data collected. Further, each Discourse provided opportunity to show how the teachers' personal belief systems, past experiences, positioning with an institutional context, and appropriation of societal Discourses intersected to produce instructional settings and experiences.

CHAPTER 6

CONCLUSION

This research study provides an analysis of two teachers' content area literacy instruction following an in-depth staff development project. The high levels of participation during the staff development project and the subsequent maintenance and/or return to preexisting teaching strategies, begs not only the question of why some opportunities to learn were adopted but also why some were not and why some were modified.

In the past, questions of this kind were answered by examining the teachers' personal professional knowledge bases (Shulman, 1976) and the structure of the staff development projects (e.g., Fullan, 1996). In keeping with this literature, this study confirms the findings of previous studies of teachers' beliefs and practices. As with Richardson's Reading Instruction Study (1994), the staff development that spurred this study helped the participants to examine their pedagogical stances and decisions as part of a collaborative, recursive dialogue among colleagues. As with other studies that have used small-group, locally responsive tactics (Fullan, 1985; 1993), the participants in this staff development project praised the ability to work as professionals, evidenced by the risks they took in trying innovative instructional practices (Stevens, 1999).

Further, this study confirms many of the qualitative inquiries into content area teachers' beliefs and practices from the 1990's. While Dawn and Tamala were apt to

appropriate the strategies that fit within their personal teaching styles, they consistently rejected those approaches that would have challenged the routine of their classrooms (Bean, 1997; Moje, 1996; O'Brien, Stewart, & Moje, 1995; Konopak, Readence, & Witson, 1994). These teaching styles ranged from a mix of their comfort level as teachers, as in the case with Tamala's issues with classroom management, to personal styles of comportment, such as Dawn's strong tendency to be linear and organized in her thinking and teaching.

This study also affirmed research conducted by Hall & Hord (1987), in that the teachers were only able to consider appropriating opportunities to learn in relation to the importance they assigned to their concern about content area literacy and how they positioned it as part of their job. While both Tamala and Dawn expressed strong levels of dissatisfaction at the disparity they saw between the abilities of their students and those demanded by the content area textbook, they hesitated to tackle the role of literacy educator. Both teachers felt more comfortable with replacing the text at times with alternative methods of instruction rather than spend more time on content area literacy to bridge these perceived disparities.

This study confirms many of the findings of antecedent studies. For example, both Tamala and Dawn chose to adopt educational strategies that fit their personal pedagogical knowledge. However, this study goes beyond the tendency of these studies to depict teachers' pedagogical and curricular decision as either reflections of their personal belief systems or reflections of the design of the staff development project. The implication of either conclusion is that if the teachers had better crafted belief systems and/or if staff development projects were better designed, instructional advances would be made and

students would succeed. While both sources of information, studies of teachers and programs, offer helpful insights, this study has illuminated the pivotal role that institutional and societal Discourses play in teachers' decision making, as they do in anyone's decision making (Fairclough, 1992). In the cases of Tamala and Dawn, the powerful Discourses of teacher as rugged individualist, adolescents as raging hormones, and high stakes assessments were reflected in tangible discourses, both in the local contexts of classrooms and the institutional contexts of schools. The consequences of appropriating these three Discourses perpetuates the traditional style of stratified and didactic instruction of canonical knowledge that dominates secondary schooling. These societal Discourses, in that sense, acted as powerful filters in deciding which strategies to take up, which to modify, and which to abandon. Because the two teachers in this study by and large appropriated Discourses that valued canonical knowledge and adolescents' needs to be trained, their decisions can be seen as quite logical and in sync with the institutional and societal expectations of them as middle level educators. While the literature on content area and adolescent literacy may hold different ideals, these two teachers made their pedagogical and curricular decisions in accordance with institutional and societal discourses more readily apparent in their daily lives.

In fact, it was only within the context of the collaborative staff development that the teachers had the opportunity to discuss some of these aspects. However, with the close of the grant came the end of such opportunities.

The implications from the critical research are significant, but this use of critical language studies will not, in and of itself, move toward challenging institutional and societal Discourses and resultant inequalities. Instead, this perspective that results from

the use of Critical Discourse Analysis must also provide fodder for implications of next steps in education. Rather than dismiss Dawn and Tamala's decisions as only the logical decisions of agents who are at the will of larger societal Discourses, CDA must also be used as a method for bringing these institutional and societal Discourses to light, subsequently providing opportunities for teachers and students to talk back to these discourses. This position of critical theory as little more than a research perspective must be challenged and broadened to include educators and students at all levels if progress is to be made (Freire, 1970).

Many critical theorists (e.g., Fairclough, 1992; Gee, 1996; Luke & Freebody, 1998) purport that critical language awareness, based on critical language studies, should be part and parcel of language education programs. By helping to raise consciousness of how language contributes to the perpetuation of power by some factions of society at the expense of others, critical language studies can provide the first step towards emancipation (Freire, 1970). In these New Times that are increasingly marked by the economies of attention, predicated by the judicious use of text, the potential role of critical language studies has an even sharper sense of immediacy and importance (New London Group, 1996; Lankshear & Knobel, 2001).

Using critical language studies in educational settings, including teacher education programs, would provide teachers and students with the skills and language necessary for examining local, institutional, and societal discourses. This approach would also help to move educational movements beyond current ideologies that purport that providing students with access to dominant ideologies will help them to gain power. On the contrary, emerging studies are beginning to show this type of exposure does not result

in any kind of change in race, class, and/or gender roles (Rogers, 2000). Critical discourse studies offer an alternative that may help teachers and students to understand the various discourses that they produce and receive. The first step toward challenging the role that societal institutions play in the reproductive inequalities must begin with bringing awareness to the populations that at once are disadvantaged and in the most local contexts (Freire, 1970).

Staff development programs carry great potential to provide the forum necessary for educators to collaborate together and unearth some of these local, institutional, and societal discourses. However, as currently designed, staff development programs are exactly that – programs with finite goals, precise beginning and ending dates, and typically linked to goals created outside of classrooms, such as state standards or high stakes assessment. To make better use of staff development, these programs should be reconceptualized so that staff development becomes an integral constant in the careers of educators. Standing expectations for participation in staff development efforts will also help to alleviate the isolated nature of teachers as rugged individualists. Providing such a consistent arena for teacher collaboration, action research, and recursive dialogic growth could help educators to illuminate and perhaps even challenge the very local, institutional, and societal discourses that might be curtailing learning in schools.

Further studies of the use of critical literacy approaches in classrooms are needed (Alvermann, Moon, & Hagood, 1999; Young, 1999; Stevens, 2001). Questions to be explored include: (a) what texts qualify for discourse analysis, particularly in times that mark students' use of multiliteracies (Bean, Bean, & Bean, 1999), (b) how do teachers

and teacher educators deal with forthright proclamations of ideologies in public school settings, and (c) what are the drawbacks of using critical language studies.

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APPENDIX A

DEFINITION OF TERMS

Adolescent literacy. A shift from the traditional definition of secondary school literacy (see Content Area Literacy) to a broader application including the out-of-school literacies in which students engage, including but not limited to, text from the Internet, CD-ROM's, popular media (Alvermann, et al., 1998; Moje, Readence, Young, & Moore, 2000)

Beliefs. Mental constructs which drive actions (Pajares, 1992; Richardson, 1996).

Change. A shift in classroom practices, beliefs or attitudes (Guskey, 1986). Further, change is a process and not an event; change takes a long amount of time and cannot happen through one-shot professional development, and it is important to consider the individual needs, development, and beliefs of each participant (Loucks-Horsley & Stiegelbauer, 1991).

Content area literacy. The level of reading and writing skill necessary to read, comprehend, and react to appropriate instructional materials in a given subject area (Readence, Bean, & Baldwin, 2001).

Critical Discourse Analysis. A critical language study methodology and framework that allows the analyst to use processes of description, analysis, and explanation to explore local, institutional, and societal discourses (Fairclough, 1989).

Discourse. With a small “d,” refers to strings of connected text and meaning. Also includes the enactment of ideological stances(Gee, 1996). With a large “D,” indicates larger, societal ideologies that are enacted, reflected, refracted, and challenged in local discourse samples (Fairclough, 1989).

New Times. Convergence of worldwide capitalist emphases and digital technologies resulting in a market driven world and economies of attention (Lankshear & Knobel, 2001).

Staff development. Professional development sessions that allow teachers to work together and become active change agents in their classrooms (Fullan, 1985).

Strategy. An instructional approach used to help students develop metacognition during literacy activities (Readence, Bean, & Baldwin, 2001).

APPENDIX B

A REVIEW OF THE LITERATURE

This review examines the existing research related to the study of the opportunities to learn the teachers appropriated following the completion of the STAR grant. First a review of adolescent literacy is presented. This is followed by a review of studies addressing teacher change.

Adolescent literacy

Historical Development

Beginnings

Content area literacy did not come into its own as a discipline until the advent of the twentieth century. Prior to its full development, strains can be found in the concerns of the humanists (Moore, Readence, & Rickelman, 1986). These faint notions hovered around the foundational concept that reading expository texts might require different kinds of attention and skill than did reading narrative texts. Although not yet fully developed as an area of study unto its own, content area literacy was experiencing a gestation period of sorts while scholars came to understand that different instruction must then support different reading activities.

Every teacher a teacher of reading

The 1920's were influenced by one of the prominent leaders of early content area instruction, William S. Gray. Gray was instrumental in promoting the slogan, "Every

teacher a teacher of reading,” which embodied a bold recognition of the variety of skills demanded by reading subject matter at all levels (Moore et al., 1986). Although this statement reflected a grand and progressive notion that literacy instruction should be integrated across subject areas, it received considerable backlash as secondary content area teachers perceived and resisted ideas of additional instructional responsibilities. As will be explored in a later discussion, this resistance was to become a theme in content area literacy and have deep roots.

Strategy validation

The field spent several years in a semi-dormant state while preoccupations with basic skills, testing, and behaviorism dominated research and instruction (Moore et al., 1986). However, with the publication of landmark texts like Harold Herber’s (1970) Teaching reading in the content areas, content area reading enjoyed a time of strategy exploration in which empirical investigations highlighted various supports for students’ negotiation of content area texts. As Moore et al. noted (1986, p. 419), “Content area reading instruction is designed to deliver those strategies. To date, the primary mission of this instruction is to develop students’ reading to learn strategies.”

The field of content area literacy had truly come into its own in the 1970’s and 1980’s. Marked by a predominance of cognitively based strategies, the field spent much of these decades in experimental and quasi-experimental validation studies, verifying to varying degrees the effectiveness of such strategies (Alvermann & Moore, 1991). For example, perhaps the most widely known of textbook strategies, SQ3R, became widespread, at least in reference if not practice, in schools during this time. This strategy asks students to follow a five-step sequential process in previewing, reading, and

rereading content area texts. Researched in laboratory settings, the strategy sought to use methods originally developed by the military to help students negotiate textbooks. As might be expected, the overtly linear strategy was not widely embraced by students, although it is still widely known and referenced as a current textbook reading strategy (Walker, 1976).

In fact, in a comprehensive review of the field of content area literacy, Alvermann and Moore (1991) found that many of these teaching strategies had (a) limited ecological validity, (b) limited teacher input, (c) limited texts, and (d) limited instruction in actual strategy use. In other words, content area literacy instruction had spent too many years in the “atheoretical guise of methods and materials ...more or less, a bag of tricks,” (Vacca, 1998, p. xvi). Antithetically, this perceived guise would play a role in secondary teachers’ resistance to integrated infusion of literacy strategies into their instruction.

Resistance from content area teachers

This “bag of tricks” approach had not only not fallen somewhat short of showing adolescents effective ways of reading content texts, it had also been met with significant resistance from content area teachers to the infusion of these strategies into their practices. As mentioned before, secondary content area teachers resisted these strategies for many complex and interwoven reasons.

By approaching content area reading instruction from a standpoint of infusing strategies documented in experimental settings, the field has experienced significant dissonance with secondary school climate and consistent resistance from secondary content area teachers. There are many complexities inherent in secondary schooling that contribute to this tension. Secondary schools students’ days are stratified into short

segments of specific content. Secondary teachers feel their responsibility is to cover the content of their class in the seemingly short time segment allotted and are often resistant to any instruction that seems additive to that subject's curriculum. Content area literacy practices have fallen into this category of additive activities because traditionally they have not marked a departure from the positivist structure of secondary schools. Instead, these practices have historically supported a cognitive stance that has helped to perpetuate the secondary school structure formulated in a postindustrial quest to equip students with vocational and academic knowledge to become part of the work force (O'Brien, Stewart and Moje, 1995). Furthermore, the separation of subjects in secondary schools has marginalized the locus of literacy practices in both teachers' and students' lives. That is, one does science in science and writing and reading in English.

Also feeding into this resistance of infusing literacy practices into content area classes is the positioning of pedagogy. An oft-noted, sweeping generalization bears some truth in relation to how teachers teach: elementary teachers have process but little product, and secondary teachers have product but little process. Secondary teachers have expertise in their specific field of study, thereby establishing their content knowledge. Ideally, in their teacher education programs, they will explore ways and methods to teach that content knowledge; in other words, they will gain pedagogical content knowledge (Shulman, 1986). Thus the chemistry teacher would then understand a variety of representations of the content, evaluate them for their fit with her curriculum and decide how to communicate those to students. The prospect of adding content literacy instruction to this situation seems overbearing and therefore is not pursued actively by many content teachers.

Further complications arise in examining the links between teachers' expressed beliefs about content area literacy and actual practices. Konopak, Readence and Wilson (1994) found that when reading is considered, instruction does not necessarily reflect the teachers' expressed interactive beliefs. This study of preservice and inservice teachers also found that secondary teachers in general were more text-based and their elementary counterparts were more reader-based (Konopak et al., 1994). Recent calls for more research of this type, especially school-based examinations, may result in a greater understanding of teachers' attitudes and practices relating to literacy (O'Brien and Stewart, 1990).

These qualitative studies shed considerable light on why so many of the strategies developed and validated in experimental and quasi-experimental settings in the 1970's and 1980's were not being infused into teachers' practices and therefore not supporting students' literacy learning. Soon, the field of content area literacy began to use qualitative studies to examine the sociocultural dimensions of content area strategies in practice. This perspective, coupled with a larger, burgeoning sociocultural framework in education, would fuel the next advancement studying strategies that support students' literacy learning.

Research of the 1990's: Ecological validity

Recent research has studied the effective use of content area literacy strategies, but in specific contexts with corresponding sociocultural aspects. In general, these studies have highlighted content area literacy strategies that support and work against classroom dynamics. Arising from these studies have been both more integrated strategies for

supporting adolescents' literacy learning, and also wholly integrated textbooks and in-services.

Integrated strategies

In the latest edition of their content area literacy textbook, Readence, Bean, & Baldwin (2001, p. 4), define content area literacy as “the level of reading and writing skill necessary to read, comprehend, and react to appropriate instructional materials in a given subject area.” This definition and its application that ensues throughout the remainder of the textbook shows not only an expansion in the field to include the intertextual processes of reading and writing, but also to infuse directly through the subject areas. Throughout the book, the authors work towards modeling the marriage of content and process, highlighting interactive strategies that involve students more directly in the sociocultural interaction between reader and text. The use of science, social studies, and English language arts examples of lessons and scenarios throughout the book embed the strategies and approaches in specific situations, thus supplying practitioners with contextual frameworks for exploring these strategies.

Strategies arising from the 1990's also reflect an integrated approach that considers the prior knowledge that each adolescent brings to any instructional context. For example, Ogle's (1992) KWL provided a structure for students to access prior knowledge, set a purpose for reading, and monitor comprehension in a flexible format suited to myriad scenarios. By guiding students through what they know, what they want to know, and what they learned, the seemingly simple strategy represents the integrated and flexible approach to literacy that has proved much more amenable to secondary

content teachers (Ogle, 1992). Strategies such as this one were also explored and fueled by research in actual secondary classrooms, further validating the strategy.

Qualitative analyses of content area literacy

As content area literacy in the 1990's began to both question past didactic approaches and support contemporary integrated and flexible approaches, many qualitative studies arose that informed how actual teachers and students made sense of these strategies. These studies explored both overall approaches to content area literacy by teachers and students and more specific applications of single strategies. Endemic to these studies was a sociocultural framework, which maintained that literacy learning and instruction is intertwined with the cultural background of the participants and of the classroom as a discourse community (Au, 1998).

For example, Elizabeth Sturtevant's (1996) qualitative study of two high school history teachers' uses of literacy in their classrooms contrasted their styles of instruction. While many differences abounded, a similarity was found that though both teachers orally espoused a strong belief in literacy and literacy processes, this was seldom reflected in classroom practices. This finding supports the work done by Konopak et al. (1994) but also further informs the field by providing the sociocultural framework in which this happened for these two teachers. Studies of this ilk have helped to bring to the forefront the conflicts that exist between research-supported content area reading strategies like small-group discussion, preview strategies, and teacher modeling, with the secondary structures of teacher-centeredness and control that are supported by textbooks, school systems, and epistemological beliefs in content canons of knowledge.

Other qualitative studies have shed light on the interactions between teacher and students in classroom discourse communities and the role those interactions play in content area literacy learning. Moje's (1996) two-year ethnography of a veteran high school science teacher's and her students' uses of content area literacy in the science classroom found that the classroom climate and the teacher's and students' past experiences played inherent roles in the unfolding of literacy practices. Using qualitative designs of symbolic interactionism and hermeneutic phenomenology, Moje found that literacy was "practiced as a tool for organizing thinking and learning in the context of a relationship built between the teacher and her students." Strategies that were used included textbook preview, SQ3R, concept mapping, graphic organizers, notebooks, vee diagrams, and portfolios. Obviously, this high school classroom represented an integrated approach to literacy learning; however, Moje found that students did not transfer use of these strategies to other classrooms. Although the integration and application of these strategies occurred at a high level in the science teacher's classroom, this was the result of the unique, sociocultural makeup of this discourse community.

Other socioculturally-informed studies have revealed how teachers and students negotiate the use of specific content area strategies. For example, Hopkins and Bean's (1998) exploration of the use of the verbal-visual vocabulary strategy by Northern Cheyenne students in a Montana high school reading class revealed that a strategy steeped in interactive approaches still benefited from the modification by teacher and students in a specific context. By co-constructing the use of the creative strategy and its appellation, the teacher and students not only found an effective way of negotiating challenging vocabulary, but also found avenues for exploring classroom dynamics of peer

teaching and teacher research. Studies such as these have also begun to mark a gentle shift from the pervasive notion of the adolescent as little more than a bundle of hormones (Finders, 1998).

While the Hopkins and Bean (1998) piece documented strong local validation of a content area literacy strategy, other studies have found more struggles with other approaches to content area literacy instruction. Moje, Brozo, & Haas' (1994) article examining one teacher's implementation of portfolios as a content area assessment strategy with her French IV students showed that complexities arise even when infusing one strategy into a classroom community. A constant comparative analysis (Glaser & Strauss, 1967), revealed that the teacher's and the students' expectations for the class conflicted when exploring this infusion of portfolio assessment. The researchers found that the students' expectations were shaped by (1) their past classroom experiences, (2) the value the students placed on a second language class in relation to other high school classes, and (3) the value students placed on high school learning in general. The teacher's expectations were based on her knowledge of her students and context and on her reading of the portfolio literature. Hers, however, did not match with her students. The students struggled with figuring out exactly what was expected of them and their portfolios. The authors found that the students were trying to conceive of the portfolios in the same way that they had filtered the class' previous assignments that were finite in nature and followed a more didactic nature of procedures and steps (like those found in their textbooks). In fact, students also expressed dismay that more time was not being spent on grammar, what they perceived to be the meat of the French IV class. This article found that when trying to adapt portfolios for a classroom, the teacher experienced many

moments of ill-fit, arising from trying to use components of effective literacy strategies (small-group discussion, discursive relationships, and process orientations) that contradict the traditional and common secondary school subject structure. Thus has been the crux of many teachers' resistance. This research article, like others, by examining the data from a sociocultural and qualitative framework also provides implications for future instruction in this area, including "starting with simply activities, negotiating firm deadlines for completed work, encouraging students to set concrete goals, and providing initial resources" (Moje et al., pp. 288-289). In addition, the suggestion was made to integrate other classroom activities with the portfolios, so that the strategy does not represent such a stark contrast with the rest of the teacher-centered, didactic instruction. Students might then be more able to make connections across different learning situations.

Studies such as these have shed tremendous light on which content area literacy strategies best support adolescents' literacy learning and what type of classroom discourse communities support these strategies. No longer seeking to find a one size fits all approach to strategies, the field of content area literacy has been able to highlight specific examples of integrated literacy learning that engages both students and teachers in specific contexts. This focus on the learner also helped to guide the advent of a focus on adolescent literacy, which brings the adolescent back into the forefront of studies of literacy instruction in secondary schools.

Content area literacy in the millennium

Adolescent literacy

The newspaper headlines of the past few years have too often represented adolescents as fringe-like, problematic, and sometimes violent members of society.

Almost antithetically to this perceived crisis-like state, federal funding overwhelmingly favors programs for young children, espousing notions that the most critical times for education and development occur in the earliest years of life. Trends such as these and qualitative studies which consider the positioning of the adolescent in learning have spurred national discourse on the state of not only content area literacy, but also of literacy in general for adolescents.

In 1998, the International Reading Association (IRA) formed the Adolescent Literacy Commission, whose ensuing position statement called particular attention to the marginalized position of adolescent literacy in education (Moore, Bean, Birdyshaw, & Rycik, 1999). This statement and other thinkpieces (e.g., Alvermann, Moore, & Hagood, 1999) have underscored the need for schools to first acknowledge, recognize, and utilize the multiliteracies in which adolescents engage. Hinchman and Moje (1998, p. 121) called for literacy practitioners in secondary schools to “look more closely at particular students’ literacy practices, find out what they think about school, about different content areas, and about how their outside-of-school lives influence and merge with their in-school lives.”

Throughout all of these recent appeals is the notion that literacy instruction for adolescents must continue to refine content area literacy strategies but also consider other forms of literacy events in which adolescents engage. The shift in moniker from content area literacy to adolescent literacy, at least in part, symbolizes a desire to bring the adolescent into focus as the centerpiece of instruction. While some debate ensues on whether content area literacy is a subsection of adolescent literacy (D. G. O’Brien, personal communication, April 29, 1999), appeals for researchers and teachers to more

closely approximate the multiliteracies of adolescents are consistent. Other studies involving middle school students have also called for expanded, systematic reform efforts (e.g., Lipka, 1998).

New London Group's 1997 thinkpiece called for a pedagogical framework to support the multiliteracies of students, both in and out of school and to equip adolescents to critically examine print and nonprint texts. The authors maintained that this framework should include: (a) situated practice (taking into account the unique and specific sociocultural context for specific practices), (b) overt instruction (including a presence in the instruction for direct guidance and scaffolding of students' metacognitive and metalinguistic awareness), (c) critical framing (act of positioning texts and information within its social, cultural, and historical, and political contexts), and (d) transformed practice (reconstructing meanings, breaking down established frames of reference and constructing new meanings in new social spaces). Enacted with all components together, this pedagogical framework would provide the methodology for literacy in content classrooms (in fact all secondary classrooms, since expanded notions of text include the ascription to various discourse communities) to dynamically build a two-way bridge between students' home and school multiliteracies, support students' in their meaning making of various forms of text, and position the student and the learning community at the forefront of instruction. While the Australian government has begun to appropriate some aspects of critical literacy into its curricular frameworks (Luke, 2000), research in the United States is just beginning to bring issues of adolescent literacy to the surface.

Researching adolescent literacy

A few action research projects have begun to surface which examine the implications of this type of framework in school settings. Lewis and Fabos' (2000) study of one midwestern girl's use of Instant Messaging (a brief, real-time online form of communication) and other Internet uses speaks volumes of the complex, dynamic ways in which adolescents use literacy. In stark contrast to the adolescent's sophisticated, often simultaneous, use of IM, chat rooms, and emailing, the simple linearity of many school-sanctioned reading and writing strategies holds little value for her. Lewis and Fabos point out that as educators, whether of adolescents or preservice teachers, we have the responsibility to bring these types of multiliteracies into our instruction, using them as texts to inform our pedagogical framework.

Stevens' (2001) action research of three middle school teachers' uses of popular culture in their classrooms also points, at the most basic level, to the increased engagement of students when school situations more closely match their outside interests and pastimes. The study also holds implications for using critical media literacy as an approach to mediating texts in content classrooms. One teacher, Craig, was able to use representative popular culture from the twentieth century to model a critical media inquiry. Students' subsequent inquiries into contemporary popular culture revealed dynamic discussions about agency, positioning, and issues of power in media representations. The strategy in this content area classroom was successful because of its specific formulation for this particular context. Considerations of teacher and student expectations, past literacy practices, and guiding curricula were all taken into account before, during, and after the instructional unit. Because the unit was specifically

constructed for this setting, the expanded notions of text and multiliteracies proved engaging for the teacher and students. This action research project highlights one possible way of bridging home and school literacies in content area classrooms.

Studies such as these have only scratched the surface of exploring what dynamics arise when teachers and students broach multiliteracies together. One avenue for the continued track of content area literacy would be to continue to work within the framework of adolescent literacy in further studying these types of instructional approaches (Bean, 2000).

Teacher Change

Change is a dynamic concept alluded to in countless quotidian and academic references. In informal conversations, people often explore the interactive relationships among themselves, change, and external influences. Change is also a construct explored in various academic circles. It has been studied from a multitude of perspectives and approaches, including examinations of physical, cognitive, social, and emotional components and trends. With such widespread inquiry into change, even the more focused topic of how to bring about change in the workplace has great variance in research and application. A classification of orientations to change in organizational research will help to characterize various approaches to staff development.

Three types of change

In their 1969 review of the expansive literature on the topic, Chin and Benne grouped approaches to change in human systems into three major categories. The empirical-rational approach treats change as a linear process in which information arising from professional academics is researched and validated, and then change agents assume

the tasks of utilizing the research and diffusing this knowledge into human systems. For example, a university researcher may conclude that a balanced literacy approach best meets the needs of classrooms characterized by diversity. The scholar's work is published in professional journals. It is then up to literacy professionals practicing in schools to disseminate that information and put it into practice.

The second type, normative re-educative, characterizes change processes from a more naturalistic point of view, in which change is actually ever-present, and the influence of change flows between the agents involved and the system itself (Chin & Benne, 1969). The goals of this type of outlook concern cultivating the autonomy and growth of the people who make up the system. The final type, power-coercive attempts to achieve change through collective action of people inside the system and follows the work of Mahatma Gandhi and Martin Luther King.

Teacher change: Professional development and staff development

The literature on teacher change is located overwhelmingly in the first two views of change processes. Among the scattered and widespread information that falls into those areas, the literature on teacher change concerns two types of change inquiry (Richardson and Hamilton, 1994). One group of literature has explored the naturalistic process of change in individual teachers, or adult development (e.g., Johnston, 1994; and Lortie, 1975) across stretches of time and their careers; this inquiry is usually referred to as professional development. The other collection of literature has examined changes in response to curricular innovations and programs, or staff development (e.g., Richardson, 1994; and Sparks, 1983). Both broad areas of teacher change are addressed in various disciplines, including educational psychology, educational leadership, and curriculum

and instruction. As has been shown through this brief introduction to the area of teacher change, the area is extensive and addressed in a multitude of ways. This paper will focus on the aspects of teacher change as experienced, in particular, through an innovation or program.

Teacher Change through Staff Development

The literature on teacher change through staff development is dominated by a number of stage theories, frames that attempt to encapsulate the various, sometimes discernable phases through which teachers pass on their way to the ultimate desired change (Richardson & Placier, in press). Inherent to this viewpoint, at least in part, is the ideology found in the empirical-rational theory of change (Chin & Benne, 1969), that is to say that the change follows a linear process that is discernible and ultimately working toward a goal supported by outside researchers.

Stage theories

Francis Fuller's (1969) is a classic stage theory, not only because it is quintessential in its hierarchical and sequential makeup, but also because it has served as a springboard for subsequent theories of change and stages of change (e. g., Berliner, 1994; Griffith & Tan, 1992; Huberman, 1989). Based on extensive interviews and checklists, Fuller developed the description of stages of developmental change. This classic study lead to many other studies that followed this process of identifying stages of development. Perhaps most widely known is Hall and Loucks' (1977) development of the Stages of Concern, designed both as an inquiry into and a tool for mapping teachers' positioning in relation to an innovation or program. While this developmental framework marked a departure in its affordance in considering other factors besides years of

experience, the framework was consistent with other studies in that it was girded in a sequential view of change, largely unidirectional in its development.

Analysis of historical treatments of teacher change through staff development reveals an assumption that there exists a sequence that changes in beliefs and changes in practices follow and that this sequence must be addressed in staff development to maximize teacher growth. Guskey's 1986 thinkpiece identified three major outcomes of staff development to be (a) change in the classroom practices of teacher, (b) change in their beliefs and attitudes, and (c) change in the learning outcomes of students. Guskey noted that of particular importance to scholars in this field has been the order in which these changes occur and how best to support that order. Researchers' and change facilitators' notions of the order of the aspects inherently inform the theoretical and practical bases for the staff development projects that they design. Studies that have supported the notion that changes in beliefs must precede changes in practices have approached staff development from trying to involve teachers early in the process of defining goals and surveying teachers to ensure that the program is aligned with their stated needs (e.g., Hall and Hord, 1987).

Although Guskey and other scholars, (Huberman, 1981; and Fullan, 1985) conclude that change in teacher beliefs can only follow change in student learning outcomes from modifications of practices, other studies of teacher change through staff development suggest more multi-layered ideas about the process of change. For example, Schifter's (1995) study of mathematics teachers' attempts to become more constructivist in their instruction produced the theory that a four-stage process occurred in adopting the goals of this program. This study brings to the surface a paradox which has characterized

much of the literature on teacher change through staff and professional development: while dynamic goals of constructivism, trust, honoring differences and diversity, long-term collaboration, and synergistic change is touted by development professionals (National Staff Development Council, 1999), the methodology of the programs and the resulting literature is still embedded in a decidedly positivist stance of defining stages and levels of growth.

Similar debates to resolve other opposing viewpoints, such as whether in-school (e.g., Joyce, B., & Showers, B., 1988) or outside authorities (e.g., Clune, 1991) should maintain control over the design of staff development projects, contribute to the either-or propositions that are found in the literature on staff development and ensuing teacher change. In fact, it may be just these types of dichotomies that have contributed to the characterization of most staff development projects as ineffectual and inadequate at spurring and maintaining long-term, systematic change (Guskey, 1986). The few studies which have broken from a stage of model approach to teacher change have explored more dynamic notions of change.

A break from stage theory: The Reading Instruction Study

A few in-depth studies exist which help to examine the textured and colorful fabric that makes up staff development projects resulting in teacher change in specific contexts. Most notably in the field of literacy is the Reading Instruction Study, a long-term, in-depth staff development project designed by Virginia Richardson and colleagues to study the role of research-supported practices in teachers' classrooms (Richardson, 1994). The researchers used the Practical Argument Staff Development (PASD) process, designed to help teachers, both in groups and individually, inquire into their beliefs and

practices concurrently, in relation to current research on reading and practices. In essence, the process sought to construct a collaborative action research project.

Foundational concepts for the project included a long-term span over which meetings, reflection, and observations were spaced, voluntary participation by the teachers, collaboration among teachers and change facilitators, and intensive consideration of teachers' beliefs as they relate to practices. Using these guiding concepts, the PASD program was developed as a collaborative project, as defined by Tikunoff, Ward, & Griffin (1979). Richardson and her colleagues used Tikunoff et al.'s four necessary conditions for successful collaborative action research: (a) clear and specific goals should be carefully negotiated at the beginning of the process; (b) strong leadership by someone who can model democratic processes; (c) action research should proceed through recursive cycles of planning, execution, and fact-finding; and, (d) the school environment should be one with a collegial atmosphere, in which teachers are free to identify problems and experiment with solutions.

Using these four conditions as the framework for PASD model in five urban elementary schools, the researchers found results that suggest teacher change occurs in extremely dynamic ways. For example, Richardson and Anders (1994) found that when teachers are involved in examining both beliefs and practices in a practical argument model (in which an Other supports a teacher in examining beliefs and practices, change and develop new beliefs, and experiment with new practices – Fenstermacher, 1994), changes can occur in either area first, or they can occur simultaneously. Richardson and Anders concluded that, in keeping with the teachers' needs and diverse funds of

knowledge, the staff development project's responsive design allowed for teacher change to occur in ways that were most fitting in individual cases.

Another critical finding arising from the constructivist approach concerned the agenda for discussion, both short and long-term. The researchers found that while the general purpose of the endeavor must arise from the outside researcher so as to set a common purpose, particular goals and content must be borne out of specific teachers' concerns and needs. Proceeding this way, then, sets the stage for the eventual transfer of the agenda, content, and processes to the teachers. The researchers also found that a constructivist approach demanded that the role of the Other, in this case the project facilitator and the researchers, not be one of the expert in the room. Instead, the staff developer should work as one of many experts in the project, providing opportunities for the formal, research-based funds of knowledge to be shared alongside, with, and at times, juxtaposed against the practical funds of knowledge of the teachers (Moll, 1992).

And finally, the researchers found that the sense of community, in which collaborators felt trust and support from each other, was essential to success. This finding mirrored Garmston and Wellman's 1998 research that underscored the critical importance of open and meaningful talk among teachers. Richardson's study showed promising results in the areas of teacher change. This study represented a departure from the traditional, externally driven staff development projects that Guskey (1986) criticized as ineffectual. However, this study is a sole voice in the exploration of teacher change of literacy practices through staff development. It also mirrors the emerging process-based frameworks that are beginning to dominate the literature on staff development (e.g.,

Senge & Lannon-Kim, 1991; Moffett, Swafford, Jones, Thornton, Stump, & Miller, 1999; Costa & Liebman, 1997; and Costa & Garmston, 1994).

In reviewing the literature in the areas of staff development and adolescent literacy, I did not find any studies which focused on the adoption of opportunities to learn appropriated by teachers. Further, no studies were found that addressed the long-term dimensions of these adopted opportunities. In fact, the lack of studies that have documented the lasting effects and dynamics of change has been a source of criticism in the literature (Birman, Desimone, Porter, & Garet, 2000; Moffett, 2000).

These gaps in the literature yielded the following questions which will guide this study:

1) Given the backdrop of a discursive, collaborative staff development project exploring content area literacy, what opportunities to learn are taken up, modified, and rejected after the project has ended?

2) What local, institutional, and societal forces influenced the teachers' decisions classroom literacy decisions?

APPENDIX C

STAR PROJECT SCHEDULE OF TOPICS

<u>Date</u>	<u>Topic</u>
10/26/98	Goal setting; Needs assessment; Content area inventory construction
11/9/98	Before reading; Vocabulary strategies
11/30/98	During reading; Textbook strategies
1/6/99	Notetaking strategies
1/25/99	Writing in the content area
2/22/99	Brain-based learning; metacognition
3/15/99	Study; memory strategies
4/12/99	Alternative assessments
5/10/99	Debrief of resource gathering
5/17/99	Assessment of STAR project Next steps

APPENDIX D

SAMPLE OBSERVATION SUMMARY

Summary of Field Notes

D's class 3/30/2000

Topic of Lesson

Clustering about nonvascular plants

Literacy Events

Clustering (Led by D)

Use of textbook as resource (find facts, see examples, etc.)

Direct Q & A between teacher and students

Link to STAR

Clustering as a notetaking strategy

Strong modeling aspect (first time with this strategy?)

Use of the book in class as something other than traditional, independent reading

Lots of questions about the reading (mostly text-explicit)

Questions

Was this the first attempts at the clustering strategy with this class?

What about this lesson came from STAR?

How long have you been using it?

Future uses and modifications?

Did you use any other strategies this week from the STAR grant?

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Stevens, L. P. (2001). South Park and society: Curricular implications of popular culture in the classroom. Journal of Adolescent & Adult Literacy, 44, 548-555.

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