Beyond Bells and Whistles: Content Area Teachers' Understanding of and Engagement with Literacy

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This dissertation, BEYOND BELLS AND WHISTLES: CONTENT AREA TEACHERS’ UNDERSTANDING OF AND ENGAGEMENT WITH LITERACY, by MARY HUYSMAN, was prepared under the direction of the candidate’s Dissertation Advisory Committee. It is accepted by the committee members in partial fulfillment of the requirements for the degree, Doctor of Philosophy, in the College of Education, Georgia State University.

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ABSTRACT

BEYOND BELLS AND WHISTLES: CONTENT AREA TEACHERS’ UNDERSTANDING OF AND ENGAGEMENT WITH LITERACY
by
Mary Huysman

The purpose of this qualitative action research study was to explore content area teachers’ understanding of literacy, the strategies they use in working with content materials to support their students’ learning of content, and how collaboration with a literacy expert informs literacy instruction. In my work with content area teachers, they have expressed the need for support as they try new literacy strategies when engaging students in content material. Literacy skills are a part of all content areas. Therefore, literacy scholars need an ongoing understanding of how content teachers define and perceive literacy in their content area in order to provide this support.

Framed within a sociocultural lens (Vygotsky, 1978), this action research study (Schmuck, 2006) examined how high school content area teachers engaged students in reading content material as they implemented literacy strategies to support students’ access to content. Guiding this study were the following questions: (a) How do content area teachers define and perceive literacy and specifically define literacy in their content area? (b) How do teachers use literacy strategies they learn in professional development sessions? (c) Is there a benefit when a literacy specialist and a content area teacher collaborate to design literacy instruction?

Participants in this study included three content area teachers: a math teacher, a business teacher, and English teacher. Data collection occurred throughout the spring term 2012 in the school where the participants work. Data sources included semi-
structured interviews, observations, discussions generated from collaborative planning
sessions with the researcher, informal debriefings with participants, and a researcher
journal. Themes abstracted from the data were (a) teachers’ definitions of literacy did not
change over the course of the study, (b) their disposition toward use of strategies did
change over the course of the study, and (c) collaborative, embedded professional
development between the content area teacher and literacy specialist was an important
factor in changing disposition. This action research study emphasizes a need for literacy
specialists in schools and embedded, ongoing professional development, and informs
literacy specialists how content area teachers can be supported as they engage students in
reading content material.
BEYOND BELLS AND WHISTLES: CONTENT AREA TEACHERS’ UNDERSTANDING OF AND ENGAGEMENT WITH LITERACY

by

Mary Huysman

A Dissertation

Presented in Partial Fulfillment of Requirements for the Degree of Doctor of Philosophy in Teaching and Learning in the Department of Middle-Secondary Instructional and Instructional Technology in the College of Education Georgia State University

Atlanta, GA
2012
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To my other teachers, family, and friends who patiently listened as I documented this journey, I held on to every single cheer. To my mentor, Dr. Robert Wright, I hope that I have made you proud. Alev, you have always been my teacher, my 33 year-old friend. Thank you for being there.

I would also like to thank my three participants, Annette, Deborah, and Kelly. Your willingness to take on a semester long project such as this inspires me to continue pressing to make this profession better. I look forward to our future work together to make Mullen a better place for students to learn. I hope that this work we did together will contribute a small piece of how we can support the awesome responsibility we hold in this profession.
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<td>Concept Circle (Allen, 2007)</td>
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CHAPTER 1
INTRODUCTION

Now, more than ever, we need to become active proponents of educational growth—growth that recognizes the importance of high levels of literacy in order for adolescents to achieve their potentials, reach their personal goals, and build a better society. (International Reading Association, 2012)

Within the field of adolescent literacy education, and especially within the content literacy area, there is much discussion around how to engage students in literacy within a content area. For example, recently, there have been studies within states to implement content area literacy practices in high schools (Bates, 2009; Biancarosa & Snow, 2006; Rasinski et al, 2005), emphasizing the need for students to be able to read, write, listen, speak, and view with understanding of every content area in order to maximize independent learning, thus closing gaps between literacy and content areas.

There is even confusion and hesitancy as to the definition of literacy within particular content areas. For example, content area teachers themselves have expressed a desire to engage students in literacy but report a lack of continuing support for them as they try out strategies and practices (Cantrell, 2009; Lewis & Wray, 1999). Still, the National Center for Educational Statistics (NCES, 2010) indicates a literacy problem. They administer and study the National Assessment of Educational Progress (NAEP) which is self-described as the “largest nationally representative and continuing assessment of what America’s students know and can do in various subject areas” (NAEP, 2010). The NCES administers NAEP assessments periodically in numerous subject areas (including reading) and uses measures that provide a picture of student progress over time. The NCES 2009 Nation’s Report Card of grade 12 reading results shows the overall average reading score for twelfth-graders is four points lower than in
1992 meaning that students are not improving in their reading levels. In more detail, the same report also showed that barely a majority (60%) could comprehend factual statements, and that fewer than five percent could elaborate on the meanings of material they read. The achievement gaps among cultural groups also remain a problem; there were no significant changes from 1992 to 2009 in the wide reading score gaps between White and Black students or between White and Hispanic students (NCES, 2010). In fact, the country’s NAEP data are similar to those from more than twenty-five years ago (NAEP, 1985) in that there has been little or no general improvement. While national assessments alone are not appropriate to evaluate a crisis, such testing carries significant pressure for teachers and students, and a lack of improvement carries harsh consequences. This pressure, along with teachers’ expressed concern in the research cited above about support for content area literacy instruction indicates an acute and definite need for increased attention to this topic. A report for the Carnegie Corporation (Biancarosa & Snow, 2006) addressed the need to fix the literacy crisis in American youth. A panel of respected educational researchers came up with fifteen recommendations for improving middle and high school literacy as well as ideas on how to meet those recommendations. Four of the fifteen recommendations addressed content area literacy specifically, offering the following helpful or required content literacy: effective instructional principles embedded in content, a technology component, extended time for literacy, and professional development.

This country continues to face challenges relating to literacy. The literacy gaps in content areas are far too wide, and there is an explicit need to support teachers and schools in increasing content area literacy use and achievement. Educators in the U.S.
have a responsibility to help all students read, write, listen, speak and view content material in all areas so that adolescents can build a better society.

**Content Area Literacy**

This section provides an overview of how content area literacy has developed, and what is currently happening (or what some say needs to happen) regarding state movements toward literacy programs, school-wide initiatives, and pre-service training for teachers. Figure 1 presents an abbreviated timeline of the major events in the evolution of content area literacy.

**The beginning.** Content area literacy first came to the attention of scholars in the early 1900s when Huey (1908) and Thorndike (1917) originally linked literacy with the action of memorizing and reciting informational texts. Huey’s work (1968) advocated teaching reading within the study of content, which brought about the national Right to Read campaign. The campaign’s slogan, “every teacher a teacher of reading” (Fisher & Ivey, 2005; Manzo, Manzo, & Thomas, 2005) did not sit well with content area teachers, since their expertise lay in the specific disciplines. The campaign wanted to bring to light that content teachers could support students’ learning of content by focusing on reading skills in the content classroom, but many teachers expressed discomfort at being tasked with the explicit teaching of reading (Jacobs, 2008; Manzo, Manzo, & Thomas, 2005; Ruddell, 1997). After this initial interest, the field largely languished until the 1970s due to the rise of behaviorism, a theory that claims human behavior can be explained in terms of training, or conditioning the brain, rather than from thoughts or emotions (Pearson & Stephens, 1994).
1900s-1960s
Huey and Thorndike link literacy with action in memorizing and reciting informational text.
Huey advocates for teaching reading within study of context.
Schema theory is introduced.
Huey advocates for the National Right to Read Campaign, “every teacher a teacher of reading.”
Huey and Thorndike’s ideas languish due to the rise of behaviorism.

1970s
Secondary reading emerges, seen as “pull-out” or remediation.
Herber publishes *Teaching Reading in the Content Areas*.
Adolescent literacy distinguishes itself as separate, focusing more on the teenager.
Vygotsky publishes *The Mind in Society*: The development of psychological processes and ties learning to sociocultural theory.

1980s
Rumelhart introduces schema theory.
Reading specialists positions cut due to economic depression.
Range of increasingly complex literacy concepts developed.
Vacca and Vacca make stronger connections between reading, writing, and learning subject matter in a given discipline.

1990s
Discussion around literacy includes more technology and mathematics.
Heath advocates for strong connections between subject matter and literacy.
New London Group proposes multiple literacies in multiple modes.
McKenna & Robinson developed eight educational implications of engaging students in content literacy strategies.
Bruce pushes for sociotechnical literacy.
Readence, Bean & Baldwin, and Alvermann push for literacy to be taught as thinking process and in new technologies.
International Reading Association publishes position statement for adolescent literacy.

2000s
Literacy specialists added to schools to work with teachers.
Bean, Gee, Luke, Moje, Young, Readence & Moore continued promotion of multimedia and digital literacies to transform content knowledge acquisition.
Stevens pushes need to examine pre-service teacher courses that address content literacy.
No Child Left Behind highly qualified teacher mandate strengthens need for literacy specialists in schools.
Alvermann (2006) says that literacy must include “performative, visual, aural and semiotic understandings necessary for constructing and reconstructing print and non-print based texts (vii).
Moje & Shannahan propose disciplinary literacy as more appropriate term and as the highest level of literacy.

Figure 1. Timeline of major events in history of content area literacy.

**Secondary reading and adolescent literacy: The 1970s.** As part of the response to behaviorism, researchers in the early 1970s showed a need to understand the thinking
behind behavior (Alexander, 2006) with regards to reading and literacy. Harold Herber produced the book *Teaching reading in the content areas* (1970), generally regarded as the first text to develop an instructional model based on a functional, reading-centered approach to reading in content areas and show teachers how to simultaneously teach content and process (Alvermann, 1990). Herber argued that students needed to adapt reading skills to the individual subjects in which they studied (Herber, 1970). This argument aided the evolution of content area literacy.

Around the same time, Lev Vygotsky’s essays were collected, translated from Russian and published in English (1978). This collection brought to light the belief of reading as a psychological and cognitive process, arguing that educators needed to understand the link between a child’s development and his or her learning in order to maximize reading development. These beliefs redirected and furthered the focus in content literacy in that they tied in the need for development of the student with reading strategies that fit the content being learned at the time. Vygotsky’s beliefs also complemented Herbers’s idea of teaching adaptive reading skills to individual subjects being studied.

Though content area literacy could be considered an evolutionary descendent of the secondary and content literacies (Moje, Young, Readence & Moore, 2000), the study of the content literacy practices of the adolescent differs from the study of secondary reading. Secondary reading is generally defined as related to the study of adolescents and literacy (Stevens, 2002). If students learn to read through grade four, the act of reading in order to learn information can be defined as secondary reading (Jacobs, 2008). The term secondary reading is also culturally tied to a deficit model and historically conjures
images of remedial classes or a lab setting for students who have not yet learned to read effectively (Vacca, 1998).

Adolescent literacy distinguishes itself from secondary and content literacies in that its definition focuses on the adolescent and his or her cultural surroundings rather than the texts or content from which she or he needs to make meaning. King-Shaver and Hunter (2009) define adolescent literacy as how people between the ages of 12 and 20 use tools of education and their experiences from outside the classroom to understand their lives, or, generally, “the way teenagers make sense of their world” (p. 2). In 1999, the International Reading Association published “Adolescent Literacy, a Position Statement” (Moore & Bean, 1999), which pushed for more political and research based focus on adolescent literacy specifically.

The beginnings of multiliteracies: The 1980s. During the 1980s, content area literacy further evolved to incorporate a range of concepts including the generalization of the term “literacy” to explain a simple knowledge of a subject, such as computer literacy or cultural literacy which muddled understandings of the complex process of literacy (McKenna & Robinson, 1990). In their study of high school students in the United States, Hayes and Tierney (1980) found that student performance of recalling reports of cricket matches greatly improved when the students received background knowledge on the nature of the game prior to reading the reports. Educational system changes in this decade included an appreciation for this cultural complexity of literacy and a multidimensional conceptualization and the idea that reading is a process and a tool for acquiring content (Guthrie & Kirsch, 1984; Levine, 1982).
This decade also brought about a resurgence of schema theory (Anderson, 1994), a theory originated in the 1950s which maintains that all knowledge is organized into units called schemata. Rumelhart (1980) states that “we have schemata to represent all levels of our experience at all levels of abstraction….all of our generic knowledge is embedded in schemata” (p. 41). Schema theory gave structure and organization to knowledge acquisition in general, and showed a need for further evaluation of how students are educated including an interest in content area literacy. In the educational field, this new knowledge helped create a push toward embedding reading into content (Jacobs, 2008). Because of this push toward embedding reading into content and due to the economic recession in the 1980s, the reading specialist’s position was often cut (Jacobs, 2008).

Through the 1980s, the term content literacy was generally defined as “the ability to use reading and writing for the acquisition of new content in a given discipline” (McKenna & Robinson, 1997, p. 184). Vacca and Vacca (1986) went on to define content literacy as “the ability to use reading and writing to learn subject matter in a given discipline” (p. 8). These two very similar definitions were the first to tie in the writings of their predecessors: Herber’s push for the needs of individual reading skills for different subjects, Vygotsky’s ideas of maximizing content learning, and Rumelhart’s presentation of schema theory that gives structure and organization to learning. These earlier definitions of content literacy also strengthened the connection between reading, writing, and learning; they showed that students use reading and writing skills to acquire literacy in subject areas. The realization of the increased complexity of literacy helped the
definition evolve from simply reading and writing text into one that addressed a person’s ability to use skills in a particular setting.

**Technological advances: The 1990s.** Until the 1990s, the majority of discussion around literacy was limited to reading and writing print texts. The next decade brought with it major advances in technology, and thus researchers who pushed to redefine the term content area literacy to encompass richer, more complex types of text in addition to traditional print. As these definitions of content area literacy developed, scholars from Heath (1991) to McKenna and Robinson (1990) to the New London Group (1996) pushed for a new perspective that strengthened the connection between subject matter and literacy, arguing that the traditional definitions of literacy were over reliant on print and needed to expand to include oral and other forms of discourse (such as maps, video, or charts) that encompassed new and multiple literacies in multiple modes.

As knowledge of content literacy expanded and appreciation for content area literacy grew in response to increased access to technology and multiple types of literacy, McKenna and Robinson (1997) saw a need to address the educational implications of this increased access. In response to this need, they outlined eight major implications of engaging students in content literacy activities, which are summarized as follows:

1. **Content literacy and content knowledge are not the same.** Content knowledge should be considered a prerequisite to content literacy as knowledge about a topic (i.e. computers) will facilitate more literacy activities that can then lead to more content knowledge.

2. **If appropriate content literacy assignments are implemented in conjunction with high-quality direct instruction, the potential for high levels of literacy acquisition can be realized.**

3. **Content literacy is specific to content.** To be literate in a discipline, you must be able to read and write about the subject.

4. **Reading and writing are complementary tasks.** Using the two together will prove the greatest gains in content knowledge.
5. Knowledge in all subject areas can increase by reading and writing about them, including those that are not print rich (e.g., visual arts and physical education).

6. When writing about a content-specific subject, the focus should be on meaning, not mechanics. Content area teachers do not have to instruct students in mechanical writing.

7. All students can benefit from content literacy if given appropriate tasks. Even struggling students can advance their levels of understanding through literacy activities if the reading materials and writing assignments are accessible to the student’s learning level.

8. Content literacy can maximize content acquisition. Teachers should not depend exclusively on direct instruction. (pp. 9-12)

These implications affected the education field in that they led to the conclusion that teachers can optimize learning by engaging students in content literacy activities that are appropriate to the subject area. In accordance with these implications, Readence, Bean, and Baldwin (1998), termed 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” (p. 4). This definition tied content literacy with instruction, and Donna Alvermann (1990) furthered this tie by stating that reading and writing should be taught as thinking processes rather than the rote memorization and recitation trend from previous decades. Bean (1999) and others pushed for an expansion of traditional definitions of content area literacy to embrace speaking, listening, and viewing as well as new technologies because, “we now use a multitude of new text forms including visual and audio multimedia technology” (p. 446), and this definition was generally adopted. Lewis and Wray also state that inquiring about what high school content area teachers “know and feel about literacy might help inform the debate as to what initiatives are likely to be welcomed by teachers and which may prove more problematical” (1999, p. 275). Indeed, literacy in mathematics did not become a subject of serious discussion and research until the appearance of the standards-based

**Digital literacies: The 2000s.** In the next decade Carmen Luke (2000) promoted the use of multimedia as a tool for teachers to transform content knowledge acquisition. More recent study (Bean, Bean, & Bean, 1999; Gee, 2000; Moje, Young, Readence & Moore, 2004) of content literacy includes a perspective that moves beyond skills and leads to the ability to make meaning, critique, and use information that use listening, questioning, and viewing, writing, reading, and non-print based text skills. Luke’s and the others’ evolved perspectives on content area literacy incorporate visual images, sound and video clips, drama, video games, hyperlinks, text messages, internet sites, blogging, and other digital aids of all kinds. Being literate in the 21st century was no longer thought to be confined to reading and writing; students needed literacy that allows them to think beyond the confines of reading and writing alone. This move beyond skills is necessary because our students are increasingly less reliant on gaining knowledge from books and depend more and more on digital media to gain their knowledge (Barton & Hamilton, 2000). Stevens (2002) also noted a need to examine the terms and pre-service courses that defined and addressed not only content area literacy, but adolescent and secondary literacy, which she notes as being used interchangeably. At this time, the term literacy became generally defined as one that includes online material as well as multiple types of text (Readence, Bean & Baldwin, 2004) and that acknowledges and pushes for a connection between both in and out of school literacies (Guzzetti, 2007).

The progression of literature in content area literacy shows the importance of knowing the perceptions of content area teachers regarding the use of literacy skills to
gain content knowledge. Most recently, Alvermann (2007) furthers the push by Bean for an expanded definition of literacy “to include the performative, visual, aural, and semiotic understandings necessary for constructing and reconstructing print and nonprint-based texts” (p. viii). This idea, too, folds into content area literacy as students are interacting with nonprint-based information almost more often than print (Alvermann, 2007) and will need continuously more support as the technology and access to all types of messages increases.

Moje (2008) and Shanahan and Shanahan (2008) propose the term “disciplinary literacy” as more appropriate given the specialized nature. This term is the highest of Shanahan and Shanahan’s three literacy development levels. Level one is basic literacy, where skills such as decoding and high frequency word recognition are learned. They term level two as intermediate literacy, wherein the student learns comprehension strategies, common word meanings, and begins to learn fluency. In level three, disciplinary literacy is defined as the level in which the student learns to specialize skills related specifically to subject matter, i.e., history, science, mathematics. They also emphasize that as students progress through school, their literacy instruction “should become increasingly disciplinary, reinforcing and supporting student performance with the kinds of texts and interpretive standards that are needed in the various disciplines or subjects” (2008, p. 57). Further, Pearle, et al. (2006) asserted that early reading skills do not automatically develop into more complex ones that empower the student to work with more sophisticated content reading. In high school, text becomes more technical in nature and therefore more specialized skills are required for comprehension of these more challenging texts (Grigg & Donahue, 2007; Kutner, et al., 2007).
Literacy Specialists and Content Area Teachers.

As definitions of content literacy evolved, the roles and relationships among literacy specialists and content teachers have been continually renegotiated. In the 1970s, when content area literacy was still emerging, students who struggled in reading usually were “pulled out” of the classroom to receive remediation skills with a reading teacher. Because of this practice, classroom teachers began to see reading as its own entity instead of something that is incorporated in every class (Robinson, 1977). Later, literacy coaches, or reading specialists who focus on professional development with the goal of supporting teachers to become more reflective and to refine their practice (Riddle Buly, Coskie, Robinson & Egawa, 2004), were incorporated into schools so that they could teach students to use literacy strategies in their content area classes and show teachers how to incorporate literacy skills while teaching content through professional development and ongoing support (Holoway, 2003, cited in National Council of Teachers of English, 2006, p. 10; Manzo, Manzo, & Thomas, 2005).

Around the same that literacy experts were being embedded in schools, the requirements set by the No Child Left Behind Act (NCLB) (2004), stated that content area teachers should be experts in their subject matter, and were discouraged or restricted from teaching a discipline in which they did not have a degree. Fang and Schleppegrell (2008) also emphasized that “reading proficiency develops when students are able to see how language works in a text and learning to see this comes through interactions with experienced readers who can make the meaning and structure available to the novice” (p. 9). In order to support the content experts who may not be experts in teaching reading and to meet the NCLB act requirements, literacy specialist positions appeared. It was
thought that the expertise of the content area teacher well-paired with that of the literacy specialist could create a collaboration that, with approachability, humility, and open mindedness, could create a new horizon for how content area literacy can meet the needs of students (Draper, Nokes, & Siebert, 2005). Bruce (1997) pushed to increase the complexity of this idea by stating that students also need sociotechnical literacy, wherein they learn to effectively use all kinds of technology as well as what Alvermann (2007) includes in order students to be literate.

With the need to address literacy challenges apparent, the majority of literacy study focuses on testing of comprehension skills rather than how to teach and apply strategies (Ness, 2007; Pressley, 1998); there continues to be a dearth of attention devoted to the teaching and application of strategies that support the students’ processing of text in the classroom (Pressley, 2002). Addressing the needs of adolescent readers in particular requires a significant amount of time and focus, and requires the efforts of all content teachers, not simply the English/Language arts teachers (Deshler et al., 2001; Kamil, 2003; Reed, 2009).

My Interest in Content Area Literacy

When I secured a new position as literacy coach in a high school in 2010, a major focus of the job was helping teachers implement literacy strategies into the school’s content area classrooms. Currently I organize meetings with outside consultants and conduct less formal meetings with teachers who are looking for literacy strategies to use with a specific unit of study. Since content area literacy in high schools has been a keen interest of mine, I decided to incorporate this proposed study with my regular duties and
responsibilities in order to better understand how teachers use literacy strategies in order to help students learn content.

After 10 years of teaching high school English and three more specializing in reading and literacy education, I have found myself focused on students who struggle with literacy. In approximately my seventh year of teaching English, I became frustrated with the pressure and demands placed on teachers within the English curriculum because I knew that my students needed more focus on literacy skills that could unlock material in various disciplines. It was then that I decided to learn more about those students who struggle with reading in school, and I began the study necessary to become a reading specialist. I see the way many of my students’ lack of literacy skills affected aspects of their in and out of school lives. They lacked confidence in the classroom when answering even general questions, but especially ones related to content, and they resisted taking academic risks such as writing for publication or sharing their thoughts out loud. Collaborative experiences were also very difficult for these students who struggled, as these social situations that involved self-esteem, confidence, and resisting negative peer pressure exposed the vulnerabilities of which adolescents are already so painfully aware.

In my first year as a reading specialist, I saw firsthand the lack of self-esteem, confidence, and social skills in students enrolled in my Basic Reading and Writing class. Over the course of the year I learned that these students were indeed insightful, sensitive teens as they exhibited genuine curiosity and a willingness to learn. Unfortunately they still ran into the type of problems that could have been initiated or exacerbated by their lack of success in school: Vanessa became pregnant at age fourteen; Dion was suspended for fighting three times in the first semester of his ninth grade year; Douglas acted out in
his other classes and was sent to my classroom at least once a week because his other teachers could not deal with him in their classes of thirty students. By the time Tamara made it to ninth grade, she was almost mute in the classroom. It was not until the second semester of my continual attempts to get her to interact and respond in discussions in the classroom that she revealed her fear of “getting it wrong.” All of them suffered from consistently low grades. I do not imagine that low reading skills were the only cause for these behaviors, but I wondered if their lack of literacy had something to do with how they felt about themselves and school.

My interest in learning more about how to engage struggling students in content area material sparked my interest in understanding their literacy needs. I decided to pursue an advanced degree in literacy so that I could become a part of the conversation surrounding adolescents who often have not yet developed or used their own voices in advocacy of their literacy skills. Initially, this advanced degree was an Educational Specialist degree in Language and literacy education. A year into that program, however, my advisor explained the opportunities that would open up to me if I changed my Ed. S. into a Ph. D. The idea of joining a broader conversation of both adolescent and content area literacy intrigued me, and I made the transition. The same year that I made this transition, I secured a reading specialist/literacy coach position in the school which cultivated my passion for improving adolescent literacy across the curriculum. In this position and now equipped with the knowledge from my studies, I could officially focus on this unique aspect of an adolescent’s life and use my knowledge to improve literacy skills, thereby helping students gain more access to class content and consequently
greater success in their disciplinary courses. Improved success in school then opens these students up to more choices after high school.

**Background to Study**

In a staff development workshop that I was asked to facilitate during my first year as a reading specialist, I introduced to content area teachers (by department) five or six literacy strategies that have been shown to work in their discipline. For example, I showed math teachers how they could use Janet Allen’s (2007) “concept circles” (see glossary). I then gave them time to discuss with their content teams which one or two might work well within their upcoming lessons. At the end of the workshop, they shared their plans. After a few weeks, I asked for feedback on which strategies they used and their effects. The responses I received from those sessions were tremendous. A math teacher stated that this had been the most useful workshop the school had conducted all year. An English teacher claimed that she felt her lesson “come alive” for the first time in that unit, and a social studies teacher shared some of the strategies with her pre-service teaching cohort. Their interest further sparked my own passion and desire to learn how to better my own profession so that my work impacts literacy strategy use in the school where I teach and became another reason to pursue a Ph. D.

Along with other scholars, I believe that content teachers do want to increase the literacy skills of their students within the content area, but need continuous support and resources to do so. My career goal is to be that resource for high school teachers so that they feel comfortable integrating literacy instruction into their content classrooms. There are many caring, empathetic high school content area teachers who desire new ideas to improve their practices in order to increase their students’ content literacy skills and help
students learn content. This action research study gave me the experience and opportunity to understand the thinking and practice of these teachers so that I can be a more useful resource.

**Research questions.** Because of my interest in the role of literacy in content area classes and my desire for knowledge that will not only provide a deeper understanding of this career but will also be of interest to the field, this action research study attempts to investigate the following research questions: 1) How do content area teachers define and perceive and specifically define literacy in their content area? 2) How do teachers use literacy strategies they learn in professional development sessions? 3) Is there a benefit when a literacy specialist and a content area teacher collaborate to design literacy instruction?

**Rationale.** High school is a critical period for a student to either work toward a diploma or drop out. Numerous studies have shown that poor academic achievement is a strong predictor of dropping out (Ekstrom, Goertz, Pollack, & Rock, 1986; Goldschmidt & Wang, 1999; Rumburger & Palardy, 2005; Wehlage & Rutter, 1986). In their large scale study of 14,199 students, Rumburger and Palardy (2005) determined that a major factor influencing students who drop out is lack of educational achievement, and 39% of the students who dropped out of school in their study cite failing grades and/or retention as a major reason.

The academic success or failure of a student also depends largely on the quality of the teacher. As Rumburger and Thomas (2000) found, “the higher the quality of the teachers as perceived by students, the lower the dropout rate” (p. 142). Additionally, in their survey of 20 eighth through tenth grade teachers in Kentucky schools, Klecker and
Pollock (2005) found that teachers in schools with high reading achievement scores frequently use a higher number of research-based reading strategies. Lau and Chan (2007) studied 88 seventh grade Chinese students who received a six-week strategy instruction program and found that students who received the instruction showed gains in comprehension performance and strategy use over those who did not receive the instruction. Therefore, it is critical to understand how teachers engage adolescents in reading content material and to examine how they use resources within the classroom and in relation to literacy strategy use. This study aims to contribute to an understanding of the practices of content area teachers.

**Overview of Study.** This qualitative study was conducted through action research, defined by Frost (2002) as “a process of systematic reflection, enquiry and action carried out by individuals about their own professional practice” (p. 25). The purpose of action research studies is that one may study his or her own situation in order to better the quality of it and the processes within it (Schmuck, 2006). Action research has recently regained a foothold in educational inquiries due to the work of researchers such as Carr and Kemmis (1986) and has been used by those who desire to improve classroom practice.

Historically, action research is rooted in the work of such scholars as John Dewey (1939), Mary Parker Follett (1940) and Kurt Lewin (1948) who laid a foundation for action research as they listed their hopes and concerns for education. Dewey, the most prolific of these scholars, articulated his hopes that American classrooms and schools come to resemble a microcosm of the democratic process, wherein both teachers and students would cooperate in order to reflect upon and solve social issues or community
problems (Schmuck, 2006). Follett (1940) also believed in social interaction and coordination among stakeholders (1965), a key concept for her, to define and solve problems within the workplace. Considered the grandfather of action research (Schmuck, 2006), Lewin considered democratic participation and action research synonymous. Much of his life work was spent seeking to build bridges between scientists and practitioners. His experiences as a Jew in Central Europe in the 1930s inspired him to look for ways that social science could help strengthen democracy and overcome prejudice and discrimination (Schmuck, 2006).

Lewin’s (1948) original model of action research involved a spiral of steps that involved identifying an idea, fact finding, planning, taking the first action step, evaluating and amending the plan, and taking a second action step. Though this spiral is sequential, it has lent itself to liberal interpretation, and a number of models have evolved from it.

The action research model which best fits my study is the proactive model presented by Schmuck (2006). This model is designed for educators and involves six steps:

1. Articulate hopes and concerns for students, a unit of study, or a classroom.
2. Try new practice that is collaboratively decided.
3. Collect data as practice is implemented.
4. Analyze data when practice is complete.
5. Reflect up what the data says.
6. Fine-tune the practice.

The visual representation of these steps is also a spiral, indicating that when step six, fine-tuning the practice, is reached, that finely-tuned practice will then be used in
another round of the spiral, returning to step one. Each step of this study will be explained in the methodology section.

Noffke (2009) describes three dimensions of action research: professional, personal, and political. These dimensions help the researcher explore the “complexities and interconnectedness across the dimensions” (p. 8). These elements underpin my rationale for choosing action research for this study. In education, action research furthers the profession as it aims to enhance the “science of education as well as the status of the professionals who work in schools and colleges” (Noffke, 2009, p. 9).

Reason and Bradbury (2008) say that action research “responds to people’s desire to act creatively in the face of practical and often pressing issues in their lives in organizations and communities” (p.3). The participants in my study all expressed a desire to improve their practice and therefore their students’ learning in authentic ways. The professional dimension of my study helped me gain a deeper understanding of the relationship between content area literacy, their understanding of literacy, and the strategies they use in the classroom. This understanding will consequently broaden the thinking and work of the participants who collaborated with me, as well as my own, therefore honing and furthering both of our crafts.

According to Noffke (2009), the personal dimension focuses on “the impact on the personal growth and development of those who engage in it” (p. 10). My desire to use action research stems from my deep personal connection to my work and the desire to improve literacy instruction in the school, as well as my desire to gain a deeper understanding of how I can better my practice.
The political dimension of action research seeks solutions to problems of social inequality, especially as they relate to arguing for change for marginalized populations (Noffke, 2009). Lewin (1948) describes action research as “a comparative research on the conditions and effects of various forms of social action, and research leading to social action” (p. 202-203). In my study, I focused on bettering the situation for the school in which I work as the reading specialist and literacy coach. This study addresses the political realm of action research by informing both content area and literacy educators of effective ways to make students at this school savvier and more literate consumers and citizens, and in doing so, reverse the stigma associated with teaching at a “failing” school.

Participants in this action research study included three high school content area teachers, all of whom expressed interest in developing a new classroom practice that could improve the literacy skills and content knowledge of their students. The study lasted approximately 14 weeks across the spring semester of the 2011-2012 school year. During this semester, I introduced the participants to literacy strategies that fit their content and which they felt comfortable in incorporating into their practice, and assisted them in choosing and implementing literacy strategies that engaged their students in content material.

The research site was a high school of approximately 1,100 students located outside a major Southeastern city. The demographic make-up of the student population was approximately 80% Black, 10% Hispanic, and 10% White. The school was under intense scrutiny during the 2011-2012 academic year, as it has not made Adequate Yearly Progress (AYP) in three years. Adequate yearly progress is determined mainly through
changes in state testing scores. Most of this testing places a high priority on students’ abilities to read and write well (Conley, 2005). Differences in culture and language backgrounds also play a political role in literacy learning as these students were also measured in state tests when determining AYP, namely those whose native language is not English. While not all English learners (students whose first language is not English) are struggling readers, some do arrive in the United States with little or no English knowledge (Conley, 2008; Short & Eschevaria, 2005). The principal’s plan to address the AYP problem included creating a literacy coaching position. I was hired in this role in 2010.

Part of my job description is to lead a school-wide literacy program mandated by a smaller learning communities grant the school received in the preceding year. During my first year as literacy coach, I held informal conversations with teachers as we began to think more about literacy in the classroom, led an interdisciplinary literacy focus group which developed and began implementation of a school-wide literacy plan, and coordinated faculty workshops on content area literacy strategies. That year of informal discussions and observations not only helped me establish relationships with teachers who were passionate about improving their practice, but also helped lay the foundation for the study by allowing me to become familiar with the current use of literacy strategies throughout the school.

Because the school had not reached AYP in the three previous years, teachers were under intense scrutiny by outside agencies at the district and state level, which had many consultants in the building to work with the faculty to improve and support instruction. This pressure was felt by the students as well; they were heard in classrooms
making comments such as, “Don’t they know, we’re [Mullen]. We’re the slow school. Ain’t nobody smart here.” As I collaborated with the participants in order to answer my last research question, “Does collaboration between a literacy specialist and a content area teacher inform literacy instruction?” we were embroiled in the political realm of American educational policy as we discussed this pressure to help the students raise achievement (i.e., higher test scores) as it coincided or conflicted with what the participants felt the students genuinely needed.

**Significance.** This action research study informs those interested in content area literacy about ways that content area teachers can be supported as they engage their students in reading content material. The focus on participants’ perceptions and actions give voice to their perspective and add knowledge about the school-based instructional decisions schools make that could affect students’ learning and literacy skills (Sturtevant & Linek, 2003). This study also offers insight into ways teachers can assist students as they become proficient readers of challenging texts in content area classes. Findings from this study reveal why and how content/disciplinary teachers use literacy strategies within their subjects and their beliefs about literacy within disciplinary area. Furthermore, the findings help inform literacy educators about how they can support and collaborate with content area teachers to help improve literacy skills school-wide.

**Theoretical Framework**

The theoretical framework is the perspective by which researchers view their academic work. The lens that guided my study and influence the way I work with the participants and analyze the data was sociocultural theory.
In general, a sociocultural perspective explores the social aspect of learning, the experiences, beliefs, and backgrounds of students, and the use of language and power. Sociocultural theory, according to Vygotsky (1978), suggests that social interactions lead to the development of thought and can be specific to culture. Therefore one must not study the individual alone, but rather study the social world in which that individual has developed and the tools that the culture provides to help one form a worldview. Sociocultural theory focuses on the interplay of historical, social and cultural elements of a person’s experience and is defined as a theory wherein “knowledge is constructed based on social interactions and experience” (Woolfolk, 1998, p. 279). According to sociocultural theory, the individual participates in activities that require both communicative and cognitive functions, and the use of these functions is what nurtures and “scaffolds” them into forming their individual selves. In this sense, the human mind is “mediated” (Lantolf, 2000) in that people use symbols to establish a relationship between themselves and the world.

Sociocultural theorists view literacy as a social practice, indicating learning through interaction with others, instead of a cognitive process that develops only within the individual’s brain (Gee, 1990; Lankshear, 1994). Therefore, in a classroom, students use written, visual, and verbal language as tools to mediate between the content and their existing knowledge to establish new content knowledge.

Two tenets of sociocultural theory, as described by Englert, Mariage, and Dunmore (2006), will guide my study: sociocognitive apprenticeships and procedural facilitators and tools. In sociocognitive apprenticeships, experts support novices in a discipline, or content, and then decrease support so that the novice eventually can
participate and perform in the discipline independently. Englert, Mariage, and Dunsmore (2006) state,

> Effective teachers create spaces to make available to students the full range of semiotic tools and discourse in constructing written texts. By forging concrete links among specific thoughts, words, and actions through language, teachers bring the relationship between ‘knowing and doing’ into a plane of more active consciousness within an individual. (p. 209)

This relationship works in the content area classroom because while the teacher should not be seen as “the sage on the stage,” he or she does have specific content that the student is required to know independently, and so has a responsibility to guide the student toward new knowledge based on information given and how that information interacts with the prior experiences and background knowledge the student already obtains. The apprenticeship is established as the student internalizes information and uses it with decreasing support (through discussion, activities and assessments, for example). This tenet encourages the teacher to expose the student to strategies that allow for the student to use the semiotic tools and discourses to create relationships with content and/or make connections with increasing independence and power. In this study, the tools and discourses were used around strategies and discussions that aimed to help students gain literacy in the content and to create relationships with content and/or make connections with increasing independence and power.

The second tenet of sociocultural theory addresses the specific procedural facilitators and tools that teachers provide to students before independent performance occurs. These cognitive or strategy-based tools, according to Englert, Mariage and Dunmore (2006) include a “variety of mental, linguistic, and physical devices used to … support cognitive performance” (p. 211) and help students organize thought. For
example, visualization would be a mental tool that could help students graphically organize the water cycle, or a song that names the capitals of the South American countries could be a musical tool that helps students remember linguistic information. Manipulatives such as flip charts or student-created board games would be physical devices that could help students practice critical thinking or debate skills. This aspect of the theory emphasizes not only the need for these tools, but the unfortunate reality that many students are unaware of these mental, linguistic, or physical devices (Englert, Mariage, & Dunsmore, 2006). These devices, which can also take the form of graphic organizers, visual vocabulary maps, or summarizing techniques, are intended to bridge the space between what a student can perform on his/her own and what he or she can perform with the support of the aforementioned sociocognitive apprenticeship relationship. Vygotsky (1978) refers to this supported space as the Zone of Proximal Development, or ZPD. This study reflected the role of these teachers as they provide the supported space for their students and then reflect upon these tools, or strategies, to the students.

Using a sociocultural lens guided this study in the following ways. First, as the participants and I collaborated on possible strategies for their units of study, scaffolding occurred when the teachers began to choose strategies on their own, as expected by the principal and as communicated via the literacy focus plan. The cognitive tools tenet of the theory also guided my second question: “How do teachers use literacy strategies they learn in professional development sessions?” In this way, I observed how teaching and learning reflect the culture and experiences of those involved in that particular classroom (Tracey & Morrow, 2006). In content area and adolescent literacy, sociocultural theory
can guide the ways in which teachers engage students in literacy practice within their disciplines. In this study, the theory also serves as a guide for my further understanding of the perceptions and thinking of content area teachers as they implement the action research cycle.
CHAPTER 2
REVIEW OF THE LITERATURE

To support the research questions leading this investigation, I reviewed relevant literature regarding the personal, professional, and political dimensions of content area literacy teachers and pedagogy. Research on content area literacy addresses a range of views on the topic, from specific student and teacher perceptions of its usefulness, to how it is conceived and/or implemented as policy on a national level. The following review of studies is organized according to the discussions and implications as they relate to the three dimensions of action research presented by Noffke (2009). I organized the review in this way in order not only show the emphasis that the researchers placed on each specific dimension, but also to reveal a gap in the literature exploring the thinking and work of content area teachers with regards to literacy and content learning.

Making Literacy Personal

Noffke (2009) explains that the personal dimension of action research includes the idea that research personally impacts the growth of those who engage in it. She also explains that the personal dimension emphasizes the individual versus collaborative nature of the work. The following studies explore research that ties into this personal dimension.

In their multicase study of seven adolescent students who attended a university reading clinic in the spring of 2008, Pitcher et al. (2010) sought to understand the literacy needs of students compared to instruction of reading strategies they received in their schools. The researchers found that all of the students “expressed most problems reading in their content areas and received no help with strategies on how to understand those
materials” (p. 642), emphasizing the need for reading comprehension strategies to be taught explicitly to students by their teachers so that they are aware of the strategies they are using.

In Hall’s (2009) year-long case study of a sixth-grade social studies teacher and a struggling reader in her classroom, she examined their interactions in relation to reading engagements in the classroom. Hall wanted to explore how struggling readers make decisions about classroom reading tasks, and what role identity played in student-teacher relationships in subject matter classrooms. Her findings showed that the student’s identity as a struggling reader was maintained both by the teacher who viewed reading as mainly cognitive and print-centric, and by the student who did not adopt practices and behaviors that the teacher would consider a good reader to have. The implications encouraged teachers to look at multiple ways in which students can respond, thereby allowing struggling readers to feel safe and invited to participate. Similarly, Janet Allen (2000) advocated for students’ needs to feel safe and to have power over their reading by being allowed to choose their selections.

One of the multiple ways in which students can respond what they learn was established in Bintz’s (2010) anecdotal study. Bintz taught Fibonacci’s mathematical number sequence poetry in his graduate level course on reading and writing across the content area. He intended his graduate students to use this tool as a strategy both for the graduate students to use this tool as a strategy and as a model for use with their secondary students. He wondered how it would help students use reading and writing to help students learn across the curriculum. Bintz found that this strategy helped his graduate students experience the value of using reading and writing as tools for learning. He
concluded that there are benefits of combining math, science, and poetry as a teaching method.

Graves (2004) believes that the teacher is the most important source for creating conditions in the classroom to promote student engagement and learning. In Daisey’s (2009) survey study of 124 secondary pre-service teachers, she compared the responses of those who had positive past reading experiences with those who had negative ones. The purpose of this study was to explore how these experiences develop attitudes about writing, whether these attitudes changed during the required writing in content area course, and gain insight into predicted use of writing in future instruction. The findings revealed that teachers who had good past positive reading experiences relayed more positive attitudes than those who had bad experiences with writing, that the attitudes of the pre-service teachers did improve over the course, and that most teachers believed that their students would enjoy writing in the content areas. Conclusions suggested that teachers should reflect on their experiences with reading in their past as they incorporate literacy into their classroom.

Similarly, in their cross-case, interview analysis of the decision-making and instructional beliefs of nine middle and high school content teachers, Sturtevant and Linek (2003) explored the instructional beliefs and decision making of these teachers and how those beliefs and decisions related to literacy. They found that in addition to the wide variety of literacy practices in the classroom, all of the teachers held strong beliefs about meeting students’ needs, creating strong interpersonal relationships, and relating personal experiences, contexts, and/or professional development to their instruction. Sturtevant and Linek concluded that meeting student needs must be a strong focus of
successful teachers, as well as creating an active teaching/learning environment with multiple uses of literacy activities.

Striving to gain a deeper understanding of teachers’ beliefs and practices surrounding the use of multiple texts in the classroom, Walker and Bean (2005) conducted a multiple case study of three content area teachers who through a survey completed in a teacher education content reading course, indicated a high interest in literacy and use of multiple texts in their classrooms. The researchers analyzed surveys, email discussions, observations, field notes, classroom artifacts, and interviews of the physics, history, and English teachers. Their findings indicated that each teacher had varying reasons for using these multiple texts, including a response to student need for access to information, making connections between texts, engaging student interest, using models for writing, and using technology as a teaching tool. They also found that there is a continuum of use of these multiple texts, ranging from independent student use to heavy teacher use. The insights from this study add to a growing understanding of the personal reasons that teachers choose texts or certain activities for their content classes, but further study continues to be necessary as researchers remember the individual impact a teacher can have on instruction.

Lesley, Watson, and Elliott (2007) sought to understand the types of metacognitive awareness exhibited by preservice secondary teachers through reader-response writing with multiple texts as well as their engagement with print-based texts within the context of reading multiple texts and participating in literature discussion groups.
In order to explore these questions, the researchers studied two sections of undergraduate secondary education classes of 47 pre-service teachers from diverse content disciplines who were enrolled in a content area literacy course. Their qualitative multi-case study contained analysis of observation field notes, debriefing sessions with teachers, interviews, and reader response writing. Their findings suggested that there was knowledge of some metacognitive strategies, but that pre-service content area teachers may need to improve their own skills as readers, as well as begin to see themselves as readers in order for them to effectively integrate literacy into their content area.

Although pre-service teachers are the subject of many studies on content area literacy training, studies of teachers who are in practice are hard to come by. Barry (2002) sought to discover what strategies teachers who are currently in the classroom use. He conducted a mail survey of 123 of his former students who taught a span of 11 different content areas, and whose experience ranged from 1 to 12 years. In his survey, he focused questions on what literacy strategies they personally learned from his class and used in their classrooms. His findings indicated that most used at least one or two strategies, and the most popular strategies used were visual aids, guided imagery, and various vocabulary activities. Teachers also mentioned feeling restrained by time and pressure to cover required material kept them from using as many strategies as they wanted.

These studies reveal the “personal” dimension in action research because they emphasized the individual’s (sometimes within a collaborative nature) thoughts and perceptions within content area literacy research and show an impact on the personal growth of the researchers engaging in the work. This proposed study will add to the
personal dimension of action research in that it will give voice to the sociocultural perspective of teachers with regards to literacy practices and learning. It will also add to this particular body of knowledge as it asks about teachers’ beliefs and how they engage their students in content reading material.

**Literacy in the Professional Realm**

Noffke’s second dimension of action research is that of the professional realm. Action research is by nature intended to improve practice (Schmuck, 2006), therefore it is natural that action research would connect strongly with teacher professional development. The following studies reveal the work done to prepare and develop teacher competency with regards to content area literacy.

Wilson, Grisham, and Smetana (2009) conducted a qualitative case study of 120 lesson plans written by 22 teachers who were content area teachers across 11 states. The researchers were questioning the lessons learned from these teachers who participated in a year-long professional development initiative that was designed to improve their knowledge and implementation of the time tested across content areas (Raphael & Au, 2005) think-aloud strategy (when the teacher models his or her thinking as they read through a text) and Question Answer Relationship (QAR), which is a strategy that gives a framework for thinking about questions about a text. Their results showed that the more the teachers used and reflected upon the QAR strategy, the less they saw it as a simple strategy and the more they saw it as a framework that improves metacognition and comprehension. These results highlight the need for ongoing professional development activities as teachers increase their own metacognitive skills.
In order to challenge the belief that content teachers teach only content and that language and literacy instruction is the responsibility of the English teacher and to emphasize the belief that literacy is defined as the ability to read and write in any discipline Kadjer (2007) uses Gee (1996) and Barton and Hamilton (2000) to define her beliefs guiding the design of a course for pre-service content area teachers, the setting of her case study. Her course brought together numerous ideas for incorporating multimodal methods into content learning. Kajder’s course pushed secondary educators to expand their appreciation and use of technology in literacy education, and she used this course to find out the beliefs of the pre-service teachers with regards to content area literacy. The findings indicated that the students were interested in the idea of using literacy in the content areas. This study showed the importance of discussion around content area literacy with pre-service teachers.

Alger’s (2009) descriptive multi-case study of four participants also questioned how the knowledge of strategies in content area reading transfers from pre-service education into their first year of teaching. The analysis of lesson plans and supporting materials, observations, interviews, and questionnaires found that “some transfer occurred. The participants seemed to learn to employ various strategies, but they have missed the big point of their pre-service course in content area literacy—that along with teaching their students the content, they are also teachers of reading as it pertains to their discipline” (p. 67). This study is important to the professional realm of content area literacy because it indicates that further professional development is needed while teachers are in their professions.
In her qualitative study of 24 middle school content area teachers, Alvermann (1990) sought to characterize discussions teachers had with their students of assigned readings over a period of two semesters. The researchers conducted teacher interviews, recorded observations, and then replayed the observation tapes to teachers and recorded their comments. Their analysis used the constant comparative method (Glaser & Strauss, 1967) and found that while a range of discussions could be found in a middle school classroom, the majority of them were recitations or lectures. They also found that the purpose of the lesson and the types of materials used in a lesson are related to the types of discussions that occur. Worksheets and textbooks were related to lecture and recitations, while video, film, and notes are more related to open discussions. Additionally, in their most recent edition of their textbook on Content area literacy, Vacca and Vacca (2010) emphasize that educators must foster emotional development of adolescents with tradebooks (novels or other shorter texts) that cater to their interests, and that they must enrich their sources for informational text by showing them how the internet can engage them in learning new and related content. They also encourage allowing alternate ways for students to demonstrate content knowledge. These findings and suggestions indicate that the teacher’s goal and choice of instructional material can greatly influence the content learning taking place.

In her mixed-methods analysis and synthesis of four studies regarding professional development and content area literacy in the middle school, Reed (2009) addressed the following research questions: (1) What professional development practices influence the implementation of reading strategies in middle school mathematics, science, social studies, and English/language arts classes? (2) What contextual factors are
associated with the implementation of reading strategies in middle school mathematics, science, social studies, and English/language arts classes? and (3) To what extent does professional development for middle school teachers of mathematics, science, social studies, and English/language arts impact student outcomes on one or more measures of reading? Data included the following: (1) two qualitative studies that explored the impact of professional development on teachers’ implementation of literacy strategies, (2) an ethnography that explored the characteristics of content area teachers who had strong implementation of literacy strategies in their classrooms, and (3) one quasi-experimental study of the impact of professional development on student reading performance.

Findings from analysis and coding of the study indicated that increasing literacy instruction and improving student reading skills requires school-wide initiatives that are responsive to the perceived needs of the teachers.

Furthering the demonstrated need for collaboration and reflection between content area teachers and those who work with them regarding literacy instruction, Alvermann et al. (2011) performed a case study on a pre-service science teacher who was enrolled in an online literacy in the content area course. The goals of the researchers were to focus on how this pre-service teacher responded to the feedback she received on four of her lesson plans and the email discussions surrounding her struggles with the course. This analysis of lesson plans discourse analysis around the discussions of her lesson plans and her struggles in the course caused the course instructors to make changes to the online course in future semesters. This study showed the importance of reflective teaching and collaboration between experts (literacy specialists) and content teachers with regards to teaching literacy in specific disciplines.
Literacy coaches, or reading specialists whose focus is on professional development by giving teachers additional support to implement instructional practices and programs (International Reading Association, 2006, Riddle Buly, Coskie, Robinson & Egawa, 2004) have become increasingly present in schools in recent years. In fact, the literacy coaching position spurred an unprecedented collaboration among International Reading Association (IRA), the National Council of Teachers of English (NCTE), the National Council of Teachers of Mathematics (NCTM), the National Science Teachers Association (NSTA), and the National Council for the Social Studies (NCSS) to create standards for literacy coaches in middle and high schools (IRA, 2006). This position can perform multiple roles of support to teachers, parents, and the entire school community; the duties range from procuring necessary materials, providing observational feedback to serving as a school to home link within the community (Blamey, Meyer, & Walpole, 2009; Moss et al., 2008, Shanklin, 2006; Toll, 2005; Walpole & McKenna, 2004). To answer the question of whether support from a literacy coach provides benefits that are greater than professional development without a literacy coach, Carlisle and Berebitsky (2010) conducted a two-year-long survey study of 39 teachers in elementary schools who did have a literacy coach with 30 teachers in schools that did not have a literacy coach. Their findings suggested that there are benefits to having literacy coaches embedded in schools, one of which is that the students who had teachers who worked with a literacy coach made greater gains in basic word reading skills.

**Content Area Literacy in the Political Realm**

Noffke states that “All forms of action research embody a political dimension” (2009, p. 8). The two previous dimensions contain elements of the political in them, in
that they all have the power to create change. This dimension focuses primarily on searching for solutions to social problems and working toward a more socially conscious education system (Noffke, 2009). A number of studies give an overview of how the government shapes policy or pushes initiatives regarding adolescent and content area literacy.

Exploring and attempting to narrow the disparities between in school learning and out of school activities in our students’ worlds was the purpose of Moje, et al’s (2004) five-year ethnographic study of thirty youth, ages 12-15 in a predominately Latino/a urban community in Detroit. The researchers’ data sources included classroom observations, surveys, interviews, school-based documents (curriculum, worksheets, etc.), artifacts (student clothing, pins and stickers) and photographs, revealing literacy practices (termed “funds” in this study) that were important in the youth’s daily lives but that were not connected to the science classroom. The major funds were: (a) parents who work outside of the home, (b) the work the youths do inside the home, (c) travel, (d) environment and health concerns, (e) community concerns, (f) Peer concerns, and (g) pop culture. The themes generated from the findings were then used to make suggestions about creating a schooling environment (namely in a science classroom) that draws from and responds to these many different funds the students have. Moje, et al. suggest that schools need to create readings of instructional texts based on the students’ out of school activities, that engage the students in social action and involve them in creating a “third space” of literacy and knowledge where their in and out of school worlds come together. The political implications of this study show a need for our curricular focus to shift from
solely learning content information to the idea that secondary education is also about teaching students to navigate and negotiate within all of their “spaces.”

Stevens (2002) studied the online discussions of students in a pre-service university class on content area literacy. The discussion topics surrounded pedagogy and curricula of content area literacy as it relates to the broader adolescent literacy. The discussions of these students were then compared to adolescent literacy work that is conducted in Australia. The findings presented the complexity contained in transitioning from a “curriculum-centered discourse of content area literacy” (p. 274) to a “human-centered discourse of adolescent literacy” (p. 274). The implications, Stevens claims, highlight how transformative teaching methods must be in order to actually affect ideas surrounding content area literacy and adolescent literacy.

Bates’s (2009) multi-case study sought an overview of the actions of five states that stood out to the researchers in their efforts to improve adolescent literacy. These states had taken specific steps to address the needs of adolescents with regards to literacy. The researchers collected information from policy documents and through interviews with key members at each state’s education agency. In their report for the Institute of Education Sciences, Bates found that some sort of integrated content area literacy instruction, professional development, and implementation was emphasized in all five states. The report concluded that there is a need for intervention and further research into “best ways to integrate reading instruction into content-area instruction” (p. 208). While the study did not analyze the effects of the literacy initiative in each state, it clearly showed that increasing content area literacy is a priority in all five states.
In their qualitative, narrative analysis of the writing of pre-service teachers who were jointly enrolled in a general methods course (in their content area) and a content area literacy course, Freedman and Carver (2007) explored how these pre-service teachers came to understand their role as teachers of literacy. The researchers examined the formal essays and personal reflections of 32 pre-service teachers who were enrolled in two summer terms. The findings showed that participants underwent stages they termed “naïve wonder,” “dawning realization,” and “intellectual rigor” (p. 664) in order to grasp the theory and pedagogy behind their future students’ content area literacy and use. Linking the general methods course with a course on content area literacy provided a useful framework for students to think more broadly and deeply about development in both. This study fits well under the political dimension of action research in that it shows a need for collaboration between literacy and content specialists.

It is also important to consider the role of methods textbooks used to train content area teachers with regards to literacy instruction because textbooks often play an important political role in the content classroom. Informational text poses challenges to some readers. Draper (2002) analyzed nine methods textbooks, three each in the areas of math, science, and social studies, searching for messages about literacy instruction in each one. Draper found that while most authors stated that teachers do have a responsibility to support reading development, only one textbook mentioned the need for supporting writing development, and very few included activities that would actually support adolescents’ reading and writing development. With such scarce emphasis on literacy instruction in textbooks compared to the focus on teaching literacy in the content
areas, it is no wonder that teachers express a desire to learn ways to improve literacy practices in their classrooms.

Through the qualitative study of online discussions and an observation of a cohort of interdisciplinary teachers, Brettschneider (2009) looked for a deeper understanding of effective literacy instruction in secondary schools. She studied cohorts of 20-35 teachers who enrolled in a year long, intensive professional development program regarding literacy instruction. The participants were grouped as both interdisciplinary teams and as content groups, and the researchers analyzed their online and face to face discussions, as well as an observation to find out effective literacy instruction practices. Several assertions grew from their analysis. First, literacy coaching can improve student reading performance if it is linked with intensive study. Second, teachers who learn together create improved student learning when they focus on a few needs. Third, the external networking nature of the cohorts influenced internal change, and finally, general literacy leaders need to be embedded within schools, but there should also be a content specific literacy leader within each department.

In a qualitative study of a similarly funded professional development initiative in South Carolina, Clary, Oglan and Styslinger (2008) evaluated a two-year professional development project that occurred in two rural high schools that struggle with low student performance and low socioeconomic communities. The researchers studied 48 teachers who chose to be involved in the project, searching for better ways to “enhance students’ reading achievement and instruction in high schools, to facilitate teachers’ understanding of the reading process as it relates to content area reading, and to help them develop the knowledge base necessary for making informed, effective curricular
and instructional decisions about reading in their classrooms” (p. 1). The project entailed literacy related graduate studies, collegial study groups, and teacher professional development, and the researchers interviewed the teachers and observed their meetings. The findings from this study indicated a need for personal and professional partnerships and collaboration, integrated balance between practice and theory and sensitivity to teachers’ schedules. The study also found a need for high schools to work within a more synergistic atmosphere, because motivation for and empowerment by teacher change is largely internal. The teachers asserted the need to feel encouraged, not forced, into making changes regarding literacy in their classrooms. The findings in these studies highlight the political push that schools need to put forth in order to fund these positions in secondary schools, as well as a need to further understand the thinking and work of content teachers so that they can have more support regarding literacy in their discipline.

Need for This Study

Themes that developed during these readings revealed that studying the thinking and work of content area teachers as they engage students using literacy strategies is an endeavor that requires consideration of the personal, professional and political dimensions of the teacher. This study will fill a niche in the field because it fulfills a clear and urgent need to move from simple infusion of literacy strategies to ongoing collaboration between a content teacher and a literacy specialists that involves refining and improving the teaching and coaching practice by better understanding the social community of the content area classroom (O’Brien, Stewart, & Moje, 1995). Also, there are numerous studies on pre-service teachers and their understandings of literacies, but very few on teachers who have been in the profession for years, and few on the
professional development and ongoing support they receive regarding content area literacy training. This study will add to the field in that it will provide researchers a better understanding of experienced content area teachers.

As the field of content area literacy evolves along with the needs of our students, research is needed to further understand the thinking and work of content area teachers, their understanding of literacy, and the strategies they use to work with content resources to support students learning. It will also examine collaboration between a content area teacher and a literacy specialist to see if this practice informs literacy instruction. This study will fill this niche and allow school systems to support content teachers as they engage students in reading content material.
CHAPTER 3

METHODOLOGY

Study Design

I chose to do a qualitative study so that I can best describe how three participants engaged their students in reading content materials. Defined by Denzin and Lincoln (2000) as “a situated activity that locates the observer in the world…. [it] involves an interpretive, naturalistic approach to the world” (p. 5), meaning that a researcher studies the world as he or she sees it, and makes meaning from observation. My own philosophical beliefs also align with qualitative methodology as I believe that I can learn more about literacy teaching, learning, and research through observations, interviews, and analysis of strategy use than through viewing statistical data. In this section I lay out the design of my study which addresses the following questions:

1. How do content area teachers define and perceive literacy and specifically define literacy in their content area?
2. How do teachers use literacy strategies they learn in professional development sessions?
3. Does collaboration between a literacy specialist and a content area teacher inform literacy instruction?

Qualitative research. This study of content area teachers and their relationship with content material focused on two long terms goals: (a) to understand if there is a relationship among content area teachers, their understanding of literacy, and the strategies they use to work with content materials, and (b) to discover aspects and strategies of content area literacy that are successful in a content classroom and can
inform other literacy specialists who work to positively impact literacy levels in schools. The practice of qualitative inquiry involves interviews, extensive observations and field notes, as well as document and visual analysis and could take form via a narrative story, a case study, or ethnography, for example (Clough & Nutbrown, 2007; Creswell, 2009; Merriam, 2009). This study involved interviews, observations, field notes, and documents as data.

Historically, qualitative research in education was first credited to anthropologist Margaret Mead who studied the contexts of schools, the kinds of teachers in each school, and the relationships between teachers and their students. In the 1920s, Mead argued that in order to improve, teachers needed to observe how the students socialized and the situations that the students came from (Bogdan & Biklen, 2003). Closely following and influenced by Mead’s work, among other anthropologists, the Chicago Sociology model was developed. This model depended on case study and firsthand data collection and further developed qualitative research in the 1920s and 1930s (Bogdan & Biklen, 2003). Also in the 1930s, Willard Waller, a sociologist who studied education in an “empirical but anti-quantitative” (Bogdan & Biklen, 2003, p. 10) manner, relied on observations, records, interviews, and histories to describe the social world of schools, teachers, and students. In Sociology of Teaching, Waller claimed that “the school is a social world because human beings live in it” (Waller, 1932, p.1). Concurrently, European sociologists such as Frederick LePlay and Henry Mayhew closely observed working class and poor families in order to seek solutions for poverty (Bogdan & Biklen, 2003). LePlay and Mayhew aimed to change a part of society that was marginalized, employing an advocacy/participatory approach (Creswell, 2009), which gained popularity as attention
toward qualitative research grew in the 1960s and 1970s along with the social upheavals of those decades. Qualitative research effectively brought to light issues of power, and its methods represented well the challenges that activists were calling for at the time regarding the importance of the viewpoints and perspectives of those in power versus the viewpoints and perspectives of those who were not. Around this time, differing views over qualitative research and its style emerged, and a number of strands of the approach developed, including gender theory, feminism, postmodernism, and critical theory (Bogdan & Biklen, 2003). Since the 1980s, qualitative methods have expanded and created even more discussion and perspectives, such as critical ethnography (Carspecken, 1996) and experimental ethnography (e.g., Ellis, 1995). As Schwandt (2007) suggests, these expansions and blending of the method do not make qualitative research indefinite or ambiguous, but rather it implies that the practice is regularly evolving and being reinterpreted.

**Action research.** Action research was first coined by Kurt Lewin, who used the term to describe a type of research that united social action that addressed social problems with experimental approaches (Schwandt, 2007). According to Lewin (1951), every social situation lies in a state of wavering balance between the actions of opposing forces that either facilitate or restrain the current situation. Lewin suggests that a situation is changed or not by the forces that affect it. Lewin, along with Stephen Corey and his student Ronald Lippitt says that the researcher toggles between two phases: action research diagnosis, (or hopes for improved practice) and action. For example, a teacher desires a way other than direct instruction to help students develop favorable attitudes toward writing, and decides to implement writing workshop. In this situation, action
research would be performed when the researcher improves a practice, engages in deep personal reflection and/or improvement of a political nature as a desired effect. Lewin’s basic action research cycle is shown in Figure 2.

In the initial steps of Lewin’s cycle, one examines an idea carefully in context, finds out as much as possible about the situation, and plans how to reach the objective. The next steps involve executing and evaluating the first action step, which leads to refinement or amendment, and then the initiation of a second action step (Lewin 1946, reproduced in Lewin, 1948).

Informed by Lewin’s work, Carr and Kemmis (1986) define action research as “simply a form of self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of their own practices, their understanding of these practices, and the situations in which the practices are carried out” (p. 162). The

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**Figure 2.** Action research cycle (Lewin, 1946, reproduced in Lewin, 1948, p. 206).
aims of action research, according to Carr and Kemmis are involvement, wherein the researcher participates in all phases of the model, and improvement, wherein the goal is to change a situation and enhance understanding.

Compared to Lewin’s cycle, Carr and Kemmis (1986) propose that the method of action research is more of a spiral (as reflected in Figure 3) because each circuit begins a new one, but in the newer cycle, each step is more refined based on the reflection of the previous practice. This spiral is divided into phases of planning, acting, observing, and reflecting. Figure 3 shows one cycle of the spiral. In subsequent cycles, the transition from reflection to planning would include a refining or fine-tuning of a strategy.

In step one of Carr and Kemmis’ cycle, one collaboratively plans the goals and objectives for improved practice, and implements, or acts upon these plans in a social setting or context in step two. Step three involves the observation of the action and its results in the same social context, and in step four, the participants collaborate again to reflect upon the action and take steps to refine the process. Then the cycle starts over with the refined plan.

Figure 3. Reflective spiral (Carr & Kemmis, 1986, p. 186).
Studies on literacy and education that have used action research have provided powerful insight with regards to literacy in schools. Isakson’s (1995) award winning action research dissertation of twenty two narratives referencing the issues a literacy teacher faces pulled from a journal collected over five years showed the importance of reflective practice as teachers “grapple with literacy issues” (p. 335).

Action research is important to qualitative research because it allows for improvement of practice through the refinement and reflection of the practice itself. For example, in their study of 70 ninth grade students across four social studies classrooms in East Asia, Damico, Baildon (who was also the classroom teacher), Exter and Guo (2009) compared the use of two webpages about the Taiwan straits (islands in China). Baildon asked students about their beliefs regarding this contentious issue going into their reading of these texts. Their findings showed that most of the students’ responses were influenced by contextual factors such as opinions/values, background/culture, where they live, and parents/family and that most of the students were able to cite evidence on each web page as to why or why not the claims were convincing. The implications from this action research study emphasized that students do not often contextualize texts, and that educators need to be more explicit about teaching metacognitive reading strategies as part of the social studies curriculum.

Stahl, Hynd, Britton, McNish and Bosquet (1996) conducted an action research study wherein they examined what processes 44 high school students used when presented with multiple source documents over a controversial incident. Their findings, that students stayed close to the text when asked for factual information but ignored the text when asked for an opinion, suggested that high school students may not profit from
being presented with multiple source documents without specific instruction on how to integrate the information.

Pirbhai-Illlich (2011) studied one English language arts teacher who desired a better practice that would more positively engage her students in an alternative school. As they followed the cycle of action research and refined and/or implemented new practices upon analysis and reflection, Pirbhai-Illlich and the teacher participant found that engaging students “required tapping their interests in using electronic media, accepting their lived experiences, and inviting them to use their funds of knowledge in multiliteracies” (p. 264). This study offered implications that reminded teachers to be flexible when working with students who have such diverse abilities.

In her study of 35 vocational educators, Darvin’s (2006) interviews and observations noted the literacy practices in vocational classrooms mirrored those documented as successful in content area classrooms. This study proposed that situated literacy, defined by Freire (1970) as a classroom wherein the curriculum is constructed around student thought, language and experience, is often overlooked.

The action research model which best fit my study was Schmuck’s (2006) proactive model, where the research is inspired by new ideas and is comprised of three phases (initiation, detection, and judgment) and six steps. In phase one, initiation, participants and researchers reflect and brainstorm together as they complete two steps: (1) List hopes and concerns, and (2) try new practice. The first of six steps in Schmuck’s (2006) model is listing hopes or goals that the teacher wants to strive for, such as motivating students to write effective persuasive essays, or creating authentic assessments. Concerns would be considered barriers that need to be overcome, such as
students’ resistance of new methods. In the second step of Schmuck’s model, a new practice is chosen and implemented. An example of this would be to implement a new way of writing instruction, such as writing workshop or to begin learning portfolios instead of traditional paper and pencil tests.

In the next phase, detection, the participants and researchers monitor, document, and see what the data they are collecting means and comprises steps 3 and 4: collect and then analyzing data. In the third step, data is collected and tracked through observation, debriefing sessions, and field notes. In general, data could include student or participant reactions, behavioral changes of students and/or participants, and/or product of work. Analysis of the data is step four of the proactive action research model, and is where the collaborators check on what the data mean. This could take the form of discussions with the class or participant.

In the final judgment phase, the participants and researchers complete step (5) reflect, and (6) fine-tune the practice. In reflection, step five, the collaborators ponder alternate ways of practice or behavior, and could take the form of journaling or interviews. Reflection helps inform step six, fine-tuning the practice, wherein collaborators choose either a tweaked version of a previously used practice or a new one. Figure 4 presents a representation of this proactive action research model.

**Rationale for action research in this study.** Change is the key agent in action research (Schmuck, 2006), and it is a useful method when participants desire ways to improve a professional practice, personally reflect deeply on their practice, and create political changes, especially towards marginalized groups (Noffke, 2009). Action research best fit this study in multiple ways. Professionally, it allowed the participant to
list hopes for improving practice in the classroom as it relates to literacy and content knowledge. The method then created a collaborative atmosphere wherein we both review and choose a strategy as a new practice for engaging students in content knowledge, to be followed by action, or the implementation of the new practice. The personal reflection that followed this new implementation helped determine the next steps and decisions to either fine tune the same practice or choose and implement a new one, which would have the political goal of creating a positive change for students.

Through Schmuck’s (2006) proactive model, this research offers literacy educators and researchers insights into better understanding how content area teachers engage students in reading content material, how they define and perceive literacy in their content area, and what set of practices are in place so that their students learn content. The action research method and proactive model allowed my participants to try new practices, reflect on them, and fine tune our practice with new hopes and concerns, which

Figure 4. Proactive action research steps (Schmuck, 2006, p. 33).
led to more new practices. This knowledge informs literacy educators and researchers as they can use this collaborative research and information to serve as a more knowledgeable resource for coaching classroom teachers.

**Procedures**

In this 14 week long study, my hopes and concerns included a desire for content area literacy strategies to be used more frequently by teachers in content areas. I collaborated with three content area literacy teachers as we chose content literacy strategies in their classrooms and they implemented them. The data in this study included both formal interviews and informal debriefings, field notes from classroom observations and handouts describing the chosen strategy. Analysis of data was conducted by constant comparison of these data in terms of my research questions. This data was analyzed through weekly discussions with the participants, observation of the implementation of the strategy, coding and citing patterns in language use, comprehension of content material, and reflection by the participants. The reflection informed the participant’s choice to either fine-tune the same strategy or to choose a new one and begin the spiral again.

**Situating the Study**

Glesne and Peshkin (1992) state that “to do justice to complexity, qualitative researchers immerse themselves in the setting or lives of others, and they use multiple means to gather data” (p. 7). This study incorporated an action research approach (Schmuck, 2006) because I immersed myself, or became a part of the planning and implementing of literacy strategies in the classrooms of three content area participants as they implemented literacy strategies throughout a semester of a school year. This
approach aided me in seeking ways to identify and analyze data (from classroom observations and participant interviews) and to reflect on the themes that emerged from that analysis of observations, interviews, debriefings and document data. These themes were then used to understand an instructional framework for more effective content literacy in high school classroom settings across disciplines.

The research questions allowed me to observe and draw conclusions from classroom teaching practices, to ask participants why they teach strategies that they do, and to plan and implement new strategies with participants. In this section, I will explain how I situated my role in the research field, including my role as the researcher, the methods I used and their rationale, and a timeline, setting, analysis and design for the study.

**My position as English teacher and reading specialist.** As an English teacher and current literacy specialist, I approach this research with a perspective focused on literacy perceptions, practices, and implementation. As a researcher, I was interested in the perspectives as well as the practices of teachers of content. As a former English and a current literacy specialist, I have some expertise in those areas, and I hoped to deepen it by understanding the teachers of other content areas as well. I made literacy a personal focus in my classroom, and the more reading and professional development I have been exposed to deepen my understanding of how collaboration between a content area teacher and a literacy specialist informs the professional practices of both.

**Establishing entry into the field.** As this was my second year working in this high school, I had a year to establish myself both as a literacy coach and as a researcher, and found that the two folded nicely into each other. Therefore, entry was fairly seamless
as I was able to align my job description and role in the school with my goals as a researcher, which is a crucial element in conducting qualitative study (Glesne & Peshkin, 1992). Part of my job description was to serve as a resource for content area teachers by providing reading material and workshops that introduced strategies to help teachers successfully engage students in content area learning. I was also responsible for leading the implementation of the school-wide literacy plan, which is a multi-year, multi-layered project. I had the opportunity to formally and systematically study how this work impacted teachers’ beliefs, classrooms, and students. Before proceeding with the study, I secured permission from my principal, the district review board, and the participants themselves, as well as the Institutional Review Board of my university.

Through these actions over the past year, I built rapport and understanding with all potential participants (Creswell, 2009; Lecompte & Schensul, 1999) by continuing to work to establish trust within my own school. I spent the previous school year working with teachers to infuse literacy strategies in their lesson plans, implement and reflect on ideas. I became part of the setting by seeking and encouraging informal conversations with teachers, asking about their interests in literacy, and viewing their interactions in the classroom in informal settings.

**Setting and Context for Study**

I conducted the study in Mullen, a former railroad town turned city in the early 1900s. The 2000 and 2010 Census demographics in Mullen indicate an increase of African-American residents from 47% in 2000 to 70% in 2010 (United States Census Bureau, 2000, 2010). The city served as a county seat of a different county until 1932 when economic loss forced leaders to absorb it into the county where it now resides, and
to relinquish its status as a county seat (Mullen City Website, accessed August 21, 2012). Presently, the city contains about 13,000 residents, and still retains two train depots, though rail service is no longer available downtown.

Located approximately three miles after the exit off a major highway that runs through five states, the school itself is located in a fairly rural area of Mullen. Traveling to the school from the nearby major southern city, one passes the city’s international airport, and beyond that, a rapid change can be seen from urban to suburban and semi-rural living. One of the main routes to the school from the interstate is through a fairly new subdivision with large, multi-story homes built in the last decade that show strong evidence of the economic challenges that many areas of the country are facing, including foreclosures. At various times during the year of the study, there were four or five foreclosed homes just on the main street of this subdivision alone. After driving through the subdivision and onto the road where Mullen High School (MHS) is located, the immediate area surrounding the school has a smattering of older houses along the same road, one smaller subdivision, neither of which seemed to suffer as many foreclosures, a feeder middle school adjacent to the high school, a small church, and a construction dump site.

The school district for MHS is one of the largest in the state, and MHS is the southernmost school in the district. During the year of the study, more than 93,000 students were attending classes in 58 elementary schools, 19 middle schools, 16 high schools and seven charter schools. The racial composition of the district’s students was 42% African American, 34% Caucasian, 12% Hispanic, 9% Asian, and 3% Multi-Racial. Forty-four percent of the district’s students receive free and/or reduced meals. Many
schools in the northern part of the district have fewer than 5% of their students eligible for free and/or reduced-meals, while many schools in the southern part of the district over 95% of the population includes eligible students. Ten percent of the district’s students are classified as students with disabilities (SWD) and 7% are classified as English Learners (EL). Overall, the district is a high-achieving one; however, some subgroups such as ELs and SWDs that do not perform on-level with their peers, and there is a drastic disparity in achievement when comparing the test scores and graduation rates in the northern part of the district to the southern.

I conducted the study at Mullen High School, a medium-sized, suburban public high school that contains approximately 1100 students and is located about 30 miles southwest of a large Southeastern city. The school facility itself is reflective of its early 1990s institutional style. The original building is a main hallway with four long, perpendicular hallways that house classrooms. Annexes were built to include a band hallway and practice room and three more hallways of classrooms. Three years prior to the study, the school was so overcrowded that it required over thirty portable classrooms until a separate, new high school was built approximately five miles away, and many of MHS’s students were rezoned to attend the new school. Now all of the remaining students can be housed within the building.

The student population is about 80% African American, 10% Hispanic, and 10% Caucasian or other with about 60% of the students qualifying for free and reduced lunch. The school’s mission statement, according to its website, is to “educate all students, who, through continuous learning, will be able to become productive and employable citizens.” MHS offers an array of activities for students, including a JROTC program, an
agriculture program, many different sports teams such as football, basketball, softball, cross country, volleyball, and track, and other clubs, including Interact and Key clubs, both of which do community service.

During the year containing the semester in which the study took place, 32% of the ninth grade class had not passed a state competency test in reading at grades 3, 5 and 8. MHS had not made Annual Yearly Progress (NCLB, 2004) since 2006 because it did not meet its yearly academic and graduation rate goals. The school would have been in year four of the Needs Improvement status under the No Child Left Behind act (2004), but received a waiver from the federal government in the year of the study and is now under state supervision instead. Subsequently the school has been named a “Focus School” under these newer state declarations, meaning that they were to receive supplemental support personnel. Because of limited Title I funding from the federal government and a low number of applications submitted for free and reduced lunch, MHS was not recognized as a Title I school during the year of the study, which resulted in losing both state and district resources, including seven key support staff members: a math coach, a parent liaison, and several teachers. The school reapplied and was approved Title 1 funding for the year following the study.

Historically and likely due to its location in a semi-rural area, the school’s focus was largely agricultural and vocational. In recent years, the school has reorganized into a number of academies, including (a) freshman; (b) arts and humanities; (c) business and informational technology; (d) civil services and government; and (e) science, technology, engineering, and math (STEM) academy. The ninth grade class population consistently averages about twice the number of graduating seniors. About half the students in each
class transfer to another school, choose a GED program, transfer to the open campus high school where they can earn credits toward graduation in an alternative setting, are sent involuntarily to an alternative school, or simply drop out.

MHS’s graduation rate of 69% is significantly below the district’s graduation rate of 86% and reflects socio-demographic challenges of poverty that students face in the southern part of the district. Leadership changes have also contributed to the school’s environment. During the semester before the study, the principal resigned to take a position overseas and an interim principal was appointed from September to January. Shortly before the principal’s resignation, county officials launched an investigation into funds that were stolen from the school in large amounts by the bookkeeper, and that investigation is still underway. In January just weeks before the study began, the school board announced that the principal position was filled by an applicant from another Southeastern state, and this new principal started his position.

The criminal investigation compounded with generally low achievement in test scores, a low graduation rate, and an unstable leadership with changing expectations led to low morale among faculty and students alike during the semester in which the study took place. Following the investigation and resignation of the principal, administrators and teachers efforts made to increase morale, such as filling trophy cases highlighting students and employees of the month and hanging a banner along the main hallway with color portraits of students who have been accepted into colleges. The new principal made some environmental changes during the semester of study; one such change was placing a parent volunteer or security officer at the main entrance of the school to greet visitors and direct them to the front office. In an effort to keep the school informed, the
new principal also established scrolling general announcements throughout the building’s closed circuit television system via TVs posted throughout the hallways. He also arranged for the interior building, including many classrooms, to be painted and given a thorough cleaning over the summer following the study. He even required all teachers to conduct a massive cleaning of their classrooms and common areas, asking them to throw out anything that they were not using.

In efforts to improve student achievement, MHS applied for and was the recipient of a number of grants in recent years. In the year of the study, the school was in year four of a five-year Small Learning Communities Grant, which is how the school became organized into the multiple academies. The school was also awarded a Striving Readers Grant and Title 1 funding for implementation following the year of the study. All three of these grants placed a heavy emphasis on incorporating literacy across the content areas.

One of the many initiatives implemented in the year prior to the study under the former principal, and one that all three participants commented on repeatedly throughout the study was Journal Writing, (a pseudonym to keep anonymity), a cross-curricular writing program which focused on student journal writing in every classroom. Along with a teacher’s manual on how to use the program and a few whole-faculty and some content area workshop-style training, each teacher was given a “Log of Entries” poster to hang in the classroom so she/he could record what type of entry (such as free-write, focused free-write, or other entries that follow a certain format) and the prompt for each time students wrote in their journals in their classroom. All three participants in the study reported intermittent use of this writing initiative, suggesting that it was hard to follow through and use it consistently throughout the year. Still, the posters stayed hung and
partially filled out all year, presumably because it was a requirement set forth by the principal who initiated it before he resigned.

**Participants**

In the study I investigated the content area literacy perceptions and practices of three experienced high school teachers in three departments: one math, one English, one business. All three teachers also hold graduate degrees and have at least 16 years each of experience in high schools. I approached two of the participants based on the professional relationships established as we worked on implementing the school-wide literacy plan. The third I approached because we worked together on the same content team. All three had previously requested additional strategies for use in their classrooms because I was the school literacy specialist. Since initially working with them, they have supplied me with feedback on the strategies and opportunities to enter their classrooms for various observational purposes. They also expressed interest in my study and in improving their content area literacy practices. The level of trust we gained in each other assures me that the information I gained from interviews, observations, and document data were as honest and forthcoming as possible.

**Kelly, 10th grade English.** Kelly, a 39 year old petite, blond, Caucasian female was easy to talk to, and was usually honest and abrupt about her feelings of being overwhelmed with what was put on her plate during the year. She was in her 17th year of teaching, and her sixth year at MHS. Her tenure at MHS included teaching 10th grade English Language Arts (ELA). In her previous school, which was in the same county and about 15 miles closer to the city, she taught 9th grade ELA for nine years and 11th grade for one year. During her first year at the previous school she worked as the remedial
reading teacher while taking reading training with the county, a situation in which she claimed the irony “was not lost” on her.

During the study, Kelly had five large classes of at least 35 students per class, two team-taught, which meant the classes had a high percentage of special education students whose Individualized Education Plan (IEP) showed that they had the potential to be successful in a regular classroom environment with extra support. In these team-taught classes, a special education teacher was assigned to offer strategies and support for all struggling students. In Kelly’s case, however, her team teacher was pulled out of the classroom a majority of the time for mandated testing preparations and proctoring or other duties, leaving Kelly to support all the students’ needs essentially on her own. I established a professional relationship with Kelly when we worked on the same 10th grade ELA content team. She showed interest in learning more about some of the literacy strategies I recommended to other teachers and used in my classroom and was eager to participate in the study when asked.

Kelly was raised a self-described Air Force brat, born in Miami and raised in Colorado, Texas, Florida, and Georgia. Despite stating that moving around was hard on grades and her social life, Kelly said that she was an excellent student and a self-proclaimed teacher’s pet. She did not have to study often and made excellent grades because she was, as she claimed, voracious reader, and her adopted stepfather was “big on good grades” and she wanted to impress him. She said she was expected to go to college and that her dad told her that he would pay for her to attend anywhere she was admitted as long as she maintained a B average.
Kelly credited kids and books as the reasons she decided to become a teacher, “because it combines the two things I love and am good at” (Kelly, personal communication, February 2, 2012). She spent most of her growing years reading and babysitting so she found teaching a good fit. Kelly received an undergraduate degree from a large state university in the southeast, and a Master’s degree at a smaller state university in an adjacent state. Both degrees were in English Education, undergraduate degree focused more on lesson planning and pedagogy and there was not much content on literacy or teaching reading in secondary schools. She began teaching in the county where the study took place immediately after earning her undergraduate degree and worked on her master’s degree part time before her daughter was born. Kelly has served as the tenth grade English/Language Arts (ELA) team leader on and off for three years; she also taught the video production course for the school. After having her daughter, she said she became too busy with parenting activities to do much more than her primary job of teaching. She hoped to become more involved with the school as her daughter became older and more independent in her activities. Kelly was married with a 10 year old daughter who was also a good student. Kelly said that she “can’t take too much credit—her daddy does her schoolwork with her.”

*Kelly’s classroom environment.* Kelly was assigned classes of 35 students each, but was also assigned one of the smallest classrooms in the building. Upon entering the room, from wall to wall on the right is a bulletin board and, throughout the room, six tightly packed rows of five or six desks each. The desks were seldom in groups. The back wall had a door with access to the adjoining room and posters with inspirational and literary sayings on them. Her teacher desk was in the far right corner in front of a storage
closet, two filing cabinets with a refrigerator and a microwave on top. Next to the filing cabinets was a bulletin board that had a state required curricular standard that was the current focus, posted. Immediately to the left of the entrance was a large cart with a TV and DVD player on the top shelves, and a large pile of untouched workbooks given to her by the county textbook committee. Beyond that was a chalkboard on the wall and a long table in front of it that seemed to serve as her teaching platform. There was little room to move around, though the students seemed to have adjusted as they piled in and filed out during the day. See Figure 5 for a physical description of Kelly’s room.

![Figure 5. Kelly’s classroom.](image-url)
While overwhelmed with the large number of students she taught, Kelly obviously had a deep level of care for her students and what they left her class knowing. She was available before school, during her planning period and lunch, and after school if they needed help. Students often came back into her classroom to either finish work or just spend time outside of their regular class during the school day. During classes, she moved around, checked on work and understanding, answered questions, and managed behavior of the many teenagers in such a small room in a firm but calm manner. The class period I observed throughout the study included several special education students and Kelly responded to their needs and kept them engaged and attentive.

A typical day in Kelly’s classroom did not consist of what she termed “bells and whistles,” or the mandates and initiatives handed down by the administration and expected in classrooms. The 10th grade ELA team planned together, but Kelly used the unit and lesson plans more as a guide and did not follow each step listed in them. Instead, she chose standards and skills that she felt she did not cover earlier or needed more explanation for the students, and focused on those. Her classroom instruction and pacing, she said, flowed more with “where the students were in terms of the unit” rather than the daily expectations set by the administration. In one conversation, Kelly attributed her resistance to the mandates:

One of the reasons honestly is to suit the needs of my classroom because I’ve got 35 kids crammed into essentially half a classroom, so you know, having something that seems like it is non-mandatory, as activating strategies…. tends to create more talking in my class because they already come in talking and it creates more talking, so I kind of like to hit the ground running normally, and when you tell them to take out a piece of paper and start working then they hear that, and start working faster. (Kelly, personal communication, February 2, 2012)
Kelly took a similar position on the subject of professional development as it relates to literacy. She spoke of using previous training strategies, namely the Journal Writing workshops that were implemented the previous year, but stated that she preferred to use them “when the strategies are more conducive to whatever it is we are doing in the classroom. And sometimes, what I’m doing in the classroom may not be conducive—[using the strategies] doesn’t really work” (Kelly, personal communication, February 2, 2012). Kelly spoke of her classroom as typically student-focused but added that due to the class size, if she gave the students too much autonomy, the class became chaotic and she had to limit her creativity in order to manage so many students. Kelly also showed great concern for the lack of skills she said her students had and very seldom assigned homework beyond “finishing something up” or extension time for the students who needed it, because she felt the students needed guidance that had to be provided during class.

Kelly stated that she had very little literacy exposure in her pre-service training, and when she moved to the state, had to take both a reading course and a special education course, neither of which were very challenging. Her inservice training, she said, consisted of some small literacy workshops for both the school and for the county, “but clearly nothing has resonated” (Kelly, personal communication, February 2, 2012). She stated that many of the literacy trainings she had attended were geared toward teachers of younger students, namely elementary students. She attempted to use the Journal Writing strategies, but said her practice included “stopping and starting with them” (Kelly, personal communication, February 2, 2012). She was eager for team-taught classes so that the special education teacher could share strategy knowledge, but that
scenario did not pan out because, as Kelly stated, “she’s probably only been in here 20% of the time” (Kelly, personal communication, February 2, 2012) since the co-teacher was pulled out of the classroom to do other duties.

Kelly’s perspective on literacy. Kelly stated her biggest hope for students was that they understand the universal themes that authors were trying to communicate about life. She referenced a poster on a colleague’s classroom wall that stated “We read to know that we are not alone” and said that “if you get [students] to give reading a chance and get the themes across to them, I think that more of them will pick up a book” (Kelly, personal communication, February 2, 2012). She stated that she loved teaching her students about themselves through reading. Kelly’s other goals for her students included learning how to support their assertions with clarity and passion, to utilize language to make their writing rich and meaningful, and to cure her students’ habits of using often abbreviated “text message language” when they wrote for more formal audiences.

Kelly used the strategies we chose for this action research project in three different ways to fit her situation and classroom environment. She used “Chalk Talk” (National School Reform Faculty, 2011) in all three instances during our project. The first time was to help the students discover themes in the novella Of Mice and Men (Steinbeck, 1937), the second was to do the same with the play Fences (Wilson, 1986), and the third was to review literary terms for the semester exam administered at the end of the school year.

At first I wondered if studying an English classroom would be an appropriate fit for this study due to the myth that the teaching of English and the teaching of literacy are so closely intertwined. The standards for English classes, however, do not always address
literacy directly, and my experience as both an English teacher and a reading specialist has taught me that there is a need for explicitly taught reading strategy use, as well as a deeper understanding of how English teachers engaged students in content material. This teaching is different from the teaching of literature and composition where elements (such as metaphor and anaphora) and genres (such as poetry and nonfiction) are taught. Kelly also spoke repeatedly about her lack of knowledge in literacy strategies in both her interviews and asked for pointers prior to the study, and did not remember that she had training in literacy during her graduate student years until after the study in the post-study interview.

**Annette, advanced mathematical decision making.** Annette Levin, a 42 year old African American woman with very short black hair and average height and build, has taught math at MHS for 16 of her 20 years of experience. During the study, she taught Algebra III and Advanced Math Decision Making, 11th and 12th grade courses, respectively. Annette showed interest in literacy in the math classroom during my first year as Reading Specialist at MHS. She was the first math teacher who started a conversation with me about literacy strategies that she could incorporate with math content. This initial interaction encouraged me as I worked to find my place as a new member of the faculty, and I have always appreciated Annette for that. Math is generally considered a difficult discipline to tie in with literacy, and math teachers do not often see themselves as teachers of literacy (Manzo, Manzo, & Thomas, 2005). However, Annette and I had a few informal discussions regarding ideas on how to incorporate the two, and Annette maintained a positive attitude amongst increasing pressures from both her
department (which was constantly striving to improve scores on standardized tests) and the school.

Annette was born and spent her public school years in the Midwest. Her family moved to the state wherein the study took place after her senior year of high school, and she has remained in the area since then. Annette described herself as a decent student who could have applied herself more, but who made good grades, as that was the family expectation. Her family valued education highly, and she stated that she knew that it was her responsibility to succeed. She learned a love of reading early on and still associated reading with feelings of comfort. Annette said that while she majored in math at a small university in the same state, she was always better at English and enjoyed it more. She went straight into teaching after college and simultaneously earned her Master’s degree. She was single and had one 22 year old son who was recently married and who, she said, shared her love of learning and reading. Annette said that she and her son “often find ourselves striving to learn more” (Annette, personal communication, February 24, 2012).

When asked why she became a teacher, Annette’s answer was ambivalent. She stated that originally, she entered into the career for the love of helping kids, but recently she often asked herself the same question, and her reasoning had changed. She said that teaching was a great career for a single parent who wanted to be involved in her son’s development. She stated, “If you ask on the wrong day, I don’t even enjoy teaching anymore, but most days I truly love it” (Annette, personal communication, February 24, 2012). Annette’s goals for her students were evolving, as well, and revealed a well-seasoned teacher who struggled with optimism for her students. She stated:

My main goal is to see improvement. I used to assume that [students] were entering my class with a certain amount of basic skills, but currently that is
not the case. So now I have begun to check their prerequisite skills in order to track their progress. Also I used to only concern myself with math skills, but I am now seeing that they need additional assistance in reading and writing as well. I would also like them to improve their communication and critical thinking skills. (Annette, personal communication, February 24, 2012)

Annette’s classroom environment. My time spent in Annette’s classroom revealed a structured style with high expectations for students’ work and behavior. Annette was the only Advanced Math Decision Making (AMDM) teacher, so she did not plan this class with a team and did not have set lesson plans that were established as a group. Rather, she had a pacing chart provided by the county that she followed. A typical day in her classroom consisted of what she termed a “warm up,” a math problem projected onto the whiteboard by an LCD projector attached to her laptop. Annette stated that she selected the problem to relate the topic discussed the previous day and tried to make it a word problem so that the students could see how math was used in the real world. The students had a few minutes to complete the warm up individually or with a partner at the same table, and then a student volunteer walked to the front of the room and wrote the solution on the board with a dry-erase marker, interacting with the projection by circling key parts of the problem, drawing arrows, or indicating an answer. After this warm up, the students either moved on to reviewing the previous night’s homework, practicing more problems, or taking notes via PowerPoint. If they took notes, Annette often worked through examples and gave the students time to do the same. At the end of the work period, Annette said that she usually tried “to close it up with some final words or final thought and a final discussion” (Annette, personal communication, February 24, 2012). Annette listened carefully to students’ thought processes and could easily encourage or redirect their thinking skillfully and in a manner that did not insult the students.
Annette’s perspective on literacy. When asked about her definition of literacy, Annette stated,

Well, at first I thought literacy was just making them read and write in class, but as I looked into it a little further as it pertains to math, I found that it's a little more in-depth than that, and it's really about getting them to understand that math is incorporated in just about everything that they do in the real world. (Annette, personal communication, February 24, 2012)

To Annette, literacy is situated in the real world and math is an integral part of functioning in this world. Additionally, Annette stated that to be literate in math specifically means “to be able to reason mathematically” (Annette, personal communication, February 24, 2012). Annette spoke of the Journal Writing (2005) workshops as “kind of sort of beneficial” (Annette, personal communication, February 24, 2012) and noted that the students seemed to have a “spark” in their eyes when she incorporated literacy strategies. But she had a hard time fitting in literacy strategies because the students’ math skills were so low.

Annette’s goals for her students in the AMDM class were that her students would be able to connect mathematics to real world experiences and job-related problems. She wanted them to have an answer to what she termed their main question, “When am I going to use this?” (Annette, personal communication, February 24, 2012). She saw literacy as an answer to this question because it would help students comprehend the information better. Her hopes for the study specifically included gaining a better understanding for herself of what math literacy was along with more ideas of how to incorporate literacy strategies for her students into her classroom. She said she avoided literacy in general because of the perceived extra time for planning and preparing, and that it also took her “out of my comfort zone” (Annette, personal communication, February 24, 2012).
The physical set up of Annette’s classroom elicited envy of some teachers in the building. Her classroom was large and located at the end of the hallway, which meant it was one of very few classrooms with windows in the building. Along the wall with the door were three long, black topped tables with computers on them, and instead of traditional desks, this room had four rows of four long tables with two student chairs at each table. The teacher desk was directly across from the entrance, positioned diagonally to the corner with a bookcase, a table, and a microwave behind it. There was a whiteboard at the front of the room that contained the standard for the day and other information, including EdModo account passwords and pertinent websites. See Figure 6 for a visual representation of Annette’s classroom.

Figure 6. Annette’s classroom.
The class period in which I conducted observations was also assigned a team teacher due to the high number of special education students enrolled in it. This team teacher was present during two of the three observations days, and was an active part of the class. Though she did not give direct instruction on any of the days that I observed, she sat next to students and assisted them individually. Both of these teachers portrayed a calm, friendly, and jovial relationship with the students, and seemed to be well-liked. The students’ skills were, like in Kelly’s classroom, a concern for Annette. She mentioned that the students were occasionally resistant to math because “they are lacking all those skills so quite often they are just used to giving up. So that’s the big challenge in there. But overall they are good kids” (Annette, personal communication, February 24, 2012).

Annette chose to use the Concept Circles strategy (Allen, 2007) for all three observations in the study. Concept circles can be used with many variations and consist of a circle with quadrants drawn in it and words places in each section of the circle. There are lines that run down the length of the page for students to write. This basic structure serves a number of purposes and Annette refined the assignment each time to more directly focus on student learning and understanding. In the first observation she followed one of the suggestions strictly as stated in Allen’s book, as the students worked in a unit on savings accounts; the last two (of three) observations were doing the same unit of study—basic graphs, circuits and paths. She wrote a list of the vocabulary words that the students needed to know and had the students choose four words to put in each quadrant of the circle. The students then had to write about why the words were in the circle together, or how they connected. During my second observation, she used the same physical format, but during the instruction, she required the students to use terms that she
noticed they did not use as much, and might therefore be uncomfortable with. During my third observation, she tailored the choice of words to directly focus on what she learned they were struggling with during the previous observation.

**Deborah, Legal environment of business.** Deborah Wilton, a 51 year old tall African American woman with short black hair, taught business education at MHS for 13 years and had been a teacher for 16 years. Before entering education, she was a senior accountant for the Federal Deposit Insurance Corporation. She then enrolled in an alternate certification course for those who were entering education from other fields and taught in a neighboring district for three years before moving to this one in order to shorten her commute. Deborah was, from the beginning, an eager participant in the implementation of the school-wide literacy plan, and through her entrepreneurship classes, she opened a literacy café in the school for students to come and read while sipping tea, coffee, or hot cocoa. As part of the career tech and vocational education department, Deborah’s class provided an interesting and important endeavor in the study of literacy. Compared to the other content areas, students in these classrooms have been known to not read texts in a linear, sequential fashion, or in ways that the core contents (English, math, science, social studies) would (Darvin, 2006). As eager as she was to participate in the literacy focus team, Deborah said she was initially nervous about participating in the study due to her lack of formal knowledge about literacy.

Deborah had the reputation as a highly dedicated teacher who was focused on teaching her students the skills they needed to succeed in a business setting. She was an active and contributing member of the school-wide literacy focus team; she approached me regarding the literacy café and sought ways to tie it into our literacy development
plan. Deborah’s students were dedicated to her -- I saw many of them in her classroom at multiple times of day—and they looked relaxed and interacted comfortably while there.

Deborah lived in the same state all her life, and was a shy but eager student throughout school. She thoroughly enjoyed her K-12 experience, considered physics, accounting, and calculus her “fun” and served as a leader, being editor of the newspaper and co-editor of the yearbook. Having had two parents who grew up in the Great Depression and who were never able to attend college, Deborah noted that her parents had very high expectations for her and her five sisters. “The question was not ‘if’ you were going to college, but ‘where’ you were going, and we were not allowed to even think otherwise” (Deborah, personal communication, February 23, 2012), and all six girls in her family received master’s degrees or higher. She went to a historically black college for her undergraduate degree in accounting and then obtained an MBA and an Ed.S. in educational leadership. She had been married for twenty-one years and had a daughter who just graduated high school prior to attending a large southeastern university.

Deborah desired to be a teacher all of her life, but chose accounting as her first career because a high school counselor told her that she would be good at it, that it would be a good financial move for her, that “more Blacks were needed in the field” and because her father was also very excited about someone taking over the financial obligations of the business that he owned. After working as an accountant for 17 years, she accepted a huge pay cut in order to follow her dream to teach and did not regret that decision for an instant. She said that her students kept her motivated, energized, and young, and she looked forward to delivering instruction in a manner that inspired students
to love learning as much as she did. She also held a goal for her students to become confident, knowledgeable, and successful at starting and running their own businesses. Her additional duties included: itinerate department chair for five middle schools, testing committee member, and student government sponsor.

Deborah’s classroom environment. The physical set up of Deborah’s classroom denoted one that engaged students in a lab setting rather than a traditional classroom. Similar to Kelly’s classroom, the television and DVD player cart was the first thing that I noticed upon entering. There was a bookcase behind the door with classroom sets of textbooks in it. The classroom itself, though on the same hall as Kelly’s, was twice the size. The wall where the student desks faced had a dry-erase board with the standard for each class lesson written on it. Deborah’s teacher desk was directly in front of the dry erase board. The remaining three walls were lined with about fifteen computers on tables facing the walls, which were covered in posters and bulletin boards with inspirational quotes on them. In the center of the room were fifteen desks, which were arranged differently each time I observed, supporting an evolving atmosphere for a lab-based classroom. See Figure 7 below for a layout of Deborah’s classroom.

A typical day in the class I observed, Legal Environment of Business class, consisted of juniors and seniors. Deborah said that she tried to balance lecture with discussions, projects, and group activities, but admitted that she lectured more than she would like to because “the kids sometimes don’t really understand the concepts” (Deborah, personal communication, February 23, 2012). Deborah said she tried to maintain a role of facilitator. The students very rarely had homework because there was only a class set of textbooks and no resources for the students to take home, and the
students did not often use note-taking skills in the classroom, even though she said that she did a good job teaching these skills. She used the class set of textbooks to introduce the chapter, concept, or standard, and then to reinforce or remediate if necessary. Since she was the only teacher for this class, Deborah did not plan with a team but did share ideas with other business education teachers at the school. She had lesson plans that she developed herself and used as a guide for a unit of study.

While teaching, Deborah walked around the room, attending to the work that students did, often used statements like, “I’m going to walk around and look at what you
all are thinking” (Deborah, observation, April 26, 2012). She was flexible and easily
tweaked instruction and activities based on attendance—or attention—of the students, a
challenge for most teachers of high school seniors in their second semester. Her Legal
Environment of Business class was small—on the three days I observed, the classes were
no larger than 15 students.

Deborah’s perspective on literacy. When asked about training on literacy
strategies, Deborah mentioned a two-day course that she enjoyed and a jigsaw strategy
that she used with her students often. She said she enjoyed the strategy because it forced
the students to depend on others, something she didn’t see often in education, but
experienced to a great degree when working in the corporate world. She wanted her
students to develop bonds with each other and encouraged positive interaction. Deborah
did not mention the Journal Writing training in the initial interview, but did bring it up in
the second debriefing. She stated, “even when our other professional development came,
I didn't get all of Journal Writing stuff….of course I couldn't say I didn't get it because
we had to do it but I'm just being honest” (Deborah, personal communication, April 30,
2012).

Deborah’s hopes for the study included strengthening her literacy skills and
through that, becoming a better teacher. Like the other two participants, Deborah also
had concerns about the lack of skills she perceived her students to have, and the wide
range of student abilities in the room; the class I observed included students with special
education needs but there was no support from a special education teacher (i.e. team
taught class) for non-core classes.
**Purposeful selection of participants.** Noffke (2007) claims that studying one’s own school through action research can “improve both the quality and the justice of education in all of our own schools” (p. xi). Anderson, Herr, and Nihlen (2007) claim that conducting action research in one’s own school can greatly improve effectiveness of a profession and offer a refreshing alternative to other forms of professional development. It is for these reasons that I chose my own school as the setting of my study, and the teachers who agreed to participate represent the content areas of English, math, and business education. I also chose to work in my own school also because it helped to cultivate an atmosphere of collaboration between classroom teachers and specialists, another goal of action research. I chose these particular teachers as participants because they had expressed interest in literacy and initiated conversations around literacy in the year and a half that I worked as a literacy specialist at that school. The participants were chosen via purposeful sampling, defined as when a researcher selects participants based on pre-established criteria, (Merriam, 1998). The criteria through which I chose participants were based on their interest in literacy and content, their willingness to perform action research in their classroom, the curiosity they showed surrounding literacy issues, and the professional relationship we have cultivated through these conversations. The goal of this purposeful sampling was to benefit the participants as they further developed their perceptions of literacy in their content as well as my own learning about those perceptions.

**Researcher’s role.** As the researcher in this study, I collected, analyzed, and interpreted data including classroom observations, interviews, and documents. My role was observer participant, which Merriam (2009) described as “the researcher’s observer
activities are known to the group; participation on the group is definitely secondary to the role of information gatherer” (p. 124). As a participant, I worked with each teacher to choose appropriate strategies for their lessons. As an action researcher, my role was also that of co-collaborator, as I worked along with the participants as we progressed through Schmuck’s (2006) model of proactive action research in search for improved practice. Additionally, I had been asked by the administration to conduct a workshop for content area teachers regarding literacy strategies and these teachers attended the workshops. I had also been asked to schedule consultants who will introduce new strategies to the teachers, so my role was also that of a consultant. It is important to note that though I was asked by the administration to conduct workshops and to work with teachers, my role in no way was evaluative or supervisory. Though my presence alone surely affected the classrooms I observed, I had already established trusting relationships with the participants, and they fully knew that I was a peer who was there for supportive purposes.

One of my goals was to observe how each participant engaged students in implementing a new literacy-related strategy while learning content material, so my primary interaction was to observe their implementation, and solicit feedback and reflection. In this role, I first collaborated with the participants about their hopes and concerns for the upcoming unit of study as well as their perceptions of literacy, and I then offered a few literacy strategies that I thought would work well for the participants. The participants then decided which strategies they wanted to use. Annette and Kelly chose to use the same strategy three different times, and Deborah chose three different strategies. I then observed classrooms on the days that they implemented each strategy for how the participants engaged students in reading content material through these strategies,
debriefed with the participant on the strategy use, and refined our lesson plan
collaboration when we chose another strategy or choose to tweak a previously used one.
In a final, group interview I asked the participants if there were any changes to their
perceptions about literacy as they went through the study.

In this action research study, I interviewed one math, one business, and one
English teacher two times (once at the beginning of the study as an initial individual
interview and once at the end as a follow-up group interview) in a semi-structured
manner. The first interview focused on each participant’s background as well as her
perceptions of content literacy prior to our collaboration on selecting strategies. In
between the interviews during the study, I conducted nine total observations (three for
each participant) and post-observation debriefings in these three classrooms, and
analyzed instructional data, such as handouts and class notes or examples. In the group
interview and the end of the semester I asked all three participants to be interviewed
together so that they could share their experience with each other.

The frequency of observations was approximately once every three weeks. As an
action researcher, I worked with the participants to choose and implement strategies, and
observed how content area teachers engaged their students in reading content material,
and how they perceived literacy in their content area. By observing and tracing the
activities, lessons, and implementation and debriefing of new practices, I was able to
analyze the practices as they related to the participants’ understanding of literacy in their
content area. The interviews and debriefings I conducted helped me gain insight into how
these participants viewed themselves as teachers of literacy.
**Data Collection**

Effective qualitative research must be well-organized with areas for flexibility, and may involve several components (Creswell, 2009). My data collection procedure was as follows:

1. **Action Research Phase 1:** Conduct and transcribe initial interviews where I gather hopes and concerns for the study from each participant.
2. **Research and present multiple literacy strategies to participants; participants choose one to implement for first observation.**
3. **Action Research Phase 2:** Conduct observation 1 and take field notes on first implementation of strategy.
4. **Action Research Phase 3:** Debrief and transcribe participant’s reflections of strategy implementation and ideas for refinement for same strategy or choice of different strategy; gather document data (strategy and any handouts involved).
5. **Based on reflection, conduct observation 2 and take field notes on second implementation of strategy.**
6. **Debrief and transcribe participant’s reflections of second strategy implementation and ideas for refinement for same strategy or choice of different strategy; gather document data (strategy and any handouts involved),**
7. **Based on reflection two, conduct observation 3 and take field notes on third implementation of strategy.**
8. **Debrief and transcribe participant’s reflections of third strategy implementation; gather document data (strategy and any handouts involved).**
9. **Conduct and transcribe final group interview.**
My first step was to inform each participant of the research and what it would entail from them as well as discuss how it could benefit them and their practices. Upon IRB approval in the Spring semester, I worked to ensure that the participants understood that the interviews could take place after school hours. They were made aware that the work would entail pre and post interviews, collaborative planning sessions, debriefing discussions, as well as my observations on days when collaboratively-generated literacy strategies are implemented. We also talked about how this collaboration could support the participants in their practice and instruction. Upon their agreement and before observations, I conducted a semi-structured interview which was recorded and transcribed a day after it was conducted. After gathering background information, I asked each participant’s definitions of literacy and how she believed it played out in the classroom. As part of the first step in Schmuck’s (2006) model, I asked each participant to discuss her hopes and concerns. After this interview, I took a few days to consider literacy strategies that I thought would work well in their classrooms. The participants then chose one of the strategies listed in the Glossary (p. xx) for the first observation.

After each participant chose the first strategy, I then observed her teaching on days when the selected literacy strategy was implemented, addressed, or discussed. I gathered document data (handouts or book chapters) as I conducted observations during the implementation of the strategy. After I observed and gathered document (handouts or copies of the chapter to be studied) and observational data, I conducted short debriefing sessions with the participants within a day of observations. The goal of the debriefing session was to gather the participant’s initial reflections on the implementation of the strategy just used in the classroom, as well as how it benefitted the lesson or her
classroom. As part of the action research cycle, the participant chose either to continue with a refinement of the same strategy for the second observation, or to choose an altogether different strategy. Two participants, Annette and Kelly, chose to refine the strategy they used in the first observation, and one participant, Deborah, chose a different strategy for each observation.

**Timeline for study.** By its nature, action research should be cyclical and ongoing, as it is critical to complete more than one cycle in order to develop improved practice (Schmuck, 2006). I worked with participants for most of a semester in the spring of 2012, and cycled through Schmuck’s (2006) proactive model three times. Due to IRB delays, I collected data for 14 weeks, beginning in February and ending in May. Choosing these 14 weeks during a semester allowed flexibility with unforeseen circumstances that often arise in a high school and that can interrupt instruction (fire drills, assemblies, mandated testing, etc.).

The sequence of data collection was as follows: initial interviews with each participant wherein we chose and planned strategies that fit well with the upcoming unit, conducted observations on all days that the strategy was used (three observations per participants), debriefing discussions and informal interviews shortly after each observation. After all observations were finished and the semester was almost over, I completed a final reflective interview with the participants as a group. Data collection for each participant will lasted about 14 weeks. Table 4 presents a summary of my timeline.

**Data sources and data collection methods.** As I thought about which methodologies would be best for this study, I reviewed my research goals and questions. I needed a methodology that would allow me to study teachers in a way that offered
Table 1

*Timeline for Study*

<table>
<thead>
<tr>
<th>Date</th>
<th>Engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov 2011-</td>
<td>• IRB Submission</td>
</tr>
<tr>
<td>Feb 2012</td>
<td>• Defended Prospectus</td>
</tr>
<tr>
<td></td>
<td>• Confirmed invitations and agreement of participants</td>
</tr>
<tr>
<td></td>
<td>• Conducted initial interviews</td>
</tr>
<tr>
<td></td>
<td>• Gathered hopes and concerns for student learning (step one of Schmuck’s</td>
</tr>
<tr>
<td></td>
<td>model) from participants</td>
</tr>
<tr>
<td></td>
<td>• Collaborated choice of new practice (step two of Schmuck’s model)</td>
</tr>
<tr>
<td></td>
<td>• Began analysis of initial interviews Began transcription of interviews</td>
</tr>
<tr>
<td>Feb-Mar</td>
<td>• Implemented new practice (step three of Schmuck’s model)</td>
</tr>
<tr>
<td>2012</td>
<td>• Conducted observations and debriefings data collection</td>
</tr>
<tr>
<td></td>
<td>• Began analysis of observations, debriefings, documents (handouts and</td>
</tr>
<tr>
<td></td>
<td>descriptions of strategies) and field notes (step four of Schmuck’s model)</td>
</tr>
<tr>
<td></td>
<td>• Continued transcription of interviews and began transcription and write ups</td>
</tr>
<tr>
<td></td>
<td>of debriefing sessions and observations</td>
</tr>
<tr>
<td>Mar-May</td>
<td>• Continued data collection &amp; analysis</td>
</tr>
<tr>
<td>2012</td>
<td>• Reflected with participant on alternate practices (step five of Schmuck’s</td>
</tr>
<tr>
<td></td>
<td>model)</td>
</tr>
<tr>
<td></td>
<td>• Repeated Schmuck’s model of proactive action research by fine-tuning first</td>
</tr>
<tr>
<td></td>
<td>strategy or choosing a new one</td>
</tr>
<tr>
<td></td>
<td>• Began write ups</td>
</tr>
<tr>
<td></td>
<td>• Member checked (step six of Schmuck’s model)</td>
</tr>
<tr>
<td>May-Sept</td>
<td>• Continued data analysis</td>
</tr>
<tr>
<td>2012</td>
<td>• Wrote up interviews and observations</td>
</tr>
<tr>
<td></td>
<td>• Member checked</td>
</tr>
<tr>
<td></td>
<td>• Wrote up results</td>
</tr>
<tr>
<td></td>
<td>• Revised</td>
</tr>
<tr>
<td>Oct 2012</td>
<td>• Dissertation Defense</td>
</tr>
</tbody>
</table>

insights into content area teachers and their engagements with literacy that would be of interest to the field. Qualitative research in particular was important to this study because I was looking for patterns between the participants’ words, their actions in the classroom, and their reflections upon those actions to gain a sense of how content area teachers perceive literacy in their area. It was my hope that the patterns that lead to the results and
implications of this study would allow literacy specialists to further understand these perceptions, choices and actions of content area teachers as they engaged students in reading, understanding, and internalizing content material.

Following Creswell’s (2008) iterative method of research, I collected and analyzed several types of data. This section will describe why I chose each method, and how and why these collection methods became established as driven by the research questions.

**Observations.** One type of data I conducted were observations, which are systematic data collections approaches wherein researchers use their senses to study lived realities in a natural setting (LeCompte & Schensul, 1999). Observation also offers researchers rich and in-depth understanding of a situation, setting, or phenomenon and the ways that a participant behaves in a setting (Creswell, 1998). I conducted observations on the days when participants implemented one of the literacy strategies upon which we collaboratively decided. I watched the lesson in order to study the teachers’ instruction, introduction, and support of the strategy so that we could debrief effectively.

In these observations I took descriptive field notes (Creswell, 1998), which were descriptive and reflective notes and drawings, diagrams of the setting and important features of the classroom, as well as significant actions. I also recorded my personal thoughts and comments in order to recognize my perspective and bias. I created these notes by dividing the page with a line down the middle, and wrote descriptions of what I saw and heard on one side (for example, the curricular standard and key vocabulary written on the teacher’s board). I wrote reflective notes, or my thoughts and feelings
about what I saw (for example, “I wonder what was introduced about this topic yesterday”) on the other (Bogdan & Biklen, 2003).

**Informal debriefings.** Another type of data I collected were informal debriefings with the participants after each observation. The debriefings were very short interviews taken place as soon after the observations as possible. Most of the debriefings took place just before or after school, or on the participant’s planning period. One took place in the hallway during a class when Deborah had another teacher speaking to her students. Participant debriefings were an essential part of collection, as initial reactions and reflections can offer information equally as useful as the initial and final interviews. These debriefings were important because they provided me with insight as to the participant’s interpretations of what happened during the observations (Creswell, 2003). I audio recorded each debriefing and wrote down my notes on those discussions as soon as possible afterwards. I encouraged participants to reflect on the lesson I observed in particular and other thoughts regarding literacy and their content area in general. My questions during the informal debriefings included: 1) How do you think the implementation went? What went well? What didn’t? 2) What, if anything, are you still concerned about?

**Documents.** Another type of data I collected were documents, which are defined by Merriam (2009) as “a wide range of written, visual, digital, and physical material relevant to the study at hand” (p. 139). Documents are important because they offer the researcher descriptive information that, unlike interviews or observations, is not altered by the presence of the investigator (Merriam, 2009). They also help the researcher discover meaning, and develop understanding, insights relevant to the research questions.
For this study, documents included handouts distributed by the participants to students, book chapters that were studied in class, notes and/or worksheets for each curriculum unit in the semester. Deborah’s handouts were copied from the strategy books, and both Annette and Kelly created original documents that fit the strategy with the content they were teaching. While I looked at documents, they were not part of the overall analysis. Instead they were used as information to extend my thinking about what and how implementation of ideas happened.

**Interviews.** I also conducted two semi-structured interviews of each participants that were recorded and transcribed. Defined by DeMarrais (2004) as “a process in which a researcher and participant engage in a conversation focused on questions related to a research study” (p. 55), interviews are a means to the goal of what is truly on a participant’s mind. Interviews were necessary to gain an initial insight into the perceptions of the participants surrounding literacy and their content area, and how this study could best benefit them and their classroom. Interviews and debriefings were a crucial element to this study because they allowed me to search further for in-depth information from the participants and to encourage further explorations of the strategies we apply (Duke & Mallette, 2004) and their perceptions on literacy strategies in their content area. I chose to conduct semi-structured interviews because they allow for more of a conversation between researcher and participant than the rigid question and answer session that a structured interview requires (Duke & Mallette, 2011). I carried a digital recorder as often as possible so that I could transcribe interviews and validate my observation notes with recordings of observations, but there were some informal discussions (not debriefings) that were not recorded because they occurred at moment
when we happened to see each other in the hallway or in a faculty workroom or lounge. For those informal, not recorded conversations, I reflected in my field notes as shortly thereafter as possible. To help ensure accuracy of what I saw and heard, all interviews and debriefings were audio recorded and transcribed as soon as possible afterwards. The use of interviews and debriefing discussions in this research was essential because it allowed for participants to explore and explain their own thoughts and ideas, as well as make connections between their definitions and perceptions of literacy and how they engaged their students in content material. The questions varied slightly to allow responses that were specific to each participant’s content area, and hopes and concerns regarding the upcoming unit of study.

I conducted an individual initial semi-structured interview (Merriam, 2009) with these three participants in order to gather initial information about their practices in how they engaged students in reading, including the strategies they used. In the interviews before the strategy implementation, my focus was to obtain some background knowledge on each participant, and to gauge her perceptions of literacy and literacy in her content area. Some of my questions included, but were not limited to (see Appendix for complete set of questions): 1) Tell me about yourself as a teacher (your background, philosophy, etc.? 2) How do you define literacy? 3) Does this definition change when you define literacy in your content area?

My focus for the final group interview was to explore any changes in definition or perception that the teachers had regarding literacy, literacy in the content area, and/or collaboration with a literacy expert. I also thought that interviewing the participants all together would offer valuable insight as to what they could share with each other
regarding their experiences throughout the study. Some questions from this interview included (see Appendix for complete set of questions): 1) Do you feel the students benefited from this incorporation of literacy strategies? If so, how? 2) After working together, has anything changed in your definition of literacy? Literacy in the content area? 3) Did this collaboration benefit you in any way? If so, how?

The final interview focused on reflections of our collaboration and how it could further benefit the content area teacher’s profession. Table 2 summaries the data sources used to answer each subquestion.

Table 2

**Research Subquestions and Strategies used**

<table>
<thead>
<tr>
<th>Research Sub questions</th>
<th>Data Sources</th>
<th>Why Data Source was Chosen</th>
</tr>
</thead>
<tbody>
<tr>
<td>How do content area teachers define and perceive literacy and specifically define literacy in their content area?</td>
<td>- Classroom Observations</td>
<td>These sources allowed insight as I coded moments that referenced literacy as it related to content learning. They showed the practice of engagement.</td>
</tr>
<tr>
<td></td>
<td>- Interviews</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Handouts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Notes</td>
<td></td>
</tr>
<tr>
<td>How do teachers use literacy strategies they learn in professional development sessions?</td>
<td>- Teacher Interviews (formal and informal)</td>
<td>Interviews and observations revealed how teachers defined and perceived literacy in their content both through their own words and through their actions.</td>
</tr>
<tr>
<td></td>
<td>- Observations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Handouts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Notes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Worksheets</td>
<td></td>
</tr>
<tr>
<td>Does collaboration between a literacy specialist and a content area teacher inform literacy instruction?</td>
<td>- Participant Interviews</td>
<td>Interviews and debriefing sessions allowed teachers to reflect on the collaboration/-action research process.</td>
</tr>
<tr>
<td></td>
<td>- Observations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Debriefing sessions</td>
<td></td>
</tr>
</tbody>
</table>
Data Analysis

Qualitative data analysis should allow for emerging themes and ideas that reflect what the researcher hopes to understand more deeply. It should also be ongoing from the first day of collection so I began analysis of data as soon as I began to collect it (Bogdan & Biklen, 2003). Sociocultural theory served as a guide for the ways in which teachers engaged students in literacy practice within their disciplines, and as a guide for my further understanding of the perceptions and thinking of content area teachers as they implemented the action research cycle. Additionally, within action research, raw data becomes useable when the researcher integrates it into reflections about new and improving practices in the past, present, and future (Schmuck, 2006). With this situation in mind, I began to code responses within participant interviews that indicate what participants hope for with regard to, for example, strategies (with a code “brainstorming”, etc.) how they chose strategies to use with content area instruction (with a code letter “informal assessment”), and their feedback surrounding the strategy implementation, as well as any discomfort they have felt or extra support that they may have needed in implementation (with a code “feedback”).

Through the entire data process, I utilized Lincoln and Guba’s (1985) method of constant comparison. I read the data multiple times, looking for similar responses to particular topics, for example, motivating students to write about the content. If there were similar responses from participants, then the similarities were noted and categorized. On a separate sheet of chart paper I kept track of categories and where examples of those categories where located in the data. Within the transcriptions and documents themselves, I noted each category (and code within the category) with
multiple colored sticky notes. As the categories were generated, some merged with others, and others showed a need to split into more than one category. This method also allowed the emergence of new ideas, relationships and patterns.

After gathering data from interviews, observations, and documents, I compiled all information into formats that were useable. For example, I transcribed interviews and organized my field notes from observations by participant. All these documents were put into folders labeled with each participant’s name in order to keep coding and triangulation closely intertwined. I used open coding throughout multiple comprehensive readings and refined the coding down to the most salient themes throughout a constant comparative process. To refine coding, I conducted multiple comprehensive readings and labeled larger ideas as they related to each research question. Then I studied all the themes I developed under each question and combined ones that were similar, moved ones that fit better in other questions, and deleted ones that did not look significant any longer or could be collapsed into other categories.

When all data was collected, I took time to read through the data multiple times in order to become familiar with what the participants said and did (Roberts, 2009). This comprehensive review allowed me to compare and align patterns and ideas, and to further my hunches or intuitive inclinations that I noticed during collection (Anderson, Herr, & Nihlen, 2007). As I transcribed the data, I made memos of emerging themes in the margins (such as “Lack of training she sees as useable” in Kelly’s initial interview) and wrote observer thoughts and comments on the transcribed data (Charmaz, 2005). Memos and observer thoughts are important to track because they allow the researcher to analyze shared experiences with other participants (Charmaz, 2006) I then organized the data into
categories that arose in discussions with all three participants, and based it on my observations and activities, as well. The categories that surfaced during analysis were as follows: Literacy perspectives, current resources and training are not meeting learning needs, and the social aspect and student engagement that is incorporated in the learning of content through literacy.

While some categories changed, indicated a need for subcategories, or even merged with others, I used the codes suggested by Bogdan and Biklen, (2003) such as setting/context codes, situation codes, perspectives held by participants, strategy codes, and methods codes. For example, when I coded items under the “perspectives held by participants” category, I compared comments and observations across participants and across content areas to see if common themes or ideas emerged.

The constant comparative method allows for a deeper understanding of data. Therefore, after coding was complete, I refined the codes by organizing them into chunks as they related to each other, such as words, sentences or phrases that came up multiple times (Creswell, 2003). Examples of this organization were 1) placing Annette’s comment that until she taught a lesson using the key vocabulary as a guide, she “always felt [she] never had time to set aside for something like that because [she] didn’t think it was important enough” (Annette, personal communication, May 16, 2012) under the “using key vocabulary to guide lesson” and under the “change in disposition” categories. I then noticed that Annette’s comment related to Deborah’s comment in the debriefing after her second observation when she realized that “vocabulary was their focal point”. In this way, the constant comparative method allowed for a deeper understanding after comparing and refining data sources.
**Data organization and security.** After each individual set of data was collected, I transcribed it as soon as possible, usually within a day or two of collection. I incorporated collected documents and my own notes and memos in order to begin initial analysis of the data so that I could begin to make connections between how the participants engage their students in the material and what that looked like. Also, as I collected data, I began to organize and analyze it (Bogdan & Biklen, 2003) by how the information informed my research questions. This action took the form of coding categories as to which questions they address and my thoughts on them. I maintained separate notebooks for each data source, and the participants were given pseudonyms in order to ensure anonymity. All hard copies of research data, such as descriptive field notes or artifact data (handouts) were kept locked in my cabinet, and I held the only key to that cabinet. Computer files and documents, such as transcribed interviews and debriefings, were kept in electronic folders that only I could access via username and password, and on my personal USB drive as back up.

**Trustworthiness.** In order to maintain a trustworthy study, I employed methods of triangulation that Merriam (2009) described as “comparing and cross-checking data collected through observations at different times or in different places, or interview data collected from people with different perspectives or from follow-up interviews with the same people” (216). As I am aware that simply by the very nature of who I am lends to my observation as subjective and individual. Therefore; I used peer examination (Merriam, 2009) wherein I verified my interpretations of what I viewed in the classrooms with my participants before drawing any conclusions (Merriam, 2009). This verification was completed both during debriefings and with follow up questions as needed.
**Credibility.** In addition to the use of triangulation, prolonged engagement, the requirement that an extensive amount of time should be spent in a research setting in order to accurately explore and account for a credible study (Lincoln & Guba, 1985), was reached in this study as I conducted it for almost a full semester in each of the three classrooms, providing enough time to develop a full understanding of how teachers engage students in literacy practices within their content area. This prolonged engagement also allowed for the multiple rounds of the action research cycle that Schmuck (2006) recommends for true refinement and reflection.

Another strategy that I used to ensure credibility is member checking, defined by Merriam (2009) as a solicitation of feedback on emerging findings from the participants. I conducted member checking through phone and in-person conversations, and I sent files of participant profiles and emergent findings for the participant to review and reflect upon.

**Reliability.** In qualitative research, reliability, or, the degree to which a data collection instrument measures something from one time to another (Roberts, 2009), must be reached through close attention and description to the way data are collected, analyzed, and interpreted (Merriam, 2009). I achieved reliability by using triangulation and peer examination to ensure that my results were consistent with the data I collected.

**Transferability.** Transferability, or generalizability, in qualitative research involves “leaving the extent to which a study’s findings apply to others’ situations up to the people in those situations” (Merriam, 2009, p. 26). To achieve this in this study I employed thick description, or, a highly detailed presentation of the participants, setting, and findings of the study (Merriam, 2009).
Writing the Study. In writing up my study, my focus was on the patterns I noticed regarding how content area teachers chose and used literacy strategies, and their feedback on the usefulness of each strategy with a full understanding and the utmost effort to convey the perceptions and constructions of these participants as accurately as possible. Even how I describe the participants, is an issue of power in itself as I choose what goes in a description and what gets left out. In order to deal with issues of power that arise when choosing what to include and what to leave out in the descriptions of my participants and the work I did with them, I completed member checking (Lincoln & Guba, 1985) by asking the participants to read the member profiles and my interpretations of their interviews and correct any misconceptions. I also asked them to review my emergent findings, both in writing, during our debriefings, and in follow up questions over the phone or in casual in-person conversations.

I am confident that gaining a deep understanding of how content area teachers engage students in reading content material will contribute to the field in that it will provide literacy educators with a foundation of what content teachers are already doing so that they can be a more supportive resource with stronger background knowledge. Since many literacy educators come from a purely educational (with no specific content area specialty) or a English/Language Arts position, this information will be a useful insight into what content teachers already do to engage in literacy practices, as will their hopes and concerns for bettering their profession.
CHAPTER 4

FINDINGS

In this study I explored the thinking and work of three content area teachers, their understandings of literacy, and the strategies they used in working with materials to support their students’ learning of content in each of their areas. I also explored the impact of collaboration between a literacy specialist and a content area teacher on literacy instruction. Using sociocultural theory for the study allowed me to explore the social aspect of learning, as well as experiences, beliefs, and backgrounds of the participants. This chapter identifies the themes that I constructed as a result of the study and the supporting data.

After the process of coding and refining, four themes emerged across the data for all of the participants, though in different ways. These themes addressed the research questions and helped explain the ways teachers viewed literacy in the content area and collaboration with a literacy expert. The following themes were extracted from the data:

1. Definitions of literacy did not change through the course of the study.
2. Disposition toward using literacy strategies did change through the course of the study.
3. Collaborative, embedded professional development was important in changing dispositions.
4. Participants indicated appreciation of increased engagement.

In this chapter, I discuss each of these themes with data for all three participants. I have made every effort to highlight the voices of the participants to promote their perceptions and ideas surrounding literacy in their content areas.
Definitions of Literacy

The first finding is that in general, none of the participants reported changing their definitions of literacy, and all initially reported on the connection between literacy and the outside world, and that this relationship requires knowledge within their content areas. In the initial interviews, I asked each teacher how she personally defined literacy and what it might look like when incorporated in her classroom, lesson plans, and textbooks.

Annette, advanced mathematical decision making. Literacy in mathematics is a relatively new realm of study, but Annette was able to define it in her terms quite confidently. To Annette, literacy is not just reading and/or writing. Instead, literacy is connected to the real world; it encourages reason and it follows explicit information. She said:

Well at first I thought literacy was just making them read and write in class but as I looked into it a little further as it pertains to math I found that it's a little more in-depth than that and it's really about getting them to understand that math is incorporated in just about everything that they do in the real world. So I mean it's in reading charts and graphs and tables. It's in, you know finding percents of things and discounts when you are in the mall you know, so I just try to make sure that they understand although we may be learning about logarithms, math is in just about everything you do. … I would say relating the new math, well relating the math we do, the core math that we do in the classroom with real-world experiences so that when they get out there into the real world they are able to reason mathematically. They are able to give directions, which is a math skill, you know, it's a reasoning skill. They are able to change the amount of servings from a recipe; you know they are able to do some of the computational things that they don't realize is actually math. (Annette, personal communication, February 24, 2012)

Annette’s ideas about literacy related directly to the use of math in the real world. She did not change the definition when I asked her to define literacy in her content area specifically, but simply said, “that would mean to be able to reason mathematically”
Annette’s personal communication, February 24, 2012). As evident by the examples she uses to describe what it means to be literate, such as reading charts and tables, giving directions, change the serving size in a recipe, it seems that Annette’s perception of literacy connects directly to students’ relationship with the mathematical world. Annette’s idea of math reasoning as it relates to literacy is also sociocultural in that the math literacy skills she wants students to use involve real-world experiences and interactions. In the final interview in May, Annette did not report a change in her definition of literacy either in general or in her specific content area.

**Deborah, legal environment of business.** Deborah maintained a general view of literacy when asked about it in her initial interview. She said that she believed literacy was all around and was obtained through practices that incorporated literacy as well, such as: discussions, interactions, listening to each other, and reading. To Deborah, literacy included thinking, listening, and reading in order to acquire knowledge. Her personal definition of literacy included the following statements:

I think literacy is the thinking, the listening, the reading of material. It’s just the knowledge; it’s the gaining of that knowledge. The various means of acquiring that knowledge. How do you get it? You get it through listening, you get it through reading, you get it through interacting with other people. (Deborah, personal communication, February 23, 2012)

Deborah did not add or alter her definition as it pertained to her content area specifically. In fact, she stated “I think literacy is across the board, I mean, it doesn't matter if you are teaching chemistry or entrepreneurship. Literacy is literacy. I mean, you still have to interact in the same way. You still have to read. You still have to write. You still have to listen. Then you still have to interact with others” (Deborah, personal communication, February 23, 2012). Deborah held a very broad, social definition of literacy—one that meant a general knowledge that incorporated messages through
sensory factors, the understandings of those messages, and producing interactions with others. Her definition did not change when asked specifically about literacy in her content area because her original definition included the skills she thought were needed for literacy in any content. At the end of the study in the group interview, Deborah did not report any changes in her definition of literacy.

**Kelly, 10th grade literature and composition.** In her initial interview, when asked about her understandings of literacy, Kelly quickly expressed that she lacked background knowledge in a standard definition of literacy. To Kelly, literacy was understanding and writing. She also made the point that English and literacy are two different disciplines, as noted in the participants’ description. In terms of her students, Kelly said:

> I guess probably because I have such little background on it, literacy to me is just, uhm, I’m always thinking about whether my kids can understand and read, you know not only to be able to just understand what they are reading but also, can they write about it? Are they fluent on the literature? Can they write about it on their grade level? (Kelly, personal communication, February 2, 2012)

In the next exchange in the same interview, Kelly stated two more times that she did not have a lot of knowledge about reading and literacy.

Kelly’s statements that she lacked background knowledge of a definition of literacy helps to debunk the myth that teaching literacy and literature are the same. Kelly stated in her initial interview that she had “such little background knowledge” on literacy instruction, and that she had to take “two [classes] that I had to have…for certification. One was reading and one was exceptional education”, and that she was hired as a reading teacher, “and while I was the Title 1 reading teacher, I was taking the [reading strategies] course” (Kelly, personal communication, February 2, 2012). It was not until after she
transferred to her current state that she took a course on literacy strategies. This perceived lack of knowledge and training was met with surprise on the part of Deborah and Annette in the final group interview.

In the initial interview, when asked if she would add anything else or change it to define literacy in English Language arts in particular, Kelly said “I guess it’s probably the same answer. I guess it’s that, with my certain population, they struggle with the vocabulary…they blank [what they read] and you have to go back and give them clues and scaffold them a lot” (Kelly, personal communication, February 2, 2012). In the final group interview, however, Kelly was reminded that she did have some knowledge and training on literacy during her master’s degree studies.

So what [participating in this study] did for me is it reminded me of one, some of the things I did know. From probably more of my Master’s at [university] and less my bachelors at [university]. These things I have thought of myself, or things I learned getting Talented and Gifted (TAG) certification because they do some things that are borderline literacy although not as much. But it was kind of a reminder to me. You know you think these things are bells and whistles that we add to our teaching if we have the time and resources but sometimes it really comes down to, this is the basic part of our teaching. (Kelly, personal communication, May 16, 2012)

Kelly’s statement showed a discrepancy between what she was taught and what is expected of her (by the administration) in the classroom. This statement also shows that Kelly had pre-service training in literacy, but this knowledge was buried underneath the demands of current administration and other mandates, so she was unable to utilize her knowledge in the classroom and she did not mention this training until she had the chance to focus on it while participating in the study. Even though Kelly remembered the literacy training she received, like the
other participants, she still did not report a change in her definition of literacy at the end of the study.

Kelly’s use of the term “bells and whistles” itself brings to light a myth that content area literacy instruction is additional, or nonessential to teaching content. Kelly’s shift in disposition shows potential for this same shift in other teachers.

The fact that none of the participants reported a change in their definitions of literacy or literacy in their content area can be partially explained through sociocultural theory. Sociocultural theory focuses on the interplay of social and cultural elements of a person’s life (Woolfolk, 1999). Because all three participants have a significant number of years of teaching experience, their basic definitions are likely already strongly established. Also worth noting is that since these three participants had self-identified as people who were interested in their students literacy, they had a more sophisticated understanding of the term from the outset. Further research would be needed to understand why the participants changed their dispositions toward using strategies, but not their definitions.

**Dispositions toward Using Literacy Strategies**

The second finding is that all three teachers discussed a shift in their disposition toward using literacy strategies in the classroom and the strategies’ varying degrees of effectiveness. Initially, Annette mentioned using the *Journal Writing* (see glossary) journaling strategies but stated that “with the kids having such low skills, and a lot of times it’s hard to fit everything in” (Annette, personal communication, February 24, 2012). Deborah also tried *Journal Writing* but said that she “never truly understood it”
and was “didn’t ask” for more support (Deborah, personal communication, February 2, 2012). She also used the jigsaw strategy (see glossary) a number of times and found it to be successful for her class. Kelly also used Journal Writing strategies, but found that the strategies were not always conducive to the activities they were doing in class. Also, she stated that her use of reading strategies was more general:

Mostly I try to point them out to context clues. I’m trying to think of an example. Uhm, sometimes I’ll have them go back and look at something and I’ll try to give them scaffolding. I’ll say “okay [the character] said this, so if they said this, what kind of person are they? Okay so now look at the question, and [the question is] asking you to make an evaluation. So go back and look at what [the character] said. What kind of person do they sound like based on what they said to their friend?” So I would do things like that. Like help them think out loud. I’ve picked some things out of a strategy workbook. But nothing that has a specific name to it. (Kelly, personal communication, February 22, 2012)

From the data emerged three primary ways in which the participants chose and used literacy strategies. I refined the data into three major purposes: vocabulary strategies, brainstorming, and informal assessments.

**Vocabulary strategies.** The most prominent theme that emerged from the data on how strategies were used was the effectiveness of using vocabulary learning strategies as a way to build a foundation for teaching new content. The idea of using content vocabulary as the foundation of learning came as a surprise to Annette and Deborah, the math and business teachers, respectively, and they shared these thoughts in their debriefings and interviews. Previously, Deborah had made the focus of new content based on the essential question that the administration required. In Deborah’s second debriefing, she initiated the idea of using content vocabulary to drive content learning when she shared a “light bulb” moment she had while looking through some resources I gave her. She stated:
But until I actually did it, I did not see. I went through that whole book looking for something that could help me through a chapter. Because most of it talked about vocabulary and I'm like I'm not an English teacher why do I need this? I don't need this! This is not what I need! I need something that's going to guide me through the chapter! Not knowing that the vocabulary is the thing that guides me. So I went oh my God now I see it all come together. It's coming together. It was, I mean my light bulb moment came on. (Deborah, personal communication, April 30th, 2012)

Deborah’s comment revealed a shift in her thinking about instruction from a way to “get through” a chapter of new content to a focus on vocabulary and how that vocabulary sets a foundation for students’ abilities to acquire new information. Through the study, she learned that focusing on vocabulary as a foundation for approaching new information a new chapter addressed the essential question generated from her lesson plans and was a more effective way to access new content for the students.

When Deborah shared this information, again, in the final group interview, Annette concurred and noted how her disposition changed. She stated:

I would always in math introduce vocabulary to the kids and any section there would be new words and we would talk about them, and I would just keep going…. But like [Deborah] said it wasn't until I actually did an activity with the kids, and listen to what they had to say and hear them discuss the words, that it dawned on me like [Deborah] said, this actually helps the students. I guess with math I always felt I never had time to set aside for something like that because I didn't assume that it was important enough…. with the vocabulary I was just like them well yeah this is that….one of the activities we did and then I gave a quiz and then I read it with them and it was just like a whole new world for them. So, I'm with you. I'll definitely be doing more. Now that I've actually experienced it. (Annette, personal communication, May 15, 2012)

In her third debriefing Annette also commented, “I can see where I probably need to focus more on vocabulary. So it’s a valuable lesson for me” (Annette, personal communication, May 7, 2012). This data from both the debriefing and the final group interview shows that Annette’s disposition toward vocabulary instruction,
initially limited to a brief discussion of new key terms and their definitions, shifted to understanding recognition that a focus on key terms and definitions unlocks a deeper level of understanding for the students.

While Kelly’s goals for the project were slightly different in that she focused more on a thematic study as the students read two major works, she mentioned in the initial interview that students struggled greatly with vocabulary and that this required a teacher to “go back and give them clues and scaffold a lot”. Kelly also stated that addressing literacy was something that only happened if “you want to count, perhaps some sort of extension activity, or acceleration or remediation” (Kelly, personal communication, February 22, 2012). Kelly’s comments indicate a shift in her perception of literacy from an action that might seem more like enrichment than something that forms a foundation for literary study in her 10th grade literature classroom.

After Kelly’s above statement, the following exchanges took place:

DW: That's exactly what I found it to be. The base. Because what I was trying to avoid or not do, what I thought was nonessential, when I did it, it was like, that’s the gateway. That opens up the door to the rest of it.

AL: And what's even funnier is that I always tell my kids as long as you get the foundation, you have something to build on. But I never included the vocabulary in the foundation.

DW: And that is the foundation! (Nods and words of agreement from all participants) (personal communication, May 16, 2012)

The data above shows that as the participants reflected on the use of literacy strategies in teaching content, their comfort level and belief in the effectiveness of these strategies increased. They also obtained a deeper level of understanding regarding the importance of literacy instruction in their classrooms.
**Brainstorming.** Strategies were also used as a brainstorming technique to activate students’ prior or learned knowledge of the content being either introduced or reviewed. Across my three observations, Kelly used the Chalk Talk strategy (see Glossary). In Kelly’s classes, the Chalk Talk strategy helped her students brainstorm instances in the novel or play that revealed a specific theme the author was trying to get across. The themes were related to universal human experiences (e.g., gender roles and marriage, hopes and dreams, unfairness and injustice, or responsibility and duty). Students wrote down where they saw an example of the theme in the book (observation 1) or play (observation 2). The second time Kelly used this strategy she added a requirement and had the students brainstorm what message about being human the author was trying to convey. Kelly added this additional requirement, because she found that the end product in the first novel study, a PowerPoint that taught how a certain theme was conveyed in a novel, was too “surface level” (Kelly, personal communication, May 4, 2012).

Deborah chose two different brainstorming strategies for two of her observations; one to help students brainstorm ideas for an original play they were writing, and one to access prior knowledge as a start to a chapter study on credit and bankruptcy. In the first activity she employed the Wagon Wheels (see glossary) brainstorm strategy (National School Reform Faculty, n. d.) The goal of this strategy was to brainstorm a large number of plot and sequencing ideas for the play. The students were in small groups, each assigned a different scene of the play. Half the students stayed in place and wrote notes on what the discussion about the play in that small group. The other half rotated among the small groups and shared their ideas for dialogue, events, and staging for the play. The
ideas were later used to develop the script for the play. In the first debriefing, Deborah said:

I think they came to enjoy it after a time, you know, it took him a minute to get used to that format because that was something they had never done . . . I could see that they were becoming more relaxed as the rotations went on. . . . I explained to them that it was a wheel, and that they would be rotating. They had a hard time picturing it before we did it though. I tried to explain that some are going to be sitting at a station and some would go around. However that was last week that I explained it. And over the weekend, they totally forgot it” (Deborah, personal communication, March 5, 2012).

Deborah also mentioned that what ended up happening in that class period was different from what she expected, but that was not necessarily a negative aspect of the strategy. She said,

Well, what I wanted to get was just wild brainstorming. Just like, crazy brainstorming . . . I kind of didn’t want the scene two station to know what the scene one station was doing, what their script was, you know what I’m saying? Because when we pulled it together I thought it might be too scripted. . . . But, I found that moving from station to station that they were bringing the knowledge that they had gotten from the previous one. Which might be a good thing, I mean I'm not sure but it might not hurt. (Deborah, personal communication, April 30, 2012).

Deborah did not know whether this discrepancy between her initial expectations and the results of the brainstorming activity would be good or bad and was open to how it turned out. This comment indicates that Deborah’s initial disappointment evolved into a more open idea of brainstorming for her students.

Two of the three teachers chose a strategy that incorporated brainstorming in their content learning. Deborah’s second brainstorming strategy choice was to introduce a chapter in the business law textbook on landlord and tenant rights. From a list of suggestions that I supplied for her, Deborah chose Janet Allen’s (2006) content brainstorming strategy (see glossary) for the second observation. Deborah’s third
strategy also incorporated brainstorming; she used an anticipation guide (as described in the glossary) that preceded reading a chapter about insurance. Annette chose Concept Circles, which is a vocabulary learning strategy, and is not specifically tied to brainstorming. These choices connect to teaching from a sociocultural framework in that the teachers encouraged students to use past experiences to establish, reinforce, and discuss prior knowledge. The teaching of content area literacy is embedded in a set of social practices that teachers bring to the classroom, and not all strategies work with every content area. Also it is up to teachers to understand what students bring with them socioculturally, so they must, as part of their practice, understand where students come from. These three teachers wanted students to succeed and saw literacy strategies as a tool for helping students learn.

**Strategies used as informal assessment.** All three participants used the strategies as a means of informally assessing their students’ familiarity with a concept or topic, retention of ideas, or as an indicator that certain concepts needed to be revisited. After the first observation when she used Concept Circles (a graphic organizer with a circle divided into quadrants where new vocabulary words would be written and lines beside the circle so that students can write about how the chosen vocabulary words are connected. See Glossary,) Annette noticed the words students avoided choosing to put in the circle, and retaught the words that students avoided using so that they became more familiar with them. In the second debriefing, she stated:

Well, I don't think it went as well as the first time around. I'm thinking probably because the concept is more foreign to them so I think I probably should have spent more time familiarizing them with the words first. We played with them this week, but I still think they are just really not, you know, really strong with the different terms and exactly what they mean. . . . a lot of what they were saying wasn't really where needed to be. It was
very surface. But they had a lot of good conversation. . . . We could do this again later in the unit with the same words. (Annette, personal communication, April 20, 2012)

Annette decided to spend time reteaching the content, and in the third observation did the Concept Circle activity again. In the third debriefing, she stated “I thought it was a lot better. And I think maybe because they had a little time to work with the graphs can get a better feel for them, you know and I think it went better.” Annette was able to use this strategy as an informal assessment that informed her decision to reteach the math concept and then try the strategy for the third observation. Like Annette, Kelly remarked on the final projects that she saw after the initial Chalk Talk brainstorming activity. Kelly said that the final projects were “too surface-level” (Kelly, personal communication, May 4, 2012). Therefore, as a refinement in the second observation, she added a column that required the students to indicate what they thought the author was saying about the universal experience of being human, which was one of Kelly’s main goals for her students. She stated:

This time I made them try to find the message. Because that was the part that I wanted them to do that we didn't do last time. They were more about… when they did their project they glossed over too much of the message, which was the point. They knew where they saw it and they were able to articulate it when they did their presentations they were able to show that they learned about this theme, but it just wasn't a level that I was hoping they would take it. So I thought that this time let's make them have to think about it. (Kelly, personal communication, May 4, 2012)

Kelly also changed the final project for the second major work (a play) to a skit that helped portray the author’s theme. The results of this refinement and change in mode, Kelly stated in the final group interview, “the projects were so much better in terms of the content” (Kelly, personal communication, May 16, 2012) Additionally, in the third observation, Kelly had the students review literary terms for their final exams
through the same Chalk Talk strategy. In this observation she was able to conduct informal assessments simply by walking around the room and seeing what the students were writing. She corrected any misconceptions, and found that as the students rotated the pieces of paper with the terms on them, the students themselves took responsibility for correcting their mistakes. At the end of the observation, she chose only the terms that most students had trouble with to review as a class. In this observation, Kelly was able to use this strategy as an informal assessment to support her on-going understanding of students’ progress.

In my third observation, Deborah used the anticipation guide as an informal assessment. She thought that it might have been an indicator that she set up the activity in a way that inhibited engagement. She stated, “I'm wondering if I did a thorough job, maybe I should not have put the questions on there.” Because it was my last observation and the end of the school year, Deborah and I did not make a plan for refinement. She did say in the post interview that “[good discussion] came later, because they all really started to join in and to make the conversation about insurance. That was after they read though,” (Deborah, personal communication, May 16, 2012). She attributed this delayed discussion to the anticipation guide activity because she thought it helped tap into their prior knowledge, or lack thereof.

The participants’ use of literacy strategies to brainstorm, access new vocabulary, and informally assess show how they use strategies while participating in professional development. When given options and the
opportunity to reflect and refine their practice, the teachers found ways to include literacy strategies in their content area.

**Collaborative, Embedded Professional Development**

The third finding shows that all three participants’ changed their dispositions after working on this collaborative action research project with me. During reflections in debriefings, the final group interview, and follow up interviews, all participants expressed that the action research project had an impact on content teaching in their classroom. In this section, I discuss the participants’ personal reflections regarding the action research project as professional development, as well as how collaboration between an in-house literacy specialist and a content area teacher can affect Mullen’s culture of professional development as a whole.

**Action research for professional development.** Throughout this collaborative action research project, all three participants commented on the process and how it affected their personal perceptions and instruction of content. In her second debriefing after my second observation, Deborah spoke of how this project revitalized the way she thought about delivering instruction in the business education classroom:

> I’ve taught now 16 years total, and sometimes you just almost burnout because you are like, what else do I do? So this is what I needed in my 16th year to reignite my energy about teaching. So it is exciting. I will spread the word. It helped me. (Deborah, personal communication, April 30, 2012)

Like Deborah, Annette also mentioned a deeper understanding of how to use literacy strategies in math content learning as it related to other professional development. She stated:

> We did that *Journal Writing*; I was kind of always like well that stuff won’t really work for math. It was really kind of my attitude. I did a few things here and there with that, but not as much as I saw some of the
language arts teachers doing it. I did maybe one or two here and there when it fitted in with the content, but doing this exercise [Concept Circles, see Glossary] I can really see where focusing on the vocabulary helps us understand the concepts more than just, you know exposing them to the vocabulary. (Annette, personal communication, April 20, 2012)

In the final group interview, teachers discussed reforming professional development at MHS to something similar to this study—action research as professional development. Kelly said “could you imagine if they did [action research as professional development] by department and all the math teachers came and all these literacy strategies were laid out with math in mind. You would be like oh I can do that!” (Kelly, personal communication, May 16, 2012.)

These sentiments of appreciation for the setting that provided choices for content experts to fit literacy strategies in their curriculum indicate a need for a revamping of professional development at MHS. Annette’s comment about the previously mentioned Journal Writing professional development speaks to the tension of large-group professional development and the capacity to address the diverse needs of the MHS faculty, and how action research that is embedded in schools as professional development can create real and sustaining improvement in instruction and curriculum (Anderson, Herr, & Nihlen, 2007; Calhoun, 2002; McKernan, 1996). If instituted as an ongoing, collaborative, professional development action research project with other interested teachers, Annette said that she would be able to actively focus on vocabulary instruction in her math classes. She stated, “[I]t took the pain out of that for me. And I appreciate that. I can do that” (Annette, personal communication, May 15, 2012).

This collaboration between a literacy specialist and a content area teacher also helped Kelly rethink her grading structure and assignments in her classroom. She stated that she had been giving “reading check questions” (Kelly, personal communication, May
as participation points, and noted her awareness that the students usually copied them from one another. She said, “Maybe I need to focus more on [a literacy] base and less on homework that they copy anyway. Something real. You know, more authentic. It's so much more authentic” (Kelly, personal communication, May 16, 2012). Kelly saw these strategies as a more authentic way not only to hold students accountable for reading assignments, but also to use as an informal assessment to guide classroom instruction based on where students needed more support.

These insightful sentiments toward action research as professional development show the need for both in schools. This aspect of the study empowered teachers to examine content and literacy strategies in their classrooms in order to refine their practice.

Collaboration and action research as reciprocal processes. All three participants valued the collaborative nature of action research in this study, and reflected that the collaborative, social nature of the study affected their collegial and classroom dispositions. In particular, Deborah stated that this in-house, collaborative, professional development “took the intimidation factor out of [professional development]” (Deborah, personal communication, May 15, 2012) because I was a trusted peer who simply offered resources and listened to her feedback and ideas, and had no supervisory or evaluative role. Deborah further expressed to me, “I think you should do this [type of professional development]. I think you should do this with the faculty. You know, maybe large style staff development might not be meeting our needs. Maybe it should be in clusters or by department” (Deborah, personal communication, May 15, 2012). In response to Deborah’s suggestion, Kelly added that strategy suggestions be organized by content or
department and placed on a shared network space so that teachers could have online access. Kelly also suggested expanding action research to the faculty by department and using Annette’s math department as an example, proposing, “could you imagine if they did it by department and you came in, and all the math teachers came and all these literacy strategies were laid out with math in mind?” (Kelly, personal communication, May 15, 2012). In response, Annette replied, “[Y]eah, usually when we go to workshops they’re making us come up with this stuff, it’s just like, I don’t know what you want! So I don’t know what it would look like!” (Annette, personal communication, May 15, 2012). In a follow up interview, Kelly also said that “having professional development tailored to my content was fantastic, and you were very helpful in facilitating that for all of us. I did find myself feeling a lot more willing to consider a cross-curricular project, and I mentioned it to [a world history teacher]” (Kelly, personal communication, May 15, 2012).

**Current resources and training are not meeting learning needs.** All three participants initially shared a lack of confidence and frustration when I asked them about how the current resources available to them at the school, including textbooks and staff development, were used in their classrooms. These sentiments were expressed differently for each participant, but none of them were expressed in a positive manner. The positive feelings of success that flowed from the study in the final interview highlighted this fact.

**Textbooks.** Traditional textbooks, not highly regarded as an adequate resource by any of the three participants, offered very little in the way of availability or even usability for these teachers. None of the participants had enough textbooks for each student to be
issued his/her own book. As such, textbooks stayed unissued in the classroom and were used only while the students were in class. Even then, both Annette and Kelly expressed that they used them rarely due to their concerns with the high level at which these textbooks were written. Here Annette shared her frustration with the textbook that was adopted by the county for her Advanced Mathematical Decision Making class:

So the students down here, because they are missing so many of the foundational skills, the reading skills are really, really poor, and that textbook is just horrible for them. It’s not really a textbook; the workbook is horrible for them because it doesn’t give them any examples. It doesn’t give them any foundational information. It’s just really a series of very large cooperative problem-solving types of things. And each, they call it a student activities sheet. So each student activities sheet is generally about 5 to 10 pages long and it’s really based on just kind of exploring and experiencing. The issue with the book though is that it assumes that students have the foundational skills that they need in order to be successful with it that they don’t have. (Annette, personal communication, February 24, 2012)

Annette went on to explain that she gave up on that first textbook and switched to a more traditional one because it gave students opportunities to read with examples and more real-world experiences. Still, she did not use any textbook in any of my three observations. For direct instruction, Annette stated that she relied mostly on her own notes derived from the curricular pacing chart, which she presented to the students in a PowerPoint format.

Deborah’s restrictions regarding textbooks were more related to availability over usability. Her classes only possessed one class set of textbooks, so all of the textbook reading and work for her business courses had to be completed in class. She stated, “I could give computer-based assignments, but I cannot assumed that every child has a computer at home. So I’m kind of stuck between a rock and a hard place” (Deborah, personal communication, February 2,
Therefore, most of the direct instruction consisted of Deborah lecturing and students taking notes. Deborah felt reluctant to give homework based on note taking due to the wide range of skills she saw in her classroom. She stated that she used the textbook “about twice a week” (Deborah, personal communication, February 22, 2012) in the Legal Environment of Business class. The other days, she said, included projects and discussions or group activities.

The tenth grade English/Language Arts (ELA) content team was charged with piloting a set of textbooks up for adoption by the county for the following year. Because the books are large and heavy and students rarely bring them to class on a daily basis, teachers asked for enough copies of the pilot text so that they could issue one to each student and still have a class set to use in the classroom. The publishing company refused. To accommodate this lack of copies, the tenth grade ELA team kept a set of the old publication of textbooks in the classroom for reading major works in class and issued the new/piloted books for the students to take and keep at home. Like Annette and Deborah, Kelly also rarely used textbooks, because she preferred to focus on what she termed as the “anchor texts” which were, in her case, paperback novels or plays the 10th grade team chose to teach that year. She did not often use shorter pieces that might also be found in a textbook unless they related directly to the themes the students discussed in the anchor texts. In the semester of the study, none of the two anchor texts—Steinbeck’s (1937) Of Mice and Men and Wilson’s (1983) Fences—were in the textbook. Moreover, the school did not have enough paperback copies for even one class set of these texts, so the 10th grade ELA teachers photocopied the
novels so that the students could each have his or her own copy for reading and annotating.

**Limited Use of Content Literacy Training.** On the issue of in-service training as it related to literacy in content areas, all three participants also expressed dissatisfaction. Annette specifically referenced the *Journal Writing* workshops that took place in the previous school year and in the beginning of the year the study took place. After the new principal was hired in January, the *Journal Writing* trainings ceased. Annette noted that she found the training, which was essentially journal writing across the curriculum, “kind of sort of beneficial” and stated that she would pick and choose some of the strategies from the *Journal Writing* program, but expressed that it was hard to fit “everything” (meaning all the curricular requirements and literacy strategies) in because the students had such low skills in reading and writing. She also briefly referenced another training that touched upon using literacy strategies but asserted that she didn’t feel like she had anything that would count as “soundly math literacy training” (Annette, personal communication, February 24th, 2012).

Deborah had more positive feelings about in-service training surrounding literacy, referencing one two-day literacy course that she said was “really good,” where she learned the jigsaw strategy (see Glossary). Deborah said that she used this strategy her classroom when she found an article that fit her curriculum. She claimed that she enjoyed the strategy because it created a situation where students had to rely on one another and interact with each other. She stated:

So having done something else previously, I was an accountant previously, and then coming into education, before there was just a whole
A lot of interaction where surely we wouldn't be separated as a learner, because learning has to be interactive. But the more I learn about education, and the more I know I've learned that [education is] pretty separate. So I rely a lot on things like jigsaw to get my kids interacting. Because I try to do a lot of that, try to promote the social aspect of it, is as though when the students leave my classes, they've bonded, they've developed a bond. I've found that students who take my classes have really strong friendships with each other. They were in the same class. So they might've come in on the first day not having a friend, I see them walking the hall years later and they are still friends with that person. So, I really enjoy that. (Deborah, personal communication, April 30, 2012)

Deborah internalized a strong sociocultural sense of responsibility to prepare her students to work and learn collaboratively. Similar to sociocultural theory and learning, Deborah’s above quote shows that she uses the communication required by literacy strategies to support social relationships, and perhaps vice versa.

On the Journal Writing strategy training, which was described in the “setting” section, Deborah, like Annette, admitted that she had difficulty using it in her classroom. She said:

Even when our other professional development came, I didn’t get all of that, you know, Journal Writing stuff…. of course I couldn’t say I didn’t get it because we had to do it, but I’m just being honest (Deborah, personal communication, April 30, 2012)

Deborah’s statements suggest that the previous professional development surrounding literacy is not meeting her needs. The fact that she did not feel she could ask for further clarification on its application in her specific classroom speaks to the tension caused when curricular programs are forced upon teachers rather than collaboratively generated between professionals (Darling-Hammond, et al, 2009).
Regarding inservice, Kelly reported that she had attended numerous small literacy workshops, but nothing resonated with her. Further, they usually seemed to be aimed at elementary level teachers. She also noted that the Journal Writing journal writing exercises did not always work well in her classroom. She stopped and started with them often, only using them when she found them “conducive to whatever we are learning in the classroom” (Kelly, personal communication, February 22, 2012).

As a literacy specialist, this data taught me the importance of honoring where the teachers come from with regards to their disposition toward teaching literacy. All three of these teachers were eager to incorporate literacy strategies into their teaching of content, and were eager for ways to do this that worked.

**Participants’ Appreciation for Increased Engagement**

The fourth finding in this study is that teachers noticed an increase in social interaction in all three classrooms when the literacy strategies were the focus of teaching and learning. In their debriefings and interviews, as well, all three participants indicated that they appreciated the students’ engagement and conversations spurred by the interactive nature of the literacy strategies.

Annette stated that in the past, she noticed a higher level of engagement from the students when she was able to incorporate literacy strategies. She said, “I've found that often times when I do incorporate other types of things other than just the notes and the homework it does bring a little spark to their eyes” (Annette, personal communication, February 2, 2012). This increased engagement became one of the reasons she was interested in participating in the study. Annette herself also showed an increased excitement during one of the observations while the students were completing a warm up
activity, which in Annette’s class meant a problem or question that pertained to the lesson from the day before, and was completed by students at the beginning of class. While the students were working on this warm up, Annette came over to where I was sitting and began telling me her experience with a different class where she was also using the concept circles strategy. As she was discussing the terms with an earlier class, she told me that she realized, “I’m teaching! This is a teaching moment!” with a large smile and contagious energy.

While Deborah initially described her classroom as one that was already very active in discussions and activities, she also noted an increase in the quality of interaction among her students during the days that she used literacy strategies. She said that the “dialoguing was good. Because they usually don’t talk to everyone [else] in the class, so the brainstorming was good…. um I think it was a good activity” (Deborah, personal communication, March 5, 2012) during the first observation. In her second debriefing, Deborah’s reaction was jubilant. In this second observation, Deborah used the Concept Brainstorming Strategy (Allen, 2007, see Glossary) to introduce a new chapter from the textbook. She began the debriefing like this:

All right, well, first of all thank you. Because even my students were like, "I enjoyed this class today! I really enjoyed this class!" I usually have them take notes, but I've never put such great emphasis on the vocabulary. And it’s all right here, and it's wonderful, I mean, I hate that you hadn't told me about this before (laughs)! I mean I just hate that I didn't know about it. Because of these different strategies, I feel like next year, I will be so much of a better teacher. (Deborah, personal communication, April 30, 2012)

Indeed, during the second observation, I noted in my researcher journal that “all of the students interacted with each other and with the teacher in some
way during the introduction of the chapter” and that the “class conversation was lively and involved.” I myself even made a few comments and asked questions during the class, as did a substitute teacher who happened to be in the classroom for that period. The energy stayed high for the rest of the class period; students’ hands were raised regularly and they called out answers eagerly and confidently. The energy of the students seemed to feed Deborah, as she moved around the classroom regularly, and smiled confidently as she encouraged and asked more questions. In the final interview, Deborah mentioned that the students thanked her for the content brainstorming activity because it gave them the opportunity to write, put things in their own words, and reflect. She said that they particularly appreciated the fact that it gave them an opportunity to literally draw out their thoughts.

During my third debriefing session with Deborah, after she had used an anticipation guide to introduce a chapter on insurance, she expressed disappointment in the level of engagement in the students as compared to the two previous strategies she tried. She said, “so I’m wondering if I did a thorough job, maybe I should not have put the questions on there. . . . I guess I was looking for more excitement, like the one we had before. It came eventually the next day though, after we looked at the chapter a little more” (Deborah, personal communication, May 13, 2012).

In her first debriefing, Kelly also mentioned hearing normally very shy or quiet students join in the small group conversation during the Chalk Talk brainstorming strategy. She said:
I saw more peoples’ personalities because of that, I think that they saw a
different side of the people they were with too, because the people that
normally don’t speak were speaking and saying, I saw people go like oh,
he’s smart (Kelly, personal communication, March 22, 2012).

And, indeed, while Kelly’s class was active and talkative normally, I too noticed a
lot of focused discussion between students who were put in groups. Students were
huddled close together around the large pieces of butcher paper, pointing at earlier
comments, agreeing on a comment to add, and correcting each other as they saw
fit. When Kelly cued them to move to the next piece of butcher paper and
therefore the next topic, they moved eagerly and seemed to reengage immediately
in the next task. In the third observation, as well, when the students were using the
Chalk Talk strategy as a review for their semester exam, the students were eager
to correct inaccurate responses and discuss these changes with each other. They
also consulted Kelly so that she could clarify some definitions of elements of
literature, such as anaphora or symbolism.

Kelly also mentioned that she noticed a higher level of accountability in
her students while implementing these literacy strategies as compared to the ones
she usually assigned. Previous to this study, Kelly assigned questions for the
students to answer while reading and chapter, and thought the students copied
from each other. After our collaboration on the chalk talk strategy, she stated in
the final group interview that the students could not “fake their way through an
activity like this” Chalk Talk strategy, but that they “don’t mind turning in
classwork or homework that’s total crap” (Kelly, personal communication, May
15, 2012). Kelly’s reflections and comments above indicate her understanding
that student interactions that focus on learning, stimulated student discussion, and
incorporated writing in some fashion bring a welcome change of pace to the
typical classroom routine.

These examples can be explained through the sociocultural theoretical framework
used in this dissertation. Through the Chalk Talk activity of receiving teacher guidance
and then gradually working on their own to brainstorm the significance of each topic, the
teachers gave increasing independence to the students (Englert, Mariage, & Dunmore,
2006). The teacher was scaffolding the students from learning from her and the book to
learning from each other and through their own writing and therefore exemplifying one
aspect of sociocultural theory.

After spending a semester working on this action research study with Annette,
Deborah, and Kelly, the way content area teachers collaborate with me, and how they
engage students in literacy strategies for content learning is clear. Collaboration
happened when the participants shared hopes and concerns for a new literacy strategy,
and together we chose a strategy to fit these hopes. We also collaborated in the
debriefings when reflecting on the observation. This collaboration impacted their
dispositions toward literacy in general and literacy in the content area specifically. As
these three experienced teachers demonstrated, a non-intimidating, non-evaluative
collaboration has implications for what could be most beneficial for staff development in
content literacy instruction. As a literacy specialist, I have gained a deeper understanding
of how content area teachers view using literacy instruction for the purpose of
understanding content in their classrooms, and that a collaborative, on-going, embedded
approach to learning, refining, and further implementing these strategies is important in
changing the disposition of teachers and how they implement these strategies in the
classroom. In the final chapter, I discuss implications for how these findings can inform staff development in a secondary setting.
CHAPTER 5
DISCUSSION

The goal of this study was to explore (a) how content area teachers define literacy, in general, and literacy in their content area specifically, (b) how they engage students in learning content through literacy strategies, and (c) if there is a benefit when a literacy specialist and a content area teacher collaborate to design literacy instruction.

The questions from this study were: (1) How do content area teachers define and perceive literacy and specifically define literacy in their content area? (2) How do teachers use literacy strategies they learn in professional development sessions? (3) Is there a benefit when a literacy specialist and a content area teacher collaborate to design literacy instruction? In this chapter, I further analyze findings that were detailed in Chapter 4 and discuss the findings in relation to current literature. This chapter also offers implications for further research, as well as policy and teacher professional development.

Three prevalent themes I abstracted from the data address (a) teachers’ definitions of literacy did not change over the course of the study, (b) their disposition toward use of strategies did change over the course of the study, (c) collaborative, embedded professional development between the content area teacher and literacy specialist was an important factor in changing disposition, and (d) participants indicated appreciation of increased engagement. Each of these themes emerged during analysis of the action research process and was emphasized by all three teachers in the final group interview. Sociocultural theory helps to explain these themes in that the sociocultural perspective explores the social aspect of learning, the experiences, beliefs, and backgrounds of the participants; and the use of language and power. The theory focuses on the interplay of
historical, social and cultural elements of a person’s experience (Woolfolk, 1999), and the individual participates in activities that require both communicative and cognitive functions. As individuals gradually increase independence in these activities, the use of these functions is what nurtures and “scaffolds” individuals into forming their distinct selves. As it relates to literacy, sociocultural theorists view literacy as a social practice, indicating learning through interaction with others, instead of a cognitive process that develops only within the individual’s brain (Gee, 1990; Lankshear, 1994).

As sociocultural theory relates to this study, the teaching of content literacy became a social practice for the participants through the use of the literacy strategies. The collaboration between the participants and me became a social practice for all of us. Additionally, this theory helped me understand how cultural factors informed how each participant viewed literacy. Each participant used her definition of and past experiences with literacy as a springboard to discuss her hopes and concerns for her students. The sociocultural lens provided a way for me to understand what was cultural about the participants’ learning. Sociocultural theory also helped me understand the participants’ definitions and instructional practices as part of their “toolkit that is socially and culturally shaped” (Lewis, Enciso, & Moje, 2007) as they participated in this study. The conclusions drawn from this inquiry are as follows:

1. Teachers’ dispositions toward using literacy strategies in the content area can change even when they hold solid, informed definitions of literacy.

2. Collaborative, embedded, supportive professional development is important in helping teachers help students become more literate.

3. The role of action research in schools: Teachers as researchers
The following discussion addresses each conclusion in the context of the research question that it answers.

**Teachers’ Dispositions toward Using Literacy Strategies**

The first conclusion of this study is that content area teachers hold static definitions of literacy but can change their dispositions toward using literacy strategies in the content area. Both Deborah and Annette realized that teaching the students to read, write, and talk about key vocabulary was a strong foundation of teaching content. Kelly realized that she did indeed have literacy strategy knowledge. All three teachers agreed that literacy strategy instruction should be the base of their teaching, and all three expressed desire for more strategies.

Content area teachers have the opportunity to develop students’ literacy skills because they see students on a frequent, regular basis and can teach content relevant to reading and writing within the context of a unit of study, thus promoting engagement and learning (Irvin, J., Meltzer, J., & Dukes, M., 2007). In the content areas, teachers and students study literacy processes to make meaning of a particular discipline rather than studying the literacy practices themselves. All three of these teachers used literacy strategies to either introduce (Annette’s use of concept circles and Deborah’s use of the anticipation guide) or help their students gain a deeper understanding of a particular concept (Kelly’s use of chalk talk)—they did not simply study the strategy itself. In these contexts, literacy was used more as a tool for sharing knowledge, for constructing a deeper understanding, and for making meaning of a concept or idea. This conclusion ties with current literature that shows an evolution in teachers’ beliefs regarding literacy strategies in the content area, as well as content area teachers’ responsibility to use
literacy to enhance content learning. As stated in the literature review of this study, teachers historically resisted a sense of responsibility to incorporate literacy in their content teaching, but more recent research indicates that they do indeed have a sense of responsibility to incorporate literacy, but do not feel trained or confident enough to do so (Cantrell & Hughes, 2008; Thibodeau, 2008; Mallette, Henk, Waggoner, & DeLaney, 2005).

The findings in this study support this evolution in thinking by content area teachers. Each participant showed a desire to integrate literacy strategies into more of her lessons, and reported gaining confidence regarding her ability to do so. Deborah explicitly said, “I think you should do this with the faculty” (Deborah, personal communication, May 15, 2012), and Kelly added that this type of on-going training could be “organized by department” (Kelly, personal communication, May 15, 2012). Annette reported that this type of training “takes the pain out of it for me. I can do this” (Annette, personal communication, May 15, 2012).

In addition, all three teachers reported an even deeper sense of responsibility with regards to integrating literacy activities into their curriculum. They reported a deeper understanding as to how these literacy activities can become the foundation of their teaching and of the students’ learning, and a further desire to help their students become more literate—to learn through language (Halliday, 1980). Kelly explains, “You know these think you think these things are bells and whistles that we add to our teaching if we have the time and resources. But sometimes it really comes down to, you know, this is the basic part of our teaching (Kelly, personal communication, May 15, 2012). Deborah responded, “That's exactly what I found it to be. The base. Because what I was trying to
avoid or not do, what I thought was nonessential, when I did it, it was like, the gateway. It opened up the door to the rest of [the content]” (Deborah personal communication, May 15, 2012). As Annette nodded in agreement, she stated, “and what's even funnier is what I always tell my kids as long as you get the foundation, you have something to build on. But I never included the vocabulary in the foundation!” (Annette, personal communication, May 15, 2012.)

The participants have refined their evaluation of the foundation of instruction to include a literacy focus. These clear shifts in disposition toward using strategies show that with high quality, collaborative, supportive work in the area of learning content through literacy, these dispositions can and will change.

**Collaborative, Embedded, Supportive Professional Development**

Mandates from school-level administrators for instructional strategies that lack support for the needs of teachers create tension for teachers. Addressing the needs of students according to their literacy and skill level is complex, and teachers frequently feel unprepared and unsupported. Yet, they are expected to do so. Kelly was indeed trained on literacy practices in her master’s degree program, but her knowledge did not transfer into classroom practice. She stated feeling “overwhelmed” and felt “set up for failure” (Kelly, personal communication, February 22, 2012) given her assignment of very large student numbers in all of her classes that were held in one of the smallest classrooms in the building. The fact that she had received training on particular literacy strategies was not triggered in her memory until the final interview. Her feelings of being overwhelmed clouded her optimism for integrating anything beyond traditional teaching (such as lecture and chapter questions) both before and during her study. Annette stated that she had never received any literacy training that was “soundly” related to math (Annette,
personal communication, March 27, 2012). Deborah mentioned using only one literacy strategy, the jigsaw (see Glossary) prior to this study. None of the teachers consistently used the Journal Writing strategies even though they were mandated by the previous administration. This conclusion fits with current research that argues that teachers lack confidence and do not feel prepared to teach content literacy strategies (International Reading Association, 2012; Thibodeau, 2008).

All three teachers expressed serious concerns about students’ skill levels as they related to their ability to utilize literacy strategies as a means of accessing content. This concern initially led the teachers to feel ill-equipped to work with literacy strategies and was often used as a reason for heavy lecturing. After completing three cycles of action research with a literacy specialist, however, all three teachers expressed feeling more confident toward their use of literacy strategies to teach content. Deborah expressed this confidence in just her second debriefing when she said “It's wonderful! I mean, I hate that you hadn't told me about this before...I mean I just hate that I didn't know about it. These different strategies, I feel like next year, I will be such a better teacher (Deborah, personal communication, April 30, 2012). Annette also stated that this study took “the pain out of it for me, and I appreciate that. I can do that” (Annette, personal communication, May 16, 2012). In the final group interview, Kelly said that she had begun rethinking how she would assess student work in the future. She said, “Maybe I need to focus more on [a literacy]base and less on homework that they copy anyway. Something real. You know, more authentic. It's so much more authentic” (Kelly, personal communication, May 16, 2012). This conclusion ties in with other current literature that indicates that the pressures to “cover” content can also hinder content area teachers’ willingness to forsake traditional
methods of instruction (Cantrell and Hughes, 2008; Reed, 2009; Schoenbach, Greenleaf & Hale, 2010; Thibodeau, 2008). The difference between this type of professional development and the sort of mandated professional development that preceded this study is the personal connection, the individualized planning and support. Rather than put teachers in a room and tell them what to do, I went to their classrooms and discussed options with them. This conclusion also speaks to the need for embedded and ongoing support for teachers to help them change their disposition towards integrating literacy strategies in the classroom. What makes these findings different from what other recent research is that the participants were three experienced teachers who desired better for their students, and who actively sought improvements. That said, the dispositional perspectives of these three participants did very. Deborah “jumped on board” immediately, and was eager to try different strategies after the first worked so well. Kelly and Annette experienced a more gradual acceptance, trying one strategy for all three observations and tweaking it slightly each time. All three indicated interest in continued use of literacy strategies in their classroom as well. This conclusion shows need for a further examination of teacher study groups to be designed in a different way.

**Role of Action Research in Schools**

“Being told is the opposite of finding out” (Britton, 1975). While this is an oft-used quote when discussing how students learn, it is an important one to consider when thinking about teachers, action research and professional development. Through teacher action research that is embedded in schools, teachers and literacy specialists can extend Britton’s sentiment from student empowerment to teacher empowerment. This final conclusion is perhaps one of the most salient findings of this study. While they tried to
find ways to comply with the mandated literacy instruction, all three teachers rarely used the mandated Journal Writing professional development and were not comfortable with its use in their classrooms. Annette claimed that it didn’t work well with math content. Deborah explained that she never really understood it and felt uncomfortable asking for clarity. Kelly used it only when it fit well with her content. This minimal use of the Journal Writing strategies did not mean, however, that the participants were resistant to literacy strategies in their classrooms at all. When I asked about their hopes and concerns as an early step in the action research process, collaborated with them in regards to their expertise, and gave them choices to integrate literacy strategies into the curriculum as they saw best, all three teachers placed enormous value on the use of these strategies in their classroom. They also saw even deeper connections and relevance for students’ access to content through reading, writing, speaking, listening and viewing. All three teachers come from different content areas each cited that because the project was not intimidating, provided relevant choices that were easy to integrate in their lessons, and gave ongoing support, she benefitted from participating in this study. This conclusion shows that action research is a necessary component of professional development. The teacher should play a more prominent role as researcher in schools other than at the university level.

Additionally, I changed alongside the participants during this study. As a literacy specialist, I have a far deeper understanding of the atmosphere in these particular classrooms, which has helped me better tailor strategies for other teachers who have now become interested in learning more about literacy in the content area. I have learned to listen even more than I was previously, and am able to better empathize with what
teachers are looking for with regards to instruction. I have also learned to offer a range of choices to teachers who seek support, as a strategy they choose may not be one that I would have originally thought would be the best fit. Most importantly, I learned that teachers are indeed passionate about improving their teaching skills and appreciate individualized support. School administration and faculty need to continue to create an environment that welcomes teachers to explore another set of practices that might mean they do this in small professional development groups. This means that school communities (teachers, administration, students, and parents) need to bring back to light the intellectual qualities of teachers, particularly at the secondary level. These intellectual qualities undoubtedly connect to why these individuals became secondary teachers in the first place. A higher emphasis on the intelligence and inquiry-based aspects of teaching would raise the level of refinement and improvement of instruction.

This conclusion supports other recent research that ongoing collaborative professional development or coaching along with school-wide initiatives that address the perceived needs of teachers with regards to literacy strategies is helpful in empowering content area teachers to integrate literacy strategies for content learning (Buehl 2011; Cantrell & Hughes, 2008; Darling-Hammond, et. al, 2009; Draper et. al., 2010; International Reading Association, 2012; Reed, 2009).

Through action research, the participants in this study experienced increased knowledge about how to use literacy strategies within their content area in many ways. Content area teachers need ongoing support in order to learn more about and implement literacy best practices through professional development and opportunities to collaboratively plan and share literacy instructional strategies. When teachers receive on-
going support, they play an essential role in addressing and supporting literacy needs of adolescents. This action research study helped the participants and me make a difference in the practice of literacy instruction, connect to their lives as teachers, and improve literacy instruction in the content areas. This type of research is so productive because it is already a part of what teachers do (choose, plan, reflect, refine) naturally. Incorporating action research into schools would formalize the process and improve the quality of teachers and teaching. This study provided a framework for more formal inquiry into the practice of content area literacy instruction. Further, this study showed that teachers do understand that literacy is essential to navigate the world, and showed their desire to teach their students through thinking and inquiry. With supportive and on-going action research and collaborative professional development, teachers, specialists, and scholars can and will affect the use of literacy strategies in classrooms by changing teachers’ dispositions about using them.

Limitations

Teacher and literacy specialist action research is a beneficial method for professional development in education. The action research cycle (establishing hopes and concerns, collaborate and choose a new practice, implement and reflect on practice, and tweak existing or completely change practice for second cycle) allows for highly experienced teachers to freshen up their repertoires of strategies. Action research also refreshes teachers’ perspective on literacy, students, and learning, in general. There are also limitations to action research as it typically involves a small number of participants. Time and financial restraints did not allow for a longer study or one that included more participants, or even participants in different schools. The small number of participants is
part of what makes this study valuable because it allows for deep exploration and understanding of what these teachers needed with regards to literacy strategy professional development. Understanding teachers’ dispositions at a deeper level will allow specialists and others who work with teachers to better support them, which in turn creates more effective professional development (Freeman, 1998). Incorporating action research with this small number of participants also allows for this deeper level of collaboration, refinement, and reflection that a larger study would not allow.

**Implications for Research, Policy, and Teaching**

**Research: Professional Development.** A need exists for further research to be conducted on how system and school-level administrators choose professional development, especially when granted money from government funding (such as Title 1) or other large grants. Too often, the recipients of such large sums of money are inundated by companies that offer flashy and enticing models of professional development. As perceived by the participants in this study, these companies lack an understanding of the individual school’s needs and attempt to impose a general model on the faculty, who, in turn, become compliant in the appearance that they are implementing the strategies but do not believe that the model works for them. Content area teachers have specialized knowledge of the content skills that are required to access content within their field, and through collaboration with literacy specialists they can learn about how literacy supports the learning of content. Mandated forms of literacy instruction through one-size-fits-all strategies without ongoing support creates tension for teachers, which, in turn, affects instruction. School and system-level administrators need to think more deeply about choosing a large scale professional development model that offers a “one size fits all”
solution to literacy needs in a school, especially those who do not have an in-house reading specialist. Future research is needed that explores the importance of literacy specialists in schools, and how they can be instrumental in presenting supportive professional development. The participants in this study were experienced teachers who had initial buy-in when presented with this opportunity, and their work with a literacy specialist changed their disposition toward using strategies to support content instruction. An administration that allowed time for this collaboration was also a key factor. The participants shared their experience and learning with other teachers in the school, and there are now newly interested teachers with whom I am working this year. Below is a model I have created regarding the significance of situated professional development, especially as informed by my findings.

Figure 8. Situated Professional Development
From my research, I have developed a model of situated professional development which has several components: literacy specialist, supportive administration, initial group of interested teachers, and newly interested teachers. Each of these components comprises what I have found to be strong and critical professional development. Situated professional development takes the involvement and collaboration among all of those involved. The literacy specialist must be knowledgeable about content area literacy, and have at her disposal a number of strategies that will support content area literacy. Administrators must support this model by scheduling flexibility into specialist’s day so that meetings with teachers can take place. The specialist then works with teachers who are initially interested in improving their practice. In the case of this study, the principal organized my teaching schedule so that I had half the work day for coaching duties. The initially interested teachers were those who previously approached me for strategies or further advice on working with literacy in their classrooms, and I asked them to participate.

At all points during the situated professional development model, the initial group of teachers shares their experience and learning with colleagues. This in turn leads to teachers who now become newly interested, and wish to participate. Cyclical in nature, the model continues to grow until a large number of teachers in that school participate. In the case of this study, the participants shared their experiences with teachers in other professional meetings. Often times the subject came up when a teacher would express concerns about the students’ skills or about integrating new strategies in their classroom, and the participants would share the study we conducted together. In the year after the study, for example, three biology teachers, a music teacher, and a world history teacher
have asked me for strategies due to the referrals by the original three teachers in this study. Now that there are more teachers who will be involved, it is essential that administrators continually support the other components in model in the form of allotted time for collaboration between literacy coach and teacher.

To support teachers most effectively, researchers also need to examine the length of time and consistency between implementation of strategies and how strategy use impacts student achievement in order to justify the need of time for collaboration and in-house instructional support by a literacy specialist.

**Policy: A Team Approach.** When delivered as sustained, job-embedded literacy coaching, collaboration with a literacy coach increases the likelihood that teachers will use literacy strategies in practice (Darling-Hammond & McLaughland, 1995; Garet, Porter, Desimone, Birman, & Yoon, 2001; Joyce & Showers, 1996; Neufeld & Roper, 2003). Indeed, all three participants in the study expressed a desire to continue using literacy strategies in their classroom, and noted an increased understanding in the importance of their use. The findings in this study suggest that a team approach to teaching and learning in the content is important in affecting teacher’s disposition toward incorporating literacy strategies into the content area classroom. This conclusion further supports Cantrell’s and Hughes’s (2008) findings in which the literacy coaches’ collaborative roles are essential in empowering content area teachers with a sense of efficacy and expertise in incorporating literacy into their content area. Literacy coaches should be a part of the faculty in every school, and there needs to be consistent funding in place for this that is not in constant danger of being cut.
Along with the need for a literacy coach in every school, this study also emphasizes the need for policy to be set forth that allows teachers the time and resources to collaborate in a focused and productive manner (National Center for Literacy Education 2012). American teachers have significantly less time to plan and learn together when compared to other nations that outperform them on international assessments (Darling-Hammond, et. al, 2009; National Council of Teachers of English, 2011). Administrators need to put in place schedules and allowances for teachers and literacy coaches to plan together. In addition to confirming this earlier work, this study shows the need for policy that focus on the role of teachers as researchers in their classrooms. Secondary teachers typically have less time and inclination compared to teachers of younger students to work on collaborative teams, as noticed by participant Deborah, who compared collaborative time to her work in the accounting field prior to becoming a teacher. This finding is also supported by a MetLife survey (2011) that found that U.S. teachers spend an average of 93% of their workday isolated from their colleagues. Other current research indeed shows that if teachers are given the support needed to work collaboratively, powerful results can occur (Darling-Hammond, 2009; Fullan, 1996; Reed, 2009; Thibodeau, 2008). When teachers are given the time to focus on their goals collectively, Fullan (2011) states that “working together generates commitment” (p.72). Schools and school systems need to create this time so that teachers can best serve students to allow them to become literate citizens who can navigate the world around them.

**Teaching: Literacy strategies in every classroom for deeper meaning.** Content area teachers need supportive and non-evaluative ways to continue job-embedded
professional development on literacy in their content areas. Literacy specialists support teachers as the teachers practice and refine their use of literacy strategies to help students gain a deeper meaning of content (Draper et al., 2010; International Reading Association, 2012; Moje, 2008). This emphasis, reflection, and refinement also allows for teachers to go “beyond bells and whistles” and include literacy instruction as a foundation for their existing instruction.

Trust is also an important factor in collaboration and professional development. Trust between the content area teacher and the literacy specialist (the researcher) was a key factor in the relationship that I had with these participants. Our work in the year preceding this study grounded and garnered trust between and among us. Because of this trust, I found that teachers’ willingness to try new practices was seamless. Leana (2011) also supports this finding, stating that this trust allows teachers to learn from mistakes, take risks, and share these actions so that others can learn. Trust between content teachers and literacy specialists, along with time for focused reflection and collaborative planning, will encourage teachers to learn new processes and practices for teaching literacy in their content area specifically (Thibodeau, 2008). The work that comes out of this trusting partnership will also allow for the implementation of literacy strategies in every classroom as teachers become “learners of their own teaching” a trait that McKinsey and Co. (Mourshed, Chijoke, & Barber, 2010) found in common among schools that have demonstrated improvement.

Teachers as the experts in their content and classroom. Teachers need to be valued for their expertise and knowledge of their classroom environment. Thus, administrators need to allow teachers, in collaboration with literacy coaches, to choose
literacy strategies that they believe will work best in their classroom, rather than mandate strategies that may not fit their content or students. An action research method would serve this environment well. Because action research is specific to a school, a teacher, or a classroom, it allows researchers to focus on the specific needs for improvement (Calhoun, 2002). The teacher and a collaborative colleague (such as a literacy specialist with a strong background in content area literacy) or group (such as a literacy specialist and other teachers of the same content) identify hopes and concerns for upcoming instruction, choose and implement a practice, and then reflect on that practice in a collaborative and focused manner. In this way, teachers and literacy specialists foster effective reflection and ongoing refinement.

**Epilogue**

It is essential for content area teachers to continue to learn. Literacy is essential to navigate the world. These three experienced teachers fully understood that need with regards to literacy in their content area. I found them eager for continued support in their professional learning. As the school year following this study begins, all three participants have shared their intentions to use literacy strategies in their content teaching, and have requested more strategies to choose from. A science teacher has also requested some strategies to use with her ninth grade classes. Additionally, the principal of MHS has now asked me to work with the twelve new teachers in the building and support them in literacy instruction. I look forward to developing relationships with them and furthering an ongoing, collaborative professional development culture at MHS. This study furthers the field of literacy, and specifically literacy in the secondary content area, by offering a deeper understanding of the perceptions and definitions of literacy by
content area teachers, as well as practices for professional development and content area teacher support. The results of this study should also encourage school and school system administrators to create time for teachers to best serve students by teaching them to become literate citizens who can navigate the world around them.
Reference


International Reading Association. (2006). *Standards for middle and high school literacy coaches.* Newark, DE.


RAND (2002). Reading for understanding: Toward an R & D program in reading comprehension. RAND Education.


APPENDIXES

APPENDIX A

Protocol Initial Interview Questions

Conducted before lesson planning. (Week 1 of study)
First, let me thank you for being willing to participate in this study. I’ll be researching the relationship between content area teachers, their understanding of literacy, and the strategies they use to support their students’ learning of content. After this initial interview, we’ll discuss and collaborate on your next instructional unit, choosing 3 or 4 literacy strategies to implement and support your students’ learning of content. I will observe and discuss with you your thoughts on the implications of those strategies. We’ll then debrief, evaluate, and fine tune strategies to use in the next unit, and so on for the rest of the semester.

So to begin,
1. Can you tell me about yourself as a teacher?
2. How would you describe your teaching?
   a. What does a typical day look like in your classroom?
   b. What do your class work or homework assignments look like?
3. Do you use the textbook in your classroom? If so, how? If not, why?
   a. How would you help a struggling student read it?
   b. What kinds of assignments come from it?
4. How do you use the lesson plans in your classroom?
   a. Do you plan with a team or on your own? Why is that?
   b. Are you required to incorporate literacy in your plans?
5. How do you define literacy?
   a. How do you define content area literacy, specifically?
   b. What does it mean to you to be literate in your content area?
6. How do you feel about the importance of the use of literacy in your content area?
7. Did you have any courses or professional development on literacy education?
8. What has your experience been regarding using literacy in your classroom?
   a. Have you used any strategies to engage your students in reading content material? If so, how did you feel they went?

9. How can this study best benefit you and your practice?

10. Which class would you like to work with? 1st/4th or 5th periods?

11. What are you doing with your class now?

12. What is your next unit of study?

13. How do you see literacy fitting in with these units?

Thank you!
APPENDIX B

Protocol Debriefing Questions

Conducted after implementation chosen strategies: (approximately once every 2 weeks)

1. Tell me about the strategy you just used. What was its purpose? Why was it chosen?

2. How do you think the implementation went?
   a. What went well?
   b. What didn’t?

3. What are you still concerned about? Why are you concerned?

4. What would you do differently if you were to use this strategy again? Why?

Thank you!
APPENDIX C

Protocol Final Interview Questions

Conducted after semester is complete (approximately weeks 18 weeks)

1. How did this unit differ from other units of study regarding literacy?

2. Do you feel the students benefited from this incorporation of literacy strategies?
   a. If so, how?
   b. If not, how?

3. After working together, has anything changed in your definition of literacy?
   Literacy in the content area?

4. Will the incorporation of the strategies in this semester alter how you plan and use literacy in future units? If so, in what way?

5. Did this collaboration benefit you in any way? If so, how?