"I THINK I USE THEM, BUT I'M NOT SURE WHAT EACH ONE IS CALLED": INTEGRATION OF MULTIPLE LITERACIES IN SECONDARY SOCIAL STUDIES AND SCIENCE CLASSES

by

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B.S., Kansas State University, 2007
M.S., Kansas State University, 2012

AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF PHILOSOPHY

Department of Curriculum and Instruction
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Abstract

In the past, literacy was viewed solely as the basic, functional skills of reading and writing. However, with the New London Group's (1996) proposal of multiliteracies and the more recent push for a plurality of literacies (NCTE, 2011), teachers have been urged to expand their definitions of literacy. This qualitative study explores how secondary-level social studies and science teachers perceive literacies and identifies their instructional literacies practices.

Data were collected through a pre- and post-questionnaire, three focus group sessions, classroom observations, field notes, and artifacts. This study solicited nearly one hundred secondary social studies and science teachers from three Midwestern school districts. Eight educators (four social studies and four science) participated in the study that took place in the spring of 2015. Furthermore, a generous grant from a local chapter of Phi Delta Kappa partially funded this research.

After applying initial and holistic codes to the data, nine themes emerged: conventional, progressive, hesitant/emerging, collaborate, calibrate, perform, practice, interdisciplinary, and intradisciplinary. The nine themes were further classified by how they appeared in the data: dispositional themes, behavioral themes, and bridge themes. Throughout the data analysis, contemporary genre theory guided the study (Devitt, 2004). Descriptive codes, derived from contemporary genre theory, further revealed that the situational, social, historical, and individual aspects of genre influence teachers' pedagogical practices related to multiple literacies across disciplines. Therefore, the ways in which teachers perceived multiple literacies and implemented them into classroom instruction are multifaceted and vary depending on grade level, content area, and teaching location. However, teachers' dispositions regarding literacy move beyond a traditional mindset of functional reading and writing as they engage in professional learning

opportunities and collaborate within and across disciplines and grade levels. This study provides secondary educators insight into the prominence of multiple literacies present across content areas while also revealing the teaching methods and instructional strategies that foster multiple literacies.

Keywords: contemporary genre theory, focus groups, multiple literacies, secondary social studies teachers, secondary science teachers

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Chapter 1 - Introduction

It was June of 2008—I had just concluded my first year of teaching less than three weeks ago—and I found myself back in one of the area middle schools, seated at a large, round, cafeteria table and surrounded by a few hundred other secondary teachers from various content areas. It was my school district's inaugural "Summer Literacy Academy" and the excitement of hearing speakers like Jeffrey Wilhelm and Ruth Culham, combined with the promise of free Scholastic books and a payment voucher, lured me away from my highly anticipated summer book pile and brought me back to the world of education and the professional development mini-conference.

Following the Keynote address, the other content teachers on my eighth grade team and I chose to attend Dr. Wilhelm's breakout session first, which centered around inquiry-based learning and essential questions—and happened to be based on our free Scholastic book, *Engaging Readers and Writers with Inquiry* (Wilhelm, 2007). As I diligently scribbled notes from the session, I also began to outline the next school year's content. Like any beginning teacher, I had struggled my first year with lesson planning, creating engaging content, contacting parents, attending meetings, and completing all the miscellaneous paperwork associated with the profession, and I relied heavily on the lesson materials my mentor had given me and turned to the textbook when I ran out of time. This year, though, I felt more confident in my ability to develop original lessons that catered better to the individual needs and interests of students in my class, as well as the content my students were learning in their other classes. As Dr. Wilhelm presented, it seemed apparent to me that pairing different forms of literacy and multiple styles of texts with essential questions would provide flexibility to my instruction, allowing me to adapt the curriculum to my students' literacy needs. According to Wilhelm, "an essential question

frames a unit of study as a problem to be solved. It should connect students' lived experiences and interests . . . to disciplinary problems in the world. And it should connect what they learn back to the real world, where they can put their new understandings to work" (Wilhelm, 2012, p. 25). To my team colleagues and me, it appeared that essential questions could be an effective transitional tool, weaving literacy and content between our classes and generating student interest in the real-life applications of our disciplines. Following this general model and adapting our practices over the years to our personal teaching styles, collaboration processes, and the needs of the adolescent learners in our classrooms, we continued teaching—virtually ignorant of the "teaching" styles of the other teams in our building and district.

Fast-forward four years to the November days before Thanksgiving 2012 where I, and thousands of other English teachers from schools across the nation, converged at the Las Vegas MGM Grand Hotel and Casino for the annual National Council of Teachers of English convention. Unlike the handful of previous instances where I had attended this conference, this year there were several noticeable differences. Not only was I no longer a practicing classroom English language arts teacher, but it was also my first time as a presenter. Because it was my first time presenting, I decided to stick to a familiar topic and host a poster session highlighting an American folklore and manifest destiny unit I had co-taught during my time teaching middle school with the social studies teacher on my team; a unit guided by an essential question created by all the team teachers. My intention was to show those attending how teachers could thread literacy skills between disciplines—combining content, which could enrich teaching and student learning. After unpacking my materials in the poster session hallway and pinning my materials onto the display board, I stood beside my poster and prepared to discuss the various handouts I had linked to a QR (quick response) code.

As I talked with teachers, writers, and publishers who stopped by during my 45-minute session block of time, I was surprised to hear how "lucky" I was that my content colleagues were "helping me teach literacy skills" and willing to collaborate in general. This repeated sentiment surprised me for several reasons. How had fellow English language arts (ELA) teachers and administrators, especially, fallen into the belief that literacy instruction was the sole responsibility of the ELA teacher? Along those same lines, why would content teachers shy away from teaching the discipline-specific literacy skills that would meet the needs of the students learning their content and instead pass that responsibility on to a teacher without their disciplinary expertise? Additionally, why would teachers opt *not* to work together with colleagues when an interdisciplinary unit could ease a teacher's workload, enrich instruction, and provide students with a more authentic learning experience? These collective experiences—the collaborative interactions with my colleagues to infuse literacy and content across our disciplines by utilizing disciplinary-specific literacy practices, as well as the realization that not all teachers function as an interdisciplinary group—guided my thinking toward the approaches secondary content teachers use when they adapt their content and their specific academic field's literacy practices to the needs of the 21st century learner.

My desire to understand the literacy approaches secondary teachers use in their specific content areas persisted throughout my graduate coursework and, during the winter of 2013-2014, I conducted a pilot study examining how one high school social studies teacher in the Midwest United States was negotiating his teaching within the literacy dictates of the Common Core State Standards (CCSS). My participant was a teacher-leader—someone who performed many outside duties (such as teaching an additional class during his planning period), held multiple leadership positions (e.g., department chair and PLC leader), and was continuing his own professional

development (through Ph.D. coursework). Through an interpretive phenomenological theoretical framework, I focused on understanding this individual's *lived experience* involving his integration of the newly mandated literacy standards and the ways in which his emotional response to the CCSS informed his instruction. Utilizing multiple in-depth and document elicited semi-structured interviews (which I recorded and later transcribed and coded), classroom observations, researcher's field notes, artifacts, and analysis of documents such as curricular materials, I extracted three themes from the data. During my time with Dylan Scott (pseudonym), I discovered that, although he felt unaffected by the CCSS implementation due to his status as an elective teacher and his district's minimal training for non-English/language arts or mathematics teachers, he was still addressing nearly all the "Grades 6-12 Literacy in the History/Social Studies, Science, and Technical Subjects" standards. Through the use of multiple literacies and interdisciplinary instruction, Mr. Scott was helping students in his classes learn strategies for reading, understanding, and interpreting primary and secondary documents; practice making connections between topics and courses; and utilize forms of writing as tools for understanding and exploring ideas. However, although Mr. Scott had begun to acknowledge that *literacy* was more than the mechanical skills of reading and writing, he lacked the terminology to describe the types of literacies utilized in his classroom.

This dissertation seeks to expand on my previous, combined experiences as a classroom teacher and conference presenter, and further the work begun with Mr. Scott. Finally, I provide an exploration of how secondary-level social studies and science teachers perceive literacies while examining their instructional literacies practices and proposing a common terminology with which to discuss the types of literacies practices occurring in non-ELA secondary classrooms.

Overview of the Issues

This section will provide a brief overview of the issues of multiple literacies including new literacies, multiliteracies, content area literacy, disciplinary literacy, and critical literacy, as well as adolescent literacy as a whole.

Multiple Literacies

In today's constantly evolving world, there are multiple forms of literacy students must navigate proficiently so they are prepared to participate in the discourses of their community, of their future profession, and of society as a whole. Although the term *literacy* may appear straightforward on the surface, it is an ambiguous term that implies a wide range of abilities (Kaestle, Damon-Moore, Stedman, Tinsley, & Trollinger, Jr., 1991) and can have a different meaning or significance depending on where in the world you are. While the most common definition of literacy refers to the functional skills of reading and writing, Pattison (1982) posited that "literacy is something bigger and better than mechanical skill in reading and writing" (p. x). Literacy in the twenty-first century United States is actually an interconnected and multi-faceted set of practices that must vary based on the context of the participants and surroundings. According to a 2011 NCTE policy research brief:

> The plurality of literacy extends beyond the print-only world of reading and writing to new and developing technologies, along with visual, audio, gestural, spatial, or multimodal discourses. It is much more accurate, then, to adopt a perspective of plurality, to focus on literacies, recognizing the multiple values and meanings along with the ways literacies are inflected by different contexts. (p. 1)

Literacy, then, is not just one skill gained by engaging in one form of communication. Instead, literacy has become an assortment of versatile practices. By embracing the concept of *literacies*

rather than *literacy*, educators in all subject areas are better equipped to meet the needs of the contemporary student within their classrooms.

New literacies and multiliteracies. Relatively recent changes in how information is produced and consumed has opened doors to forms of communication that involve using "old" forms of literacy in new ways, using technology as a vehicle to view and create a vast array of information, and receiving and delivering content in multimodal and culturally sensitive formats. These new literacies and multiliteracies present educators with the challenge of not only engaging the students in instruction by incorporating the modern forms of literacy they already use inside and outside of school, but also equipping them with the knowledge and skills to use additional forms of literacy that may appear in the future. Cervetti, Damico, and Pearson (2007) described the delineation between new literacies and multiple literacies:

> The terms new literacies and multiple literacies are used to signify a wide range of perspectives on literacy and literacy education. What is generally common to both is that they involve an expansion of the boundaries of what counts as literacy and literate competency. In addition, both reflect an understanding of literacies as social and cultural practices continually in flux. Most of all, new literacies and multiple literacies are both attempts to reframe literacy in relation to modern ways of life. Discussions of new literacies tend to involve new technologies, while discussions of multiple literacies tend to involve many literacies and modalities beyond print literacy and a heightened awareness of culture. We find that references to the term multiple literacies are equally divided among activities that involve some form of technology (multimedia, Web-based technologies, synchronous or asynchronous communication networks—listserves,

discussion groups, or blogs) and those that emphasize other multiplicities (print, talk, image, gesture, art, or even multiple readings of texts of various sorts). (p. 379)

Therefore, both new literacies and multiliteracies broaden the term beyond the traditional reading and writing abilities. New literacies typically involve the use of new technology (including computers and handheld devices, the Internet, and various other forms of media) to help create, distribute, and consume information. Multiliteracies encompasses new literacies because multiliteracies includes using technology to promote "reading" of and "writing" about a topic, but multiliteracies are also multimodal (visual, auditory, spatial, etc.) and multidisciplinary (visual literacy, disciplinary literacy, critical literacy, financial literacy, etc.).

Content area literacy. In this section, the phrases content area literacy, content literacy, and content reading are used interchangeably. *Content literacy*, as defined by Vacca and Vacca (2005), is "the ability to use reading, writing, talking, listening, and viewing processes to learn subject matter across the curriculum" (p. xvii). Essentially, competency in content literacy requires students to combine functional literacy skills with the addition of oral, auditory, and visual abilities to meet the demands of specific disciplinary content. This requirement implies, then, that every teacher—regardless of his or her content—would need to teach students the necessary literacy skills of their content area. However, due to the weighty encumbrance of the slogan, "every teacher a teacher of reading," a phrase coined by Gray in 1937, many content area teachers turned away from reading instruction in their subjects because they preferred to be seen as disciplinary teachers, rather than reading teachers (Moje, Young, Readence, & Moore, 2000). Still today, English language arts teachers often bear the responsibility of students' literacies instruction "due to the close connection between language skills and literacy development"

(Content area literacy standards: Part 2, 2005, p. 16). Additionally, according to a 2007 policy research brief produced by the National Council of Teachers of English:

> Each academic content area poses its own literacy challenges in terms of vocabulary, concepts, and topics. Accordingly, adolescents in secondary school classes need explicit instruction in the literacies of each discipline as well as the actual content so they can become successful readers and writers in all subject areas. (p. 2)

Due to the fact that each class in which secondary students enroll has specialized, content-area terminology, as well as materials and conversations specific to the topic, non-English language arts teachers are called upon to instruct students in the literacy needs of their subject.

Disciplinary literacy. Unlike content area literacy, which focuses more on understanding how to apply general strategies across the contents, *disciplinary literacy* refers more to the academic disciplines' different discourse conventions that teach students to think like disciplinary experts (Warren, 2012). Essentially, according to Shanahan & Shanahan (2012),

> The difference is that content literacy emphasizes techniques that a novice might use to make sense of a disciplinary text (such as how to study a history book for an examination), whereas disciplinary literacy emphasizes the unique tools that the experts in a discipline use to engage in the work of that discipline. (p. 8)

Therefore, disciplinary literacy refers to the specific methods of communicating and interacting with information across academic fields and it encourages students to use the same approaches as a disciplinary expert when encountering information (Shanahan & Shanahan, 2008). Acknowledging that there are different approaches and methods for examining a text is important because, according to the disciplinary literacy framework, "each discipline has its own mode(s) of engaging with and interpreting texts as well as generating knowledge" (Park, 2013, p.

361). For example, while a scientist may read data to discover if results of an experiment are significant or reproducible, a historian would read a primary document to determine its purpose of production, its audience, and how it could relate to other documents (Stahl & Shanahan, 2004).

Critical literacy. It should be noted, however, that *critical literacy*, which emerged from Paulo Freire's (1970) work in Brazil, is often discussed as a component of multiliteracies and alongside disciplinary literacy. Critical literacy refers to the use of "technologies of print and other media of communication to analyze, critique, and transform the norms, rule systems, and practices governing the social fields of everyday life" (Luke, 2012, p. 5). When applied in a classroom setting, critical literacy provides a framework for students to view the metanarrative, or the grand story, present in the texts they read. Students commence analyzing texts—print, electronic, and nontraditional—through the lens of social, political, and cultural privilege; they begin to learn how texts and discourses work and in whose favor (Luke, 2012). In turn, students learn "what the privileged discourses are" (Moje, 2008, p. 100) and are therefore able to develop an awareness of messages of privilege that can be used in transformative ways (Hall & Piazza, 2010).

Adolescent Literacy

Partially attributed to the perceived deficiencies of United States adolescents' literacy skills on tests such as the National Assessment of Educational Progress (NAEP) and the Program for International Student Assessment (PISA), along with the transition into the 21st century, adolescent literacy has recently become a more prominent topic in both professional and political circles (Allington, 2007). According to a revised 2012 position statement developed by the International Reading Association (IRA), adolescent literacy in the 21st century is understood as

the ability of middle and high school learners to "read, write, understand and interpret, and discuss multiple texts across multiple contents" (p. 2). Unlike outdated definitions of literacy, adolescent literacy recognizes that adolescents in today's society are required to do more than simply read and write. Furthermore, the passage into early adolescence marks a point in a student's life in which he or she is making the transitional shift from *learning to read* to *reading to learn* (Chall, 1983). As students begin to learn how to read for academic purposes, they must also learn to navigate several new challenges—increasingly challenging texts, reading for different disciplines, and, more recently, digital reading (Biancarosa, 2012). Additionally, "literacies are multiple and vary according to the social contexts in which they are enacted" (Alvermann, 2007, p. 23). In terms of adolescent literacy, this is an important acknowledgement because youth today are actually considered *multiliterate* as they navigate the varied literacy needs of their world. Currently, adolescent students "have many opportunities to work with print and nonprint materials to make meaning and build relationships in their academic and social worlds" (International Reading Association, 2012, p. 2). While many educators are familiar with most academic needs of their students, it is important to recognize that these students have literacies beyond what is visible to their teachers. Adolescents also engage in "complex, high-level literacy practices at home, in after-school activities, in unofficial worlds, and on the Internet" (Skerrett & Bomer, 2011, p. 1257). Therefore, teachers should expand their familiarity with the social literacies of students who play video games, write text messages and blogs, use the Internet to look up information instantly, and read on a variety of platforms and forums. Therefore, a literacy definition for this age of students should encompass a range of situations and refer to students' ability to apply knowledge across content areas as well as their capacity to analyze and interpret a variety of texts in multiple formats.

Statement of the Problem

As the Common Core State Standards (CCSS)—with their subsidiary literacy in the contents documents—take root as the adopted standards in most states in our nation and as educators strive to meet the needs of contemporary, adolescent learners, it is critical for teachers to understand the potential of adopting a perspective of plurality surrounding literacy in regards to their discipline. Presently, the CCSS are divided into two main sections: the English language arts standards (ELA) and the mathematics standards. However, within the ELA standards is a subsidiary document titled, "Grades 6-12 Literacy in History/Social Studies, Science, and Technical Subjects." Here, the non-ELA and mathematics standards are further broken down by grade bands for reading (in history/social studies and science/technical subjects) and writing. According to the CCSS English Language Arts homepage, "Because students must learn to read, write, speak, listen, and use language effectively in a variety of content areas, the standards promote the literacy skills and concepts required for college and career readiness in multiple disciplines" (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010). These standards, then, reinforce the incorporation of literacy instruction in non-ELA disciplines and therefore contribute to the need to examine how social studies and science teachers are using and adapting the literacy practices in their secondary classrooms.

An additional problem facing secondary educators—in all contents—is a lack of common vocabulary and terminology surrounding literacy. Over 30 years ago, Pattison (1982) established that literacy was something "bigger and better than mechanical skill in reading and writing" (p. x). Then, more than a decade later, The New London Group (1996) positioned the term *multiliteracies*. And, in 2011, the National Council of Teachers of English (NCTE) continued the conversation, urging teachers to "adopt a perspective of plurality, to focus on literacies,

recognizing the multiple values and meanings along with the ways literacies are inflected by different contexts" (p. 1). However, although the definition of *literacy* has expanded over the decades, many teachers still struggle to find and use a set of common terms when discussing literacy and the instructional literacies used in their classrooms. Therefore, it is the intention of this study to also provide teachers with a shared set of labels involving literacy and literacy practices.

Research Questions

The following questions guided the research and data analysis for this study.

1. How do secondary-level social studies and science teachers perceive literacies?
2. What are secondary-level social studies and science teachers' instructional literacies practices?

Definition of Terms

The following terms have been defined in order to provide a clear understanding as they are presented in this study.

1. Instructional literacies practices: The multifaceted and culturally-shaped ways of reading, writing, speaking, thinking, and reasoning that naturally occur in a diverse range of in- and out-of-school contexts, but are taught in schools.
2. [Multiple] Literacies: Refers to the "old basics" (Kalantiz & Cope, 2012) of mechanical, functional literacy (basic competency in reading and writing) as well as new literacies, multiliteracies, content area literacy, disciplinary literacy, and critical literacy, among others.
    a. New literacies: Primarily refers to literacy skills utilizing modern technologies, but also involves using existing forms of literacy in new ways.

b. Multiliteracies: Literacy skills that "include multimodal textual practices—combining linguistic, visual, audio, gestural and spatial modes—and literacies that [are] culturally inclusive" (Mills, 2009, p. 104).
c. Content area literacy: Focuses on "strategies that are not specific to a particular discipline, but rather on general strategies that are applicable to all subject areas" (Pytash & Ciecierski, 2015, p. 15).
d. Disciplinary literacy: The specific literacy practices unique to a discipline; a "nuanced examination of the literacy practices valued by the discipline" (Pytash & Ciecierski, 2015, p. 15).
e. Critical literacy: A framework for students to examine the metanarrative present in the texts they read.
f. Adolescent literacy: Acknowledgement of the multiliterate skills students in grades 6-12 are required to implement as they *read to learn*.

3. Perceptions: An awareness or impression; a way of regarding, understanding, or interpreting a concept (e.g., literacies).
4. Science: The general content area involving the study of all of the subject's specific fields (biology, chemistry, earth and space science, physics, etc.).
5. Secondary-level: An educator teaching in grades 6-12.
6. Social studies: The content area that teaches students "the content knowledge, intellectual skills, and civic values necessary for fulfilling the duties of citizenship in a participatory democracy" (National Council of the Social Studies, n.y., "About").

Significance of the Study

This study, generously funded in part by a local Phi Delta Kappa grant, extends the body of research in the areas of multiple literacies (including new literacies, multiliteracies, content area literacy, disciplinary literacy and critical literacy) used by teachers of adolescent learners by examining the multiple literacies perceptions and instructional literacies practices of teachers who teach secondary science or social studies classes. Available literature on literacy skills incorporated into the secondary disciplinary courses focuses mostly on general content area literacy practices and there is a heavy emphasis on instructional strategies, especially in the form of graphic organizers. This study examines the practices of these teachers and their approaches to adjusting the literacy practices of their disciplines, especially with regard to potential interdisciplinary connections and the needs of their adolescent students.

Additionally, this study aims to provide secondary social studies and science teachers with a common vocabulary with which to discuss literacies. Providing professional development opportunities (including academic readings and discussions) helped teachers in this study frame their understanding and discourse regarding instructional literacies.

Methodology

This qualitative inquiry studied the perceptions of literacies and the instructional literacies practices of secondary social studies and science teachers in a small selection of secondary, public schools in the Midwest United States. To achieve methodological triangulation, "the use of multiple qualitative and/or quantitative methods to study the program" (Guion, Diehl, & McDonald, 2011, p. 2), this study explored these literacies perceptions and instructional literacies practices by collecting data from multiple sources. I administered an initial questionnaire, conducted a series of focus group interviews, collected artifacts,

documented field notes, completed classroom observations, and performed member checks of the data. During the focus groups, I also asked participants to read general and content-specific selections from the book *Adolescent Literacy in the Academic Disciplines: General Principles and Practical Strategies* by Jetton and Shanahan (2012). These pre-selected readings provided the participants background information and vocabulary in which to situate our discussion and their literacies practices.

Although I collected contextual information in the form of an initial questionnaire to participants, the primary methodology of this research hinged on the use of focus groups with secondary science and social studies teachers. Focus group methodology, which has been around since Emory Bogardus's 1926 group research, has been employed primarily with marketing research, but has more recently begun to gain popularity in the fields of health and social science as a research method (Liamputtong, 2011). For this study, I conducted a series of sixty to ninety minute focus groups with eight teachers, which allowed for an engaging—but easily facilitated—discussion (Stewart & Shamdasani, 2015). Using district and school websites to identify the names and email addresses of secondary social studies and science teachers, I invited teachers employed in three school districts within thirty miles of the research site to participate in the structured focus groups. To recruit teachers to participate in the focus group discussions, I provided Doodle poll options of near-by meeting locations, such as school libraries, teachers' classrooms, university classrooms, and local restaurants to eliminate travel time to the location. Additionally, I provided participants incentives, such as the free Jetton and Shanahan (2012) paperback, light refreshments during meetings, and partial reimbursement for their time in the form of a $15 Master Card gift card.

The focus group discussions revolved around researcher-generated discussion questions, prompts and excerpts from the professional literature provided to participants, and participants' interactions with one another. Focus groups were an appropriate methodology for this study because they allowed me to interact directly with participants, they provided data from multiple individuals at the same time, they supplied large amounts of rich data in the respondents' own words, and they provided a synergistic atmosphere for participants resulting in potentially a wider range of insight than if respondents would have been interviewed individually (Stewart & Shamdasani, 2015). However, due to the group setting, as a researcher I had to be cognizant of issues such as work place dynamics as well as the fact that one opinionated member could have dominated the conversation. This awareness led me to exercise a more prominent role as group facilitator at times.

Limitations of the Study

While this study contributed to filling a gap in the previous research by examining the multiple literacy practices employed across disciplines—"although a few researchers have begun to describe and delineate the literacy practices of different disciplines […], the work is just beginning" (Johnson, Watson, Delahunty, McSwiggen, & Smith, 2011, p. 101)—there are also limitations to the study. First, this study was limited by only including the perspectives of secondary teachers. Additional research should be conducted to examine how elementary teachers are adapting the literacy practices across all disciplines—especially since most are already employing an interdisciplinary approach. Furthermore, this study excludes the perspectives of other core disciplines, including ELA and math, as well as all elective courses and should be expanded to include contents other than social studies and science. This study also

omits reviewing if ELA teachers themselves have adopted a common vocabulary and set of labels when referring to multiple literacies.

Organization of the Study

Chapter One introduces the study and the issues of multiple literacies and adolescent literacy. The chapter includes an overview of the issues, the statement of the problem, research questions, the definition of key terms, the purpose of the study, the significance of the problem, the limitations of the study, and the organization of the study.

Chapter Two presents a review of the literature on multiple forms of literacy, including new literacies, multiliteracies, content area literacy, disciplinary literacy, and critical literacy, as well as an overview of adolescent literacy. This chapter will also include a review of the literature on focus groups as well as information regarding layers of context (situational, social, historical, and individual) through the lens of contemporary genre theory as a theoretical framework.

Chapter Three describes the methodology of the study, focusing on a description of focus group interviews and design. The role of the researcher and the procedures for data collection and data analysis are described. In addition, this chapter also elaborates on contemporary genre theory and its usefulness in offering a research agenda that allowed me to understand the perceptions and practices of the participants with regard to literacy practices and adolescent learners.

Chapter Four presents the findings of the research based on focus group audio and videotapes, interview transcripts, field notes, and artifacts. Themes revealed in the research are presented and described in this chapter.

Chapter Five seeks to understand the themes discovered within the study. The findings are summarized based on genre theory and then used to develop a set of guiding principles for the approaches secondary teachers can use to adapt the content and disciplinary literacy practices for the needs of adolescent learners.

Chapter Six addresses implications for those teaching under the Common Core literacy mandates. Recommendations are offered for future research extending beyond the secondary social studies and science classrooms to other secondary content area courses and with pre-service teachers.

Chapter 2 - Review of the Literature

Just as the issues encountered by teachers are complex and multifaceted, so are the potential areas of study for researchers of literacy integration. With the implementation of the Common Core State Standards (CCSS) in forty-three states, the District of Columbia, four territories, and the Department of Defense Education Activity (DoDEA), along with our ever-changing society and the diverse needs of adolescent students, it essential for teachers and researchers alike to seek to understand the evolving role of literacy instruction and implementation across the secondary content areas. As I searched for understanding of the ways in which secondary social studies and science teachers adapt their disciplinary literacy practices to the needs of contemporary adolescent learners, I reviewed the literature as it relates to literacy instruction across the disciplines.

This chapter is divided into three main sections. The first section explores the various definitions of literacy, in addition to the impact of literacy and literacy test scores on secondary students, as presented in the literature. This section is then broken into multiple subsections, which review literature on multiliteracies, new literacies, disciplinary literacy, content area literacy, and critical literacy. The second section provides a background on focus groups, the primary methodology within the study. The third and final section provides a theoretical framework for the study by reviewing literature that examines contemporary genre theory in relation to the layers of contexts in which genre pervades: situational, social, historical, and individual.

Literacy

Although concepts like the continuing perception of a literacy crisis have remained with us from the last century (Huot & Stroble, 2004), Western civilization is currently at a turning

point. According to Cole and Pullen (2010), "On one side of this point are the structures and forms that have upheld its institutions and systems in the past. On the other hand stands possible ways forward that address the complicated situation of the present" (p. 1). In the past, literacy and literacy instruction were confined to the functional, mechanical skills of reading and writing. Students were "asked to read a printed text and write out answers that [explained] their understanding of the text" (p. 2). These reading comprehension-style activities have long dominated literacy tests of basic skills and are congruent with didactic literacy pedagogy—"the founding approach to reading and writing from the introduction of mass, compulsory, institutionalised [sic] education in the nineteenth century" (Kalantzis and Cope, 2010, p. 63). The didactic approach, which is still widely advocated publicly and applied in schools today,

> involves learning the formal rules of what is presented as the correct way to write. It is about comprehension of what authors are really supposed to mean. It is about learning to respect the high cultural texts of the literary canon. Its syllabi tell you what is to be learned. Teachers are expected to follow the textbooks. And students have to give the right answers when it comes to the test. (p. 63)

Central to the didactic approach is the mechanical skill of learning how sounds and letters correspond as well as a grasp on communication's rules, conventions, and applications. Referred to as the "old basics" by Kalantzis & Cope (2012), this form of literacy learning "produced people who were literate in a certain sense and for a particular kind of society" (p. 3). However, "historical analyses demonstrate that both the forms and functions of literacy have been largely determined by the continuously changing social forces at work within any society and the technologies these forces often practice" (Leu, Kinzer, Coiro, Casteck, & Henry, 2013, p. 1151). These dynamic social forces *do* continue to change and, over the last two decades, "literacy has

undergone radical changes" (Huot & Stroble, 2004, p. 1). Therefore, the time has come to "extend the range of literacy pedagogy beyond alphabetical communication [;] we need to supplement traditional reading and writing skills with multimodal communications" (Kalantzis & Cope, 2012, p. 2). Literacy "is not simply a matter of correct usage" (p. 4). Instead, Pattison (1982) posits, "literacy is something bigger and better than mechanical skill in reading and writing" (p. x). Therefore, the "transition from learning 'literacy' in the traditional sense to learning 'literacies' is required by the communication demands of the twenty-first century" (Kalantzis & Cope, 2012, p. 3).

The "future" of literacy has already begun altering what we know about literacy and literacy instruction—which reinforces the ideas that there is not one grand, declarative definition of literacy and also that what is meant by literacy evolves over time (Huot & Stroble, 2004). In contrast to how Western society viewed literacy in the past, literacy in the twenty-first century United States is actually an interconnected and multi-faceted set of practices that must be varied based on the context of the participants and surroundings. According to a 2011 NCTE policy research brief,

> The plurality of literacy extends beyond the print-only world of reading and writing to new and developing technologies, along with visual, audio, gestural, spatial, or multimodal discourses. It is much more accurate, then, to adopt a perspective of plurality, to focus on literacies, recognizing the multiple values and meanings along with the ways literacies are inflected by different contexts. (p. 1)

This plurality, and the fact that what it means to be literate is always changing and evolving based on our society (Pattison, 1982; Sohn, 2004; Cole & Pullen, 2010), could be reasons why there is a relatively new dissention over the definition of literacy. Huot and Stroble (2004)

posited, “in its multiplicity, literacy and its various practices are constantly in tension with the range of centrifugal and centripetal forces that have always surrounded it” (p. 4). One practice still experiencing apprehension with regard to literacy includes the roles and variations of texts. Healy (2008) explained, “texts are no longer restricted to print technology as multimodality stretches its wings; they rather morph themselves in ways that neither have a standard format nor are bound to genre as we have thought in the past” (p. 5). What constitutes texts presently encompasses not only the traditional linguistic, printed materials that include textbooks and novels, but also online materials (that integrate graphics, pictures, and videos) as well as non-linguistic materials that students read (paintings, sculptures, musical scores, theater performances, building blueprints, etc.). According to Buehl (2009), “reading is a process that involves strategic examination of some form of information to achieve an understanding” (p. 3). When students analyze the methods, techniques, and the use of perspective in the context of the historical milieu of a Renoir painting, for example, they *are* engaging in the reading process and the painting is the text. Therefore, as Healy suggested, “let’s render as obsolete a singular attention to print literacy, and assert practices aligned to a text design model that reflects the diversity of communication and currency for lifeworlds and life changes” (p. 4).

Multiliteracies

The New London Group first positioned the term *multiliteracies* in 1996. At that time, the group of ten educators proposed a “pedagogy of multiliteracies to broaden approaches to literacy that were centered exclusively on linguistics, to include multimodal textual practices—combining linguistic, visual, audio, gestural and spatial modes—and literacies that were culturally inclusive” (Mills, 2009, p. 104). Multiliteracies acknowledge that there are not only multiple modes of representation that help shape meaning, but also that “the contextual

boundaries in which we use these modes to communicate" (Smolin & Lawless, 2010, p. 175) are expanding. Therefore, multiliteracies is an intersectional term that recognizes not only that there are more ways of communicating than the traditional reading and writing, but also that how we communicate will be different based on our social contexts—which are constantly in motion. Perhaps this is why "discussions of multiple literacies tend to involve many literacies and modalities beyond print literacy and a heightened awareness of culture" (Cervetti, Damico, & Pearson, 2006, p. 379). According to Kalantzis and Cope (2012),

> The multiliteracies approach attempts to explain what still matters in traditional approaches to reading and writing, and to supplement this with knowledge of what is new and distinctive about the ways in which people make meaning in the contemporary communications environment. (p. 1)

Multiliteracies do not ignore the role that traditional forms of reading and writing have in the classroom, but instead expand on that role by incorporating new and diverse ways we make and receive meaning. Incorporating new technologies is one approach as multiliteracies pedagogy melds traditional literacy practices with emerging literacies to expose students to a range of diverse contexts. As Cole & Pullen (2010) explained, multiliteracies "give sense to the ways in which literacy practice is colliding with new technological modes of representation and shifting heterogeneous demographics" (p. 1). Therefore, the term multiliteracies addresses not only how students make meaning (utilizing multimodal approaches, exploring a range of texts, incorporating multiple technologies, etc.) but also in what context (acknowledging our diverse—socially, culturally, and linguistically—society, recognizing literacy practices adapt depending on circumstances, etc.).

It is essential, then, that educators are preparing students to be knowledgeable consumers and producers of information who use multiple presentation formats and are able to adjust their practices for individual contexts and purposes. To visualize what this would look like, Bull and Anstey outlined characteristics of someone who is multiliterate in Figure 8.1, "Identifying and Defining a Multiliterate Pedagogy" (2010, p. 144). A multiliterate person is one who is able to:

- Understand the influence of diversity on literacy and literate practices.
- Use critical literacy practices.
- Use literacy and literate practices in socially responsible ways.
- Use literacy and literate practices in diverse contexts.
- Use literacy and literate practices as an active and informed citizen.
- Understand and use a range of texts and technologies.

New Literacies

As a component of multiliteracies, new literacies has also helped to expand the boundaries of what constitutes literacy, how literacy is taught, and what it means for the contemporary student to have literacy competency. Acknowledging that literacy practices "reflect an understanding of literacies as social and cultural practices continually in flux" (Cervetti, Damico, & Pearson, 2006, p. 379), scholars and researchers in the field of new literacies "seek to explore and understand continuities and differences between the ways people in societies like our own [produce, distribute, share, and negotiate] meanings" (Knobel & Lankshear, 2014, p. 97). Furthermore, discourse surrounding new literacies tends to focus on new technologies as well as how traditional literacies are used in new ways. Knobel and Lankshear (2014) explained, "The idea of 'new literacies' focuses on ways in which meaning-making practices are evolving under contemporary conditions that include, but are in no way

limited to, technological changes associated with the rise and proliferation of digital electronics (p. 97). Echoing descriptions of multiliteracies, "meaning making with new literacies includes reading and writing in multiple modalities (e.g., graphics, animations, video, audio narration, music, special effects, hyperlinks, search engines, power point presentations, and print) in ways that are significant within cultural groups" (Andrews, 2004 as cited in Labbo, 2007, p. 26). However, it is important that, as educators, we "recognize instances of new literacies that do not presuppose use of digital technologies and media" (Knobel & Lankshear, 2014, p. 97). Due to the relationship between new literacies and cultural practices, educators should acknowledge that new literacies may be evident in our participatory culture when students use existing forms of literacy in new ways, such as fan fiction or zines. Multiple forms of technology (including both new, digital technology and established technology revisited in new ways), then, serve as gateway tools through which to engage in literate behavior.

According to Lapp, Moss, and Rowsell (2012), "fully functioning in the 21st century requires using new literacies that include the skills, strategies, and dispositions necessary to adapt to changing technologies influencing all aspects of life" (p. 367). Such skills involve navigating both linear and nonlinear texts, evaluating if sources are reliable, determining which content is relevant, inferring meanings, drawing upon text features present to survey information, utilizing digital, electronic features to organize thoughts, and combining multiple skills across a variety of platforms to create original messages (Karchmer-Klein & Shinas, 2012). Due to the variety of evolving skills students must learn, "those who investigate new literacies try to anticipate beyond the present and envisage how best to educate now in order to enhance learners' capacities for effective meaning-making and communication in the foreseeable future" (Knobel & Lankshear, 2014, p. 97). Literacy, and technology, are constantly evolving. This sentiment

was echoed by Leu et al. (2013) who found that "the meaning of literacy has [become] deictic because we live in an age of rapidly changing information and communication technologies, each of which requires new literacies" (p. 1150). Therefore, as more advanced technologies surface, more complex literacies will, as well (Karchmer-Klein & Shinas, 2012). That is why Martinez (2010) called upon educators to "simultaneously teach students to make meaning from written or oral human language and from patterns and visuals that will help them thrive and communicate in a highly complex world" (p. 72). If educators teach their students skills to make meaning from a range of situations and texts, they will be prepared for the evolving literacy practices of the future.

Content Area Literacy

Due to the broad range of multimodal ways meaning is made (Kalantzis & Cope, 2012), it is important to note that *multiple literacies* "goes beyond the discipline of English. It is essential to, and an integral part of, all disciplines from science and mathematics to the arts, since all disciplines rely on their own particular forms of literacy" (Bull & Anstey, 2010, p. 142). Utilizing a multiliteracy pedagogy is not restricted to the teaching of English/language arts. Actually, literacies in general "are the raw material of every other subject area" (Kalantzis & Cope, 2012, p. 342). In fact, within the academic world there are additional literacies and literacy practices students need in order to succeed in the school environment. Among these literacies is *content area literacy*. Although the phrase *content reading* (used interchangeably in this section with the terms *content area literacy* and *content literacy*) has existed since William S. Gray determined that reading was an essential skill in every subject area in the mid-1920s, the term gained in prominence after Hal Herber's 1970's text *Teaching Reading in Content Areas* (Gray, 1925; Moje, Young, Readence, & Moore, 2000). Defined by Vacca and Vacca (2005) as "the

ability to use reading, writing, talking, listening, and viewing processes to learn subject matter across the curriculum" (p. xvii), competency in content literacy requires students to combine functional literacy skills with the addition of oral, auditory, and visual abilities to meet the demands of specific content. We can conceptualize content literacy by considering the general strategies teachers from multiple disciplines use to help students learn universal skills involved with functional literacy competency. Essentially, content area literacy instruction explores "the literacy skills, practices, and strategies for students to be [successful] across all subject areas" (Pytash & Ciecierski, 2015, p. 14).

In spite of the applicability of the general strategies associated with content literacy, many content area teachers tend to resist the notion of teaching literacy skills within their classes. One reason non-English/language arts teachers in the past have abstained from incorporating literacy practices into their classes is "that teachers felt they had to drop their content, which they were passionate about, to prioritize reading, which they knew little about" (Collopy, 2014, p. 6). Although Vacca and Vacca (2005) posited that all teachers have a crucial role in helping students with their comprehension and response to information and ideas in a text, content area teachers preferred to be seen as disciplinary teachers, rather than reading teachers (Moje, Young, Readence, & Morrre, 2000). However, Brozo and Flynt (2007) have summarized that content literacy practices are those "that braid together language arts and content material" (p. 193). This inclusion of the phrase *content material* in Brozo and Flynt's description of content literacy acknowledges that teachers still must adapt literacy practices (such as vocabulary and concepts) for the needs of the students in their subject-area classrooms. A 2007 policy research brief distributed by the National Council of Teachers of English (NCTE) informed teachers, "adolescents in secondary school classes need explicit instruction in the literacies of each

discipline as well as the actual content so they can become successful readers and writers in all subject areas (p. 2). Because each class that secondary-level students take teaches content-specific vocabulary as well as utilizes resources unique to that discipline, non-ELA teachers should prepare themselves to teach students the literacy needs of their subject area. Furthermore, Brozo and Flynt (2007) elaborated that,

> As students are expected to read and learn from content texts, they need teachers who have the knowledge and skills to engage their imaginations and expand their understanding of disciplinary language. Students also need teachers who can reflect on the effectiveness of their practice and creatively modify instruction to meet the content literacy needs of all students. (p. 193)

Disciplinary teachers who incorporate content area literacy practices into their instruction, then, are not only able to retain their identity as content experts, but they are expanding their repertoire of practices and strategies that will increase students' overall literacy skills as well as their academic achievement (Brozo & Simpson, 2007).

Disciplinary Literacy

Disciplinary literacy instruction "entails more than teaching reading strategies within a content area" (Park, 2013, p. 361). Rather, it aims to teach students how to understand, perform, and question the work within a particular discipline (Moje, 2008). In contrast to content area literacy, which concentrates more on applying general strategies across the contents, *disciplinary literacy* pertains to the different discourse conventions apparent in the academic disciplines. More so than content area literacy, disciplinary literacy skills reflect an increased specialization of literacy development within a subject area (Shanahan & Shanahan, 2008). Therefore, competency in disciplinary literacy requires that students accurately participate within the

discourse parameters of a specific academic subject—essentially thinking like a disciplinary expert. According to Shanahan & Shanahan (2012),

> The difference is that content literacy emphasizes techniques that a novice might use to make sense of a disciplinary text (such as how to study a history book for an examination), whereas disciplinary literacy emphasizes the unique tools that the experts in a discipline use to engage in the work of that discipline. (p. 8)

In that regard, disciplinary literacy prompts students to use the same approaches as a disciplinary expert, such as specific methods of communication and interacting with information, when encountering discipline-specific content. Recognizing the variety of approaches and methods for analyzing a text is essential because, according to the disciplinary literacy framework, "each discipline has its own mode(s) of engaging with and interpreting texts as well as generating knowledge" (Park, 2013, p. 361). For instance, while a novelist might analyze established literature for character development or symbolic references, a historian might examine a primary document to determine how it compares to other pieces from that era. Therefore, each discipline employs a unique set of discourses to engage in academic conversations within their field. Due to these unique discourse conventions, teachers incorporating disciplinary literacy are encouraged to "move past the textbook to incorporate authentic texts, such as feature articles, picturebooks [sic], blogs, websites, and opinion editorials" (Pytash & Ciecierski, 2015, p. 15).

However, it should be noted that disciplinary literacy learning is often considered a form of critical literacy (Lee, 2007; Bain, 2006) because "it builds an understanding of how knowledge is produced in the disciplines, rather than just building knowledge in the disciplines" (Moje, 2008, p. 97). Students engaging in disciplinary literacy begin to understand and utilize the common practices of generating and transmitting knowledge in the disciplines. By learning the

discourses and practices of a specific discipline, students become aware of "what the privileged discourses are, when and why such discourses are useful, and how these discourses and practices can be valued" (Moje, 2008, pp. 100-101). Understanding how knowledge is produced, gained, and transmitted within a discipline reveals the significance of these practices.

Critical Literacy

Critical literacy is often discussed as a vital component to multiliteracies and disciplinary literacy (Smolin & Lawless, 2010). Critical literacy stems from Paulo Freire's (1970) work with marginalized peasant communities in Brazil and refers to the use of "technologies of print and other media of communication to analyze, critique, and transform the norms, rule systems, and practices governing the social fields of everyday life" (Luke, 2012, p. 5). Essentially, critical literacy examines the dominant ideologies and systems presented in texts and media in order to achieve social justice and empowerment in disenfranchised communities. Similar to Luke (2012), Lewison, Seely Flint, and Van Sluys (2002) synthesized numerous other definitions of critical literacy from literacy educators, theorists, and linguists and identified four related components: (a) disrupting the commonplace, (b) interrogating multiple viewpoints, (c) focusing on sociopolitical issues, and (d) taking action and promoting social justice. Analogous to the multifacetedness of literacy, critical literacy also has multiple elements. When applied to curriculum, critical literacy "melds social, political, and cultural debate and discussion with the analysis of how texts and discourses work, where, with what consequences, and in whose interests" (Luke, 2012, p. 5). Critical literacy is an approach that provides a framework for learners, in the case of schooling, to become cognizant of the metanarrative communicated in texts; it allows students to become aware of messages of privilege within texts and to begin to understand the world in transformative ways (Hall & Piazza, 2010).

Focus Group Methodology

Qualitative research, which is used "to describe what is seen locally [and] when little is known about a topic or phenomenon and when one wants to discover or learn more about it" (Johnson & Christensen, 2012, p. 33), is an appropriate paradigm for research into the literacy practices of secondary social studies and science teachers at local Midwest public schools. While there has been literature published on different forms of literacy, there is currently an extremely limited body of research on how content area teachers, specifically social studies and science teachers at the secondary level, perceive literacy—especially multiple literacies—and have incorporated literacy into their instruction (Johnson, Watson, Delahunty, McSwiggen & Smith, 2011). According to Johnson & Christensen (2012),

> Qualitative researchers study behavior naturalistically and holistically. They try to understand multiple dimensions and layers of reality, such as the types of people in a group, how they think, how they interact, what kinds of agreements or norms are present, and how these elements come together holistically to describe the group. (p. 35)

The concept of studying individuals as they are—in their normal situations and as they interact with others in reality—is echoed by Flick (2009). He wrote that in qualitative methodologies, "the fields of study are not artificial situations in the laboratory but the practices and interactions of the subjects in everyday life" (p. 15). By utilizing professional development focus groups as the primary methodology for this study (as well as additional qualitative research methods involving classroom observation, video and audio recordings, researcher field notes, and the collection of artifacts), I will be following the recommendations made by Johnson, Christensen, and Flick of observing individuals' interactions and practices as they naturally occur.

In the social sciences, focus groups are one of the most widely used research tools and they are considered to offer "a particularly fruitful method for 'thinking through' qualitative research today" (Kamberelis & Dimitriadis, 2013, p. 309). Over the past twenty years, those in education have increasingly accepted the popularity and usefulness of this methodology, which belongs to the family of qualitative research. According to Jayanthi and Nelson (2002), although there were virtually no reports of schools in the United States using focus groups in the 1980s, such reports did begin appearing in the 1990s and had quadrupled in number by the end of that decade. In this study, focus groups were the ideal methodology because they allowed me, the researcher, access to a range of secondary social studies and science teachers who were more comfortable openly discussing their instructional practices with a group of teachers in their similar position. I believe the combination of an open-ended questioning format, the security of educators who shared some of their interests and concerns, and an atmosphere of discussion rather than interviewing as participants interacted with each other elicited the most honest and revealing information (Jayanthi & Nelson, 2002; Kamberelis & Dimitriadis, 2013).

Focus groups were originally called "focused" (Merton's preferred spelling) interviews (Merton & Kendall, 1946) and the technique's use in the social sciences can be traced back to 1941 when Robert Merton and Paul Lazarfeld "employed the method to examine the impact of media on people's attitudes towards the involvement of the United States in World War II" (Liamputtong, 2011, p. 9). Perhaps most associated with the field of qualitative marketing studies, the popularity of focus groups has grown over the last 50 years and its uses are now evident in a wide array of behavioral science disciplines and subfields (FocusVision, 2012; Stewart & Shamdasani, 2015). In addition, according to Liamputtong (2011), focus groups "have been used historically by […] literacy activists" (p. 11), including Paulo Freire who established

focus groups—what he called 'study circles'—for his work with *Pedagogy of the Oppressed* (1970). More recently, research on focus groups has turned to the virtual opportunities that technology provides to conduct discussions. Known as virtual focus group or online focus groups (Hughes & Lang, 2004), these technology-centered dialogues have increased in popularity in the fields of market research, health, social science, and education research (Gaiser, 2008). Advantages of conducting online focus groups include a reduction in costs and time of research fieldwork, the practicability of bringing together a dispersed group of individuals, an automatic and complete recording of the discussion, and the anonymity provided by the online setting. While this particular research will utilize in-person focus groups, aspects of the process (such as soliciting participants, arranging meeting times and locations with participants, and providing additional information) will benefit from elements that technology can provide.

So, because of the interdisciplinary nature of focus groups, what are core elements of this methodology that are common across the assorted disciplines that utilize focus group research? Research synthesized by Stewart & Shamdasani (2015) revealed "four normative criteria that constitute a prototypic focus group" (p. 9). The pillars of focus group research, then, include focused research, group interactions, in-depth data, and a humanistic interview. *Focused research* refers to the objective that the intent of the study is not too broad but rather that it is specific and narrow. Seminal focus group author Robert Merton posited that the purpose of the "focused" interview was to collect qualitative data from individuals who had experienced a "particular concrete situation" (Merton & Kendall, 1946, p. 541), which then serves as the focus of the interview. The intention of studying a "particular concrete situation" suggests that the interview will "be relatively singular in focus" (Stewart & Shamdasani, 2015, p. 9). Focus groups that are more specific and singular tend to yield more in-depth data elicitation and better

within-group interaction. *Group interactions* are the second identifying characteristic of a focus group and this component is centered on an "understanding of the group dynamics that affect individuals' perceptions, information processing, and decision making" (Stewart & Shamdasani, 2015, p. 10). Common beliefs tend to articulate that groups from social sciences should be comprised of individuals who have a common identity and goals, as well as a common "concrete situation"—such as teaching experiences—and that groups who are relatively homogeneous tend to work better together. The third pillar of focus groups is the characteristic of *in-depth data*. Two issues that often arise in conducting focus groups are that the discussion guides tend to ask too many questions (making the element of an interactive discussion impossible) and that there is a tendency to only ask direct questions in which participants must verbally respond. These issues limit the extent and type of discussion and therefore also reduce the amount of data produced and collected. After all, it is through interactive dialogue that focus group participants "make their own decisions about things after they hear other people's comments and discuss the issues with other people around them" (Liamputtong, 2011, p. 18). If the questioning is too rigid, these interactions and meaning-making moments cannot occur. The *humanistic interview* places an emphasis on "humanistic" research (Anderson & Braud, 2011)—which favors meaning rather than measurement. Because qualitative research requires the researcher have some degree of immersion into their participants' lives, a humanistic component points to "a general orientation that includes empathy, openness, active listening, and various types of interactions with research participants" (Liamputtong, 2011, p. 13). Researchers, then, must be cognizant of their participants and the current situation and recognize, among other aspects, that it is not always necessary to ask every question in the discussion guide.

Contemporary Genre Theory

Grounded in the work of Carolyn Miller (1984) and, more recently, Amy Devitt (2004), contemporary genre theory provided a lens through which to examine the ways secondary social studies and science teachers perceive literacies as well as examine their instructional literacies practices. Borrowing a phrase from William Miller and Benjamin Crabtree (2005), it is the duty of researchers to create "theoretically convincing stories" (p. 626). Therefore, due to the fact that theoretical frameworks inform researchers' questions and contribute to our choice of methods and data interpretation—in essence, tell our story—it is crucial that our research is situated with a theoretical foundation.

According to Perloff (1989), "some theorists refer to genres as families of texts with close or distant relatives" (p. 14). Like families, groupings of texts belonging to a common genre all share a familiar, underlying thread of similarity. Although each member of the family (or text within the genre) will have attributes that make it unique from the rest of the group, its ties cannot be overlooked. According to Todorov (1975), this underlying thread is the principle operative. He writes, "we discover a principle operative in a number of texts, rather than what is specific about each of them" (p. 3). While we could focus on what is different about each text, Perloff posits,

> The initiation or use of one genre is determined by its relation to others. If writing were always identical, there would be no kinds and no need for generic distinctions about the whole works. And if each piece of writing were different from all others there would be no basis for theorizing or even for communication. (1989, p. 14)

This ability to determine the relationship between texts is to recognize the "repetitive form" that pervades discourse communities, as Kenneth Burke (1968, p. 125) argued. *Repetitive form* is the

restatement of a theme with the inclusion of new details and is visible when something resembles another so strongly that it is only the presence of those new details that reminds us of the other piece rather than serves as a recreation of its prior self (Rosmarin, 1985). And, since every text belongs to a family of at least one genre, "it is virtually impossible to read a given new 'text' without bringing to it a particular set of generic expectations" (Perloff, 1989, p. 4); readers naturally recognize and apply formal discourse markers of a particular genre and classify it accordingly (Devitt, 2004). In order for readers to recognize and classify genres, they call upon their schemata or models that they have encountered previously. Rosmarin (1985) classifies genres as "a kind of schema, a way of discussing a literary text in terms that link it with other texts and, finally, phrase it in terms of those texts" (p. 21). For readers to discuss one text in terms of another, they must call upon their genre repertoire or, as Alfred Schuts described, "stock of knowledge" (Schuts & Luckmann, 1973, p. 231). Readers are able to identify similarities between discourses because they already possess a typified stock of knowledge. Also, because genres develop from other genres—"a new genre is always the transformation of an earlier one, or several" (Todorov, 1990, p. 15)—readers' knowledge of preexisting genres helps establish and reinforce their generic inventory.

The word *genre* originally comes from the Greek word *genus*, which means *kind* or *sort* and its concepts are borrowed from Aristotle and the natural sciences. Resembling the sciences, literary "works are divided into large classes which are subdivided into types and species" (Todorov, 1975, p. 4). However, "a collection of discourses may be sorted into classes in more than one way" (Miller, 1984, p. 152) and there are an infinite number of literary genres. According to Todorov (1975), "every theory of genres is based on a hypothesis concerning the nature of *literary* works" (p. 19, *emphasis added*). However, I believe, in actuality, that we can

apply genre theory to *all* works. Therefore, at Todorov's (1975) suggestion, I will present my point of departure from formalist genre theory as one toward a contemporary theory of genre which encompasses all forms of texts and contexts. Grounded in Carolyn Miller's definition of genres as "typified rhetorical actions based on recurrent situations" (1984, p. 159), and more contemporary genre theory research conducted by Amy Devitt (2004), I explored genre through layers of situational, social, historical, and individual contexts.

According to Devitt (2004), "genres are shorthand terms for situations" and "knowing the genre […] means knowing one way of responding appropriately to a given situation" (p. 16). Situations are determined by identifying patterns of action that stem from recurring conditions and involve a social context. Miller (1984) posited, "recurrence is implied by our understanding of situations as somehow 'comparable,' 'similar,' or 'analogous' to other situations" (p. 156). Essentially, how we respond to certain situations is influenced by other situations we have experienced or witnessed previously. In fact, Devitt (2004) argued that "situation and genre are so tightly interwoven as to be interlocked" (p. 22). A situation cannot exist outside of a genre and all genres contain situations. Therefore, the "relationship between genre and its situation [is] interactive and reciprocal" (Devitt, 2004, p. 3). So, while the routinized, familiar operations of a genre help to construct the nature of a recurring situation and thereby inform the participant of their role and expected response, the act of individuals following those expectations within situations reinforces and constructs the genre itself. Accordingly, then, genre should be "seen not as a response to recurring situation but as a nexus between an individual's actions and a socially defined context" (Devitt, 2004, p. 31). Genre is the interactive, common element that connects a participant and their purpose with a situation and its social context and helps constitute a relevant response.

Yet, only those individuals who encounter a certain situation are those "who need and use that genre" (Devitt, 2004, p. 34). Consequently, situations influence social contexts, which are the second layer of genre under examination. The *context of situation*, as M. A. K. Halliday (1978) described, predicts an individual's register; the resources an individual will call upon given their social context. Acquiring these resources—these semantic and behavioral tools—helps members function within the recognized expectations of a social group. Miller (1984) wrote, "genres serve as keys to understanding how to participate in the actions of a community" (p. 165). *Communities* are groups of people who share a common aim and who share considerable amounts of time together. Examples of communities would include professional organizations, academic departments, sororities and fraternities, among many others. Similar to communities are *collectives*. Like communities, collectives share a common, repeated interest, but they meet less frequently and have a less familiar feeling. Examples of collectives could include special interest groups (SIGs), academic classes, volunteer groups, etc. Because we know that a group, or community, can rarely accomplish its purposes using a single genre (Devitt, 2004), most professional communities and collectives share a genre repertoire, which is the "interacting and cooperating genres within a single community" (Devitt, 2004, p. 65). In an educational setting, a genre repertoire may include a spectrum of composed documents, such as content standards, multiple choice assessments, and faculty meeting agendas. However, the educator's genre repertoire will also include a range of situational, behavior responses, such as beginning a class, parent-teacher conferences, and teaching vocabulary strategies. While it is important to understand that genres and situations are reciprocal, it is also vital to recognize that "the genres not only reflect but also reinforce the values and beliefs of the community" (Devitt, 2004, p. 80) and that individuals and communities interacting with situations and genres "are

shaped by those contexts and reaffirm those contexts" (p. 49). Therefore, the ways in which members of a community interact using genres not only emphasize the significance of that genre for that particular group of individuals, but also illuminate what that community deems important.

However, "if [genres] are to survive, [they] must change" (Devitt, 2004, p. 89). As situations evolve over time based on the changing needs of social groups, genres must be adaptive—allowing for variations based on users' contexts and uses. Therefore, genre within a historical context is the third layer of contemporary genre theory to investigate. According to Devitt (2004), "the fluid world requires fluid genres, categorized differently according to different purposes" (p. 90). This concept of shifting generic parameters is echoed by Perloff (1989), who posited that "generic classes are inevitably fluid" (p. 6). This ability of genres to readily change and shift—often, but not always, gradually—based on the social needs of communities is essential for the success of that group. According to Miller (1984), the result of this type of adaptive environment "is that the set of genres is an open class, with new members evolving, old ones decaying" (p. 153). If a genre no longer serves the needs of its community, it becomes obsolete and "'new' genres usually develop to fulfill new functions in changing situations" (Devitt, 2004, p. 93). One such 'new' genre is *new literacies*. Corio, Knobel, Lankshear, and Leu (2008), explained,

> Literacy is no longer a static construct from the standpoint of its defining technology for the past 500 years; it has now come to mean a rapid and continuous process of change in the ways in which we read, write, view, listen, compose, and communicate information. (p. 5)

New literacies, then, are a new genre stemming from literacy that addresses the knowledge about which technologies to use and in which contexts. This example reinforces a point made by Devitt (2004) in that we can "see the history of a culture in the genres it uses, for genres can act as a kind of tree ring, with generic changes revealing cultural changes" (p. 101). A historical examination of the works studied in a high school English class, for instance, would demonstrate not only the cultural shift in the types of texts taught (poems, essays, novels, plays and slam poetry, photo essays, graphic novels, theater performances) but also in which format (print versus digital). This historical examination may also reveal what students *do* after studying the texts (do they write a response essay or do they create a digital movie trailer?). Following common philosophical shifts, many fields of knowledge have "moved away from defining genre as textual forms" (Devitt, 2004, p. 165), after all.

The final layer of genre exploration involves examining the individual context—the choice and variation present in genres. Devitt (2004) maintained that,

> At most, then, genres are associated with but not defined by textual form. The rhetorical and linguistic scholarship argues that formal features physically mark some genres, act as traces, and hence maybe quite revealing. But those formal traces do not define or constitute the genre. The fact that genre is reflected in formal features does not mean that the genre is those formal features. (p. 11)

So, while the nature of genres lends itself to labels and classifications based on a typified action or particular discourse markers, individuals within the communities using those genres have the freedom and flexibility to veer away from the established generic expectations. After all, classifications are merely a result of genre—they do not encompass a genre. This means that "within any genre, there is a great deal of 'free' variation" (Devitt, 2004, p. 149). This degree of

variation, then, allows for creativity and innovation. In the education realm, this variation could be demonstrated when we explore how different social studies teachers use the same textbook to teach their students about the Declaration of Independence. However, members of any community must be able to identify the similarities and common features in a genre before disregarding them. The similar concept of "you have to know the rules before you can break the rules" is often heard as a mantra in writing courses. Rosmarin (1985) wrote "that an eye for resemblance is always also an eye for difference" (p. 25). For if we peel away every token of resemblance, all that remains are the new details—the differences. This reasoning is congruent with the concept of genre as both standard and muse, as presented by Devitt (2004). In the context of school, she offered, "for students struggling with too much convergence, with formulaity, teachers might help them see the divergence of each text within its genre, the inevitability of divergence in their own texts, and encourage their lateral thinking to discover choices" (p. 156). While it is important to recognize the expectations of and repetitious elements within a genre, it is conversely important to understand areas of contrast.

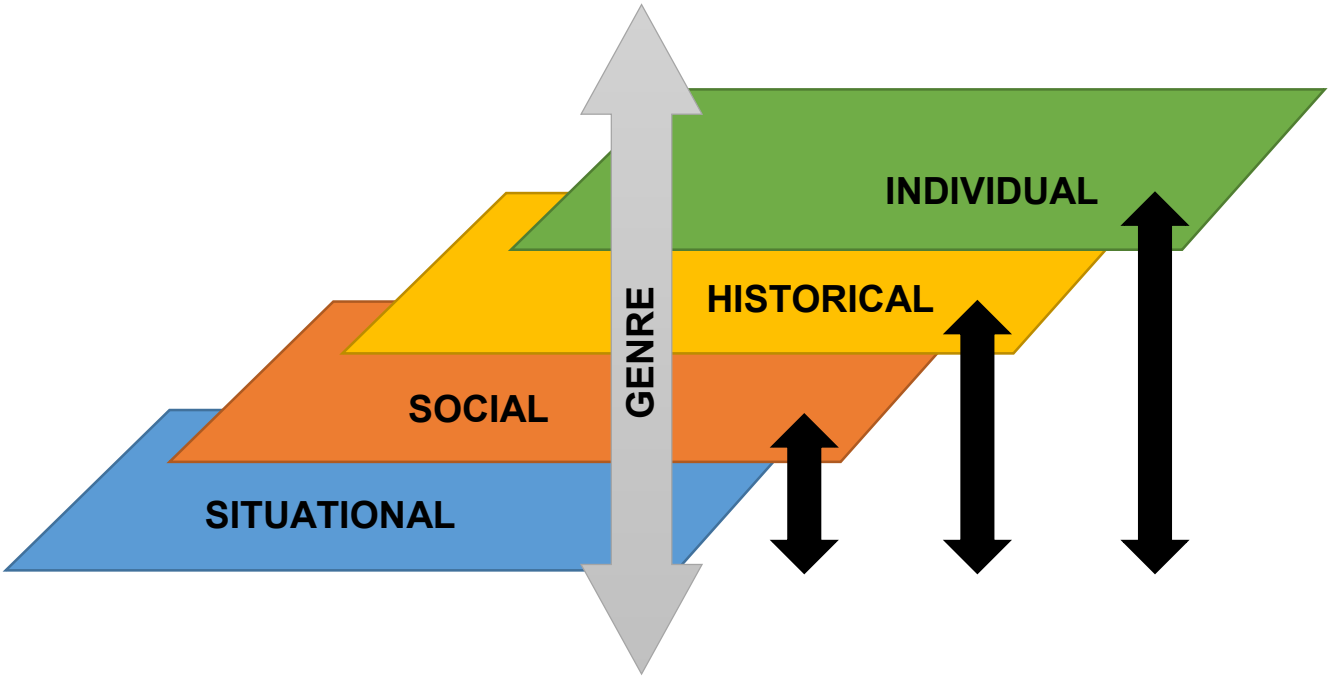

Figure 2.1. Layers of Genre Contexts

An examination of the situational, social, historical, and individual layers of contexts in which genre pervades, reveals that genre is no longer limited to its literary roots. Genre is now evident across disciplines and has grown to include large-scale typification of rhetorical action, which "acquires meaning from situation and from the social context in which that situation arose" (Miller, 1984, p. 163). Drawing on the "layers" image established at the beginning of this literature review, we can visualize what Miller (1984) described using the figure below. Here, the base layer is the situation—the recurring patterns of action that situate the members' roles, purposes, and uses of discourse. The second layer of context is social. Because "most current rhetorical genre scholars base their analysis of genre […] on the ways people classify text into genres as they use them" (Devitt, 2004, p. 8), the social layer refers to the groups of people who participate in the genres and reaffirm their situational contexts. The third layer is the historical context, and it references how genres have emerged, evolved, and decayed based on the situational needs of social groups. Devitt (2004) wrote, "in the new genre theory, genres are dynamic constructs evolving from use and context, helping to maintain the stability of a social group while flexibly enabling individuals to adapt to its changing circumstances" (p. 122). The necessary fluidity of genres is the mark of its historical context. The final layer illustrated is the individual context. This layer allows for a disruption of the generic expectations—utilizing Burke's (1963) repetitive form. This variation within a genre is what provides creativity and expression and extends the body of generic works. However, genre pervades all layers and is present among the interactions between layers.

While people are able to identify genres easily (jokes, lists, letters, speeches, etc.), they often do not recognize their power. Therefore, because "genre so significantly impacts how people use language, read literature, write and read nonliterary texts, theories of genre can

contribute […] a better understanding more generally of how people operate and have operated within their societies and cultures" (Devitt, 2004, p. 2). The study of genres helps us, then, begin to understand why humans respond differently depending on situations, social groups, historical milieu, and individual preferences.

Chapter 3 - Methodology

This study was designed to explore the ways in which secondary social studies and science teachers perceive literacies and identify their instructional literacies practices. I focused on the perceptions and practices of the teachers themselves regarding what literacy is and how literacy is incorporated into their classrooms as well as explored the benefits of incorporating literacy into content area classrooms and how literacy practices differ across disciplinary boundaries. In order to identify the perceptions and practices of the participants with regard to literacy practices and adolescent learners, this qualitative study utilized questionnaires, focus groups, classroom observations, artifacts, and field notes.

Following an exploratory pilot study, methodological foundations (shifting from in-depth interviews to focus groups) were identified, questionnaires were constructed, and interview questions were designed to focus on the research questions:

Research Questions

1. How do secondary-level social studies and science teachers perceive literacies?
2. What are secondary-level social studies and science teachers' instructional literacies practices?

I gathered the information to answer these questions from focus group transcripts, field notes, artifacts, classroom observations, and questionnaire responses.

Research Procedures

To explore the research questions of how secondary social studies and science teachers perceive literacy and employ the multiple literacies practices in their classrooms, I conducted three focus groups. Participants in the focus groups were social studies and science teachers who teach at the secondary-level and who have experience with adolescent learners and are

accustomed to the typically firm boundary lines between content areas. After arranging participants for the study (which, unfortunately, lacked the diversity I was striving for—see Appendices B and C), I distributed the initial questionnaire and professional development literature. Immediately after selecting all participants and identifying a common meeting time and place via Doodle Poll, I sent the focus group discussion prompts (for the participants to preview) and conducted the initial focus group. The first group was a heterogeneous focus group, composed of all eight participants in both content areas, and I collected general thoughts and strategies for incorporating multiple types of literacy into the two content areas. In the three weeks following the initial focus group, participants read and annotated additional excerpts from their professional development literature, took notes, and identified artifacts to share with the group. During this time, I transcribed and analyzed the first focus group transcript, collected reading notes from the participants, and gathered the identified artifacts (such as lesson plans, student examples, and photographs). Beginning two weeks after the initial focus group, I then conducted two homogenous focus groups—the first composed of only secondary social studies teachers and another, one week later, composed of only secondary science teachers—using the same participants from the first heterogeneous focus group. In the month following the two homogenous focus groups, I continued to transcribe and analyze the transcripts, conducted classroom observations of six of the participants, took field notes, and collected artifacts.

For a detailed disaggregation of actions and the dates performed, please refer to Appendix J and the timetable.

Selection of the Site

In this study, I sought to understand secondary social studies and science teachers' perceptions of literacies and identify their instructional literacies practices. The site selected for

this study is a 25-mile radius of the researcher's university. According to Stewart and Shamdasani (2015), "the closer the location to participants' homes or work place, the more likely they are to participate" (p. 63). Therefore, I selected the distance of 25 miles from the research university so that the various participants in the study, who were solicited from multiple districts and schools, would not need to travel long distances in order to interact in the focus groups. While virtual focus groups do exist—by utilizing a computer's webcam, mic, and keyboard, along with software such as Skype, Google Hangouts, or Wimba Classroom, among others, including social media sites (McDermott, 2013; Stewart & Shamdasani, 2015)—I opted for in-person focus groups, which allowed for more unstructured conversations on the research topics between individual participants. As a former local secondary teacher and current university supervisor, I also have a strong network of teachers, instructional coaches, clinical instructors, and building and district administrators that I called upon for access to resources, potential participants, and classroom observations.

Go State University

Go State University (pseudonym) is a large, Midwestern research university with a 2014 total enrollment of 24,766 students at the undergraduate and graduate levels. In the fall of 2014, slightly more men were enrolled than women, with 12,550 and 12,216, respectively. Go State University is one of fifty-five colleges in the state (thirty-three public and twenty-two private) and is known as the state's oldest public university. The university is comprised of nine colleges and has sixty-five academic departments. Although there are additional campuses, the main campus holds 103 buildings. Also as reported in 2014, Go State University's student demographic population was designated as nearly 75% White, almost 6% Hispanic, nearly 4% Black, 1.5% Asian, .4% American Indian, 0.1% Hawaiian/Pacific Islander, almost 3%

multiracial, and 1.5% unknown. Additionally, Go State University is home to the state's largest military population in higher education and, in 2013, 40% of all undergraduates were first generation college students.

Using information from the 2010 Census and American Community Survey, the population of the city where Go State University is located was 52,281, which was a 16.6% increase from the 2000 Census count of 44,831. Additionally, the median resident age was 23.8 years, with a male population of 26,606 and a female population of 25,675. According to the latest Census information, community members reported themselves racially as 83.5% White, 5.8% Hispanic or Latino, 5.5% Black or African American, 5.1% Asian, 0.5% American Indian and Alaska Native, 0.2% Native Hawaiian and Other Pacific Islander and 3.5% of the population reported themselves as two or more races. Additionally, while 80.4% of the city's population was currently enrolled in college or graduate school in 2010, 23.5% of community members reported having attained some college (but no degree), 5% having attained an Associate's degree, 26% having attained a Bachelor's degree, and 23% having attained a graduate or professional degree. Also according to the 2010 Census, there were 3,259 civilian veterans living in the community. Referencing the employment statuses from the latest Census, there was a civilian labor force of 27,547 (with 26,492 community members reporting employment) and an armed forces count of 1,952; 16,024 members of the 2010 population 16 years and over were not considered part of the labor force. Furthermore, of the 2010 civilian employment population 16 years and older, 10,753 community members were labeled as part of the educational services, health care, and social assistance industry. Finally, the 2010 median household income was $34,131 and the mean household income was $47,613, with 11.2% as the percentage of families and people whose income in the last twelve months had fallen below the poverty level.

USD 001

According to 2013-2014 data from the State's Department of Education website, USD 001 (pseudonym) had a district enrollment of 6,351 out of the 487,317 students enrolled throughout the entire state. During last year, the district was comprised of 51.35% males and 48.65% females and served an economically disadvantaged student population of 40.14%. During the 2013-2014 school year, student ethnicity was reported at 66.66% White, 12.6% Hispanic, 7.5% African American, and 13.24% other. 5.21% of the district's students were identified as English Language Learners. Also, according to the district's 2013 reading achievement performance level reports (all grades within the district), 38.9% of students scored "exemplary," 31.2% of students scored "exceeds standards," 22.7% of students scored "meets standards," 5% of students scored "approaches standards," and 1.5% of students scored "academic warning." According to the district's 2013 math achievement performance level reports (all grades within the district), 33.6% of the students scored "exemplary," 28.2% of students scored "exceeds standards," 24.9% of students scored "meets standards," 8.1% of students scored "approaches standards," and 4.6% of students scored "academic warning." Additionally, in 2014, the district reported an attendance rate of 94.9% and in 2013, reported a graduation rate of 82.1% and a dropout rate of 1.5%. USD 001 has one 6A high school and two middle schools.

USD 002

According to 2013-2014 data from the State's Department of Education website, USD 002 (pseudonym) had a district enrollment of 8,156 out of the 487,317 students enrolled throughout the entire state. During last year, the district was comprised of 52.74% males and 47.26% females and served an economically disadvantaged student population of 61.87%.

Furthermore, USD 002 was reported as having multiple Title 1 schools. During the 2013-2014 school year, student ethnicity was reported at 50.99% White, 19.33% African American, 16.24% Hispanic, and 13.45% other. 7.3% of the district's students were identified as English Language Learners. Also, according to the district's 2013 reading achievement performance level reports (all grades within the district), 22.5% of students scored "exemplary," 31% of students scored "exceeds standards," 28.2% of students scored "meets standards," 10% of students scored "approaches standards," and 6% of students scored "academic warning." According to the district's 2013 math achievement performance level reports (all grades within the district), 16.8% of the students scored "exemplary," 21.9% of students scored "exceeds standards," 29.5% of students scored "meets standards," 15.1% of students scored "approaches standards," and 14.7% of students scored "academic warning." Additionally, in 2014, the district reported an attendance rate of 95% and in 2013, reported a graduation rate of 82.5% and a dropout rate of 1%. The secondary schools in USD 002 include two middle schools and one 6A high school.

USD 003

According to 2013-2014 data from the State's Department of Education website, USD 003 (pseudonym) had a district enrollment of 1,541 out of the 487,317 students enrolled throughout the entire state. During last year, the district was comprised of 52.33% males and 47.67% females and served an economically disadvantaged student population of 33.70%. During the 2013-2014 school year, student ethnicity was reported at 89.64% White, 0.72% African American, 4.85% Hispanic, and 4.79% other. None of the district's students were identified as English Language Learners. Also, according to the district's 2013 reading achievement performance level reports (all grades within the district), 36.8% of students scored "exemplary," 29% of students scored "exceeds standards," 25.4% of students scored "meets

standards," 6.2% of students scored "approaches standards," and 1.8% of students scored "academic warning." According to the district's 2013 math achievement performance level reports (all grades within the district), 28.5% of the students scored "exemplary," 29% of students scored "exceeds standards," 29.9% of students scored "meets standards," 8.5% of students scored "approaches standards," and 3.5% of students scored "academic warning." Additionally, in 2014, the district reported an attendance rate of 95.3% and in 2013, reported a graduation rate of 93.3% and a dropout rate of 0.3%. The secondary schools in USD 003 include one middle school and one 4A high school.

Selection of the Participants

The consensus is that focus groups operate most efficiently and produce the richest data when 6-12 participants are included in the discussion (Liamputtong, 2011; Stewart & Shamdasani, 2015). Therefore, it was my goal to select approximately 4-6 participants from a secondary social studies background and 4-6 participants from a secondary science background. Although these numbers indicated that the second round of focus groups could have smaller numbers than what was recommended, participants were already familiar with each other (from interacting in the initial focus group, having time to read excerpts of literature, and identifying/sharing artifacts from their classrooms) and were more comfortable in their single content area group. I chose to conduct research with licensed secondary teachers because, unlike the elementary level, content-area distinctions are more rigid and the probability of incorporating literacy skills and utilizing interdisciplinary connections is less likely at the secondary level—often because collaboration is more difficult when departments physically separate teachers. Additionally, I decided to conduct my research in the disciplines of social studies and science

because they are non-English/language arts content areas addressed within the Common Core State Standards.

Using the staff and faculty contact lists found online at the three target districts' webpages, I obtained the names and emails for all teachers listed with positions in social studies or the sciences at grades six through twelve. This list yielded nearly one hundred potential participants. Then, in March of 2015, a participation request letter (See Appendix B: Solicitation Letter) was sent via email using the acquired school email addresses. A goal factoring into the selection process was to obtain diversity among the participants (see Appendix C: Diversity of Participants). However, only teachers from USD 002 volunteered for the study and, other than gender, years of teaching experiences, and military backgrounds, the group lacked in racial diversity.

Researcher's Role

As a former secondary English/language arts (ELA) teacher and a current Professional Development Schools (PDS) partnership participant within the districts described, I have had the opportunity to connect with many teachers, administrators, and curriculum specialists, as well as become familiar with the schools' milieus and needs of the teachers. This access to not only the knowledge of local teachers' professional development needs and the climate of cross-disciplinary literacy instruction, but also the relationships with teachers themselves, has provided me unique connections to the work with disciplinary teachers and literacy in this area.

My previous experience as a former middle school ELA teacher has continually provided insight into the restraints that hinder collaboration between content colleagues (including time, physical locations of classrooms, additional responsibilities, etc.) and professional development opportunities regarding disciplinary literacy practices, as well as the mandates required by the

Common Core State Standards, local state standards, and district/school requirements. This study allowed me to examine the literacy perspectives and multiple literacies practices of secondary social studies and science teachers by hearing the voices of these teachers themselves, observing the workings of their classrooms, and collecting examples of instructional materials. Due to my relationships with many of the teachers, experience recently working in an area school, and familiarity with the expectations expressed at the nation and state-wide levels, time that is often spent becoming acquainted with participants and earning their trust at the beginning of a study, as well as gathering background information about the expectations at various schools, was used in this research to immediately engage in meaningful, trusted conversation about literacy practices in their classrooms. These conversations, in the form of hetero- and homogenous focus groups, provided an opportunity for me to become exposed to the literacy practices of many teachers within proximity to the research institution and gain a preliminary understanding of the specific state of literacies instruction in the secondary social studies and science classrooms.

Data Collection

As the intent of this study was to understand the perceptions and practices of secondary social studies and science teachers regarding how they view literacy and incorporate literacy practices into their disciplines, the data to be collected will be qualitative in nature. An initial questionnaire (see Appendix E) was sent electronically to participants in the middle of March 2015 (in the form of a reply email when they volunteered to participate), with the intent of collecting demographic and background information. Additionally, literature—and their general reading assignments—on the topic of literacy in the disciplines was distributed to teachers, as well as discussion prompts to generate their thinking about the topic. Then, on April 2, 2015, the first focus group was conducted—a heterogeneous group comprised of both secondary social

studies and science teachers. The focus group was audiotaped, videotaped, and detailed in field notes. In a two week window following this focus group, participants were asked to read content-specific excerpts from the literature provided, keep notes (annotations, comments, questions, etc.) on their reading, and then submit their notes to me, along with any related artifacts. During the two weeks that participants were reading and writing, I transcribed and analyzed the first focus group discussion. After participants submitted their reading notes and artifacts (lesson plans, student work samples, etc.) that they were willing to share, I examined the focus group transcripts, reading notes, and artifacts. I then conducted two separate homogeneous focus groups—one comprised of only social studies teachers (present at the initial, heterogeneous focus group) and another comprised of only science teachers (also present at the initial, heterogeneous focus group). These second, discipline-specific focus groups revisited the initial interview questions; addressed follow-up questions I had after reviewing the initial focus group discussion transcript, reading notes, and potential artifacts; and included comments, questions, and reflections based on the book participants read. Both follow-up focus groups were conducted in the latter half of April 2015. Simultaneous to the secondary focus group discussions, I visited classrooms of six of the participants, observed their instruction, and collected additional artifacts (e.g. photographs and handouts) and field notes. The use of multiple methods within this study provided methodological triangulation, enhancing the confidence of the concluding results.

Questionnaire

The data collection process began with an initial, electronically distributed and submitted questionnaire (see Appendix E). Questionnaires are one of the most widely used tools for collecting data (Rowley, 2014) and although questionnaires—and subsequently surveys—are typically associated with quantitative and mixed methods research, administering an initial

questionnaire allowed me to efficiently collect information from all participants on various demographic and baseline questions (Czaja & Blair, 2005; Rowley, 2014). According to Rowley (2014),

> [Researchers] use the term questionnaire to refer to documents that include a series of open and closed questions to which the respondent is invited to provide answers. Research questionnaires may be distributed to the potential respondents by post, e-mail, as an online questionnaire, or face-to-face by hand. Interviews, especially structured and semi-structured interviews, also ask questions that the respondent is invited to answer, but the essential distinguishing characteristic of questionnaires is that they are normally designed to be completed without any direct interaction with the researcher, either in person or remotely. (p. 308)

The format of the questionnaires I administered to participants before the three focus group sessions followed the format outlined above. The participants received a three page electronic document with a series of closed questions in which the respondents marked the most applicable option(s). Following the distinction made above, the focus group interview questions that followed the questioning instrument were semi-structured and in person, while the questionnaire was delivered remotely with only minimal, clarifying interaction between the participants and myself. Additionally, "respondents to a questionnaire may be asked to answer questions regarding facts (e.g. their age or salary), or their attitudes, beliefs, behaviours [sic] or experiences as a citizen, manager, professional, user, consumer or employee" (Rowley, 2014, p. 309). The ability to quickly collect facts (such as highest level of education and number of years teaching) as well as information on participants' attitudes, beliefs, and behaviors or experiences as an educator (on their teaching environment, with the Common Core State Standards, and with

literacy integration) allowed the participants and me to dive immediately into the in-depth questions at the beginning of the focus group sessions.

Focus Groups

Focus groups were the primary source of data collection in this study. "Focussed" interviews, as they were originally called, became popular in the social sciences in the 20th century after researchers sought to understand the effects of mass communications (such as radio broadcasts and military training films) during WWII and the factors explaining the effectiveness and persuasiveness of those communication techniques (Stewart & Shamdasani, 2015). Although the popularity of Merton and Kendall's research efforts on focussed interviews were short-lived and the research method "faded into relative obscurity" (Conradson, 2005, p. 13) in the 1950s, focus groups resurfaced in the 1980s—especially in the areas of health and social sciences (Liamputtong, 2011). Focus groups, as we know them today, can differ slightly from their origins. For instance, in the past, these discussions were only available in person; however, now focus groups can be conducted electronically using various technologies (McDermott, 2013). Additionally, although focus groups were once more closely tied to "predominantly quantitative-oriented research" (Kamberelis & Dimitriadis, 2008, p. 391), they are now used qualitatively in several disciplines (Liamputtong, 2011).

In the case of this research, multiple focus groups (comprised of both heterogeneous content areas and homogeneous content areas) were conducted. In addition to asking participants to address their current instructional practices during the focus groups, I provided teachers with professional development opportunities, in the form of academic reading tasks, from which they drew discussion points and references. As the researcher, I recorded these sessions and took

detailed notes to analyze immediately after the focus groups, along with transcriptions of the discussion.

This research follows the four normative criteria that constitute a typical focus group—focused research, group interactions, in-depth data, and a humanistic interview. *Focused research* refers to the element of specificity in the study. This study primarily examined the literacies perceptions and instructional practices of secondary social studies and science teachers. In order to achieve this purpose, Robert Merton advised collecting data from individuals who had experienced a "particular concrete situation" (Merton & Kendall, 1946, p. 541). For this study, the "particular concrete situation" that all participants had in common was their experiences of currently teaching secondary social studies or science in the Midwest United States. Their proximity to the research institution also insured similar, although not identical, teaching environments (which may have included the state's testing requirements, curriculum materials, student backgrounds, etc.). Furthermore, all participants read from the same section of literature as a background for the first heterogeneous focus group and each individual within a content area (social studies and science) read the same follow-up excerpts from the chosen text to inform their homogeneous focus groups. The teachers' comparable teaching backgrounds support the second pillar of focus group research, *group interactions*, which recommends that the groups be comprised of individuals who share a common identity. *In-depth data*, which is the third criteria of a conventional focus group was employed by discretionary use of the discussion guide and by providing participants an atmosphere where they could potentially respond in nonverbal ways. Tom Barone and Elliot Eisner (2012) summarized a concept by Susanne Langer (1957) in that "the arts are vehicles designed to reveal what someone can feel about some aspects of life" (Barone & Eisner, 2012, p. 9). Allowing participants to contribute artifacts (pictures,

student samples, etc.), or possibly even act out situations in which literacy practices in their content area classrooms could be utilized, allowed for a more flexible setting and elicited more in-depth data. Finally, the *humanistic interview*, which favors meaning over measurement, requires researchers to be cognizant of their participants' needs and situations. Providing incentives such as the Master Card gift cards, free professional literature, refreshments, and a discussion atmosphere that is collegial and close to the research university, as well as engaging in active listening and conducting member checks of the data, reinforced the concept of "humanistic" research (Anderson & Braud, 2011).

Classroom Observations

In order to discover if teachers' perceptions of what literacy instruction in their discipline involves and if their actual practices aligned, I traveled to the classrooms of several participants. According to Frederick Erickson (1985), "Interpretive methods using participant observational fieldwork are most appropriate when one needs to know more about the specific structure of occurrences rather than their general character and overall distribution" (p. 121). Therefore, in order to determine in what specific ways the social studies and science teachers were incorporating literacies into their content instruction, as well as to draw conclusions on how literacy instruction could be implemented if it currently was not, I visited classrooms of six participants and took notes about the situations and actions occurring. Observational fieldwork, such as classroom observations, are useful in providing background context to, in the case of this study, views and practices expressed by the teachers during the focus group discussions (Barbour, 2007).

Artifacts

For the purpose of this study, *artifacts* was defined as written or visual sources of data that contributed to my understanding of what teachers perceived as literacy as well as what they practiced in their classrooms. This description supports the Schwandt's (2007) definition which explained, "Products of human workmanship or handcrafting, for example, a tool, text, work of art, monument, or photograph, are often referred to as artifacts. An artifact is an object that carries meaning about the culture of its creators and users" (p. 9). Therefore, during the second round of focus groups when I ask participants to bring artifacts that demonstrate the literacy practices utilized in their secondary social studies or science classroom, the teachers will most likely provide photographs of the classroom, students, and activities; physical resources, such as curriculum guides, lesson plans, textbooks, etc., that have influenced their literacy instruction; or student samples.

Field Notes

Fieldwork refers to the various activities in which researchers engage while in the *field,* including observing (watching and listening), discussing, recording, and interpreting (Schwandt, 2007). Essentially, fieldwork involves some form of labor or work that researchers undertake to produce results. Taking detailed field notes is one form of fieldwork often paired with observing. For this research, field notes were taken at numerous points—during each focus group, concurrent with the transcribing and analyzing of focus group information, during classroom observations, and while conducting artifact reviews. Similar to Mulhull's (2003) schema for field notes, I recorded the following from my observations:

- Environmental features: The appearance of the actual buildings and rooms and how they are used/organized

- Agenda: An outline of events as they occur chronologically—both in the field and before entering the field (often time stamped)—as well as the process of activities/events
- People: How they behave, sound, interact, move, and dress
- Dialogue: Commentary that catches my attention
- A personal/reflective diary: This includes my thoughts from the field as well as reflections and connections based on what I observe

Based on the schema above, notes should be recorded while in the field or shortly after. Mulhall (2003) noted that "Most researchers would agree that it is important to record field notes as closely as possible in time to when events were observed" (p. 311). If researchers delay writing notes for too long, accounts of events and details about individuals may be lost to memory.

Data Analysis

Data analysis has been described "as the interplay between raw data, the procedures used to interpret and organize the data, and the emerging findings" (Caudle, 2004, p. 420). As I sought to describe the ways in which secondary social studies and science teachers perceived literacies and incorporated multiple literacies practices with their adolescent learners, I approached the information using multiple layers of analysis in order to transform the data into something new. The first layer of data analysis involved coding the focus group transcripts, field notes, and artifacts. In qualitative inquiry, a code "is most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data" (Saldaña, 2013, p. 3). However, because "coding is just *one* way of analyzing qualitative data, not *the* way" (Saldaña, 2013, p. 2), the second layer of data analysis was examination of the data utilizing contemporary genre theory.

Coding Methods

In qualitative data analysis, a code is "a researcher-generated construct that symbolizes and thus attributes interpreted meaning to each individual datum for later purposes of pattern detection, categorization, theory building, and other analytic processes" (Saldaña, 2013, p. 4). In this qualitative study, I called upon a series of codes to conduct my analysis of data in order to construct a deeper understanding of the phenomenon under investigation.

Initially, I employed open pre-coding by annotating and marking rich areas in the focus group transcripts that grabbed my attention. I then organized the rich areas of focus group transcripts and field notes by how they addressed the research questions and recorded into a table to get an overview of the data. Next, I progressed to a system of holistic coding, which "applies a single code to a large unit of data […] to capture a sense of the overall contents and the possible categories that may develop" (Saldaña, 2013, p. 264). Holistic coding allowed me to get an impression of the perspectives, experiences, and evidence provided by the participants. Finally, I applied descriptive codes, which are labels assigned to the data that "summarize in a word or short phrase […] the basic topic of a passage of qualitative data" (Saldaña, 2013, p. 262). These descriptive codes were derived from genre theory and included general descriptors of discourse markers such as *situational*, *social*, *historical*, and *individual*. I again organized and recorded these coded occurrences into a table, which shed light into the common genre repertoire the participants all share. From these codes, I then conducted an analysis of the codes themselves and transformed the data into a new entity.

Contemporary Genre Theory

According to Saldaña (2013), coding requires "that you wear your researcher's analytic lens. But how you perceive and interpret what is happening in the data depends on what type of

filter covers that lens" (p. 7). For this research, I called upon the filter of *contemporary genre theory* to inform how I interpreted what was occurring in the data. Genre "is a kind of schema, a way of discussing a literary text in terms that link it with other texts and, finally, phrase in terms of those texts" (Rosmarin, 1985, p. 21). Although I would remove the qualifier "literary" from the quote above, genre does provide a schema for discussing and labeling 'texts,' including social acts, like teaching. Throughout this study, I applied the layers of contexts in which genre pervades (situational, social, historical, and individual) to teaching literacies in the secondary social studies and science classrooms by showcasing the various types of multiple literacy practices these educators enact with their adolescent students as well as explore the social and recurrent acts of teaching literacies.

The situational context of genre refers to the recurring situations that present themselves to the members of a community. Bitzer (1968) explains that "from day to day, year to year, comparable situations occur, prompting comparable responses" (p. 14). In teaching, there are innumerable situations that appear and reappear, prompting an action from the rhetor (the teacher, in case of this research), so the challenge is identifying what recurring situations comprise the secondary educator's genre repertoire. Furthermore, it is essential to the success of members within a genre community to not only recognize common experiences but also understand the appropriate comparable responses to those situations, according to the expectations of the discourse community. For example, teachers must be able to conform to the established guidelines regarding recurring situations, such as appropriate and expected responses at faculty meetings and parent teacher conferences as well as ways of discussing questions about assignments with students, among many other situations. For the secondary social studies and science teachers who incorporate multiple literacy practices into their instructional genre

repertoire, additional formal markers may appear. In the instance of teaching content area vocabulary, to name a general literacy practice, teachers may refer to the text features, such as bolding or italicizing, or context clues to help students navigate unknown terminology. Furthermore, they may construct a word wall, provide students with graphic organizers, or arrange access to multimedia content to reinforce the term. Miller (1984) explains, "Recurrence is implied by our understanding of situations as somehow [analogous] to other situations" (p. 156). Therefore, when teachers recognize and understand these processes involved with vocabulary instruction, it is because they were modeled to them—likely in their undergraduate coursework or by a mentor teacher—and they are responding to this situation of delivering vocabulary instruction in a similar manner.

However, John Swales (1990) notes that knowledge of genre conventions is "likely to be much greater in those who routinely or professionally operate within that genre rather than in those who become involved in it only occasionally" (p. 54). This idea that the groups of individuals who participate in the genre regularly are more likely to deliver an appropriate rhetorical response is how the social layer of genre context is established. To continue with the recent vocabulary example, while parents of adolescent students may recognize when vocabulary is taught through the samples of work brought home by their student, it is reasonable to assume that they are not as versed in the resources needed to deliver vocabulary instruction effectively. Unlike members of the education community, parents are not likely to share the genre repertoire associated with vocabulary instruction and therefore not understand the "expected way of acting" (Devitt, 2004, p. 86)—or *teaching*—vocabulary. Genres, according to Miller (1984), serve "as keys to understanding how to participate in the actions of a community" (p. 165), such as education. Social studies teachers from the same school, for instance, are likely to use the same

curricular materials, be influenced by the same "primary authority" (Devitt, 2004, p. 84) such as standards or scope-and-sequences, or even incorporate the same spread of cooperative learning strategies into their classrooms. While these social studies teachers do have freedom of variation in their instruction, they also belong to the same educational community and therefore utilize similar genres. It is important to recognize, though, that "people construct genres, but then genres construct people, especially in the identity or roles of people" (Devitt, 2004, p. 49). So, when teachers respond according to the expected genre norms of their community, they are consequently reinforcing those genres and their identity and role as teacher.

The historical context of genre refers to the ways that genres evolve over time, based on the needs of the community members. Modifications to genres occur when a genre no longer serves its community in its current state. According to Miller (1984), a new genre "type is formed from typifications already on hand when they are not adequate to determine a new situation" (p. 157). The constant development of new literacies, which involve communicating in multiple modalities (often involving technology), is an example of this evolution. While teachers can apply some elements about teaching students how to read a traditional, print novel to teaching students to use e-readers (electronic reading devices, like Kindles), a new collection of skills and tools is also needed. Teaching practices may also change based on the needs of the society. In 1996 when the term *multiliteracies* was positioned by The New London Group, literacy practices were centered solely on linguistics. However, as our culture became more media-centered, it was essential to expand our literacy practices "to include multimodal textual practices—combining linguistic, visual, audio, gestural and special modes—and literacies that we culturally inclusive" (Mills, 2009, p. 104). Since then, some teachers have recognized the need to adjust their literacy practices to include nonlinguistic actions. According to Devitt

(2004), we can "see the history of the culture in the genres it uses, for genres can act as a kind of tree ring, with generic changes revealing cultural changes" (p. 101). Education, and especially literacy education, have added several new "genre rings" in the last twenty years.

Devitt (2004) also explains, "In the new genre theory, genres are dynamic constructs evolving from use and context, helping to maintain the stability of a social group while flexibly enabling individuals to adapt to its changing circumstances" (p. 122). This freedom to adapt the genre slightly to fit the user's needs is what constitutes the individual layer of genre. Rather than letting genres decay and die out, as they sometimes do, the individual component of genre theory allows users variation to depart from genre constraints. Returning to the content area vocabulary example initiated earlier, teachers may need to alter or modify the type of vocabulary instruction they deliver because not every situation is exactly the same. Considering their audience of adolescent students, teachers may choose to employ a range of other literacy practices—such as re-reading passages with the terms or illustrating the meanings of the vocabulary words, for example—and utilizing a variety of modalities and technologies, depending on the needs of the group. Devitt emphasizes that "no one can restrict the criteria for a genre so tightly that no variation exists" (p. 84). So, while our expectations of vocabulary instruction might be limited to requiring students to list and define the terms, contemporary genre theory tells us there are other variations. Essentially, the individual layer of genre theory allows us to examine both convergence and divergence of patterns of literacy content production and delivery, within the scope of recurrent situations and contexts and using an expanded definition of text—because genres and texts should not be equated (Swales, 1990). Texts, throughout the course of this research, encompass not only the traditional linguistic, printed materials (including textbooks and novels), but also online materials (with integrated media) as well as non-linguistic materials

that students read and analyze (such as paintings , musical scores, theater performances, building blueprints, etc.)—thus further demonstrating the variations present within genres.

Researcher's Subjectivities and Trustworthiness

In qualitative research, it is essential for the researcher to explicitly state their subjectivities as part of the representation of data, acknowledging their assumptions and values—especially since it is common for qualitative researchers "to be part of the social group they are investigating" (Moore, 2012, p. 11). In attempts throughout this document to reveal the author's positionality to the topics, issues, and participants addressed in this research, I have shared past teaching experiences, connections made through my positions as a licensed secondary teacher and university supervisor of pre-service teachers, and involvement with a previous pilot study.

Additionally, researchers must take measures to ensure that trustworthiness is established within the study (Creswell, 2006). To instill trustworthiness, I gathered data from multiple sources—ensuring methodological triangulation (Guion, Diehl, & McDonald, 2011). Data was collected and confirmed in the form of two questionnaires, multiple focus group interviews, artifacts, document field notes, classroom observations, and member checks of the data. During data analysis, I also shared my progress with my major advisor, who helped to verify and refine the direction of my data collection, dissemination, and writing.

Summary

The final stages of this qualitative analysis was guided by contemporary genre theory. After conducting a series of heterogeneous and homogeneous focus groups with eight secondary social studies and science teachers from the area, I examined artifacts collected from classroom observations and participant contribution. I then engaged in initial coding of the data through the

lens of contemporary genre theory in order to explore how secondary social studies and science teachers perceive literacy and utilize multiple literacy practices with their adolescent students. Genre theory was used to understand how these educators conceptualize various literacy practices and illuminate the literacy practices that often go unrecognized.

Chapter 4 - Thematic Analysis

Throughout the months of March and April 2015, I collected preliminary, contextual information in the form of an initial questionnaire, facilitated a series of three focus groups after asking participants to read general and content-specific selections from the book *Adolescent Literacy in the Academic Disciplines: General Principles and Practical Strategies* by Jetton and Shanahan (2012), conducted six classroom observations (on several occasions, of multiple class periods with each teacher), gathered researcher-initiated and teacher-provided artifacts, took detailed field notes, and collected summative information in the form of a concluding questionnaire. Focus groups ranged from sixty to ninety minutes and classroom observations ranged from forty-five minutes to nearly an hour and a half.

This chapter introduces the participants, describes the focus group settings, and explores the themes that emerged during our focus group discussions, classroom observations, and conversations involving the Jetton and Shanahan (2012) book study. Additionally, I frequently use italics throughout my citation of participants' speech. These italics have been added to demonstrate participants' emphasis while speaking.

Description of Participants

All data reported from this point forward is presented using pseudonyms generated by the participants themselves, in order to protect the privacy of the participants.

John McCormack

Although I had never met John before this study, he responded quickly to the initial "Participation Request" email I had sent teachers in three local school districts and volunteered for the study without prompting. John has been teaching since 2001, coming into education after serving time in the military. John is a man of few words—in speech and in writing—which is in

contrast to the structure of his discussion-based high school social studies classroom, where he has taught world history, American history, U.S. government, and current events classes. Initially described to me as an 'old school' social studies teacher by a few of his colleagues, John surprised me with his ready acceptance of personalized devices and use of new technology tools in his classroom.

Karen Radish

Finishing her eighth year teaching high school social studies (economics, government, American history, pre-Advance Placement (AP) world, and geography) at the time of this study, I first met Karen over five years ago as a fellow participant in our region's National Writing Project (NWP) site. Karen and I crossed paths several more times after that summer when I visited her classroom as a university supervisor to observe pre-service teachers with whom she was their cooperating teacher. In this role, I was able to witness Karen's relaxed nature, friendly laugh, willingness to help others, and depth of content knowledge. However, in post-conferencing with the many field experience students who were placed in her classroom, I also quickly learned of her patient, flexible, and supportive work with the future teachers.

Willie Richmond

As the only participant who has held over three different teaching positions in his teaching career—that spans twenty years and includes experience in both middle schools and high schools—Willie currently teaches eighth grade social studies. Tall, thin, and silver-haired, Willie is always smiling and becomes genuinely excited when an idea clicks with students. Outside of his classroom, which is decorated with his favorite collegiate sports team memorabilia, you can catch Willie in the hallways or at meetings suggesting project-based learning ideas and recommending a good read.

Ashley Rivers

Like John, I had never met Ashley before this study. As a first year teacher, Ashley had already established herself as a dedicated and hardworking educator with the other teachers at her grade-level and throughout her building. Paving the way for a paperless classroom, Ashley immediately began using Microsoft's OneNote after the October adoption of one-to-one tablets for her sixth grade social studies students. Friendly, enthusiastic, and always professionally dressed (a theme that matches the bright and organized appearance of her classroom), Ashley does not back down from an opportunity to make her class a better and engaging place for her students.

Emeline Tauriel

Emeline is in her fourth year teaching seventh grade science and frequently collaborates with her grade level content colleague Rudy, a fellow participant, and her class within a class (CWC) teacher. Currently working ardently on her Master's degree through online coursework and a frequent presenter and attendee at professional development conferences, Emeline refers to influential researchers in academic conversation and is eager to share ideas and resources with her colleagues. Her smaller stature does not equate a timid voice or personality. Rather, Emeline is outgoing, energetic, and creative.

Paul Dominguez

I first met Paul in 2008 at teacher mentoring meetings held by the school district, and his relaxed personality, quiet chuckle, and love of soccer were some of the first attributes I noticed about him. Currently one of two science teachers at the eighth grade level in his building, Paul just finished his seventh year teaching and similar to Karen, he has served as a cooperating teacher to several pre-service teachers. During Paul's time in his role at the eighth grade, there

has been considerable turn over at the other core content positions (science, math, social studies, and language arts) and he is only one of two teachers who hold the same position as when Paul first began teaching. This has required Paul to be very flexible in frequently working with new colleagues and new ideas.

Melissa Winters

With experience in grades sixth through twelfth and in courses including biology, chemistry, physics, and earth and space science, Melissa currently teaches as the other eighth grade science counterpart with Paul. Before this position, she taught sixth grade science in the same building as well as at another school about twenty-five miles to the northwest prior to that. Melissa's close friendship with the language arts teacher on her team has aided in their collaboration and they regularly partner on projects that encourage students to use multiple resources to inform their expository and narrative writing.

Rudy Eisenberger

Never having met Rudy before this study, I was thankful that he volunteered to participate. An untraditional second-year teacher, Rudy held a military career before transitioning to seventh grade science and similarities to that life are present in the layout and order of his middle school classroom. Currently teaching down the hall from Emeline, his tall frame, low voice, and reserved personality stand in contrast to his content colleague. However, he shares a willingness to collaborate and participate in professional development with his fellow teacher participants.

Synthesis of Data and Development of Themes

A close reading of the raw and coded data collected from March and April in the form of multiple focus groups and classroom observations, field notes, artifacts, and questionnaires

allowed me to group significant statements and repeated ideas and behaviors into broader units of information, thus establishing themes. As my primary source of data, I approached the audio transcriptions of each of the separate focus groups first. Using the series of applied initial, holistic, and descriptive codes identified in the transcripts, I then compared those to codes identified in the field notes and in the artifacts. After synthesizing all data collected, I grouped the significant codes into nine themes, common to both the secondary social studies and science content areas: conventional, progressive, hesitant/emerging, collaborate, calibrate, perform, practice, interdisciplinary, and intradisciplinary.

Dispositions, Behaviors, and a Bridge

The nine themes identified above are further categorized by how they appeared in the data. Conventional, progressive, and hesitant/emerging are considered *dispositions*; these themes refer to the teachers' inclinations regarding the definitions, purposes, and uses of literacies. On the other hand, the themes of collaborate, calibrate, and perform are treated as *behaviors* because they demonstrate conduct regarding what teachers were already doing or what they planned to implement in the near future. The final three themes, practice, interdisciplinary, and intradisciplinary, are labeled as *bridge* themes because they involve behaviors that reflect the teachers' dispositions—teachers' literacies practices are influenced by their literacies dispositions. An alphabetized description of the categories and a definition of each of the themes is outlined in Table 4.1 below.

The following sections break down each theme within the three separate focus groups. By tallying the appearance of the themes (conventional, progressive, hesitant/emerging, collaborate, calibrate, perform, practice, interdisciplinary, and intradisciplinary) within the individual focus group transcripts, I was able to further identify the frequency of each theme. The themes

presented in the sections below appear in the order of highest prevalence and are supplemented by data collected through classroom observations, artifacts, and field notes. While the theme most frequently identified throughout the focus groups was conventional, it held less prominence in the heterogeneous focus group when the teachers across content areas interacted than it did in the homogeneous focus groups.

Terms	Definitions
Behaviors	A thematic category describing teachers' conduct regarding their current or anticipated literacies actions.
Bridge	A thematic category describing a merging of dispositions and behaviors surrounding literacies; teachers' dispositions and behaviors combine in the instances where they discuss literacies within and across disciplines.
Calibrate	A thematic behavior revealed when teachers express concern that the language/terminology—as well as instructional practices, in some instances—used across contents should be aligned.
Collaborate	A thematic behavior illuminating instances in which the teachers partner on ideas and units as well as when the students work together in class.
Conventional	A thematic disposition prescribing to the perceptions and practices that literacy is associated with the mechanical abilities of reading and writing at an age-appropriate level.
Dispositions	A thematic category describing teachers' inclinations regarding the definitions, purposes, and uses of literacies.
Hesitant/Emerging	A thematic disposition demonstrating teachers' tendencies of cautiously advancing towards a progressive mindset; beyond solely conventional inclinations.
Intradisciplinary	A thematic bridge element describing literacies practices that are unique to a specific discipline.
Interdisciplinary	A thematic bridge element describing literacies practices that have cross-curricular and often multi-modal learning components.
Perform	A thematic behavior demonstrated by both teachers and students. When applied to teachers, this theme reveals on-going involvement with professional development and future plans for instruction. When applied to students, this indicates action-oriented and multi-modal learning opportunities.
Practice	A thematic bridge element associated with teaching strategies and resources.
Progressive	A thematic dispositions revealing notions of multiple literacies; an understanding of the plurality of literacy.

Table 4.1. Thematic Categories and Definitions

Heterogeneous Social Studies and Science Focus Group

After voting on a location, day, and time using the popular scheduling tool Doodle Poll (doodle.com), we arranged to hold the first focus group with both social studies and science teachers in the media center of a USD 002 middle school on Thursday, April 2, 2015, at 4:00 in the afternoon. I arrived at the school at 2:55—just five minutes after students were released to go home—so I navigated around the bus lane, parent pick-ups, students walking home, and others heading to track and tennis practices to find a parking spot in front of the building. It was a perfect spring day, with temperatures in the mid-70s and lots of sun. However, the newly-built school building had not yet fixed all the bugs in the thermostat, so the small classroom attached to the library with a wall of windows and maneuverable rows of thin tables where I had originally planned to meet, was too warm. Instead, I moved back into the main library area and pushed together three large collaborative tables into one spacious square table with ten chairs around the perimeter and a cooler full of bottled tea and water at an adjoining desk. Although the automatic lights turned off once during the middle of our discussion and Emeline had to get up and jog to the circulation desk in the center of the room to trip the motion sensor, the wall posters, potted plants, and rows of bookshelves that surrounded our tables made for a comfortable atmosphere.

It only took about thirty minutes to bring in all the equipment and supplies from my car, arrange the tables, and lay out packets of participant materials (such as a hard copy of the discussion questions and informed consent forms), so by 3:30 I was ready to begin setting up and testing my recording equipment. Although some of the participants walked by the media center several times, Emeline was the first participant to arrive at 3:45 with the Jetton and Shanahan (2012) book in hand, as well as her seventh grade science text so she could begin to write next

week's test questions while she waited. Rudy and Ashley were close behind and were a little more reserved—likely because we had never met before—but Rudy and Emeline quickly began talking about science equipment and constant conversation continued until the formal start of our discussion. Melissa, John, and Willie arrived together, since their classrooms are in the same wing of the school. Our last arrival at 4:06 was Karen, who drove over from the near-by city, where the USD 002 high school is located. We waited a few more minutes for John to arrive before I eventually decided put a note on the front door of the school indicating where to find us—although he never made it to this first meeting—and then we began our discussion.

We began the discussion with brief introductions of the participants and their teaching positions, and then loosely followed the Heterogeneous Focus Group Discussion Prompts (Appendix F). While conversation began hesitantly, the teachers soon began talking over each other and sharing ideas simultaneously. Our discussion concluded at 5:20 and most participants had left the building by 5:30.

Conventional. Although participants were receptive and agreeable to the notion of multiple literacies—and often recognized that the ways we are literate may differ based on the discipline—when asked general questions about literacy, conversation naturally (and almost habitually) returned to the mechanical, functional literacy of reading and writing. This was evident very near the beginning of our conversation when I asked the group to define literacy. Ashley hesitantly jumped in first.

> I don't know, this isn't an official definition. … I define it more as comprehension in what I'm reading. Because I can be literate in reading primary source documents and other basic literature, but if I read a science article, you know, how much would I comprehend just based on my content?

So although Ashley alluded to different forms of literacy in her definition (specifically, basic literacy versus disciplinary literacy), she framed her personal level of literacy based on her ability to comprehend what she read. Melissa agreed and expanded on Ashley's thoughts by naming that literacy varies between classes.

> It's the ability to read and write in a content area.

Comfortable with designating the necessary skill as "comprehension," Paul shared that he viewed literacy as reading, as well.

> I mean, I just see it as general reading, but it is from a lot of different sources and I think comprehension is probably a good way to look at it.

Based on the responses of teachers, I probed further, asking if there were different forms of literacy. While Melissa quickly and completely agreed, she elaborated by returning once again to the abilities of functional literacy.

> There's definitely different forms of literacy and, you know, the basics—can I read and write?

Although this group of secondary teachers indicated that what it meant to be literate depended on the purpose and setting, their responses almost always relied on functional literacy as the core of what it meant to be literate.

Practice. Given the prevalence of dispositions weighted towards conventional literacies, it is understandable that the popular teaching strategies and resources the teachers employed were also focused on helping students improve in the areas of reading and writing. One tool that repeatedly appeared in our conversations was a graphic organizer titled the c*hicken foot*. When describing how she and Paul prepare their eighth grade students to write quality science article reviews, Melissa explained how she reminds her students to use the resource.

> And so, of course, when we were doing it, they had their evidence sheet and then they had the chicken foot sheet and then they had the bucket sheet (laughs). … I was like, "Use your chicken foot. Write your thesis statement."

Unfamiliar with this strategy, I asked Melissa to elaborate on how the students completed the tool.

> There's three little legs off of it that looked like a chicken foot where their evidence—like their *main* evidence—[goes]. … The bucket was on the back. So, for each toe for their chicken foot, they had a bucket to fill up with evidence for that claim.

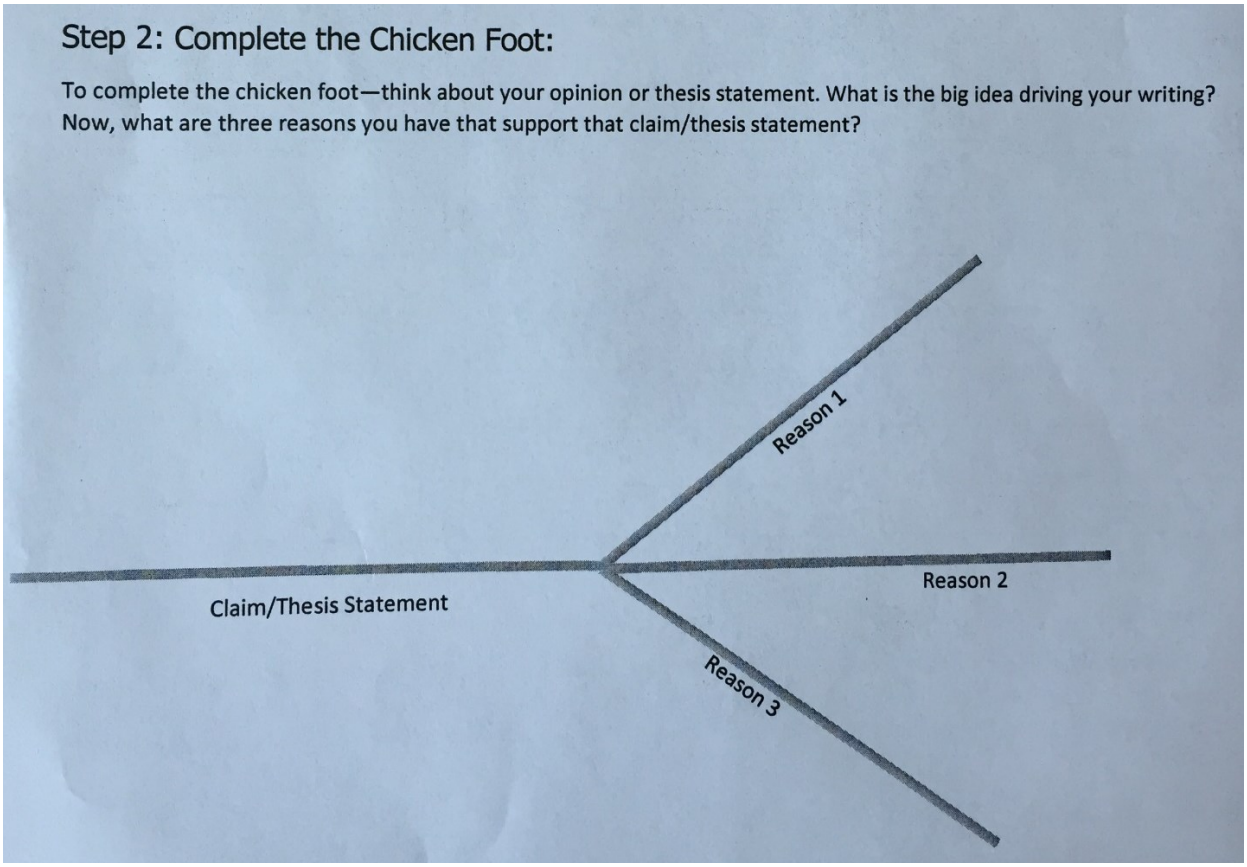

Figure 4.1. Chicken Foot Graphic Organizer

Paul explained further by describing how it was used for another science writing assignment—a persuasive letter the students had penned to the board of education convincing them to switch to renewable energy.

> So they just kind of identified the reason on the front and then on the back was where they would find the evidence to support it and then that would basically be used to write their paragraph.

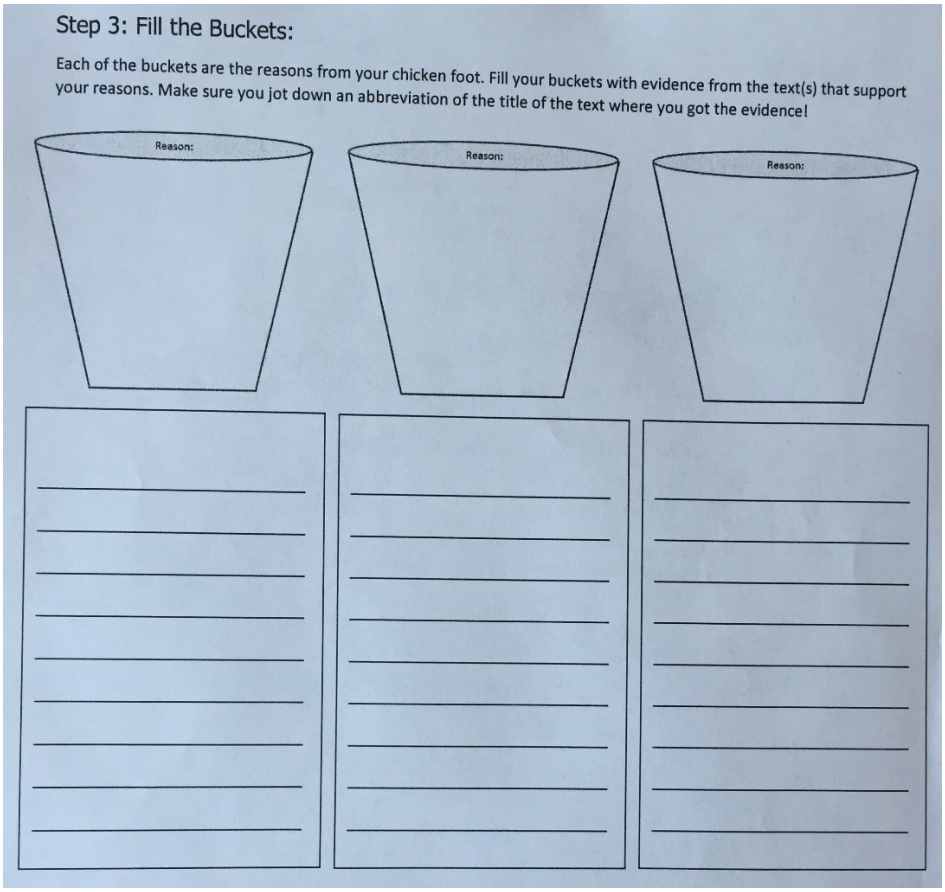

Figure 4.2. Evidence Bucket Graphic Organizer

However, other instructional strategies employed by the teachers also revolved around the functional skills of reading and writing. In addition to using the Guided Release of Responsibility model within their classrooms, teachers routinely utilized best teaching practices

to modify reading and writing assignments for their English language learners and special education students. Annotating strategies, fill-in-the-blank prompts, sentence starters, teacher modeling, and think-alouds were strategies teachers utilized routinely to scaffold students' learning. As an AVID (Advancement Via Individual Determination) district, the teachers also frequently incorporated those content based practices, as well. Although the AVID strategies were required by school administrators, Emeline believed they were beneficial to her students.

> I mean, we're forced to, but I'm glad we're forced to do the question-generation. Because of AVID, we have to do the Costa's questions but it really *does* help them if you take your questions and then you have them do something.

Intradisciplinary. Teachers also frequently expressed the need for students to recognize that there are literacies are unique to a specific discipline—a fact supported by the Jetton and Shanahan (2012) professional development text. Rudy explained how he introduced the concept to his seventh grade science students in August.

> We talked about that at the beginning of the year—I did, with the kids—[that] we don't read the same in all classes. In science, we're looking for, "these are our procedures, we need to follow them when we're looking at an experiment," or something. There's not some slant; we're not trying to skew the data just to support our hypothesis.

Emeline also challenged the group to consider the different ways literacy is used for purposes *within* a common discipline.

> Well, there's also different forms [of literacy] within the content, too. Because if I was writing for a chemistry journal, I would write in a completely different way than I would for a biology journal … mostly for formatting and verbage.

However, in a social studies classroom, Ashley pointed out that there are additional literacies that are unique to that discipline.

> The other thing that I see, like in *social studies* literacy is identifying perceptions and bias [because] social studies is all about perceptions.

Other aspects that readers in a social studies classroom should be identifying are the author (to establish credibility) as well as the perspective of the author. Although Paul teaches science, he also recognized the importance of historians—and social studies students—identifying certain information about a text.

> I don't always pay attention to the author or think about the time period or the background of how this is, or when this is being written, but I think for social studies, I think that's a big part of it—when and who wrote it [and] the history of the person themselves.

Hesitant/Emerging. Within the heterogeneous discussion, the topic in which teachers displayed the strongest dissidence involved the notion of text. While none of the participants completely limited their understanding of a text to a specific linguistic genre (such as prose or non-fiction), some were more hesitant to expand their definitions too widely while others were open to new interpretations. Paul began this turn in the conversation by indicating that perhaps he should refer to more pieces as texts with his students.

> I don't always, [but] maybe I should use the word *texts* more—just identify everything as a, "Okay, this text we're going to use is (blank)." So maybe they would make the connection [of] understanding for them what a text is and different texts are different**.**

A fellow eighth grade teacher of Paul's, Willie, uses the term *text* with his students often and explains that he considers text as a tool to gain information.

> Well, text could also be anything you read [which is] anything that is used to acquire knowledge.

Ashley agreed with her content colleague in that text has multiple variations and extended Willie's explanation to include the objective of comprehension.

> [It's] anything that we expect them to comprehend.

From this point in the discussion, teachers offered ideas of graphs, charts, and primary documents (such as photographs) as examples of non-linguistic texts. However, expanding on the skills of knowledge acquisition and comprehension as a basis for what a text is, Rudy proposed media as texts, as well.

> What about watching a YouTube video about an experiment? Watching them do it?

Several teachers, such as Melissa, agreed that these non-traditional materials were also used to acquire knowledge and required comprehension and suggested other multi-modal texts.

> I mean, I would consider sheet music a text.

While Emeline believed that listening to songs—not just printed sheet music—could be texts, teachers such as Paul struggled to articulate what, exactly, *reading* and *text* were, but retained that they likely utilized language at their core. However, he began to accept different forms of text, when they were used to encourage critical thinking, near the end of our conversation after Ashley suggested that a person might be literate in different areas.

> I guess you could say you could be literate in understanding songs or understanding movies.

Perform. It became apparent to me early on in the study that I was entering a participatory culture where both students and teachers were constantly *doing*. This action-oriented atmosphere contains several levels of academic and professional performance.

Academic performance. In several instances, teachers discussed the skills in which they expected students to be competent by the conclusion of their classes. In science classes, Rudy and Melissa rely heavily on students retrieving information from visuals. Together they agreed that reading and applying information in pictorial formats was essential to becoming literate in science.

> [Students should be] able to pull that information off of graphs—and use it.

The application of information within a text was a skill that several teachers agreed was vital. Along this same vein, Rudy elaborated that literacy with these graphs and tables goes beyond a simple recall of information. Rather, students need to know how to interpret the information and apply it to their work.

> Yeah, being able to apply what you've got—not just pick it out, but you've got to be able to *use* it.

Applying the same concept to primary documents used in social students classes, Ashley emphasized that she expected more than students fluently reading the words; she expected them to incorporate the vocabulary correctly into conversation.

> Not just be able to say the words, but be able to *understand* and *use* the words.

All the teachers agreed that it was not enough for students to just know what information is in a text, but they then need to have the ability to discuss, write, draw, demonstrate and more using that information.

Professional performance. Like their students, the teachers were also constantly learning, creating, and applying new information. Curriculum planning is an aspect of performance in which the teachers engage months in advance. Karen described the overview guides her school required teachers to submit for the next year.

> At the high school, we have to come up with these kind of—and maybe you're doing them here—the year-at-a-glance, where you're creating units for the overall things. … The year-at-a-glance has to be done for the whole year and we have to turn it in some time before the end of the school year, so we've been working on it.

At the middle school level, teachers were not required to submit anything in advance of the next academic year, but Emeline discussed how the new lesson plans would require teachers to indicate the Common Core Literacy in Science standards, as well as math practice standards, for each lesson.

> And we don't currently require [the year-at-a-glances], but with what our new standards are—*how* they're being written—next year it's going to be implemented because [there's] checkboxes for each [standard].

Throughout our discussions, teachers also divulged their own professional growth, which exemplified the professional achievements many of them undergo individually. The teacher with the most years of experience in our group, Willie, described the changes he had to make in his transition from a high school to middle school teacher.

> I've had to change a lot of things of how I've done it and it's been a struggle because I'm still trying to [adapt] *my* ways and so that's one of the things that's been a challenge. But it's been a welcomed challenge. I think it's actually made me become [better] as far as what I do.

While much of Willie's instructional adjustments have come intrinsically, other teachers have experienced shifts in their teaching based on new teacher mentorship programs (Ashley) membership in professional organizations and graduate coursework (Emeline), professional

development opportunities (Melissa), and seeking out the expertise of colleagues and instructional coaches (Paul, Karen, and Melissa).

Collaborate. Respondents also conveyed the value of collaboration among colleagues as well as providing collaborative opportunities between their students.

Among colleagues. Paul is an advocate of utilizing the expertise of the instructional coaches, Claire and Jane (pseudonyms), in his middle school to help support literacy integration in his instruction.

> I think having Claire and Jane as the coaches, I [think] that's a good role—a good supportive role for us. I think they've done a lot for all of us.

Willie, the social studies teacher on Paul's eighth grade team, completely agreed that collaborating with the instructional coaches has not only helped by providing literacies strategies, but also by modeling the implementation of those strategies.

> I mean there are a lot of strategies that I've tried this year that have been motivated because I talked to Claire and Jane about it. Because I didn't know exactly how to do it and they actually *come up* and model it for me and so I can incorporate it myself. So it's been a big help.

Karen echoed the importance of collaborating with her literacy coach, Vicki Ford (pseudonym), at the high school, as well.

> Vicki's pretty good. I've struggled with some things and gone to her and been like, "I don't know what else to do" and she'll do the same thing—she'll come in and model something.

Additionally, while Ashley recognized the positive impact of the formal mentorship program provided by the district for all new teachers, she and the other participants—especially

Melissa—also acknowledged that collaboration between colleagues to incorporate multiple literacies has also been beneficial.

> We've learned a few [literacy strategies] at professional development and there's a few that I've incorporated. Then usually if I'm talking with another counterpart or somebody else and they're like, "Hey, we did this" and I'm like, "That sounds really cool, how'd you do that?" So we've done that.

However, teachers also identified that online collaboration and literacies resource swaps also occur informally through Googling strategies, finding ideas on Pinterest, or utilizing websites operated by established literacy organizations, such as ReadWriteThink.

Between students. The teachers described opportunities for their students to collaborate, as well. In addition to the quick think-pair-shares that center on text-based questioning, Willie and Ashley also have students frequently conducted partner read-alouds and small group discussions based on articles and primary sources to assist with comprehension and vocabulary.

> We've done the partner reading as far as those primary documents go—making sure they can, in a way, help each other to kind of get through it as well. Like if there's words that they don't understand, they'll still do the underlining, circling, and all that, but it's one of those deals where I want to make sure that they understand the terms and if they don't understand the terms, then their partner might.

Interdisciplinary. An ability to incorporate literacy across disciplines was a theme more evident at the middle level than at the high school, perhaps due to the teaming structure already existing in grades six through eight. Melissa cited the benefits of interdisciplinary instruction to include helping students link previously-learned material as well as saving instructional time.

> Well, I think the more cross-curricular, the more connections they make. So it just makes it easier overall. … We don't have to go through teaching it all over again, so it's kind of nice; it frees up a lot of time. It feels a little painful at the beginning, but [as] they get going and as they get accustomed to it, it makes it a lot easier in the classroom.

Activating his students' schema and building on the content they learned earlier are practices Paul feels are beneficial and are ones he would like to incorporate more.

> Well, I think that's important [to] activate the connections and the prior knowledge, and knowing what the rest of my team is doing makes that helpful. Like, "Remember what you did in language arts? That's like prior knowledge—you've already done it. Here's how you can tie it into this class." Or knowing what [vocabulary] they do in seventh grade. If I can remind myself to tie into that, I think it is helpful.

Willie agreed with the usefulness of interdisciplinary literacy instruction and provided examples of how cross-curricular vocabulary and writing connections were made recently between his social studies class, and the language arts and science classes.

> For instance, we were talking about transcendentalism in American history and then a couple weeks later [the language arts teacher] was teaching a whole unit on that—but the kids already knew a little bit about it already because of the fact that they'd heard that term from me. So they're like, "Oh yeah, we've done that in American history last week." So I think that is a big help for them. … And then we did [persuasive] letters like Mr. Dominguez did last week. So I said, "It's just like we did in Mr. Dominguez's class."

So not only did teachers identify interdisciplinary connections as helpful to their students' learning, but they also were seen as tools for teaching.

Progressive. Although not as prevalent of a theme, teachers did demonstrate dispositions aligning with a progressive mindset regarding multiple literacies in their classrooms. Recent coursework for her master's degree in Instructional Design and Technology influenced Emeline's mindset regarding literacies and types of texts.

> This summer, before I took a visual literacy class … I would have said a text is words on paper. But movies are texts, and songs are texts, and poems (but I've always considered those), but I never thought of pictures being text because they're graphics. Well, a graphic is a type of text, it's just used in a different term.

Emeline also defines literacy more broadly than most people. Using her expanded definition of text, Emeline considers literacy to go beyond the functional actions of basic reading and writing.

> I don't think [literacy] has to just be reading, like primary sources, because you could read graphics and other visuals—and it's important that we think about that. And then also the way that you interpret what people are saying and speaking.

Following her lead, Emeline's colleagues began reconsidering practices from their classrooms as literacies. Incorporating and creating infographics, utilizing graphs and other visuals as primary texts, and considering non-linguistic pieces—such as music, videos, and situations—as texts began to surface in our discussion

Calibrate. Finally, teachers vocalized a strong appeal to calibrate their terminology and practices both horizontally (across disciplines) and vertically (across grade levels), when possible. By using similar language, the teachers believed students would recognize that the skills they are learning are not only transferrable to other classes but that they would begin to build on the skills previously acquired because they recognize the connections. Ashley described

how she incorporates the same phrases as the language arts teacher on her team, in an effort to regulate their wording and eliminate the need for students to remember redundant definitions.

> Working with the language arts teacher on our team, I try to say "claim" and "evidence" as much as possible for writing because that's what she uses—really repeating those words. … But at least using some of those same words so that they have a definition in their brain and they don't have to say, "So in *here*, this is what we call it."

Paul agreed with Ashley that having an alignment of vocabulary would help students not only activate their schema—especially when teachers explicitly remind students of the connections to other classes—but also better learn the material through repetition.

> I think just verbally telling them flat out, "This is just like [language arts]"; I think they sometimes need that but then it does make it easier when they can think back and [remember], "Oh, yeah, okay. That makes sense; I've got that." … With consistency, doing something in my class and then language arts trying to tie into that, we almost do the same thing, so they're seeing the repetition. I think that's [important]; they do need that.

Homogeneous Social Studies Focus Group

Shortly after the heterogeneous focus group concluded, secondary social studies teachers again voted on a location, day, and time using Doodle Poll and determined that the second focus group would be held in Karen's high school classroom on Thursday, April 16, 2015, at 4:00 in the afternoon. I pulled into the parking lot of the high school five minutes before school was released and had to circle the perimeter of the lot twice before I found an open visitor stall. Not wanting to interrupt the end of Karen's class by barging in with all my equipment, I chose to sit and wait in my car until most of the students had exited the building. By 3:40, the stream of

students leaving the school had slowed so I grabbed my bags from the trunk and headed towards the front doors of the building. After signing in at the front office, I navigated the maze of hallways heading left and right and left and right into room 148 where I found Karen Radish working at her computer and a student clearing the white board for tomorrow's classes.

I quickly began rearranging two groupings of student desks near the Smartboard in the rear of the room into a small circle, with a single desk in the center where I placed the voice recorder and some snacks. However, rather than capturing the focus group on video with a camcorder, I chose to set up a Swivl (a small robot device that connects to an iPad and tracks and records video by rotating in the direction of the conversation) behind where I sat so I could capture the faces of the teachers. I had just finished attaching the audio cable on the Swivl when John, a high school teacher whose classroom is located on the floor above Karen's, arrived early to our discussion. Because he was unable to attend the first focus group, John and I introduced ourselves quickly before Willie entered the classroom at 3:50. Although Willie teaches at the middle school and Karen and John are at the high school, regular secondary social studies meetings at the district building provided the opportunities for teachers to meet and interact vertically between grade levels, so the three joked as we waited a few minutes for Ashley—who also arrived early at 3:55.

After passing out packets to the participants that included the $15 Master Card gift cards, a copy of the Homogeneous Focus Group Discussion Prompts (Appendix G), sets of the CCSS history/social studies literacy standards by grade bands, and a printed disclosure statement, we began our conversation by discussing the teachers' experiences with the literacy standards. While the volume of the discussion was more subdued because of the fewer number of participants in comparison to the first focus group, the teachers were less hesitant to begin the

conversation right away. Our discussion concluded at 5:05 and participants stayed until 5:15 to complete the exit questionnaire.

Conventional. Although evidence of a conventional literacy disposition appeared as the top theme across each of the focus group sessions, mention of this practice in the social studies interview doubled from the heterogeneous focus group. When asked about their feelings towards teaching literacies in their social studies classrooms, all agreed that the link between literacy and social studies content was invaluable. However, their explanations gravitated toward describing more of the functional, mechanical literacy skills associated with conventional perceptions of literacy. Karen, for instance, recognized the importance of delaying the introduction of new content to focus on teaching literacy elements.

> I think I've also slowed down a lot to teach some specific literacy things in my classroom and when they don't get it, we time out and do it again or student conference.

Driven by external influences such as Advanced Placement requirements and assessments such as the Multidisciplinary Performance Task (MDPT), in both Karen and John's high school classrooms, as well as Ashley's sixth grade class, writing has taken a prominent role in the curriculum. Teachers identified that students routinely struggle with the technical elements of composition (writing thesis statements, coherent and logical organization, adhering to a single genre/purpose, expanding on ideas for an appropriate length, etc.) as well as sufficiently presenting claims and backing them with evidence. Ashley described her struggle with teaching students to organize the evidence in an essay around a central claim.

> Yeah, I'd say [seeing connections is important] when they're writing. Whatever we're writing about, it's hard for them to stay focused and [know] that it all connects back. Like, you have your *claim*, and they can find evidence for lots of things, but making sure

> it all connects back to the original claim is something that's [difficult]. I mean, it's a different level but I just have sixth grade and getting them to use evidence appropriately—because we talk about finding evidence and here's your claim and supporting it, but having them put it all together is our biggest struggle.

At the high school level, John has encountered similar difficulty with getting his students to have confidence in the evidence they have chosen to support their claims.

> They have a lot of uncertainty when they're writing, as well. It's almost like they don't want to move on until they know they're right. And we're like, "Where the evidence? What evidence do you have to support this?"

And while John has created a step-by-step worksheet to help students write a concise five-paragraph essay without the extra "fluff" interjected that he explains is not necessary in the informative essays his students write based on Document-based Question (DBQ) packets, Karen focuses on revision and analysis.

> We have not written an essay using [DBQs] because my kids are so behind; we're just getting to writing. Solid thesis statements—it's like their sixth paper and they still don't know [how]. It's like, "Nope, go back. Rewrite." …. I think when they write essays, and the style I want them to write in is an argumentative essay—which is what they do sophomore year anyway—but when they start, it's always just a recording. Here are the facts and there's no analysis, so that's what we're trying to get into.

On the other hand, Willie has focused more on the practice of reading this year than he has throughout his teaching career.

> We've actually been doing a lot of reading texts; a lot of reading primary source documents …. But I've incorporated more reading this year than I ever have, as primary documents go.

Incorporating excerpts of longer texts is a frequent practice in both Ashley and Willie's middle school classrooms. In one lesson I observed of Willie's, he gave students a portion of Upton Sinclair's (1906) *The Jungle* to read as a whole class, again in partners, and then respond to a set of questions before bringing it back into a discussion. This is a frequent practice with his eighth grade students. In sharing his lesson plans from the year, he also identified two other examples.

> Here's something we did during the part of the Civil War from *Uncle Tom's Cabin* [where] they actually had an excerpt they were supposed to read and there's questions that they did afterwards [talking] about propaganda. … Here's also another primary document we did with James Polk's *Address to Congress* asking for a declaration of war. And those are just two examples of some of the primary documents we've used, but I've got a ton of others.

Ashley follows a similar practice, but has a more difficult time finding texts that are at an appropriate reading level for her sixth grade students.

> For ancient world history, it's kind of hard to find primary source documents because they don't really exist. There's a few, but those that are are like *The Mandate of Heaven*, which is not written at a sixth grade level. So trying to pick out several parts that we liked—because clearly we can't read the whole thing—and putting it into [OneNote].

Practice. Perhaps due to the prevalence of the disciplinary reading and writing students do in secondary social studies courses, many of the teaching strategies and resources teachers practice in their classrooms revolve around bolstering students' abilities in those areas.

Document-based Question (DBQ) packets, mentioned above, are a popular resource in social studies classrooms. John uses both pre-made, teacher-generated, and student-created DBQs in his classes.

> I've used [DBQs] four times. Each of the DBQs generally gives you a question; the last one we did was, "Why did the Japanese attack Pearl Harbor?" And then it gives you documents to support it. And on this one it had different levels of reading you had to do. Like you had to read a primary source, you had to look at a chart, you had to look at a graph, and you had to know how to read all that and pull information out of it.

However, teachers such as John supplied structure for students by following the gradual release of responsibility model and providing students with strategies to help with comprehension of unfamiliar documents.

> We've scaffolded it throughout the year. Like the first time we did it, I did a think-aloud with them and just walked them through step-by-step how to do everything—how to find evidence, how to annotate.

The teachers also described using some of the established Kagan and AVID strategies to support students. Willie described how he coupled a popular cooperative learning strategy with questioning.

> Well, think-pair-share. I have done that in the past where they just get together after they read a text and they talk about maybe their different ways that they actually read it. How is it different? What are some of the similarities, what are some of the comparisons? … And that has helped them see different ways of actually analyzing that text.

While Karen also uses cooperative learning strategies like jigsaws with reading texts, Ashley incorporates questioning into her classes by teaching students how to pose and respond to more rigorous questions.

> In their planners at the middle school they have Costa's levels of questioning, so we always try to go back [and point out], "So these are level three questions." … And so I guess we just try to use those questions. For every unit that we do, they have to write so many level three questions and we reiterate that there's more than one right answer.

Technology has also proved to be a useful resource for quickly accessing and sharing information such as graphic organizers. Ashley, the only teacher whose students have one-to-one devices, was discussing how she used OneNote (a cloud-based notebook tool used for note taking and document sharing) to differentiate and share assignments with her students.

> We're comparing the ancient Roman government to the United States government. So, I gave them a BrainPop video and an organizer with it over the U.S. branches of government, and then we did a reading together over the branches of the Roman government. And then this one was a writing one [and] they and they had to make an organizer that compared the two. … And they struggled with making the comparisons, [so] we went back over it today.

Collaborate. While each of the teachers shared or exemplified collaboration with colleagues or instructional coaches at least once, the middle school teachers had more opportunities to collaborate between fellow teachers (both within and across content areas) while the high school teachers were more likely to consult their building's literacy coach for ideas. Willie described a current project in which he and the other eighth grade social studies teacher,

Judd (pseudonym), collaborated on creating and also in which their students were collaborating on the project.

> Right now we're talking about the Gilded Age and the Progressive Era and Judd and I are doing the infographics project between teams—both of our teams actually—and we're going to collaborate together and come up with an infographic for a particular topic. [Students] are looking to record the significant events for their particular topic, vocabulary words that they're unfamiliar with, significant statistics, as we as people associated with that particular topic, as well. … He's done [infographics] a couple of times, and I've done them once. And so we thought that this time we'll just both do it together and see if we could get our teams to collaborate.

John, however, has a strong working relationship with Vicki—the high school literacy coach. In addition to sharing online tools (such as websites that identify the Lexile rankings of documents), they also work together to distribute successful tools.

> Throughout the last few years I've just developed my own style and the DBQs that we have now have a chicken foot. And the kids liked that for their essays and then I typed up my own topic sentence [handout]—literally, sentence-by-sentence how to do an essay—and I showed it to Vicki Ford and she really liked it and saw how it was going. She suggested it to some of the English teachers and so they came to me wanting to know how to use it.

Karen also considers Vicki to be a great collaboration partner. She feels very comfortable turning to Vicki when she is struggling so they can work together to find a solution.

> We have a really great literacy coach and I've asked her, "Please come in. I know we only have a month of school left and just watch my B4 class because I feel like I don't

> know what I'm doing! Tell me what I'm doing right or wrong because I just need feedback and our kids need feedback."

While the high school teachers do not get as much planning time with their colleagues as teachers at the middle school, they do often have co-teachers in the classrooms. John mentioned multiple times in our conversation that his co-teacher and he have worked together both during and outside of class to find materials for the students (such as quality pre-made DBQs) and share strategies for working with technology (like using the search tab in electronic books to bring you right to a point in a text).

Hesitant/Emerging. Teachers in the focus group also demonstrated evidence of emerging literacies practices, although they did not always self-identify the practices as literacies based. Taking steps to incorporate more technology and digital media is an area in which teachers are beginning to include new literacies. With the benefit of one-to-one devices, Ashley frequently incorporates opportunities for students to engage in online practices, such as completing web-based assignments (e.g., online graphic organizers and web quests), collaborating on sharable documents, and creating interactive, online content. In addition to his co-teacher integrating electronic books (ebooks) into the class, John has also used technology and personal devices as a tool for completing assignments.

> I used to do the QR barcodes. … The kids would just go up with their phones, scan the barcode, and it had everything there … and I would post it in the window so when it was seminar, they would just run by, snap it, and they had everything that they needed.

Teachers also intentionally incorporate multi-modal texts, but rarely consider them as texts. John, for instance, displays a post-World War II map of Europe after students in his American history class listen to an audio playback of Winston Churchill's (1946) *Iron Curtain*

speech. Additionally, mixing in visual elements—ranging from political cartoons to photographs to professional art—is an instructional multiliteracies practice John frequently incorporates into his teaching. After consulting with the math teachers, he developed a quadrant method for examining political cartoons.

> The kids [know the drill] with analyzing political cartoons, because I have them break it up into quadrants and then analyze each quadrant. … For some of them, they say that really helps because they get focused on the main thing that's going on and they miss what's going on around it and the messages.

In addition to analyzing the political images, John also pairs artwork with his world history content by having students use their cell phones and Google to look up images during class discussions.

> We [used Google] with art in world history. They got to see the iconoclastic [style] and then how it progressed through the eras. And then we hit surrealism and they're like, "Woah." Because it's the one with the clocks that are melted and everything and they're like, "This is surrealism?" … One of the kids just absolutely loved it.

Perform. Using the Jetton and Shanahan (2012) text as an additional catalyst for instructional adjustments, the teachers were frequently reflecting on current practices while planning for the future. Ashley and Karen both made reference to portions of the readings that they wanted to incorporate into their instruction next August to help their students with writing. Karen focused on Table 2.3: Sample Secondary History Texts (Jetton & Shanahan, 2012, p. 56) that provided students short samples of writing in the three main text types that students use in a social studies class—recording, explaining, and arguing.

> That's what I liked in the book where they had the columns. And, in fact, I was like, "Oh, I think I'll photocopy this and use this next year in my class," of the [three] different styles of text with word choice. … When I teach it next year, I was like, "Oh, I'm totally using this!" I'm going to go through it so that we can [understand] just how we put things and how that changes the meaning behind stuff.

Also, after examining annotations of her Jetton and Shanahan (2012) book, I found several other similar notes to herself such as, "Next year, figure out how to do this." Similarly, Ashley found value in the helping students become aware of the grammatical resources historians use in historical discourse.

> I really liked this, where it said, "Here's the five things for historical evidence,"—what you should be looking for. I'll probably print off this. I'll probably make a poster—an anchor chart—to have those five as this is what you should be able to look for.

Furthermore, the teachers demonstrated that they were not static, but rather adapted to their environments and students. While we know that good teachers differentiate their instruction based on students' needs, teachers also made large, systematic changes in their teaching practices. Willie described his switch from teaching at the high school level to now teaching middle school.

> I really had to revamp everything I've done because now there's a lot more hands-on activities that we actually do. Before it was basically sitting and engaging in discussion and engaging in notes and engaging in lesson content. Now there's a lot more activity involved because I just had to change how I did things. I was talking to Judd about this and I said, "I think I've actually become *better* because I've had to adapt myself [from] how I've done things in the past." Because I was so set in my ways that now I've actually

had to remind myself to always remember your target audience …. Now [I] open up and start looking for new ways of doing things.

While the teachers were planning for their future instruction, they also explored practices and resources they had utilized in the past. Karen, for instance, explained how she has modified her essay rubrics to continually challenge her students' writing capabilities.

> I guess the thing that I keep changing [each year] are my rubrics. One of the things I've noticed is that I can't keep my rubrics the same for every assignment. They have to keep progressing.

Although she has only taught one year, Ashley has also reflected on her teaching practice and has taken steps to make her content more encompassing by continually asking students to return to previous material.

> I guess the biggest change that I've made is having them keep pulling that stuff back up. … [So], if we're doing Rome now, I'm like, "Okay, flip back to your Greece tab. How did this compare to theirs?" So I guess it's pulling their information better.

John, on the other hand, has realized the value of immediate feedback for students' writing and tests and has implemented a grading system to allow students to quickly access their responses and comments.

Calibrate. When applied to literacies instruction, the social studies teachers relied heavily on making explicit connections to their students' language arts and English classrooms, in an attempt to align the terminology. Karen explains that after several semesters of students who were naturally skilled writers, she had a group who struggled. As she tried to help them craft their essays using the Schaffer paragraph model, the students became more confused

because the vocabulary she was using did not follow what the students were learning in their English classes.

> I had another year and I tried to figure it out and it didn't work very well by myself, so Mr. Davis (pseudonym) has the pre-AP English class and I said, "What do you guys do in your class? Tell me the terminology you use." Because on my rubrics, I [use] the linking transition statements, but I was calling them "links." Like, "Link it to the next paragraph," because that makes sense in my mind and I'm like, "Oh, you'll understand this," but they were getting lost in the terminology.

Even in less than a full year, Ashley has also realized the benefit of calibrating her vocabulary with that of her team's language arts teacher.

> I think the biggest thing is the terminology. I guess the biggest strategy is just making sure it's the same because sixth grades will *not* recognize that it's the same thing if you aren't using the same words. There's this website, readwritethink.org, where there's the online organizers, and we did [the] persuasive map on it. But it says "topic sentence" and I think it says "evidence" but then it says "details" where we say "claim," "evidence," "elaborate," and "conclusion." And so you *had* to have them cross out where it says "topic" and write "claim." I mean that's [what] we've done before and just because that's what they know from language arts—because that's what our language arts teacher on my team uses—and what we've used in all our classes. So I think that one of the biggest strategies is making sure that the terminology is consistent.

Willie also makes a point to emphasize to his students when terminology aligns. Discussing those connections between social studies and English is one way of reinforcing the concepts and vocabulary.

Interdisciplinary. Cross-curricular elements were common in the instructional practices of the social studies teachers. Overall, they found interdisciplinary possibilities to be helpful to their curriculum and to students' learning due to the reinforcement of content. John, in particular, utilized interdisciplinary connections frequently to support his subject matter. In addition to his practice of analyzing quadrants of political cartoons (a technique he borrowed from math classes), he also makes connections between the period art pieces and students' other courses.

> When we started out in the Renaissance, we looked at the Sistine Chapel and the Statue of David—just the different parts. One of the kids got the Virtuoso Man; they got a kick that that was on their anatomy and physiology book. And just things that you can incorporate in real quick and leave it in their mind and then pull it back up the next chapter and go on.

Another popular method of re-addressing content is to make connections between novels students are reading and the historical content embedded within them.

> And [we] reference books that they read at the high school level—like when we talk about McCarthyism, we always bring up *The Scarlet Letter* and how they went on a witch hunt.

Willie also finds benefit in blending contents. In his classes, he especially finds functional reading practices and writing skills to help students in their comprehension and interpretation of historical texts.

> That's one of the things we incorporate a lot is, you know, talking about what they do in English. And they do [reading] in English, but they're going to do it in every other class as well. And social studies is no different. So I mean, we kind of attack it from that was as far as cross-curricular goes. And so basically when they come in, if there's a text that

> they need to read and comprehend, they're a lot more accepting to do it that way because it's been done in all the other classes, too. … English departments do a very good job with the essay writing and so anything we actually do in social studies as far as that goes, I refer back to what they did during English and kind of try to reverberate that.

Although the teachers acknowledged the interdisciplinary connections, Ashley identified the need to convey the applicability of ideas and competencies across disciplines to the students, as well.

> I need to focus more on telling the kids that that's what we're doing, though. Because if I say, "We're going to do claim and evidence," they're like, "We're not in language arts!" and I'm like, "I know that." So I think I could do better about teaching the kids that that's what we're doing—that literacy's a part of social studies and here is how you're literate in reading historical texts and actually making sure the students realize it. Because *we* realize it, but actually having the students address it, too.

Continuing to utilize objective statements written from language found in the literacy standards—like the one written on Ashley's board on the day of my observation, "Students will use textual evidence to support their opinion of Julius Caesar"—will help students begin to see those connections.

Progressive. Although the theme of progressive literacies implementation was not as prominent in the focus groups, observations, and artifacts as the other literacies dispositions, I was impressed by the teachers' receptiveness to the notion of multiple literacies in their social studies classes. Not only had they begun to increase incorporating some of the literacies practices into their instruction during the period of our study, but some had also begun using the language to discuss their implementation. During a building-wide social studies meeting that Willie and

Ashley attended at their middle school the morning of our focus group, they received information about new Discovery Education online textbooks. Ashley discussed applications of the resource during our discussion.

> The [ebooks] just have a log in code and, actually, I found a way where I can just save them as PDFs. Then it's just on [the students'] OneNote so we don't even have to have internet to get to them. … We just have a trial right now, but what I looked at was really cool because it definitely had lots of multiliteracies for all three grades and had videos and activities and webquests and texts and all sorts of things that go with it.

While other teachers were including multiple literacies into their practices—creating infographics in Willie's class (new literacies), analyzing photographs and pieces of art in Karen and John's classes (visual literacy and multiliteracies), critiquing video clips in John's class (visual literacy and media literacy), and critically analyzing author's perspectives in John and Ashley's classes (critical literacy and disciplinary literacy)—the teachers were not yet comfortable referring to those practices as forms of literacies.

Intradisciplinary. The least common theme apparent during my time with the group of social studies teachers was the notion of intradisciplinary literacies practices. While the teachers recognized that certain practices were more applicable to their discipline, they seldom expressed that the skills utilized to analyze, comprehend, and emulate historical texts was unique to their discipline. When asked why argumentative writing was the most prominent text type her sixth grade students used in their essays, Ashley responded that it tended to align with the content best.

> A lot of the things we study, like the Code of Hammurabi and stuff like that, is still very interpretation-based and so my interpretation of it can be different than theirs and other

people's. So we do a lot of argumentative so that they kind of have to think about it and interpret it on their own. I guess it just kind of goes with the content better.

Additionally, when discussing the value of literacies in context of the Jetton and Shanahan (2012) text, Ashley begins to acknowledge that the way students read is also particular to a discipline and that it is important for students to recognize the varying skill sets needed to negotiate different discipline's texts.

> I think I could do better about teaching the kids that that's what we're doing—that literacy's a part of social studies and here is how you're literate in reading historical texts and actually making sure the students realize it.

With their students in the higher grade levels, the high school teachers also determined value in helping students identifying the different Lexile and grammatical features present in historical texts. John appreciated that the Jetton and Shanahan (2012) book drew attention to the abstract and evaluative language historical writings display.

> I really liked the reading we did for today because it got into the different types of causality, nominalization, nouns—you don't think about it.

Agreeing with John, Karen also indicated her intentions to reveal those linguistic choices to her students in the future when struggling with comprehension.

Homogeneous Science Focus Group

Similar to the heterogeneous and social studies focus groups, a day, time, and location for the science focus group was determined using the scheduling tool Doodle Poll. An email with a specific link was distributed to the teachers' school emails and within a day, all had responded. Because the group of science teachers all worked in the same USD 002 middle school, we determined that we could begin our discussion earlier in the afternoon on Friday, April 30, 2015

since none of the teachers would need to commute from another building. Beginning at 3:30 in Emeline's classroom on the second story of the school would provide the participants enough time for teachers to monitor students as they exited the building at 2:55 and then to address miscellaneous tasks such as grading and organizing their classroom before arriving at the focus group session. On that rainy Friday afternoon, as I signed in at the front office of the school I was welcomed by the sounds of distant conversation and laughter as the last group of eighth grade students were finishing lunch. I arrived nearly three hours before the focus group's determined start time in order to first conduct an observation in Mr. Dominguez's science classroom. I decided to leave my video recording equipment and the refreshments in the trunk of my car during Paul's observation, so after dropping off my notebook and voice recorder in Emeline classroom, she loaned me her building keys I headed back outside with the students at 2:55 to retrieve the rest of the equipment. During this visit I anticipated the parking lot congestion and students heading to sports practices, and with my car already in the parking lot, it was much easier to navigate around the parents waiting to collect their students.

Emeline's seventh grade science classroom on the second floor of the school follows the same layout as the other science classrooms in the building; peninsulas of lab stations jut out from the left and right walls while independent, free-moving desks fill the center of the room. When I arrived in room 713, all the students had departed and Mrs. Tauriel was picking textbooks off of desks and organizing papers at the instructor lab station at the head of the room. I first began to rearrange the movable desks in the center of the room into a small circle, similar to the discussion layout in the social studies focus group. One desk in the center of the circle served as a table for the snacks and as a stand for my voice recorder. The Swivl device had worked well for the capturing a video version of our social studies discussion, so I again set up

the tripod, Swivl base, and iPad behind my seat, nestled between lab stations so it would not be knocked over.

Rudy, whose seventh grade science classroom connects to Emeline's by a shared storage closet, was the first to arrive at the session. While Emeline and he talked about the human sexuality unit they had just begun, I set packets that included the $15 Master Card gift cards, a copy of the Homogeneous Focus Group Discussion Prompts (Appendix G), sets of the CCSS science/technical subjects literacy standards by grade bands, and a printed disclosure statement at the empty desks. Paul arrived to the classroom next. Having just returned from a church missions trip to Haiti the day before, his colleagues were curious about his travels and as we waited for Melissa—who had to pick up her daughters from the nearby elementary school—Paul told stories about his trip. Melissa arrived with her young girls at 3:35 and after getting them set up in the back of the room with snacks and movies, we started our conversation with a question about the teachers' experiences with the Common Core science literacy standards. We finished with our discussion by 4:30, but the teachers stayed until 4:45 to complete the exit survey and to share artifacts and book annotations. Emeline's husband, a fellow teacher at the middle school, was staying to help with sports practices, so she and I remained in her classroom packing up and returning desks to their normal positions until 5:00.

Conventional. Mentions of practices aligning with a conventional literacy disposition were considerably higher among the science teachers than in either of the two previous focus group sessions. Although teachers later demonstrated that they were addressing multiple literacies, their default response to questions about literacy involved discussions of traditional reading and writing. Melissa discussed her views on the importance of incorporating *any* form of literacy into her science classroom.

> I think it's incredibly important. Obviously reading and writing are never going away and it's important for them to be able to read a text and understand it or read different texts, consolidate information, and then support some type of claim.

Emeline agreed that competency in traditional reading skills was essential to students' success and expressed concern about students' futures if they did not have a minimum level of proficiency in functional reading.

While Rudy expressed apprehension that *he* may not yet have the skills to teach his students to write technical pieces, he and other teachers described how they were incorporating more writing into their lessons, as well—often to the chagrin of students who already felt that the amount of writing outside of language arts was too much. Covering technical, persuasive, and narrative and ranging from quick writes, observation journals, reflections, and summaries to article reviews, formal letters, essays, and science fair reports, the teachers were making conscious efforts to employ more opportunities for writing. At the eighth grade level, both Paul and Melissa have worked diligently to bring in relevant writing assignments that help students both with general writing skills and with science-specific writing skills. Paul explained how the amount of writing instruction in his classroom has increased.

> I think every year I do more and more writing. I think it's just been something that I've either chosen to do more or the expectation is kind of more and more that that's what we do. This year we focused on article reviews.

Melissa echoed Paul's comments.

> Like Dominguez said, my [literacy instruction] has been increasing every year. Well, especially [at this school] because we really don't have textbooks for science classes. We

> have resources, but we don't have an actual textbook. So the amount of student writing increases every year with what we expect them to put out.

Testing requirements, new literacy standards, school improvement goals, and a lack of technical writing in students' resource books have prompted the teachers to subsidize the curriculum with additional literacies instruction and resources.

However, even within a conventional literacies mindset, the science participants were pushing the boundaries of what teachers outside of ELA typically conceive as ways to incorporate traditional reading and writing into their classrooms. As the teachers considered the importance of reading in a science classroom, Paul asserted the importance of teaching students to identify their intent for reading, depending on the situation.

> Also, [teach students] the *purpose* for reading the text. Are we going to learn something? Is this a review? Have we already talked about this and it's just more of an echo of what we've done in class? … We need to explicitly tell them the point and how we should go about reading this text and kind of how to focus on it.

Language arts teachers at this USD 002 middle school also asked the science department to address narrative writing in their science classrooms. To do this, the teachers are utilizing R.A.F.T.s, a writing strategy that helps students understand their roles as writers, the audience they are addressing, the formats for writing, and the topic the students are writing about—although, in our focus group sessions, the teachers did not refer to them as R.A.F.T.s. In Melissa's class, students wrote a story about the life and travels of an electron as well as a story about living as a microorganism. When learning about food webs and food chains in Emeline's class, students pretended that they were a squirrel and included their place on the food chain and

what they would eat. Seventh grade students in Rudy and Emeline's classes wrote an epilogue for the Dr. Seuss 1971 book *The Lorax* from the point of view of one of the characters.

Hesitant/Emerging. Evident by the creative ways traditional, functional reading and writing are being incorporated into the science classrooms, it was not surprising that the theme of hesitant/emerging was the second most prominent. One area in which the group was receptive to expanding definitions involved the notion of multiple text types. When describing the P.E.E.L. writing strategy (where students make a point, provide evidence, elaborate on the evidence, and then link it to the next paragraph) Emeline explained that she encouraged her students to pull information from multiple and varied sources. Paul and Melissa also revealed that they had discussed in their content meeting about requiring multiple types of text when students conduct the article reviews next year.

> We decided that probably next year we're going to switch our article reviews to more of finding multiple texts—whether it's an article or if it's a video or a book in the library—and consolidating that information into [addressing] a writing prompt.

Although they and their students do not currently refer to them as such, the teachers also conveyed a receptiveness to including figures, graphs, charts, and videos in their expanded definition of text. Emeline and Melissa explained that they considered decoding and analyzing the information within the non-linguistic references to be a literacy skill because they are reading the information within. However, while their students know the graphics contain important information, they do not necessarily understand that those words and *text* are related. Because of that, Paul proposed addressing text types with students at the beginning of the school year in an effort to create a unifying language.

> Well, I think using [charts and graphs] more often, I mean, I think we'll use that language. And so I think they'll hear it from us more consistently and maybe even the first time we'll explain what a text is and the variations of it.

Lack of familiarity with what constitutes literacies is likely why teachers in the science focus group were so receptive to learning about literacies practices in their discipline, even though their current perceptions leaned heavily towards a conventional mindset. Emeline speculated that perhaps she *was* incorporating many of the Common Core literacy standards, which inherently promote literacies practices, but did not know how to refer to them.

> I think maybe we do a lot of these [standards] but haven't all seen them written out this way. I wouldn't be able to tell you, "I'm doing ELA literacy number (blank)."

Melissa agreed. After our conversation concluded and the participants were completing the exit questionnaire, she asked for clarification on what multiple literacies were before responding to the question.

> Yeah, I think I use them, but I'm not sure what each one is called.

Practice. At the time of our focus group and during my observations of the teachers, it was apparent that the teachers were incorporating many content area literacy strategies and utilizing several resources that promoted literacies. To support traditional forms of writing, teachers incorporated and modeled the R.A.F.T., P.E.E.L., and chicken foot strategies. While these strategies were interspersed at several points (and in multiple classes) throughout the year, teachers first introduced them during the first semester in preparation for the school-wide science fair. During this time, teachers also called upon a series of electronic resources to aid students' research, writing, and accessibility to online articles. Rudy explained that the science fair provides science teachers an opportunity to practice researching, writing, and citing sources with

the students before any of the other contents. Because of this, the teachers take this time to introduce research and organizational tools such as Sweet Search and Symbaloo. It also provides them the opportunity to incorporate several online bibliography tools including Easy Bib, Son of Citation, and the built-in Microsoft reference tools.

Additionally, the teachers implemented several practices to aid in traditional reading comprehension as well. Capitalizing on the technology available to them, Melissa described how she and Paul would utilize News ELA to search for science articles and modify their level for struggling readers.

> News ELA is a pretty good one as far as finding science articles. Dominguez and I have some that are struggling readers, and you can drop the Lexile score on those right there—and it adapts it immediately for those that struggle with some of those really large words. They take articles from The New York Times and places like that and they really adapt them so they can understand them a lot better and not have to struggle with it too much.

Finding some of the leveled articles or scanning in print articles and uploading them to OneNote are ways that Melissa finds articles to use for their weekly article review. Although the school incorporates AVID annotation strategies, Melissa pointed out a prediction marking strategy from page 167 in the Jetton and Shanahan (2012) text that she planned to incorporate.

> I really liked where they were reading and they marked the text with a + at what they understood and circled or marked a text differently for information that goes against their predications. I *really* liked that.

Emeline also promotes annotation strategies when students logged into the school's subscription of Scholastic's *Science World* magazine.

> The kids can actually get [the magazine] online. I have a lot of kids where I just send them the link. Then they type in the code that we make for them and they can highlight on it and listen to it and things like that.

Explicit vocabulary instruction was another strategy teachers also regularly implemented. While all four science teachers expressed interest in the vocabulary notebook outlined on page 166 in the Jetton and Shanahan (2012) text, there was also emphasis placed on making students aware of the morphemes present in their material. I observed this strategy in Mr. Dominguez's class; as students created a map of the eye, Mr. Dominguez discussed the location of rods and cones with his students.

> Rods are found mostly in the peripheral of the retina. Using the prefix 'peri' there, what's that mean? Around. Going around something. Outside. Edges. Side.

This practice was later brought up in our focus group by Paul's counterpart Melissa who recognized this as a beneficial practice.

> When you read a science text, there's so many big words—and they're going to be unfamiliar words. I know Paul and I have been doing word parts, which help them decode those larger words.

Emeline also incorporates interactive, digital opportunities for her seventh graders.

> I found one—it's called a couple different things online—but one website I found that's really cool is you can pick from different activities and the kids are actually looking and doing the experiment. It's kind of what we do [in the field] when we gather and then we put it on the computer. … One of them was called *Zooniverse* and then the other one is *Scientific America* and then you just search *Citizen Science*, but it's really cool!

Intradisciplinary. Participants were not slow to note that literacies can be different depending on the content area. Rudy and Emeline first initiated a brief discussion about the complications they had with incorporating the P.E.E.L. writing strategy across disciplines because the evidence students were pulling was incongruent; in language arts their evidence was from novels but in science their evidence was pulled from multiple, non-fiction resources. This led Emeline to transition to the ways reading a science text is different from reading in other classes.

> It is true that the way you read for language arts and the way you read for science are different. Even with reading the book, when they mention the graph I turned to the graph and looked at the graph and then went back to reading. And I know that in language arts you really probably wouldn't do that—you'd read it and then when you get to it, you're like, "Oh! Okay, here's a picture."

This concept, of immediately referencing a table or figure and then returning to reading, was a science reading procedure Melissa wanted to emphasize with her students.

> I thought it was interesting when they were talking about the chemistry people and how they read—where they were going back from the text to graph to text to graph to text to graph—and I think that's something we actually need to *teach* our students. … I think other than really trying to find those text pieces for our students that have the graph and the text would be to really start getting them to understand how you would go about reading something like that. I mean, it's just like an instruction manual. You want to read the step and look at the picture, look at the step, look at the picture.

Paul had annotations about the same reading practice in his Jetton and Shanahan (2012) book. However, in addition to commenting on the method of non-linear "translation" reading (p. 84), Paul also made note of the types of questions scientists ask themselves while reading.

> Going back to the chemistry guy, [I liked] how he broke it down, like what he was asking himself; how to go back and forth between the different texts or pictures. Translation is what I think he called it. … I think we instinctively kind of do that a little, but we need to explicitly tell them.

Rudy quickly added that it was important for the students to stay with the figure or graph until they understood it, though, not just give it a cursory glance and continue reading. Melissa also addressed that your purpose for reading in science can be different than in other contents.

> When you read a science text, you're learning how to learn something new with science. If you're reading in language arts, you're reading a story but in science you're sometimes reading something that's completely new information to you and you're having to decipher it and decode it and figure out what it means while you're reading it.

Interdisciplinary. Many of the practices the science teachers employ have general interdisciplinary elements. For instance, several of the online resources Emeline incorporates with the science fair research have applications to other disciplines—especially concerning diagrams and credibility of authors.

> It was social studies and science together and they have all of these old documents that's aren't really categorized out, so the kids have to look at all these different pages and mark if there's a graphic on the page. And then they have to find if the author is on the page and relate it.

By incorporating various forms of writing across the contents, teachers are also hoping that students will begin to understand how some skills transfer across contents as well as develop writing stamina. One major focus school-wide that Rudy shared was teaching students how to find evidence that supports a claim. However, as this practice is being emphasized in all the students' classes, Paul pointed out that not all students are accustomed to that amount of writing.

> I think the kids get tired of writing so much. I think if we keep doing it they'll get the conditioning—the endurance—and they won't be as surprised when we're writing in another class instead of just language arts. … I think over time they'll hopefully get to kind of see the connections and see how [reading and writing] is important in science. And I mean, that's kind of on our end too, to make it seamless.

However, in addition to implementing content area literacy practices, teachers were excited to share about the whole team cross-curricular planning. At the seventh grade level, Emeline and Rudy revealed that they were planning a unit as a team for The Hunger Games (Collins, 2008). In a cross between content area and disciplinary literacies, students were analyzing and summarizing the readings found in their research and then connecting it back specifically to science.

> So we're using different strategies for reading that they could do in any class.

In Emeline and Rudy's science classes, students were serving as the game makers to create a new arena by conducting research of different biomes. Rudy elaborated that they were also looking at animal life in addition to environment.

> We're using biodiversity and they put the different animals in there—like the mocking jays—and also doing a little bit with mutants.

They continued to outline what students would be doing in their other courses, as well. In social studies, students would be building districts based on cultures and using a list of least developed countries and most developed countries as the basis of those districts. In math classes, the students would practicing scaling and proportions by examining the arenas.

Students were also participating in a similarly planned cross-curricular unit at the eighth grade level. Melissa explained that before her students went on a field trip to a local nature preserve and 4-H center they would also participate in activities related to each content.

> Before we go, each content area is going to have some kind of lesson that goes with it. Afterwards, they're creating sort of like an infographic or one-pager based on what they do out there. They'll be doing a stream crossing, so social studies is going to be talking about the Oregon Trail and what the pioneers had to go through. [So] students will use what they have at the camp to build a raft and try to float it down the stream. And then they're going to do a marshmallow catapult, so math is going to be tied in. And then they're going to do a stream study as well. So they're going to be doing stuff outside the classroom and then writing about it when we get back.

Perform. Similar to the social studies focus group, science teachers exhibited a strong propensity to engage in reflective practices, develop concrete plans for future teaching, and participate in professional development and continuing education opportunities. With only five weeks left in the school year, conversation driven by multiple literacies practices in their classrooms and supported by the disciplinary literacy practices described in the Jetton and Shanahan (2012) book study text led teachers to discuss ways in which their instructional literacies practices would change next year. Paul explained how some of the resources and

activities Melissa and he use will be expanded in the future and also that how they refer to resources may change.

> Like the multiliteracies—[we'll] probably do more next year, like when we have them get their evidence from multiple sources. … I think doing those more often, I think we'll use that language, and so I think they'll hear it from us more consistently—what a text is and the variations of it.

Melissa agreed and suggested requiring their weekly article reviews to use multiple texts, ranging from print and non-print resources. Additionally, she believed that students should also take on the responsibility of actually locating those texts as well.

> Next year, instead of just providing them with all of the resources—obviously the first few we will—but providing them with one or two and letting them go out and find their own resources to back up the claim they're going to take with the writing prompts.

Incorporating more and varied resources will require Paul and Melissa to focus more on the translation reading skill discussed earlier. While important, Paul recognized that he would need to provide students support in reading those types of texts.

> That is going to take scaffolding for sure, and we'll have to plan it out.

Additionally, teachers made plans to incorporate some of the vocabulary strategies prescribed in the book study text.

However, the teachers also conveyed that they were not alone in their efforts to improve their instruction. Participants not only described having the support of administrators in their efforts to include non-linguist texts in their instruction but they were also provided with learning and planning opportunities in the form of frequent building-wide professional development days, district sponsored science focus meetings, and attendance at local and national conferences.

Furthermore, several of the teacher were either pursuing or had already completed advanced degrees, which provided them with outside resources and new knowledge.

Collaborate. While the science participants did make mention to collaboration with their class within a class (CWC) teachers and paraprofessionals, collaborative opportunities to share resources, and ways they encouraged collaboration between students, co-planning units—although a great deal of work—made teachers truly excited about the projects students were completing in their classes. Discussion revolving around preparing for the cross-curricular units and the ways they were connecting to other contents continued for over six minutes and elicited enthusiastic responses from the other teachers.

However, teachers also stressed the importance of collaborating with the language arts teachers. Melissa pointed to an excerpt of the Jetton and Shanahan (2012) text that resonated with her.

> I think it hit home where it said that the reading teacher and the science teaching really need to have an in-depth conversation as far as what needs to be learned and how do we want—especially from the reading teacher—how [they] see our students reading this. What can I do to help them?

While some of those conversations were already happening informally during the regular team meetings in which teachers who share the same group of students attended, they revolved mostly around general requests—such as helping to teach narrative forms or adjusting Lexile density—and there was not enough time to further discuss more specific needs or instructional literacies strategies.

Calibrate. Occasionally, the lack of opportunities to truly collaborate with the English teachers—yet the requirement to still provide functional literacies instruction—resulted in

frustration. Therefore, due to the amount of content area literacy strategies present, the participants again expressed a desire to develop a common language to refer to shared practices. Emeline clarified that she would like guidance from her language arts teacher in advance because, due to the science fair research, she gets to some of the information first. In those situations, she felt it was important for the language arts teachers to share how they would like specific literacy elements taught, and then to be consistent in their expectations.

> Maybe there's not enough discussion between the language arts teacher and the way that *they* use their wording and then being able to change it and incorporate it to ours. We were using P.E.E.L. last year and we had to incorporate it and change the lettering to match what we were looking for and now they switched on us and didn't really explain the switch. I mean, that's not helpful when they switch [and] they're like, "You should be using *these* words."

Paul explained his attempts at discussing ways to align his vocabulary with that of his language arts teacher.

> I know I've tried to talk to our language arts teacher more about, from my end, getting the terminology right or how I would present a [type of] writing to them. What language are you using so I can echo that? … I think trying to use the same language and tying it in to what they're doing everywhere will help [students] see the big picture of it.

While the science teachers were willing to align their practices and terminology with that of their language arts teacher, they all agreed that the changes need to be consistent and communicated.

Progressive. Although clearly defined progressive tendencies were not as prominent in their conversations as the other literacies dispositions, providing students with multi-modal content presented in various formats were ways teachers did practice a progressive literacies

mindset. Using videos and simulations as texts was a frequent practice in the science classrooms. Whether being used to gather evidence for a research paper, as embedded content in the students' OneNote files, or created by students for cross-curricular projects, teachers indicated an understanding that the term literacy did not equate a linguistic component.

This propensity to include multi-modal elements into their instruction was also exhibited in their tendency to encourage other means of communication with their students. Emeline described a conversation in one of their planning meetings in which teachers discussed ways of assessing students' knowledge.

> They had talked about the students drawing as a pretest. [Teachers would] say, "Draw what you know about the water cycle" and [students] drew like a drop of water or a glass of water. Then their final asked them to draw the water cycle again and they could draw all the different parts of the water cycle.

This multiliteracies approach appealed to Paul, who had a high number of ELL students in his classes.

Composite Description

The focus group interviews, classroom observations, and collection of artifacts revealed nine themes present in secondary social studies and science teachers' perceptions of literacies and instructional literacies practices: conventional, progressive, hesitant/emerging, collaborate, calibrate, perform, practice, interdisciplinary, and intradisciplinary. The nine themes were further classified by how they appeared in the data. Themes referring to the teachers' inclinations regarding definitions, purposes, and uses of literacies were considered dispositions; conventional, progressive, and hesitant/emerging were the themes appearing in this category. Themes that described teachers' conduct regarding what they had done before or planned to

implement in the future were labeled as behaviors; collaborate, calibrate, and perform were the three themes that surfaced in this category. Finally, the three themes that often appeared in conjunction with a disposition or behavior theme were considered bridges; practice, interdisciplinary, and intradisciplinary all involved behaviors that also reflected the teachers' dispositions. Although each theme was at least marginally present among all three focus group sessions, the prevalence of each theme varied between groups. However, the dispositional theme of conventional was the most prevailing among all three focus group sessions.

Chapter 5 - Theoretical Analysis

In the previous chapter, I analyzed the first layer of data by conducting a thematic analysis of the literacies perceptions and instructional literacies practices of eight secondary social studies and science teachers. After I finished identifying the themes present in one heterogeneous focus group and two homogeneous focus groups, and supported those themes from data collected through classroom observations, field notes, and artifacts, I faced shaping the data into a new entity. While each of the determined themes (conventional, progressive, hesitant/emerging, collaborate, calibrate, perform, practice, interdisciplinary, and intradisciplinary) reflected elements of the teachers' combined and individual literacies perspectives and experiences, the data nonetheless remained in its original sense. However, applying descriptive codes derived from genre theory helped to transform the data and I was further able to understand and describe the teachers' literacies genre repertoire and identify how their stocks of knowledge influenced their responses to recurring situations. Situated in Carolyn Miller's definition of genres as "typified rhetorical actions based on recurrent situations" (1984, p. 159) and utilizing Devitt's (2004) contemporary genre theory, I explore how the participants' perceptions of literacies and instructional literacies practices are influenced by generic expectations, with regard to the situational, social, historical, and individual layers of genre theory.

Situational

According to Devitt (2004), "genres are shorthand terms for situations" (p. 16), so the situational context of genre refers to the recurring situations presented to members of a community, such as educators. Furthermore, "knowing the genre […] means knowing one way of responding appropriately to a given situation" (p. 16). By identifying patterns of action within

situations they have previously experienced or witnessed, educators are able to determine an appropriate and relevant response, given the context. Furthermore, the situations described below for each participant are often segmented by the different roles teachers have, which in turn impacts their response to situations. In the following subsections, the identifiable patters of action that participants experienced are named with regard to the situational layer of genre.

John. Conversations with John revealed that the situations in which he finds himself most often are scenes involving reading scenarios within his high school history classroom. John explained that, even in the higher grades, students struggle with strategies for reading and comprehending information in their textbooks. This difficulty is unsurprising; in fact, content area literacy expert Doug Buehl (2014) compares textbooks to a forest with acres and acres of trees. He writes, "textbooks in particular can make [comprehension] processes a demanding task for students" (Buehl, 2014, p. 19). Rather than present only the most important information, textbooks instead conceal the key information within a cluster of frivolous details. Buehl elaborates, "textbooks tend to be written to *expose* students to information rather than help them truly understand it" (p. 19). This is why John makes the comparison between textbook headings and hyperlinks; he suggests that students read the texts as if they were online.

> I equate their textbook to Google News or stuff like that because the kids, when they're reading the textbook, they skip the headings. I tell them to turn the headings into a question and that gives you something to read for. Finally, I just said, "Imagine the headings are hyperlinks," and they're like, "Oh!" You click on the hyperlink and there comes the article.

John also recognizes that students experience frustration when reading historical texts because of the evolution of language over time.

> Some of the biggest frustrations, especially when we did the [DBQs] from way back when, was the way they wrote them back then—the words they used, they're not the same meaning we use today.

Due to the prevalence of primary documents in his classes, John has recognized the need to teach his students ways of analyzing word usage. Similarly, when discussing the causes and effects of the world wars, he now focuses on teaching students to analyze different points of view—a skill especially necessary in his world history course where students must recognize the viewpoints of other countries.

> Getting them to see it from the British point of view instead of the American point of view is pretty difficult. I just tell them flat out, "We're approaching it from the non-American point of view. You've got to think as a British person does or as a Japanese person does."

John also understands that, because students struggle with reading historical texts, providing support in the form of scaffolding information is also essential. Utilizing step-by-step handouts and a guided release of responsibility, Mr. McCormack will first demonstrate how to tackle a text with superfluous information and complicated language before asking students to perform the task themselves.

Karen. While Karen undoubtedly participates in teaching situations similar to John, the patterns of action she described relate more to situations regarding interactions with specialists. Seeking advice from her building's literacy coach, Vicki Ford (pseudonym), has provided multiple opportunities for Karen to receive feedback from someone whose expertise aligns with the needs Karen has identified in her own teaching.

> Vicki's pretty good. I've struggled with some things and gone to her and been like, "I don't know what else to do" and she'll do the same thing—she'll come in and model something.

Nationwide, teachers across grade levels and content areas are frequently called upon to counsel students in need, diagnose areas of learning concern, teach content, assess student knowledge, report on student progress, and promote the school and classroom activities. However, when teachers struggle in any of these situations, the appropriate response is to seek assistance.

Teachers are not limited to guidance from individuals within their schools, though. Educators often are proactive in their search for instructional support and assume the role of conference attendee. Karen referenced one such situation in which she attended a session by Sam Wineburg, author of *Historical Thinking and Other Unnatural Acts: Charting the Future of Teaching the Past* (2001). He, like Jetton and Shanahan (2012), provided vignettes illustrating that "historical thinking, in its deepest forms, is neither a natural process nor something that springs automatically" (Wineburg, 2001, p. 7). These situations in which Karen interacted with specialists in an effort to reinforce her teaching, follow actions she witnessed in her years as a novice teacher.

Willie. As a long-time high school history teacher, the situations in which Willie participates are a similar to those of John. As evidenced by our conversations, samples of lesson plans, and classroom observations, the patterns of action Willie frequently participates in are teaching situations involving reading. As students wade through the content of historical texts, Willie teaches his students to be critical readers by approaching the text from multiple directions.

> We did a lot of reading of primary source documents and then having them interpret and share with each other what their interpretations were. [So], you know, attack it from a lot of different angles.

Willie's previous experiences from years of teaching primary documents to students led him to the decision that incorporating activities and providing students opportunities to collaborate with one another was beneficial to their understanding of the texts. Providing students a platform in which to discuss how they read a text further supports students' interpretations.

> I have done [think-pair-share] in the past where they just get together after they read a text and they talk about maybe their different ways that they actually read it. How is it different? What are some of the similarities? What are some of the comparisons? …And that has helped them see different ways of actually analyzing that text.

Similar to John's classroom, Willie has found that encouraging students to examine different points of view—to reveal any misleading information—has also assisted with reading comprehension and critical analysis.

> We looked at the British point of view, the American's point of view, and the kids—all of a sudden—they're like, "Oh, yeah, that makes a lot of sense." Because they're [understanding], "I can see how Britain felt, I can see how the American's felt, I can see how the rebels or the patriots felt." So I was like, "You really have to be careful as far as what you read."

To provide his middle school students with multiple situations in which they can participate in examining historical texts, Willie has found that text excerpts—rather than full-length documents—expose students quickly to areas of reading and content he wants to address.

Ashley. Similar to Karen, Ashley also described interactions with specialists as a repeating situation in which she often found support. However, Ashley more frequently described recurring teaching situations that demonstrated flexibility and adjustments. She first addressed the scenario of specifically reading historical texts, such as primary documents.

> I can be literate in reading primary source documents and other basic literature, but if I read a science article, how much would I comprehend just based on my content?

Therefore, to help students understand that they would need to adjust the way they read based on the class, and that the information within a historical text (whether expository or persuasive) was often different than that of materials in other classes, Ashley would pose guiding questions. Ashley also encouraged students to re-read the text, go beyond basic retellings and instead apply the readings, and work collaboratively. Furthermore, she varied the level of reading support based on the individual class and the students within.

However, because Ashley so frequently aligns the reading and writing skills she teaches with that of her language arts teacher, she indicated that even after only one year teaching, she recognizes that having consistent terminology across contents is an effective teaching approach. She describes an experience earlier in the school year when she asked students to complete an online graphic organizer with phrases not aligning with the English teacher on her team.

> You *had* to have them cross out where it says "topic" and write "claim." ... Just because that's what they know from language arts [and] what we've used in all our classes. So I think that just one of the biggest strategies is making sure terminology is consistent.

Emeline. Emeline offered evidence of multiple situations she encounters as a teacher. Within each of these circumstances, Emeline responds slightly different, depending on the context.

Interactions with specialists. Frequently, Emeline engages in opportunities in which she interacts with fellow professionals and experts in their field. As an online master's candidate at a state university, Emeline participates both as a student in learning about technology integration and applications of new literacies and multiliteracies as well as a teacher gleaning information to bring back to her classroom. Her membership in professional organizations (a common practice among the participants in this study) also presents her with situations that require her to draw upon her conference schema and enact an appropriate response. As an attendee, Emeline sits ready to take notes about instructional practices, teaching strategies, and lesson ideas—such as the interdisciplinary unit based on the 2008 book *The Hunger Games* by Suzanne Collins. As a presenter, Emeline also follows an established protocol that involves her preparedness by creating a presentation and handouts in advance for those who attend her session.

Teaching situations. There are also several recurring situations that, as a middle school science teacher, Emeline participates in frequently; preparing students for the annual science fair is one such occurrence. The science fair project, a genre itself, presents Emeline with several instructional literacies opportunities. Ranging from teaching students how to create a bibliography page at the end of their report to representing their findings in a 3D display, Emeline works with students to develop their writing and presentation of ideas.

> Because of the way our science fair sets up and we do research paragraphs and they have to cite it, we actually end up teaching how to go do the research in the books and do the MLA citations before they get to it in language arts. So it's very step-by-step … to get them to be able to summarize it in their own words. It's a lot of practice of you write it one way—and we only let them write twenty words from a book because otherwise they'll just copy it down—and then they have to put the book away and rewrite those

twenty words into their own statement. And then they have to put that away and when they type their research paragraphs, they can only do it from their second rewrite.

While Emeline begins the science fair research before her seventh grade students review technical writing or MLA in their English classes, she still employs the use of cues to help guide students to understand what is expected.

I feel like I say, "…like in language arts class when you do this…" a lot.

She has also begun using the strategy of naming the practice students are employing during her class.

I like how in the [Jetton and Shanahan (2012)] book when she gave the example towards the end of page 114 where she's saying, "activating prior knowledge" like twenty times in her little statement. I never thought about saying, "And when I 'activate my prior knowledge…'" to the kids and so today I was like, "…and prior knowledge…" So I guess it made me think I need to start specifically saying that more.

Explicitly referring to practices that students use across contents, as well as identifying the strategies students apply, influence Emeline's response to instructional situations.

Paul. While Paul also interacts with specialists when collaborating on pre-writing strategies and aligning his literacies terminology to that of his language arts teacher, he revealed that more of the recurring practices he participates in involve teaching situations in which he modifies content. In the context of the vocabulary notebook strategy exemplified in on page 166 of the Jetton and Shanahan (2012) text, Paul points out that a general, student-friendly definition could be a way to implement English language learners' primary language.

The general definition is probably better for our ELL kids—seeing their native language with the English. [Incorporate] both native language and English so they can kind of see

> the connection and this is how your language is translated here, and giving them the technical term with how to break it down, I think is important.

Paul also recognizes that both his special education and ELL students will need support when implementing traditional writing into his science classroom. As Emeline described, making connections to prior knowledge are essential to helping students understand new skills and information. Paul intentionally incorporates explicit tie-ins to his students' language arts class to demonstrate relationships between materials students have already learned and what they will practice in his class.

> Well, I think that's important [to] activate the connections and the prior knowledge. … Like, "Remember what you did in language arts? That's like prior knowledge—you've already done it. Here's how you can tie it into this class." Or knowing what [vocabulary] they do in seventh grade. If I can remind myself to tie into that, I think it is helpful. It makes them just try and think about, "Okay, yes I can remember that. Here's how it applies to this."

In addition to making specific relationships between concepts, Paul also regularly implements scaffolding strategies in his teaching. At the beginning of the year, when Melissa and he introduce the article review assignment, Paul combines modeling and student collaboration as supports.

> Together we found the evidence that we wanted from different sources and then we decided which one we wanted to do as a class together—like which piece of evidence. And then, maybe with a partner, look at another piece of evidence or document to find evidence. Then the last one would be more on their own. So more scaffolding, too. We'll do one all together, then kind of more and more on their own.

Melissa. The recurring situations Melissa described during our conversations mostly involved interactions with specialists. Attending regular secondary science focus meetings with presentations by instructional coaches and curriculum specialists is a situation where Melissa often gains new insight into instructional literacies applicable to the science classroom.

> After one of our science meetings, we were talking about getting a little further in-depth with their writing while really using more than one text to write something.

Additionally, participating in periodic building professional development sessions introduces Melissa to new strategies that promote multiple literacies in her classroom.

> We've learned a few [literacies strategies] at professional development and there's been a few that I've incorporated. … We've had professional development things since I've been here and there's been non-linguistic representations [of texts].

Melissa also takes advantage of the literacies expertise of her colleagues and seeks opportunities to learn from those around her.

> Usually if I'm talking with another counterpart or somebody else and they're like, "Hey, we did this," and I'm like, "That sounds really cool; how'd you do that?"

She believes that these conversations—especially between the language arts department and the other contents—are essential to knowing how to respond appropriately to the science literacy needs of her students.

> I think it hit home where it said that the reading teacher and the science teaching really need to have an in-depth conversation as far as what needs to be learned and how do we want—especially from the reading teacher—how [they] see our students reading this. What can I do to help them?

Melissa sees cross-curricular instructional possibilities as ways to not only strengthen students' understanding, but also make teaching easier because content and skills are constantly building on previously learned material.

Situational Literacies Perceptions and Instructional Literacies Practices. Situations involving teachers' literacies perceptions and instructional literacies practices are expansive. Each broadly identified situation (which is only a minute portion of the spectrum of situations in which teachers participate) reveals the multiple nuances involved with naming education-related situations. Described above, teachers participate in instructional situations that range from teaching students how to read primary documents to modifying vocabulary assignments to teaching pre-writing strategies for a traditional essay. However, teachers' conversations and observations of their instruction also revealed that they participate in recurring situations involving professional growth through interactions with specialists. While this could be conferencing with colleagues or their building's instructional coach, sharing ideas with curriculum specialists at the district level, or attending and/or presenting at conferences, teachers were engaging in situations that involved learning about new instructional literacies from others. Furthermore, teachers demonstrated the need to be flexible and quickly adapt to a variety of scenarios occurring within established situations. While it is easily identifiable that the list of recurring situations presented to members of the secondary education community expands well beyond those presented here, this section begins to illuminate the situational genres displayed in teaching.

Social

Referred to as the *context of situation* by M. A. K. Halliday (1978), an individual's register—or the resources one calls upon given their social context—helps an individual function

within the expectations of his or her society. Communities, or groups of people who spend considerable amounts of time together and a have a common aim (such as academic departments), often share a common genre repertoire. Furthermore, members of a community call upon their genre repertoire regularly and occasionally in varying ways, based on the circumstances, which reaffirms why Halliday considers the social layer of genre as the context of situation. In this section, I examine the genre repertoires—the "interacting and cooperating genres" (Devitt, 2004, p. 65)—present in this community of teachers.

John. Supportive of Devitt's quote above, John revealed that his genre repertoire as a high school social studies teacher includes interacting instructional resources and strategies.

Instructional resources. Document-based questions, or DBQs, are a staple in Mr. McCormack's instruction because of the variety of ways they present content as well as the reading and writing activities that align with them.

> I've used [DBQs] four times. Each of the DBQs generally gives you a question; the last one we did was, "Why did the Japanese attack Pearl Harbor?" And then it gives you documents to support it. And on this one it had different levels of reading you had to do. Like you had to read a primary source, you had to look at a chart, you had to look at a graph, and you had to know how to read all that and pull information out of it.

DBQs are essential to John's repertoire because they not only expose students to multiple forms of historical texts, but they also influence other instructional resources and strategies. Traditional five-paragraph opinionated essays, complete with footnotes, are two additional genre resources that cooperate with the DBQs in John's classroom.

Strategies. John's genre repertoire also involves strategies that interact with the instructional resources of DBQs, opinionated essays, and footnotes previously described (see

Figure 5.1 below). A reciprocity between the instructional resource and the strategies is seen in the ways the two forms interact. For example, John calls upon his education genre repertoire when he first introduces students to writing opinionated essays based on DBQs by conducting think-alouds and modeling annotation styles.

> We've scaffolded [the writing process] throughout the year. The first time we did it, I did a think-aloud with them and just walked them through step-by-step how to do everything—how to find evidence and annotate.

Mr. McCormack has also developed a guided pre-writing worksheet to help students recognize the ways in which essays written for a history class differ from essays written in their English courses. This document provides students with strategies (regarding the development of thesis statements and making arguments) that bolster their reserve of historical writing strategies.

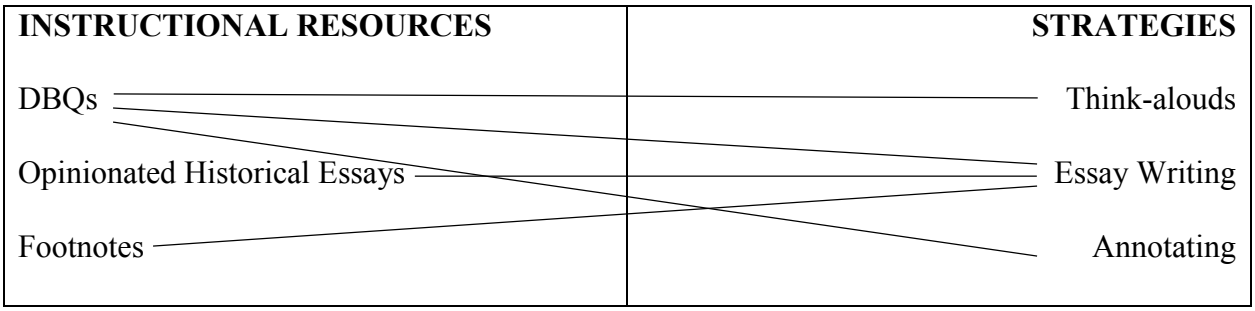

Figure 5.1. John's Interacting and Cooperative Genres

Karen. Similar to John, conversations and an analysis of artifacts revealed Karen's genre repertoire as a high school social studies teacher involves a series of interacting administrative resources, instructional resources, and strategies.

Educator resources. In preparation for their AP (advanced placement) exams and success in college, Karen follows the AP style for writing essays—evidence of an educator resource belonging to Mrs. Radish's genre repertoire. AP courses, which include exams offering college course credits in math and computer science, arts, sciences, English, history and social studies,

and world languages and cultures, provide a standard of instruction and a guideline of topics for AP teachers across the country. This resource, like the argumentative essay itself, also connects back to the DBQs both John and Karen utilize.

> [In the past], we would write five or six essays using [DBQs] in the AP style where you had to group them by what goes together and how they are supported. … But I've also slowed down a lot to teach some specific literacy things in my classroom. … And it's frustrating for me, I guess, because I know where I want to be and we're not there. And so that's kind of like with using the DBQs and citing them the way they do in AP style.

Administrative resources. Karen revealed the need to be versed in documents required by building or district administrators, including lesson and unit plans.

> At the high school, we have to come up with … the year-at-a-glance, where you're creating units for the overall things. … The year-at-a-glance has to be done for the whole year and we have to turn it in some time before the end of [this] school year, so we've been working on it.

While the year-at-a-glance document may be unique to Karen's building, similar planning documents are used by districts across the country. These brief lesson and unit outlines cause teachers to consider their instructional objectives and alignment to curricular standards in advance to ensure that they are addressing the entire curriculum, a practice that was not always required (Kagan & Tippins, 1992). Understanding how to complete documents such as these, which are frequently used by the schools as evidence of their School Improvement Plans (SIPs), are necessary for teachers to function within the expectations of their education community.

Instructional resources. Document-based questions were also a genre resource in Karen's classroom. Although she did not utilize them as frequently this academic year as her

colleague John, these resources were part of Karen's vernacular. By incorporating DBQs into her instruction, Karen could provide her students a context for writing historical argumentative essays, another instructional resource.

> The style I want them to write in is an argumentative essay—which is what they do sophomore year anyway—but when they start, it's always just a recording. Here are the facts and there's no analysis, so that's what we're trying to get into.

Strategies. As a secondary educator, Karen's genre repertoire is also equipped with several strategies relating to reading and comprehending rigorous texts. These strategies interact with the instructional resources of DBQs and argumentative essays—and consequently AP style—previously described as well as having guidance from the administrative resources requested by Karen's building (see Figure 5.2 below).

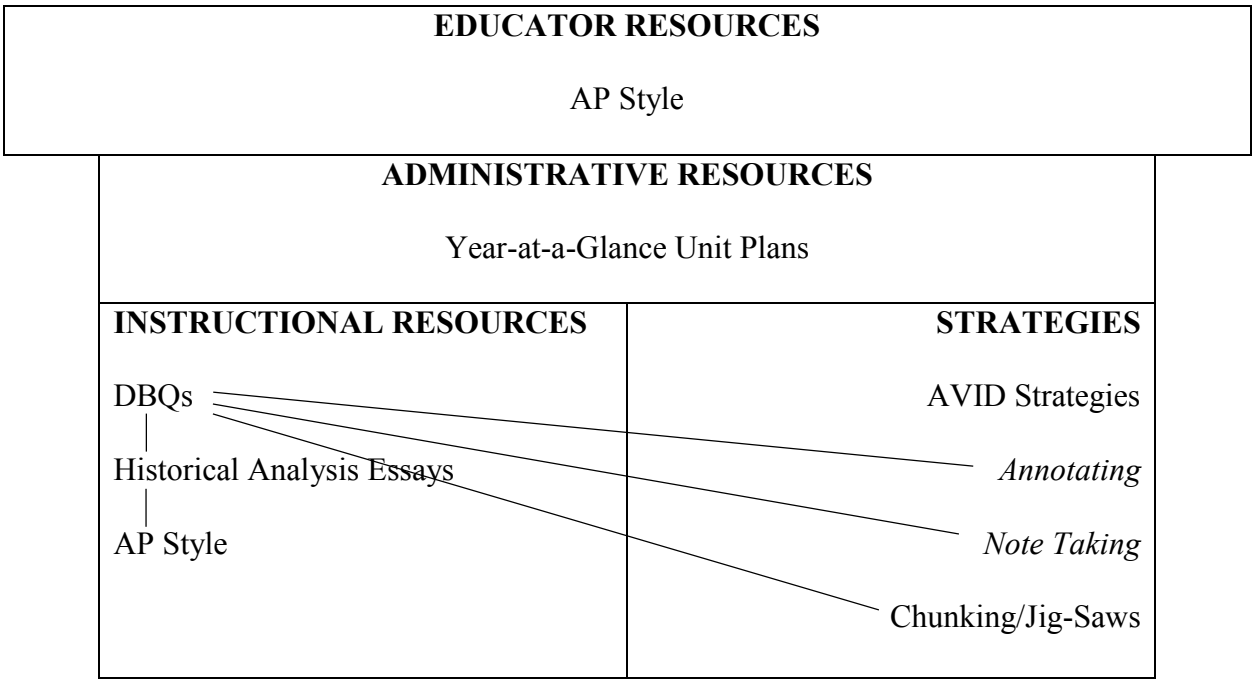

Figure 5.2. Karen's Interacting and Cooperative Genres

A mutual exchange between the instructional resources and the strategies is seen in the ways the two forms interact. For example, Mrs. Radish calls upon her teaching strategies genre repertoire

when she provides students with the DBQ packets (and other, separate texts) and applies the AVID strategies adopted by her district to assist students' comprehension.

I think AVID has a lot of [reading strategies] that I've used in the books.

Critically reading the document and purposefully annotating it as students conduct multiple readings of texts, as well as participating in Cornell note taking strategies, are specific AVID strategies Karen considers important skills as students go off to college. However, Karen also employs cooperative learning techniques such as jig-saws to chunk longer portions of text into smaller, more manageable sizes. This allows Mrs. Radish to split the reading among the class so they can more quickly participate in the AVID strategies described above and then, as authorities on their excerpt, they can bring their portion of the text back to their original small group and teach the material.

Willie. Although he was only finishing his first year as a USD 002 employee during the time of this study, Willie had considerable teaching experience at other schools and other grade levels in the past. However, his career never led him outside of the secondary social studies education community, so the resources Willie employed given his social context remained essentially the same. During our focus groups and supported by observations of his instruction, Willie established that, like Karen, his genre repertoire consists of an interacting blend of administrative resources, instructional resources, and strategies.

Administrative resources. In addition to the daily lesson plans Willie creates and stores in a large three-ring binder, Willie explained that the administrators at his school expect every teacher to have certain information posted each day in their classrooms.

The lesson objective, the unit objective, and we always put agendas up as far as what we're doing that day.

As students enter the room, the first few minutes of the class are spent giving students time to write down relevant information (e.g., agenda, homework, etc.) into their weekly planners. At Willie's school, administrators and instructional coaches also conduct regular walkthroughs. Walkthroughs, which "can foster focused, reflective, and collaborative adult learning" (Ginsberg & Murphy, 2002, p. 120) are short, unscheduled visits that provide opportunities for feedback on instruction. During walkthroughs, staff also look for this information to be posted in the classroom. Located in the back of his room, Willie has segmented sections of the dry erase board for the daily agenda, the unit objective, the lesson objective, and the essential question (see Figure 5.3 below).

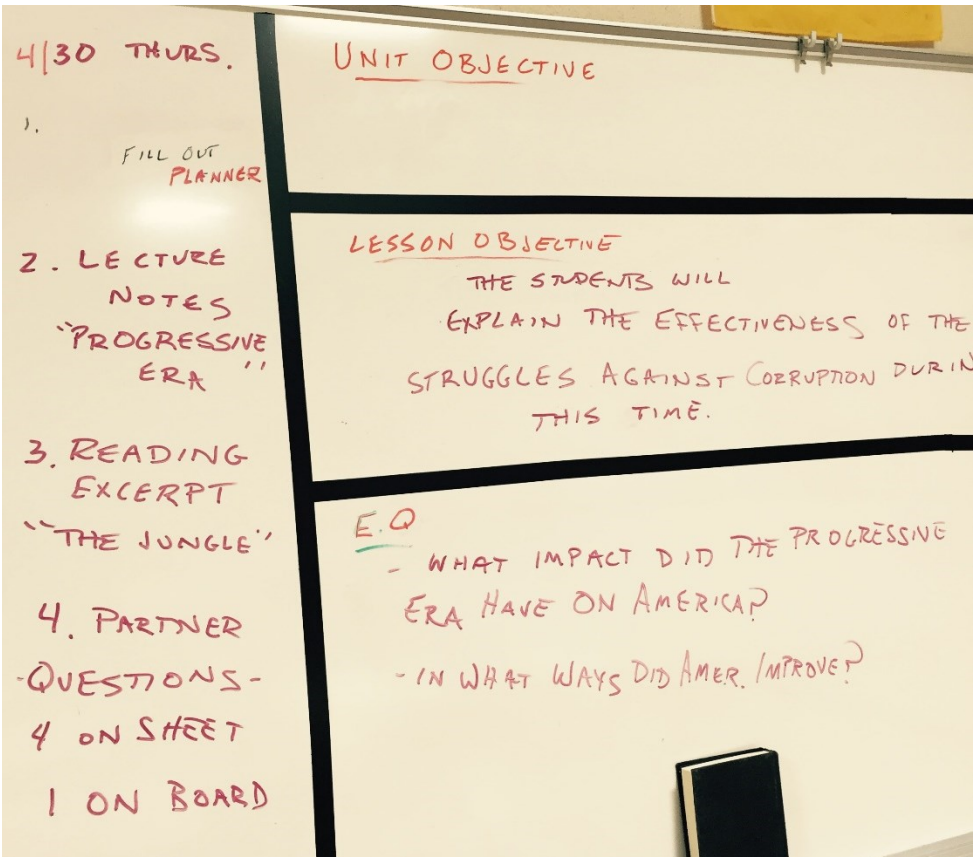

Figure 5.3. Mr. Richmond's Administrative Resources Genre Repertoire

Instructional Resources. Mr. Richmond's social studies genre repertoire also includes instructional resources. Primary documents were the most significant instructional resource Willie voiced during our discussions. In fact, he referred to the use of primary documents five times in our heterogeneous focus group and another four times in our homogeneous social studies focus group—more than any of the other participants (including history/social studies teachers).

> One thing I've done a lot more this year is primary documents. I mean, I'm going through my lesson plans looking at all these things I've done and I didn't do this before because I was kind of more old school, kind of set in my ways. Now I'm like, okay, open up and start looking for new ways of doing things. …But I've incorporated more reading this year than I ever have, as far as primary documents go.

Strategies. Not unexpected, Willie also has a large reserve of strategies he uses with students so they practice the skills necessary to be successful in high school, college, and beyond. Identifying and analyzing the author's perspective and bias is one skill Willie considers to be important when interacting with modern media, as well as when reading historical documents.

> You can even see [bias] in the news now—how things can actually be slanted left or slanted right—and a lot of times kids don't realize that. They take it for face value, not realizing that there's actually a little bit of bias in that particular story, and there could be bias in historical documents, as well.

Therefore, when students read primary documents or excerpts from *Flags of our Fathers* (Bradley & Powers, 2001), Willie addresses how identifying authors' perspectives can be significant.

When interacting with the genre of primary documents, Willie also pairs partner reading with annotation, vocabulary, and discussion strategies into his eighth grade social studies classroom.

> We've done the partner reading as far as those primary documents go—making sure that they can … help each other to get through it as well. If there's words that they don't understand, they'll still do the underlining, circling, all that, so it's one of those deals where I want to make sure that they understand the terms and if they don't understand the terms, then their partner might.

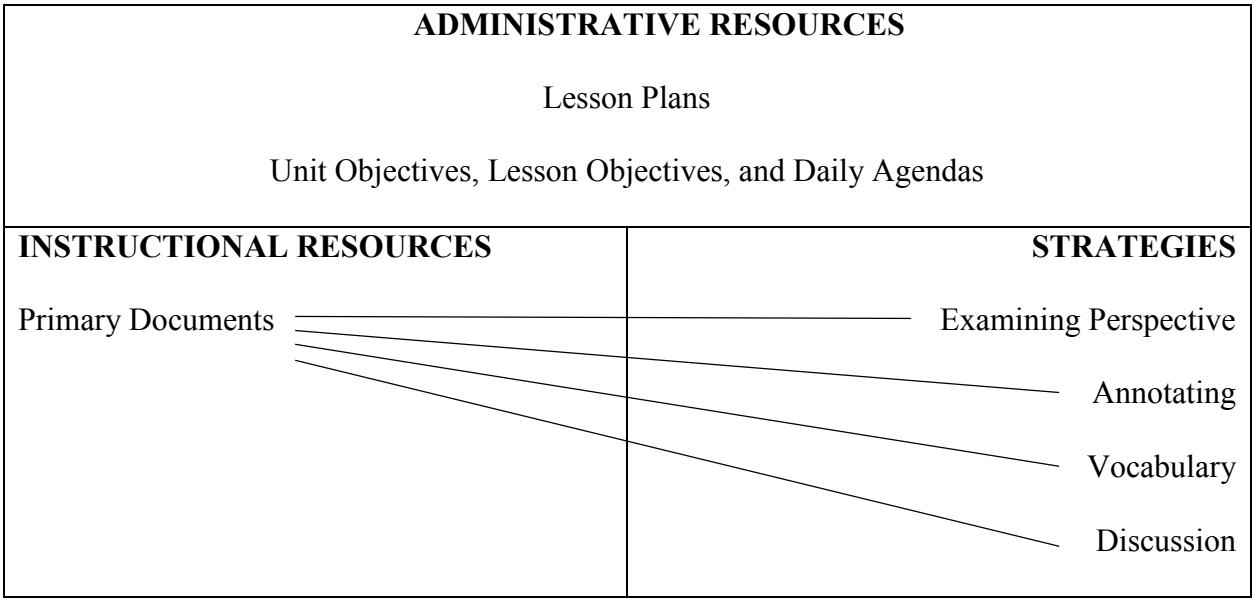

Figure 5.4. Willie's Interacting and Cooperative Genres

Ashley. As a first year teacher, Ashley's genre register has grown exponentially since her undergraduate content area literacy course where she first learned general literacy skills and strategies. Similar to her content colleagues, Ashley calls upon a combination of both instructional resources and strategies as a secondary social studies teacher.

Instructional resources. While those in the science department frequently discussed writing paragraphs after identifying reasons and then finding supporting evidence using the

chicken foot organizer, Ashley explained that the DBQs in social studies courses can help students learn the same skills.

> Well, I'm social studies, so I've seen [those resources] but ours are document-based questions. I mean, document-based is how we refer to them in social studies. It's how the students recognize that that's what we're trying to get [them] to understand in an article or document. … In social studies, I usually say "document-based."

During my observation of her instruction in mid-April, Ashley was also holding a Socratic circle with her students, another instructional resource in her genre repertoire. Socratic circles, which promote "critical reading, critical thinking, discussion skills, listening skills, team-building skills, vocabulary improvement, and student ownership, voice, and empowerment" (Copeland, 2005, p. 3), are being incorporated into all content area classrooms with more frequency due to their ability to make students' voices heard. On the day of my visit, students had prepared for their discussion by reviewing the content vocabulary, posing their own questions, and answering the essential question, "Was Julius Caesar a 'great reformer' or a 'mean dictator'?" by citing evidence from their history materials. Typical of Socratic circle formats, while the inside circle of students discussed the essential question, the outside circle of students completed observation forms.

Strategies. Pulling from her repository of strategies, graphic organizers were one resource that Mrs. Rivers used with her students frequently in multiple formats. Earlier in the term when students were learning about the ancient Roman government, they completed a graphic organizer comparing the Roman government to that of the United States on their tablets with OneNote. Using her computer, Ashley shared an anonymous student exemplar with the group as she explained the assignment.

I gave them a BrainPop video and an organizer with it over the U.S. branches of government, and then we did a reading together over the branches of the Roman government. …They had to make an organizer that compared the two and then their final part was writing out a claim if they were more similar or different.

Ashley also incorporates Costa's levels of questions into her classroom practice. Developed by Art Costa, Costa's questions are three levels of questioning designed to encourage higher level thinking, a strategy promoted by the AVID program and carried out by Ashley's school.

In their planners at the middle school they have Costa's levels of questioning, so we always try to go back [and point out], "So these are level three questions." … And so I guess we just try to use those questions. For every unit that we do, they have to write so many level three questions and we reiterate that there's more than one right answer.

The development of level three Costa's questions are used in conjunction with Socratic circle preparation, too (see Figure 5.5 below). As Ashley's students plan for the discussions, they write a series of Costa's questions to facilitate the conversation.

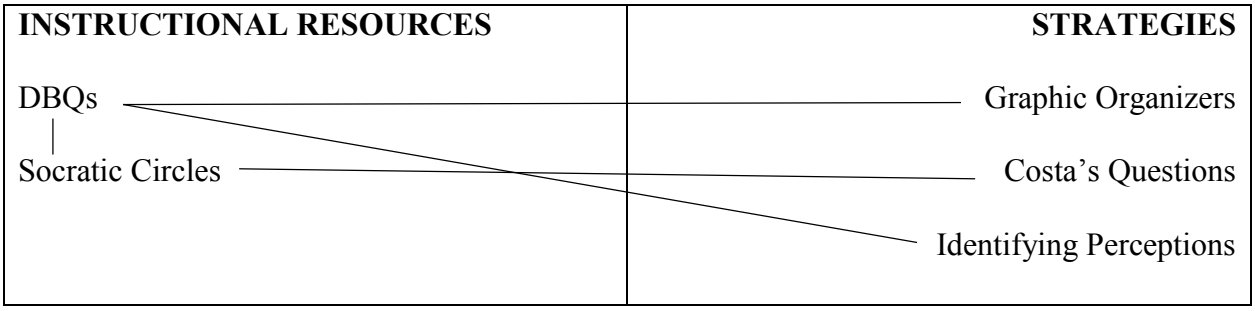

Figure 5.5. Ashley's Interacting and Cooperative Genres

Mrs. Rivers also works to help her students identify perceptions and bias in the texts that they read. She views this skill as an ability that is essential to their proficiency in social studies literacy.

> The other thing that I see, like in *social studies* literacy is identifying perceptions and bias [because] social studies is all about perceptions. So, can students identify the perception the document is actually [presenting]?

This strategy extends to identifying the author—who they were as a person and what their beliefs were—impact their writing. Understanding how an author's stance can influence the position and audience of historical pieces as well as modern media, as Mr. Richmonds mentioned, is a skill both Ashley and Willie felt were essential to their content's repertoire.

Emeline. Through our focus group sessions and observations of Mrs. Tauriel's class, I discovered that Emeline's reserve of genres from which she can draw as a secondary science teacher was expansive. While other teachers no doubt also bring with them a similar repository of genres in order to participate successfully in the educational community, Emeline made mention to several specific genres. Among those she discussed included the broad interacting genres of educator resources, administrative resources, instructional resources, and strategies.

Educator resources. While all the teachers who participated in this study were held responsible by their state and district for addressing their both their content area standards and literacy standards, Emeline was more familiar with their requirements and implementation due to her recent experience serving on committees and discussing them in college coursework.

> I would say I feel comfortable with our new standards, but that's probably because I'm on the district committee and then one of my classes for my master's is focused on the standards and how to implement them though technologies.

She later described that her building was developing a new lesson plan template—which is part of teachers' administrative resources genre repertoire—that has an area for teachers to indicate how their content standards connect with the ELA standards and the mathematical practice

standards. According to Devaul, Diekema, and Ostwald (2011), teachers have been required "to document that their instruction is aligned with relevant state or national standards" (p. 395) since the 2001 passage of No Child Left Behind. This nation-wide requirement, affecting teachers well beyond USD 002, illustrates that standards belong to the genre repertoires of the education community at large.

Administrative resources. However, Emeline also participates in the genre of administrative resources through the use of lesson plans. The lesson plans required by Emeline's building have undergone several changes as they evolve with the needs of teachers, the building's school improvement plan (SIP), and state and national changes—such as the adoption of new standards. While the newest lesson plan template was introduced to the rest of the teaching staff at their last faculty meeting of the year, the teachers were not required to implement them immediately.

> With what our new standards are—*how* they're being written—next year it's going to be implemented because [there's] checkboxes for each [standard]. … It has the performance expectations and the DCIs (which are disciplinary core ideas) and then … underneath it, it says, "And this is how it relates to Common Core ELA."

As the new lesson plan templates integrates designated areas for teachers to address standards, the interaction between the educator resource genre and administrative resource genre is made explicit.

Instructional resources. Although they were both only mentioned in passing, word walls and the experiments that teachers conduct with students in science classrooms are evidence of instructional resources Emeline uses. During my observation of her teaching, and then again during our homogeneous science focus group, I noticed that colorful, alphabetized notecards

with strips of ribbon extending from the bottoms lined the back wall of the classroom. Emeline later explained that the notecards with ribbon served as her word wall. Using clothespins, she placed vocabulary words and their definitions under the appropriate letter as the class came to new terms. Although I had seen several word walls before, this was the first I'd seen such a mobile take on the genre.

Emeline also discussed experiments, one instructional resource in which most secondary science teachers are versed. However, Mrs. Tauriel wanted students to see beyond the experiments conducted in her classroom and understand the technical reading and writing relates to the investigations they conduct. Referring to one of her annotations in the Jetton and Shanahan (2012) book study text, Emeline explained that she had come to equate only conducting experiments without connecting them back to the readings as a house with no foundation; the experiment will certainly demonstrate a scientific feature to the students, but without the background knowledge, they will have no basis for understanding the results.

Strategies. The writing strategies alone that Emeline discussed during our focus group sessions numbered over ten. Coursework, professional development, observations of other teachers, and contact with colleagues have helped Emeline build the large repository of writing strategies from which she draws in her teaching. While each of the writing strategies Emeline mentioned in our focus groups is not discussed in detail here, they do appear in list format in Figure 5.6 below.

The first few minutes of Emeline's seventh grade science class revealed the use of several writing strategies. On the day of my April observation, Mrs. Tauriel began class by asking students to respond in their health journals to a quick write starter prompt that she had posted on the dry erase board at the front of the classroom: "Gather your journal and write a one sentence

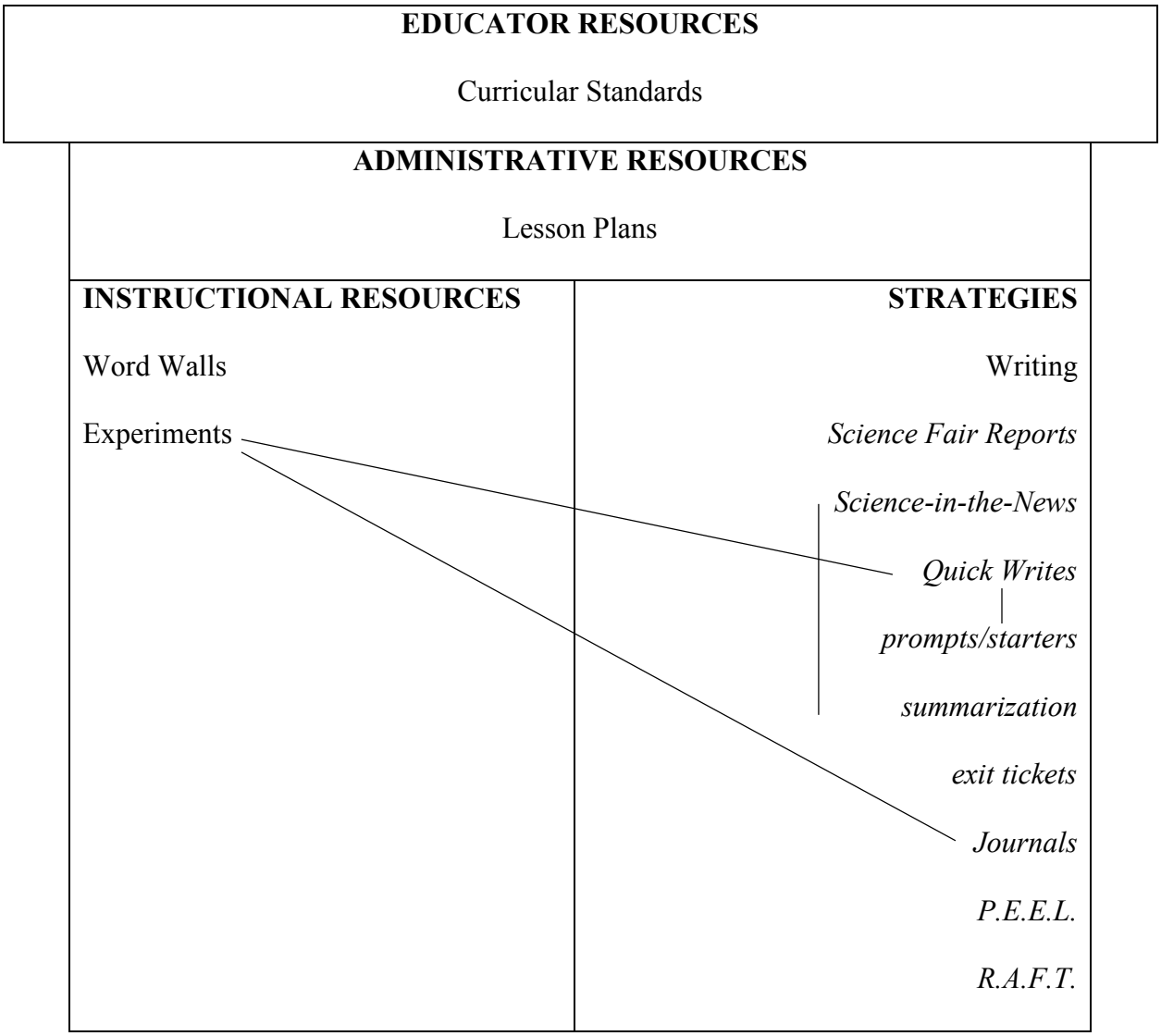

Figure 5.6. Emeline's Interacting and Cooperative Genres

summary of yesterday's lesson." This short prompt ensured that students were in their seats prepared with the necessary materials for class, as well as transitioning them from passing period to the science mindset. After a quick review of content, Mrs. Tauriel then asks students to respond to a second quick write, also posted on the dry erase board. While students struggled with writing initially, Emeline describes that they are now developing endurance.

> At the beginning, they kind of struggle with [writing] but I think they see how it helps them in their other classes. … With quick writes at the beginning of the year, they're like,

"Uh, I don't wanna." [It's] like a five minute quick write … and now they're like, "Wait, I'm not done," when you tell them to finish their thoughts—they're still trying to write.

Informal writing that Emeline uses includes the various forms of quite writes (prompts/starters, summarization, exit tickets), but examples of formal writing in Emeline's classroom includes the P.E.E.L. and R.A.F.T. strategies, the Science Fair reports, and Science-in-the-News (SIN) reports.

Paul. The focus group discussions, classroom observations, and artifacts revealed that Paul's genre repertoire as a middle school science teacher included a range of cooperating administrative resources and strategies.

Administrative resources. Paul, like Willie, also noted in our focus groups that posting objectives was a required practice by their building administrators. He explained that while their content standards did not need to be featured in their classrooms, displaying daily objectives was necessary.

This year they wanted us to post objectives. So, what's your daily objective?

While those in the education community "have long recognized the value of analysing [sic] the subject matter to be learned in terms of the intended learning outcomes," it has only been more recently that the emphasis has moved "from an emphasis on the education process to a consideration of the product and the expected learning outcomes of the students' studies" (Harden, 2002, p. 151). However, teachers like Paul and Willie continue to pull from the framework set forth by Bloom (1956) and Krathwohl (1964) to compose objectives. On the day I observed Paul's teaching, I easily found his weekly and daily agendas and two objectives written on the dry erase board at the front of his classroom.

Objective 1: I will compare and contrast the rods and the cones of the retina.

Objective 2: I will map out the general locations of rods and cones on the retina.

Strategies. Similar to his content colleague Emeline, Paul has worked diligently this year to increase his toolkit of writing strategies. Although writing "encourages thinking and learning, motivates communication, and makes thought available for reflection" (Shafiee, Koosha, & Afghari, 2015, p. 170), students often experience frustration regarding the development of writing skills—a sentiment noted by Paul and his colleagues in our focus group conversations. However, writing distress is further compounded in the non-native English speakers Mr. Dominguez teaches who struggle with not only creating coherence in a piece directed toward an appropriate target audience, but also simpler tasks such as finding the correct word or applying grammar rules. Therefore, Paul has discovered that providing students with prewriting opportunities (e.g., the chicken foot organizer) has a significant positive impact on students' composition abilities (Shafiee, Koosha, & Afghari, 2015).

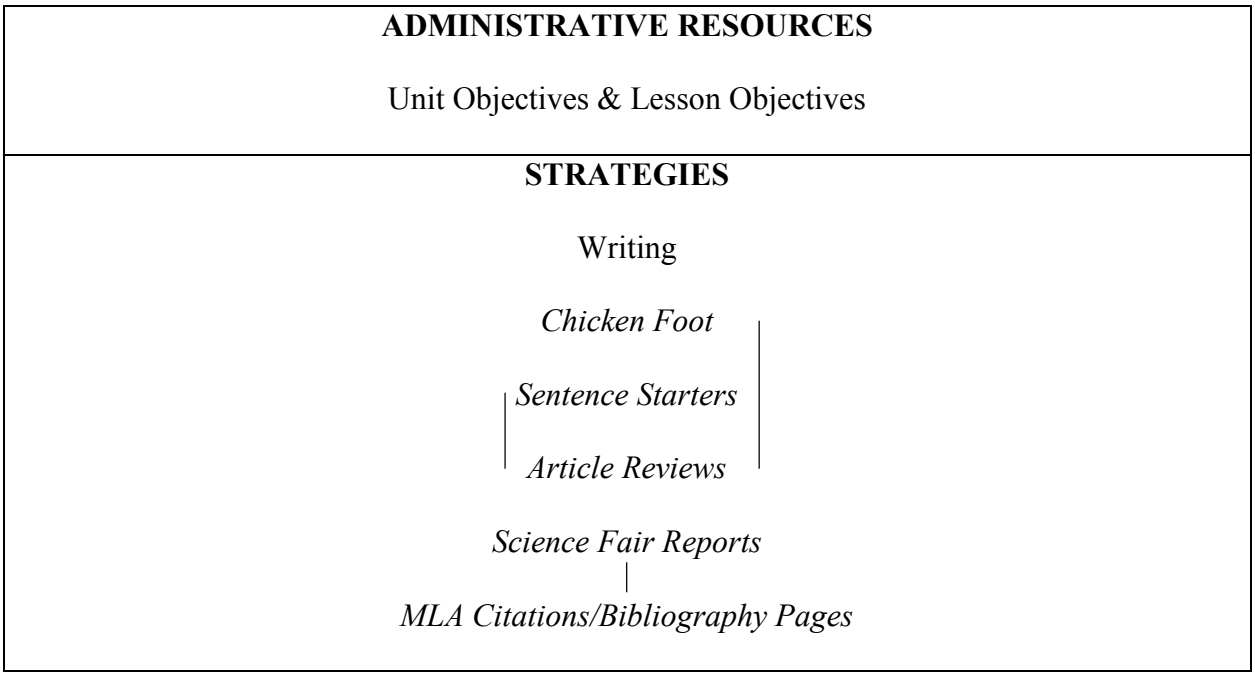

Figure 5.7. Paul's Interacting and Cooperative Genres

However, Paul also incorporates additional writing strategies (see Figure 5.8 above) ranging from writing accommodations (e.g., sentence starters) to formal writing and revision (e.g., article reviews, science fair reports, and bibliographies); strategies Paul has accumulated over the past seven years of teaching.

Melissa. Similar to Paul, Melissa made mention of both administrative resources and strategies. Although she, like the other participants, have a genre repertoire extending far beyond the genres revealed in this study, Mrs. Winters focused on elements of writing and reading. This relatively new emphasis on functional literacy in the sciences is emerging across the nation. Pearson, Knight, Cannady, Henderson, and McNeill (2015) explain:

> Over the last decade, a group of literacy and science educators at UC Berkeley's Lawrence Hall of Science have collaborated to build a new sort of integrated curriculum, one in which reading, writing, and language are put to work as tools to support the acquisition of knowledge, inquiry skills, and habits of mind (what Next Generation Science Standards, NGSS, has labeled *practices*) in science learning. (p. 228)

Utilized by teachers across Melissa's school, the writing rubric, as well as the emphasis on writing and reading strategies in her secondary science classroom, are supportive of the integrated curriculum described above.

Administrative resources. The Multidisciplinary Performance Test (MDPT), mentioned previously by the teachers, has had a notable impact on the participants in this study. According to the state's department of education website, the MDPT provides a snapshot of a student's critical thinking and writing in an on-demand environment. This writing assessment, in which students are given a prompt and asked to write either a narrative, an expository, or an

argumentative piece, is evaluated by a writing rubric. Melissa explains how the rubric has guided her writing instruction.

> I mean, the writing [requirement] came from that meeting with the new writing rubric—the MDPT—the writing test. We looked at that and I [thought], *hey, you know, we can practice that or incorporate that*. We let the students know, too, when we're doing it that it's modeled off what they will be doing as a test. I said, "You don't know what kind of text you're getting," so that kind of perked a couple of their ears up.

Strategies. To practice for the MDPT with her students, Melissa drew upon her writing genre repertoire. In preparation for the expository and argumentative styles, Mrs. Winters incorporated the chicken foot strategy so students would become accustomed to providing evidence for their claims. In advance of writing letters to the board of education arguing to switch to renewable energy sources, students in Melissa's class used the chicken foot organizer to help formulate their primary evidence and supporting pieces of evidence. Melissa also assigns article reviews—a type of expository writing—to develop skills in pulling information from multiple sources and joining them into a fluent whole. R.A.F.T.s (a writing strategy where students assume a role, address a specific audience, and determine an appropriate format for an assigned topic) are also used to incorporate narrative writing opportunities.

However, Melissa also addresses several reading strategies in her classroom to help students become proficient in science literacy. Cornerstone to comprehending scientific texts is reading graphs and diagrams. Melissa explains that understanding and creating diagrams is important to her content.

You need to be able to understand graphs and your diagrams, because [pictures] are incredibly important in science … especially when it comes to the labs. Can you draw the picture of what you're doing?

Furthermore, the types of texts students read influences the writing they complete in their article reviews; evidence that Melissa's genres are also interacting and overlapping. As students read various sources (print versus digital, linguistic versus non-linguistic, and static versus dynamic) for their article reviews, many of the texts incorporate graphs and diagrams.

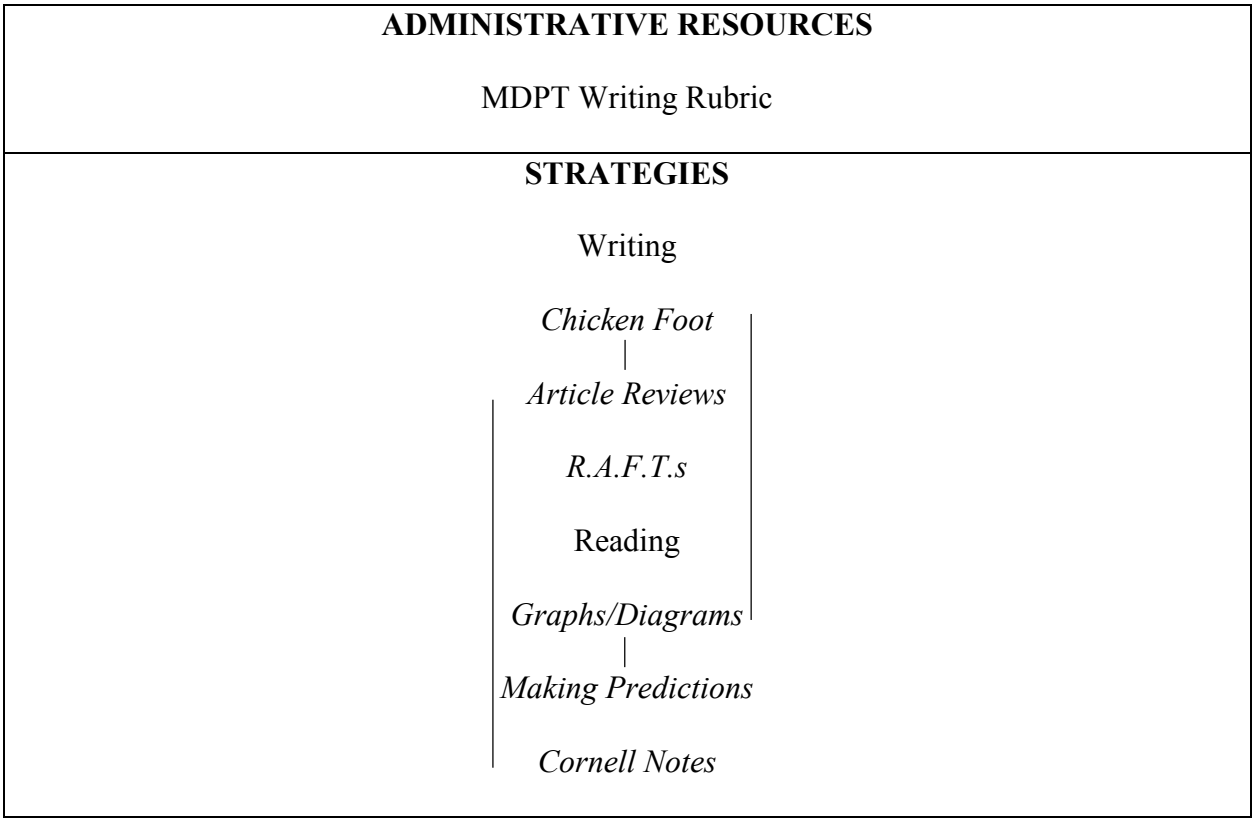

Figure 5.8. Melissa's Interacting and Cooperative Genres

When students are reading scientific texts, Melissa also promotes the use of annotating the text to mark their predictions, as well as following with the school-wide AVID strategy of taking Cornell notes. According to Marzano, Pickering, and Pollock (2001) note-taking and summarizing strategies have "a high probability of enhancing student achievement for all

students in all subject areas at all grade levels" (p. 7). Cornell notes, which have sections dedicated to identifying keywords and questions, main ideas, and a summary, promote engagement and reflection of the material presented. These processes of annotating print articles and taking Cornell notes over lecture material and digital texts are methods Melissa employs to help her students interact with the text and remember the material.

Social Literacies Perceptions and Instructional Literacies Practices. An examination of the social literacies perceptions and instructional literacies practices of secondary social studies and science teachers revealed that the *community* of secondary educators in USD 002 call upon a series of genres including educator resources, administrative resources, instructional resources, and strategies in their teaching practices. Some educator resources, such as curricular standards, belong to each teacher's genre repertoire. As teachers in the same state and school district, teachers also shared administrative resources such as the MDPT writing rubric and the strategies accompanying the AVID program. There are also genres, such as lesson plans and unit outlines, belonging to all teachers' genre repertoires, although the documents themselves do not share an exact likeness.

However, while the genres and sub-genres teachers demonstrated in observations and during focus group conversations are congruent, they are not identical. Teachers' genre repertoires varied between schools (e.g., AP style was only present at the high school), grade levels (e.g., article reviews were only completed at the eighth grade level), and content area (e.g., DBQs only appeared between social studies teachers while experiments only appeared with science teachers). This variation demonstrates that although the participants all belonged to a common community of secondary-level teachers within the same school district, they also belong to additional communities such as their schools and content areas. In some instances,

teachers' genre repertoires were further influenced by their *collectives* and *networks*—groups that influence an individual's register but that are not as tightly knit as communities (Devitt, 2004). Professional organizations and graduate-level courses are examples of collectives and networks in which teachers participate that introduce their members to new resources and strategies, thus contributing to their genre repertoire.

Historical

Devitt (2004) explains, "if [genres] are to survive, [they] must change" (p. 89). Therefore, the ways that genres evolve over time, and the fluid ability of genres to change based on the needs of community, marks the historical layer of genre analysis. In the following subsections, I explore how genres are adapting to meet the needs of select stakeholders in the secondary social studies and science education community.

John. During conversations with John, he revealed that the process of testing has evolved in order to give more timely feedback to students. Rather than complete paper and pencil exams, John now designs his tests online through his district's learning management system (i.e., Skyward), which allows students to see their score immediately after submitting their test.

> We had an in-service last semester and they were talking about the different technologies and stuff and we can do tests online in Skyward. As soon as the kids hit 'save,' it automatically grades it and puts it in the gradebook and then tells them what the right answers were. So that immediate feedback has helped.

This process of online testing mirrors the format of state assessments that most students complete each year. Furthermore, in a digital age where gradebooks are kept electronically so that students and guardians can see real-time updates on homework and test scores, moving towards electronic creation, delivery, and submission of tests reveals the evolution of the assessments genre.

John also reported that he has begun to incorporate more personal electronic devices into his classroom, revealing an evolution of both how he teaches and how he introduces homework assignments. For example, while delivering a typical lecture using power point presentations and notes, Mr. McCormack now encourages students to look up additional information using their cell phones.

> My kids use their cellphones. They're more comfortable navigating on their cellphone than they are a laptop. So today, when we were talking about the bombing of Hiroshima and Nagasaki, I talked about the shadows that are left behind. The kids thought I was joking that the heat was so intense that they vaporized the people and all that was left behind was the shadow. So I said, "Google it." So they went and googled it and there was a girl that was jumping rope and you saw her shadow on the wall.

John believes that this immediacy of being able to retrieve information during the moment in which it is relevant helps cement the concept into students' minds, as well as makes learning more interactive and engaging. An additional benefit of students fetching information on their phones is that the image or information is still visible when they access the device later. This provides more opportunities for the students to become exposed to the material as well as chances for them to talk to their friends or family about what the topics later. However, Mr. McCormack also has experience using QR (quick response) codes to distribute homework assignments. Rather than print hundreds of paper copies of assignments and then take class time to distribute the pages, John would post the assignment online and create an accompanying QR code for the students to access the homework digitally.

> I would post it in the window so when it was seminar they would just run by, snap it, and they had everything that they needed.

While John acknowledge that he devoted a lot of time to creating, printing, and displaying a new QR code for each assignment, the students loved that they could access and complete the materials digitally. For a school with a high military population, frequently resulting in students absent for long periods on block leave with their families, Mr. McCormack can also post the QR codes online and students outside of the classroom are able to access the assignments and stay caught up on their work.

Karen. Also at the high school, Karen discussed similar methods of allowing students to use their personal devices for learning. Before, after participating in a jig-saw activity where students read and took notes on a text excerpt and then brought their portion back to their small groups in order to teach the material to their peers, students would then immediately copy additional hand-written, paper notes over the content their classmate's taught. This method was problematic because there was only one original note page but multiple students trying to copy down the notes simultaneously while also listening to their peer teach the content. However, now when students return to their small groups to teach the information, their peers simply take a cell phone picture of the first students' notes while they are discussing the content and then return to their desks to copy the notes.

> Well, and it's so nice [that students can use their phones] too because, like today, they did kind of like a jig-saw and so as they're getting the stuff they have to share it. Well, they don't like putting [their notes] in the middle and copying down the other stuff, so they're like, "Well, let me take a picture" and then they can take it to their desk and then do it.

This new way of cataloguing notes not only helps the students focus on the verbal content being explained in the moment, but it also provides students with a permanent electronic version of the notes that they can refer to when their paper copies are not available.

Ashley. Textbooks have not been immune to the digital evolution and have turned to electronic textbooks in an effort to adapt to the needs of their stakeholders. Following brief comments by Willie about the possible adoption of an online *Discovery Education* textbook, Ashley echoed how her school was already utilizing electronic versions of resources, rather than bound paper copies, when available.

> Sixth grade textbooks have the same [textbook] version online, too, so that's what we use because we have one-to-one tablets—we're really lucky. They just have a log-in code and actually, I found a way where I can just save them as PDFs and then it's just on their OneNote.

Because her sixth grade students have one-to-one tablet devices, Ashley has been able to distribute content easily online—similar to the practices described by John. Creating sharable folders in Microsoft's OneNote and organizing them by their unit of study, Mrs. Rivers is able to disburse resources and assignments (such as videos, webquests, and reading/question handouts) online, which students can access from the district's intranet service or through the internet if absent from school.

Emeline. In Emeline's science classroom, new literacies have emerged as a new genre. By integrating a myriad of online resources as tools to produce content, conduct research, and collect information, Mrs. Tauriel has adjusted the emphasis of projects and data collection from primarily print materials to primarily digital content. According to Castek, Coiro, Henry, Leu, and Hartman (2015), "The emergence of new online research and comprehension skills has profound consequences for instruction as reading has moved from page to screen. These new literacies has redefined many aspects of traditional comprehension instruction" (p. 324). In Emeline's classroom, tasks such as creating timelines have moved from page to screen using the

website Tiki-Toki—which allows students to create digital, 3D timelines. Emeline also incorporates website resources to help student conduct research for their science fair reports. Resources such as Scientific American and its subsidiary sites are used when students collect information for their science-in-the-news assignments and additional resources such as Symbaloo are used to help students organize their science fair research. However, with these new literacies comes the responsibility of locating and determining credible resources. Casteck et al. (2015) explain that it is perhaps more important to conduct a critical evaluation of online information (including identifying author bias) than with printed material because anyone can publish information online. Emeline explains that her aim with online content is for students to identify on their own which sources contain valid information.

> [Students should] be able to choose for themselves from their reading. [All] this anti-vac stuff that's out right now, the kids are always asking me, "Well, do I need to get a vaccine?" And so then you show them how to get the proper sources; comparing a dot-com anti-vacs person to a dot-edu professor, so you can *see* the research compared to this person who just has an opinion from a situation they've seen.

Discussions with Emeline also reveal that her school's lesson plan template is also undergoing revisions. Devitt (2004) explains that "the genre through which people act in that situation and out of which people construct a recurring situation must be capable of adapting to those variations; it must be flexible, never fully stabilized" (p. 89). Therefore, as curricular standards change and as state testing requirements are modified, lesson plans also should be altered to reflect the fluctuating needs of the teaching community. Emeline and Melissa explained that the revised lesson plan template will gradually transition into use by the middle

school teachers in their building, which follows the scaled implementation of the new standards, the performance expectations, and the disciplinary core ideas (DCIs).

Historical Literacies Perceptions and Instructional Literacies Practices. Genres, embedded in our situational and social contexts, must change with the needs of their community in order to remain relevant. According to Devitt (2004), genres are dynamic. She writes, "Implicit in the dynamic nature of society and rhetorical situation, then, is the dynamic nature of genre. Even the nature of our word, fluid and inconstant, requires that we understand genre as dynamic" (p. 90). Focus group conversations, classroom observations, and artifacts revealed how teachers' interacting genres had evolved—and emerged—over time.

More prominent in this study of secondary social studies and science teachers was the evolution of existing genres. Although this trend has been increasing, teachers have begun to administer online and/or computer-based assessments rather than traditional paper and pencil assessments (one well-established genre). Facilitated by the available features and decreasing size of personal devices such as cellphones and tablets, teachers' practices are also evolving; supplementing traditional lectures with pictures from Google, distributing assignments via QR codes and cloud capabilities, and keeping records of notes by snapping pictures depict a broadening of teaching methods. Publishing companies of educational content have also expanded their publishing options to include online versions of their texts with interactive media. Lesson plan templates and specifications have also evolved to reflect the changes in curricular standards. However, new genres also emerged within my discussions with teachers and observations of their instruction. The rise of new literacies—a term suggesting "that literacy is rapidly changing and transforming as new information and communication technologies emerge and as additional discourses, social practices, and skills are required to make use of these

technologies (Leu, Forzani, Rhoads, Maykel, Kennedy, & Timbrell, 2015, p. 38)—is also visible in the classrooms of teachers. Locating and verifying credible online resources, utilizing online tools, and creating and sharing online content are all new literacies that educators are beginning to teach in their classrooms.

Individual

In contemporary genre theory, "genres are dynamic constructs evolving from use and context, helping to maintain the stability of a social group while flexibly enabling individuals to adapt to its changing circumstances" (Devitt, 2004, p. 122). This adaptability provides users the freedom of variation and personalization and prolongs existing genres by allowing divergence. In this final section, I describe how stakeholders adapt existing genres to fit their individual needs.

John. For John, variation was primarily expressed as he transitioned away from the essay writing resources utilized by the English department at his school.

> [I] used to get the buzz words from all the English teachers when it came to writing. And then throughout the last few years I've just developed my own style.

While students in John's class still write essays, they are based on DBQs that John has located and utilize a pre-writing handout that incorporates the chicken foot strategy. John has also created his own essay writing guide, that was eventually shared with the English department.

> I came up with my own little worksheet on how to write an essay, step-by-step. Because a lot of them get really confused; they have the ideas up here, but getting it down on paper's a different story.

This transition away from the established essay resources and the creation of his own pre-writing handout exhibited ways John was personalizing his writing instruction.

Karen. Similar to John, Karen has also exhibited a freedom of variance regarding writing in her classroom. However, Karen's divergence was present in the scoring of the essays rather than their writing.

> I guess the thing that I keep changing are my rubrics, like each year. One of the things I've noticed is that I can't keep my rubrics the same for every assignment. They have to keep progressing.

Rather than stick to the typical 6-Trait writing rubric, Karen decided to modify her essay rubrics based on the prompts in which students respond as well as their writing progress throughout the year. Recognizing the need to challenge her high school students' writing abilities continuously, Karen's requirements and scoring methods become more rigorous as the year unfolds.

Ashley. Ashley is a highly motivated individual who does not shy away from the amount of work that it takes to develop a personalized approach. Whether it is creating anchor charts to line the walls of her classroom or develop graphic organizers that fit the lesson's reading, Ashley is frequently generating new material to use in her classroom and with her students. The most recent personalization Ashley implemented was in regards to her sixth grade social studies assessments. Keeping the exam's content the same, she changed the format and delivery of her tests.

> We went paperless from [October] on, so everything is on their tablets. … One of the biggest thing is I've changed my assessments. They're not multiple choice at all, and they're given five open-ended questions and they kind of vary in length; the most is like two paragraphs to three sentences to explain the topic and then they're open notes. … They're having to use their notes and the documents that I've given them—[and] they have access to everything we've done all in one spot on their tablet. They can just go

through their OneNotes and then that's what their assessment is. Some of the questions are argumentative, some are explaining, but none of them are recording.

Emeline. Similar to her middle school colleague Ashley, Emeline does not shy away from creating the resources she needs for her students. For example, when the literacy coach distributed the chicken foot graphic organizer and it became the standard pre-writing tool in her building, Emeline decided to develop her own instead.

> She sent it to me too and … I guess that's the difference between technical and language arts because I looked at it and said, "Okay, I can find a different graphic organizer for what I need" and, like, *create* it by myself.

Additionally, because she feels that her seventh grade science resource books do not offer enough of the types of text structures essential to her content area, Emeline has branched out on her own to find various other texts to use with her students. She describes an instance in which she addressed the issue with curriculum specialists at her district office.

> I think we've even pushed them because of our resource books we don't feel have enough technical writing, and so we're like, "Well, we're using this other thing we've found ourselves." And I've never felt like they've been upset or anything about that either.

The desire to go beyond the currently provided science texts and bring in new materials (often non-linguistic) demonstrates how Emeline adapted the existing genre of science materials to fit the needs of her students.

Individual Literacies Perceptions and Instructional Literacies Practices. While some participants demonstrated that they were incorporating personalization in the way they teach and assess writing, the assessments they deliver, and in the resources they create, the individual layer

of genre was the least present among participants (further emphasized by the low number of teachers' individual genre practices displayed above). This could be the result of several possibilities. One possibility is due to the fact that many of the teachers represented in this study are teacher leaders. As such, they frequently serve as head of building and district committees. Seen as a representative of their committee, the teachers may choose to lead by example and implement the strategies, lesson plans, and curriculums recommended by their schools. They may have also voiced their individual opinion during the creation of the documents or selection of curricular, thus their individualization already represented in the final product. Another possibility that freedom of variance is least observable among the teachers in the study is because of the current high-stakes testing environment. Teachers may feel apprehensive to go in their own direction when students' test results may be tied directly to their teaching. Furthermore, because the participants in this study often felt their instructional decisions were supported by their building and district administrators (e.g., Emeline's decision to bring in supplemental materials), perhaps they were, in fact, demonstrating degrees of variance away from the instructional norm but they did not deem them as a consequential personalization because they did not encounter resistance from administration.

Application of Themes

In the previous chapter, I described how a close reading of the raw and coded data collected over a two month period in the form of multiple focus groups and classroom observations, field notes, artifacts, and questionnaires allowed me to group significant statements and repeated ideas and behaviors into broader units of information, thus establishing themes. After synthesizing the series of applied initial, holistic, and descriptive codes identified in the data, I grouped the significant codes into nine themes, common to both the secondary social

studies and science content areas: conventional, progressive, hesitant/emerging, collaborate, calibrate, perform, practice, interdisciplinary, and intradisciplinary. The nine themes were further categorized by how they appeared in the data. Conventional, progressive, and hesitant/emerging represented *dispositions* because they referred to the teachers' inclinations regarding the definitions, purposes, and uses of literacies. However, the themes of collaborate, calibrate, and perform were regarded as *behaviors* because they demonstrated conduct regarding what teachers were already doing or what they planned to implement in the near future. Finally, the themes of practice, interdisciplinary, and intradisciplinary, were considered *bridge* themes because they revealed that teachers' literacies practices were influenced by their literacies dispositions.

When applying the themes to contemporary genre theory, a pattern began to emerge (see Figure 5.9 below). I noticed that the disposition-related themes of conventional, progressive, and hesitant/emerging were often present within the situational and individual layers of genre. The teachers' views on literacies often influenced the patterns of action in which they participated (situational) and implied a certain amount of personalization (individual). I also observed that the behavior-related themes of collaborate, calibrate, and perform were visible frequently within the social and historical layers of genre. Teachers' actions of working together to seek out best practices, aligning instructional methods and terminology, and participating in graduate coursework and professional development opportunities resulted in an increased genre repertoire (social) and often an evolution of how genres were applied in their instruction (historical). However, the bridge-related themes of practice, interdisciplinary, and intradisciplinary were often visible among all four layers of genre. The strategies and practices teachers incorporated were recognizable to others in the education community (situational) and often belonged to several teachers' genre repertoires (social). Also, by engaging in conversations within and across

disciplines, participants helped advance the evolution of genres by sharing innovative and cross curricular concepts—often involving technology—(historical) and applying a degree of personalization to best fit their teaching styles and the needs of students (individual).

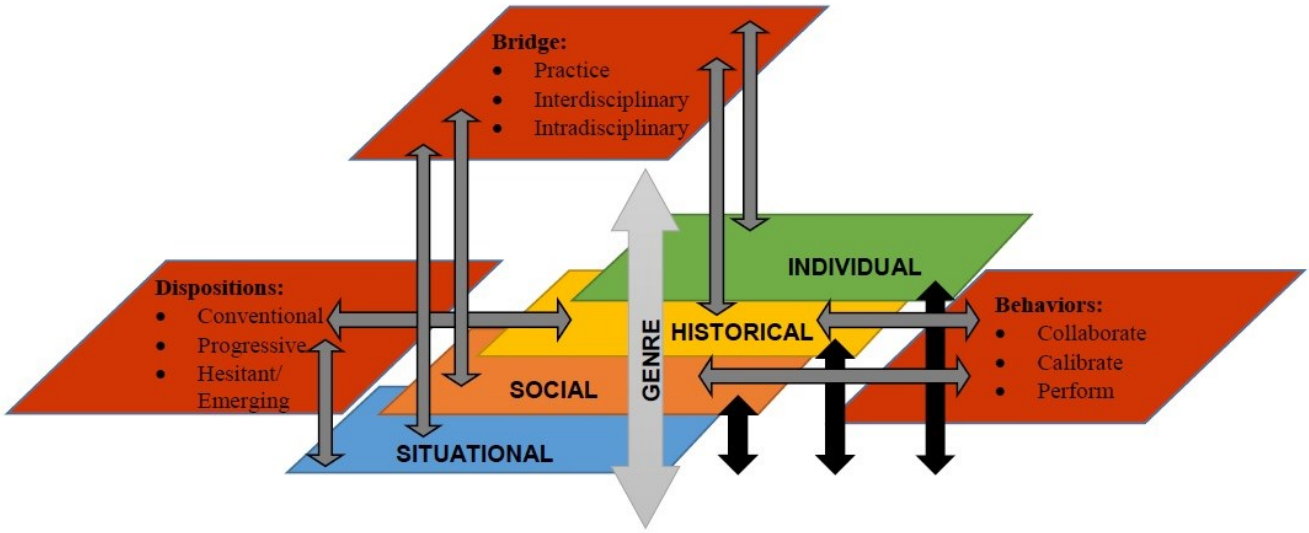

Figure 5.9. Layers of Genre Context with Thematic Applications

This application of themes to the layers of genre further revealed that literacies practices among the teachers in this study were multifaceted and strengthened by opportunities to interact with colleagues. Very much like the social literacies practices of their adolescent students, the teachers' literacies perceptions and instructional practices were strongly influenced by those around them. The teachers most receptive to incorporating multiple literacies into their instruction were also those who held active roles in their education community—those serving on additional curricular committees, belonging to multiple professional organizations, and pursing graduate level coursework. However, even the teachers who did not have as much involvement in their educational community still benefited from the participatory environment. Freedom to plan and work alongside colleagues provided all teachers involved in this study opportunities to engage in multiliterate practices with their students by developing cross-

curricular units with their colleagues. Therefore, teachers' professional environments had a significant impact on the participants' literacies perceptions and instructional literacies practices.

Addressing the Research Questions

The following research questions guided this study:

1. How do secondary-level social studies and science teachers perceive literacies?
2. What are secondary-level social studies and science teachers' instructional literacies practices?

What I have just presented in the above chapter examines the participants' multiple literacies perceptions and instructional literacies practices through the lens of contemporary genre theory. The situational, social, historical, and individual layers of genre were found to pervade both the teachers' perceptions and practices. I discovered that teacher's professional growth opportunities and collaboration with colleagues had a strong influence on their literacies perceptions. Teachers' multiple literacies dispositions were also influenced by genres contributed to their repertoire by national, state, and administrative sources. These new genres further influenced their instructional literacies practices by introducing them to new expectations and resources. However, teachers also exercised their autonomy by making modifications to the implication of these instructional strategies and applications. This individualized aspect to their multiple literacies instruction extended beyond conventional literacies practices to new literacies and multimodal practices.

Summary of Theoretical Analysis

As I sought to name the literacies perceptions and instructional literacies practices of secondary social studies and science teachers, my thinking was guided by contemporary genre theory. While examining the practices of the teachers in this study, I looked for evidence of

situational, social, historical, and individual aspects of genre present among the participants. I found that while many of the genres echoed in the literacies perceptions and practices of all teachers, some were unique to the individual, to the grade level, to the school building, and to the content area. Furthermore, while some genres pervaded all four layers (i.e., situational, social, historical, and individual), most were limited to interacting between only one or two other genre layers.

Chapter 6 - Implications of the Study

Although I did not yet know where my experiences would lead me, my wonderings that initiated this study truly began while I was still a middle school language arts teacher in 2008. As my colleagues and I sat in a summer conference learning about inquiry-based learning, essential questions, and cross-curricular possibilities, we began planning how our content areas aligned and future ways that literacy practices could be incorporated in the students' other classes. For several years after that summer session, I worked alongside educators from all disciplines who were eager to incorporate literacies into their instruction, benefited by a knowledgeable content colleague who collaborated with me (and often mentored me), and was supported by a district that invested in me as a professional by sending me to numerous national and regional conferences. So when I came back to graduate school full time and presented an interdisciplinary poster session at a familiar national conference, I was surprised by comments from fellow attendees (mostly ELA teachers) who voiced hesitation that their colleagues would be receptive to literacies instruction in their classrooms. This sudden recognition—that my experiences working with my team's social studies and science teachers especially to incorporate multiple literacies and align our contents was not the standard—launched a series of literature reviews, action research projects, and eventually a pilot study pursuing the ways in which non-ELA teachers negotiate literacies in their classrooms. Through these combined experiences, my research questions began to emerge.

The following sections will provide a brief summary of the study and its findings as well as discuss insights gained in relation to the research questions. Finally, the chapter will explore the implications this study has on in-service teachers, school district administrators, pre-service teachers, and teacher educators, as well as propose implications for future research.

Summary of Study

Calling upon my previous experiences as a classroom teacher, findings of the 2013-2014 pilot study with Mr. Dylan Scott (pseudonym), and current research, I began this study in the fall of 2014. An exhaustive review of literature revealed that students today must be literate in a multitude of ways and therefore the term *literacy* no longer solely refers to the mechanical, functional skills of reading and writing. Rather, NCTE (2011) encourages teachers to "adopt a perspective of plurality, to focus on literacies, recognizing the multiple values and meanings along with the ways literacies are inflected by different contexts" (p. 1). This mindset results in recognizing multiple literacies that include not only basic reading and writing, but literacies shared across content areas, literacies unique to specific disciplines, literacies with power to analyze privileged discourses, and literacies distinct to certain ages—among many other forms of literacy. However, the research is largely empty of literature identifying teachers' modern perceptions of literacies and exploring how non-ELA teachers were incorporating multiple forms of literacy into their classrooms.

After conducting a review of the literature, I solicited nearly one hundred secondary social studies and science teachers from three nearby school districts to participate in the study. Four social studies/history teachers and four science teachers—all from USD 002—volunteered to participate. Data collection took place during the months of March and April 2015. Two research questions guided this study:

Research Questions

1. How do secondary-level social studies and science teachers perceive literacies?
2. What are secondary-level social studies and science teachers' instructional literacies practices?

To ensure methodological triangulation, which "refers to the use of more than one data source, method or investigator and the convergence of these to add credibility to a study" (Hignett & McDermott, 2015, p. 133), data was obtained through multiple methods during March and April 2015. A pre- and post-questionnaire, one heterogeneous and two homogeneous focus groups, multiple classroom observations, collection of artifacts (including pictures, student samples, and curricular materials), and field notes were collected in addition to administering member checks of the data. Immediately after conducting the focus group sessions, the audio recordings were transcribed and I applied initial, open coding to the participants' comments. I also utilized initial coding with the field notes and artifacts. I then applied a series of holistic and descriptive codes to the data in order to construct a deeper understanding of the phenomenon under investigation. The process of coding the data allowed me to identify nine themes present among each of the focus group sessions. Once I identified themes within and across content areas, I further analyzed the data through the lens of contemporary genre theory and determined the layers of genre present among the participants. It was apparent from the data that while each teacher shared instructional situations and genres, some practices were unique to a teacher's grade level, school building, and content area. However, I also discovered that teachers' literacies perceptions and instructional literacies practices were multifaceted and strengthened by collaborative, participatory environments.

Answering the Research Questions

While I have implied the answers to each of the research questions through the exploration of themes and the application of a theoretical framework, this section seeks to explicitly answer the research questions that guided my study. However, due to the nature of qualitative research, the answers to these questions are descriptive rather than predictive; it is not

accurate to project the observations described here to the larger body of secondary social studies and science educators as a whole. Rather, the accounts described below reveal a snapshot of the literacies perceptions and instructional literacies practices of eight secondary social studies and science teachers at one unified school district in the Midwest United States. Gaining an understanding of the experiences described throughout these chapters provides insight into how non-ELA teachers at the middle school and high school levels may perceive literacies and incorporate literacies practices into their instruction.

Research question #1: How do secondary-level social studies and science teachers perceive literacies? As holistic coding revealed, the answer to this question is not singular and requires a versatile approach; first, through an examination of what literacies are not; second, from the perspective of what literacies are; and third, from the viewpoint of the necessity of literacies skills—their value.

While there was variation in the ways the teachers in this study perceived literacy, all agreed that literacies and the Common Core literacy standards are not synonymous. Upon examination of the ELA, history/social studies, and science literacy standards at the beginning of each respective focus group session, teachers were unable to quote the standards—and very few even offered guesses as to the number of standards written—but each teacher recognized that they *were* addressing the many of standards through the use of intentional interdisciplinary connections their schools required. However, although the ELA standards are literacy-based and outline literacy competencies, the teachers established that the standards only promoted literacy skills—they are not examples of literacies themselves. Furthermore, the teachers also stated that textbooks and literacy should not be equated. Like the standards, textbooks were simply a resource. Depending on the subject matter and the type of text, the textbooks could call upon

students to utilize different forms of literacy, but the texts themselves were not viewed as literacy examples. Moreover, several of the teachers who only had availability to print textbooks regarded those resources as negligible channels to literacy. Often void of multi-modal content and frequently not written to emulate the writing style of the content area, many teachers did not even consider print textbooks as potential literacy resources.

Although participants can describe examples of what literacies were *not*, conversations revealed that they have mixed perceptions of how they *do* recognize literacies. While teachers demonstrated that they were often receptive to an expanded definition of literacy, because many were not yet familiar with multiple literacies, they initially defaulted to defining literacy singularly in terms of linguistic competency in reading and writing (granted, often in different styles, for different purposes, and with multiple—traditional—texts). However, while teachers generally initially situated their perceptions along a conventional mindset, conversations with colleagues across disciplines and grade levels, providing them with informal, short definitions and examples of multiple literacies, and opportunities to interact with professional development literature yielded more varied literacies considerations. Over the course of the study, perceptions regarding literacies grew to include a multitude of text types (including non-linguistic representations) and a recognition that students read differently for different purposes (and therefore differently depending on the class). Furthermore, the way teachers constructed their definitions revealed that they also defined literacies based on the outcomes student should demonstrate. Thus, present in teachers' definitions of literacies were both *mechanisms* and *competencies*. Rather than focus solely on the methods (mechanisms) students employed—such as reading and writing—the participants also named a skill (competency) as part of their literacy definitions. As a result, answers to the question, "How do you define literacy?" were stated in

variations of the formula, "The ability to [mechanism] [competency]"—with the mechanism occasionally implied. Responses that appeared in our conversation included: "The ability to read critically," "The ability to analyze texts," "…to interpret what you read," etc. However, the teachers acknowledged that *literacies* are interdisciplinary skills and not property or responsibility of a single content teacher. So, while the type of text and their purpose for reading may vary, students can "read critically" in any classroom—and situation.

This revelation supported their beliefs that literacy was an essential and valuable skill and necessary to the success of students in all classrooms and later as contributing, thriving members of society. Furthermore, several of the teachers considered literacy and their disciplines inseparable; students would be incapable of comprehending the content if they did not possess literacies skills. And with an expanded definition of text to include images (i.e., artwork, cartoons, photographs, diagrams, etc.), situations (i.e., experiments), graphics (i.e., graphs, charts, models), and media (i.e., videos, simulations, audio files, etc.), teachers agreed that students in the millennial generation must have the ability to navigate these "new multimodal literacies" (Miller, 2014, p. 441).

Research question #2: What are secondary-level social studies and science teachers' instructional literacies practices? Defined by this study in chapter one, instructional literacies practices are the multifaceted and culturally-shaped ways of reading, writing, speaking, thinking, and reasoning that naturally occur in a diverse range of in- and out-of-school contexts, but are taught in schools. This definition is similar to a statement made by the National Governors Association Center for Best Practices and the Council of Chief State School Officers (2010) on the Common Core website regarding their College and Career Readiness Anchor Standards. The literacy standards, which "articulate core knowledge and skills … allow teachers of ELA,

history/social studies, science, and technical subjects to use their content area expertise to help students meet the particular challenges of reading, writing, speaking, listening, and language in their respective fields" (NGACBP & CCSSO, 2010). While both acknowledge the traditional, conventional skills of reading and writing, the study's definition focuses more on the multifacetedness of literacies and the ways in which culture shapes our practices (e.g., new literacies and multiliteracies) and the CCSS definition continues more along a linguistic manner. The following sections will review the participants' instructional literacies practices according to the multifaceted approach by exploring both their related applications (what the teachers incorporated for students to complete) and strategies (how the teachers implemented the applications). However, as illustrated in the social layer of genre analysis conducted in chapter five, it should be noted that elements of instructional literacies practices are often interacting and are not frequently used in isolation.

Reading. Throughout our conversations, teachers revealed multiple instructional literacies practices (both applications and strategies) pertaining to reading. Pulling information from multiple sources and texts was a reading practice teachers of both social studies and science felt was an essential practice. However, the teachers explained that "multiple sources" could include traditional print textbook materials and primary documents, or a digital inclusion of videos, websites, and online magazines—revealing an expanded definition of text. Furthermore, teachers encouraged students to interact with the readings by annotating the text and generating and answering Costa's questions to monitor their reading. Although these reading applications are results of the district's adoption of the AVID program, the teachers found them beneficial.

The teachers also identified and exemplified several reading-related instructional literacies strategies, as well. These practices were implemented by teachers in an effort to make

the readings more accessible, engaging, and applicable to college and career. Incorporating online or digital textbooks and magazines rather than print resources is one instructional literacies strategy teachers have found that engages their students. However, with this shift comes the responsibility of also teaching students how to read digital, interactive texts; how to find credible sources online; and how to use information such as source, author, and topic to determine the bias present. Teachers also used the strategies of providing text excerpts (rather than entire selections), partner reading, and lessons on text structure to aid students' reading of both traditional, print texts and new, digital texts.

Writing. Teachers also revealed multiple instructional literacies practices (again, both applications and strategies) pertaining to writing in their classrooms, as well. Across content areas, students participated in pre-writing, writing, re-writing, and revision. However, teachers also pushed students to build their skills in constructing an argument and going beyond a simple recounting of information, rather than the basic recording of facts that students naturally employ. Furthermore, teachers incorporated both informal and formal writing applications. While teachers of social studies and history frequently addressed informal writing through quick writes and summaries, science teachers incorporated quick writes, journal, and reflections. However, formal writing was also present in the social studies classrooms in the form of essays and in science classrooms through article reviews, R.A.F.T.s, and science fair reports.

To help students succeed in these various writing styles, teachers employ multiple strategies. One strategy, present between both reading and writing, is the inclusion of mentor texts. Mentor texts are pieces that provide strong examples of language and structure for students to emulate. According to Kelly Gallagher (2014),

> If we want our students to write persuasive arguments, interesting explanatory pieces, or captivating narratives, we need to have them read, analyze, and emulate persuasive arguments, interesting explanatory pieces, and captivating narratives. … Before our students can write well in a given discourse, they need to see good writing in that discourse. (p. 29)

Although teachers in this study did not use the title *mentor text*, they were presenting students with content-specific examples of articles, reports, primary documents, etc. to provide students a strong model. Due to the Common Core's emphasis on rigorous texts, some teachers were also incorporating pieces from college textbooks as mentor texts to demonstrate the expected level of difficulty in addition to language and structure. Through our conversations and classroom observations, I also learned that teachers were incorporating graphic organizers to help students formulate their thoughts before writing. Sentence starters and fill-in-the-blank prompts were modifications teachers of ELL students also incorporated to aid writing. Finally, all teachers throughout the study incorporated rubrics to evaluate students' writing and make expectations known in advance.

Speaking. Applications and strategies were also present in the methods teachers were using to address speaking instructional literacies practices. Both informal and formal discussions were frequently included in classrooms in the form of question-answer and Socratic circles. Teachers also utilized the cooperative learning strategy of think-pair-share to encourage thoughtful discussion in their lessons. According to Bamiro (2015),

> Think-pair-share is a cooperative learning strategy that includes three components, namely, time for thinking, time for sharing with a partner, and time to share among pairs to a larger group. … Think-pair-share strategy has many advantages over the traditional

> questioning structure. The "think time" incorporates the important concept of "wait time." It allows all children to develop answers, longer and more elaborate answers can be given, and answers will have reasons and justifications because they have been thought about and discussed. Students are more willing to take risks and suggest ideas because they have already "tested" them with their partner. (p. 2)

During observations of teachers' instruction, teachers would pose a higher level questions based on the content. After providing wait time, teachers would ask students to turn to a partner and participate in a short sharing of ideas. These two steps were often structured by teachers providing time limits and discussion parameters (i.e., "For the next 15 seconds, think about if it's possible to be *both* a great reformer and a mean dictator," and "Turn and discuss with the person next to you for one minute."). Once students had shared with a peer, the teacher would open up discussion to the whole class to summarize the conversations and address key points.

Thinking and reasoning. Thinking and reasoning were additional instructional literacies practices teachers included in their classrooms. While reading a linguistic text, listening to a recording of a speech, or watching a video or documentary, teachers asked students to note observations. This application required students to take information about the author, the social/political/historical milieu, the source of the publication, etc. into consideration while making judgements about the text. Consequently, this practice also provided opportunities for students to examine the perspectives of the author. In social studies classes, this was an important skill to develop, as students would need to make judgements about how the author's point of view affected their account of the events.

Students also made predictions and tested their predictions while reading. This was especially present in science classes when reading about the set-up of a lab experiment—or

investigations, as their curriculum names them. The teacher would pause students' reading at strategic points in the lab directions to conduct a think-pair-share or ask students to perform a quick write about their predictions in their journals. Students then returned to those predictions at the conclusion of the investigation—often in small groups—to determine why they were correct or incorrect.

Teachers would also challenge students to consider the ways in which language influenced the content. In social studies classes, students would analyze the importance of vocabulary in significant historical texts to determine how word choice influenced the pieces' connotation. Additionally, students in social studies classes would compare and contrast the evolution of language in texts across time periods; exercising thinking and reasoning to the language of a selection helped students comprehend the text. Furthermore, science teachers would require students to use reasoning when encountering an unfamiliar vocabulary term using context clues and applying what they already understood about prefixes, suffixes, and root words. This approach greatly helped students determine the meaning of difficult terms.

Implications for In-Service Teachers

Ultimately, this study has implications for in-service teachers because they will be the individuals who must implement the literacies practices into their instruction. This study revealed that many secondary social studies and science teachers are cognizant of literacy's importance in their content area classrooms and are receptive to an expanded definition of text as well as an understanding of the multiplicity of literacy. However, they do not yet have the language to name their practices and often revert to a conventional mindset of what literacies entail. In several instances across all three focus groups, teachers explained that they knew their instructional practices involved literacies, but they did not know how to refer to those practices.

This often led to a disconnect between content areas because, although the literacies practices were common between the students' language arts class and social studies or science classes, the teachers were not using the same terminology. The teachers determined that calibrating their vocabulary would benefit both the students and them. This practice of using parallel language applies to both traditional, linguistic texts as well as contemporary, non-linguistic texts and functional, mechanical literacy as well as new literacies and multiliteracies.

However, the teachers also explained that incorporating multiple literacies into their instruction was easier (and enjoyable) when they had the opportunity to collaborate with others. As contemporary genre theory uncovered, the availability of knowledgeable instructional coaches, chances to meet with colleagues within and across grade levels and disciplines, and possibilities to learn from experts at professional development and conferences expanded their knowledge base and increased their likelihood of implementing multiple literacies. Opportunities to create interdisciplinary units also promoted teachers' autonomy because they felt they were able to address the disciplinary literacies of their specific content area while providing students literacies instruction, thus not the negating the importance of their discipline.

This study presented nine themes that described the participants' dispositions towards literacies, their literacies behaviors, and links between the two. While the results of this study can not be generalized to reflect the whole population of secondary social studies and science teachers, they can provide teachers an idea of how their literacies dispositions fall on the spectrum from conventional to progressive and provide insight into their literacies behaviors. Furthermore, this knowledge can enable educators across disciplines to "adopt a perspective of plurality, to focus on literacies, recognizing the multiple values and meanings along with the ways literacies are inflected by different contexts" (NCTE, 2011, p. 1) and identify ways

teachers of adolescent students can incorporate multiple forms of literacy (new literacies, multiliteracies, content area literacy, disciplinary literacy, critical literacy, etc.) into their instruction.

Implications for School District Administrators

Implications for school district administrators are directly related to the learning, collaboration, and commitment of the their teachers. As discussed in chapter five, teachers' professional environments had a significant impact on the participants' literacies perceptions and instructional literacies practices. Revealed in an analysis using contemporary genre theory, the teachers who displayed the most progressive literacies dispositions were those individuals who also had the most involvement in professional organizations, attended presentations at conferences, and had recently taken college coursework. These teachers also had an influence on the literacies practices—and consequently dispositions—of the teachers around them. Therefore, teachers' literacies practices were strengthened by opportunities to interact with colleagues and their literacies perceptions and instructional practices were strongly influenced by those around them. Accordingly, district administrators should aim to provide their teachers with more opportunities to collaborate across grade levels and departments. In a study conducted by Collie, Shapka, and Perry, (2011), an investigation on school climate and social-emotional learning determined that positive school climates significantly predicted teacher commitment in general professional commitment and future professional commitment. Of the variables influencing school climate, collaboration between staff predicted commitment. Therefore, providing opportunities for teachers to collaborate, enabling possibilities for teachers to attend professional development sessions, and offering incentives for continuing education will not only improve the literacies instruction of the teachers employed and thereby increase the learning of the digital

native students within the schools, but it will also increase the likelihood of commitment to the profession and the district.

This study also indicated that teachers thrived when they felt supported in their curricular and instructional decisions by those at the administrative level. Teachers experienced a sense of validation in knowing that their building and district administrators supported their selection of texts, even when the texts did not conform to the traditional linguistic definition. Additionally, the teachers responded well to receiving new ideas about multimodal learning when presented by an expert figure. Therefore, administrators who demonstrated emerging and progressive literacies tendencies fostered a similar perception in the teachers they directed. This indicates the importance of administrators also remaining current on literacies research and ways in which multiple literacies can be enacted in classroom across the content areas. Learning about the practices of progressive teachers in your buildings, reading current literature, and attending professional development opportunities is likewise just as necessary for administrators as it is for teachers.

Implications for Pre-Service Teachers

The implications for teachers entering the field of education are both similar and dissimilar to in-service teachers. On the one hand, many current and future educators still adhere to the traditional definition of literacy referring to the functional skills of reading and writing. However, unlike many of their veteran predecessors, pre-service teachers are digital natives rather than digital immigrants and are more likely to participate in new literacies themselves. So, to offer insight into how pre-service teachers might perceive literacies and identify their instructional literacies practices, I examined the dispositions and behaviors of those who most recently attended college courses.

The two participants with whom I looked the most closely were Ashley, a first year social studies teacher, and Emeline, who is currently enrolled in an online master's program after four years teaching science. At the beginning of our focus group conversations, both participants were prone to defining literacy as the functional skills of reading and writing—similar to the other participants—and frequently called upon content area literacy strategies common across the disciplines. However, both demonstrated in our discussions and observations that their practices were more inclined toward multiple literacies—illustrating an emerging and occasionally progressive literacies disposition. Regardless of their different disciplines, Ashley and Emiline were frequently incorporating new literacies through modern, digital elements into their instruction. In Ashley's class, students used their OneNote accounts to write online, share their responses through the cloud, and receive electronic feedback and scores from their teacher. Students in Ashley's class were also frequently involved in online web quests, commonly exposed to brief multimedia as a means of introduction or reinforcement of content, and assignments were modified digitally for students with ELL or special education accommodations. Students in Emeline's classroom conducted online research, aggregated sources using web-based tools, and utilized electronic citation resources. Emeline also incorporated short videos in which her students could watch, evaluate, and respond. In addition to new literacies, both teachers incorporated critical literacy. In Ashley's class, students analyzed and critiqued the rule systems of the governments and civilizations they studied. In Emeline's class, she encouraged students to examine information about vaccines through a political and social lens, examining the bias present in the resources they identified. Additionally, after interacting more with the Jetton and Shanahan (2012) book study text and becoming introduced to disciplinary literacies, both made strides in identifying the areas they were currently

incorporating literacy practices unique to their discipline. As Shanahan and Shanahan (2008) explain, "most students need explicit teaching of sophisticated genres, specialized language conventions, disciplinary norms of precision and accuracy, and higher-level interpretive processes" (p. 43). Because of this, Ashley and Emeline were also vocal about the need for teachers to recognize that the ways in which individuals read vary based on different purposes and situations (e.g., content area classes).

What does this mean for future teachers? Literacy courses should no longer be relegated to those earning English or linguistic degrees. Pre-service teachers should seek to enroll in additional literacy courses (beyond the often mandatory content area literacy course required by most universities) in order to build their repository of skills available to help students with the reading skills necessary for their discipline. Pre-service teachers would also benefit by pursuing collaborative opportunities prior to their first teaching position. Developing and maintaining connections with future colleagues outside of their discipline will foster a mindset of interdisciplinary connections and encourage partnerships that will aid success in their first year teaching (Bieler, 2012). This study also provides future teachers with expanded definitions and examples of multiple literacies and offers an array of literacies practices in use by current secondary teachers. Used as a reference, pre-service teachers should aim to incorporate multiple literacies into the lessons they develop and practice in their coursework and field experiences.

Implications for Teacher Educators

Given the implications this study has on in-service and pre-service teachers especially, implications for teacher educators involve providing their students with an updated set of tools so they are better prepared for their future positions and students. While addressing functional literacy and content area literacy practices are still important, alone they do not reflect the

practices of secondary students nor the current environment of classrooms across the country. Regardless of the discipline, teacher educators and secondary teacher education programs should be exposing undergraduate students to the emerging forms of technology and media and presenting them with potential applications to education. Cervetti, Damico, and Pearson (2006) state that "teacher education should engage teachers in learning about and analyzing technology and media, particularly those used by their students" (p. 379). It is important that teacher educators make their students aware of the technologies frequently utilized by schools and familiar with the digital literacies resources available to them as educators. And although direct instruction on the applications of multiple literacies provides an awareness to undergraduates, modeling their uses makes the practices more genuine. After all, "while learning *about* new and multiliteracies is important, it is essential that [students] are also learning *through* (involves the engagement in new technologies and diverse contexts) and learning *with* (involves [undergraduates] embracing the new and diverse ways students make and receive meaning in and out of school) new and multiliteracies—which require teacher educators modeling these practices" (Lickteig et al., 2015, p. 47). When teacher educators engage their pre-service teachers by utilizing the multiple literacies that they will one day implement in their own classrooms, it provides the future educators with insight into the importance of teaching contemporary adolescents using the ways in which they learn best.

Implications for Further Research

In this study, I examined the literacies perceptions and the instructional literacies practices of eight secondary social studies and science teachers at one unified school district in the Midwest United States. Focus groups served as the primary methodology and contemporary genre theory was used as a theoretical lens through which to view the data. As stated previously,

due to the nature of qualitative research, the findings of the study can not be generalized to all secondary social studies and science teachers. However, efforts were made to diversify the group of participants and therefore make the study as transferable as possible. The emergence and visibility of nine common themes across focus group interviews (and thus disciplines) indicates that this study provides results that teachers outside of those featured in this study can draw guidance. Additional studies could build upon this research, extending the impact of this investigation.

Repeating this study would provide additional insight by contributing more data to the existing pool, which could then be examined through a lens other than contemporary genre theory. Additionally, applying a different theoretical lens to the existing data, as well as any additional data, would provide more insight into the types of content teachers who volunteer to participate in a literacies study. As discussed throughout this study, non-ELA secondary teachers have often been hesitant to incorporate literacies into their instruction for various reasons. Extending this study by analyzing the nature of the individuals who are willing to participate in professional development outside of the school duty day to learn about and discuss multiple literacies could aid in authenticating a definition of plurality regarding literacies and their purposes in non-ELA classrooms.

Further investigations could also be conducted with the original participants to explore how the exposure to naming the multiple literacies, their definitions, and examples of their implementation through our study increased their usage among the initial group of teachers. Serving almost as a pre- and post-examination, once teachers became aware of the multiple literacies that existed, were the teachers more likely to repeat their usage purposefully? And furthermore, now that teachers have a language to discuss the literacies practices evident in their

instruction, do they become advocates, of sorts, of multiple literacies uses with their content and grade level colleagues? Researchers could discover the impact of simply making teachers aware of the terms, definitions, and uses has on the frequency of their incorporation.

Longitudinal studies could also be conducted with student teachers of various content areas through their first three years teaching. Utilizing periodic in-depth interviews, classroom observations, and modified focus group sessions, how would the literacies perceptions and instructional literacies practices of a group of digital natives evolve, if at all, over the course of the beginning of their career? Additional studies could determine if the student intern's grade level, content area, geographical location, opportunities to collaborate with colleagues, or involvement in professional organizations impacted their dispositions towards literacies and/or their literacies practices. Further research on these areas could bolster the call for additional literacies courses—beyond the content area literacy course—required by pre-service teachers. Researchers in a future study such as this could also further the call of mentorship opportunities for novice teachers.

Further research could also be conducted to study the literacies perceptions and instructional literacies practices of other content area teachers, such as math, art, physical education, agriculture, family and consumer sciences, business, etc. Does the specific naming of social studies/history and science—examined in this study—by the CCSS impact the receptiveness to literacies integration? Furthermore, are content areas that are typically tested subject areas more or less likely to incorporate literacies into their instructional practices? In addition, further research could be conducted to examine the perceptions and instructional practices regarding literacies with ELA teachers. Studies that would focus solely on aspects of

English/language arts teachers' multiple literacies instruction could offer insight into the efforts needed to expand the ways in which literacies are pluralized.

Finally, research into the practices and policies of school and district administrators—and therefore their buildings and districts—could also reveal significant information regarding the nature of teachers' dispositions. Specifically, what practices and policies do administrators exhibit that foster a more progressive mindset regarding multiple literacies perceptions and instructional literacies practices among their teachers? This study, which solicited nearly one hundred teachers from three local districts, only had volunteer participants from one unified school district. What is the correlation, if one does exist, between the school districts and their teachers' likelihood of participating in voluntary professional development outside of the normal duty day? Additional research exploring the behaviors, actions, and guidelines of the buildings and districts could inform administrators of the appropriate forms of support their teachers need to thrive as professionals.

Summary

Upon completion of the questionnaires, classroom observations, focus group interviews, and evaluation of artifacts, careful analysis of the data through the use of open and holistic coding discovered nine themes, which were further divided into three categories, that help explain the literacies perceptions and instructional literacies practices of secondary social studies and science teachers. Further analysis of the data using contemporary genre theory (Devitt, 2004) helped describe the situational, social, historical, and individual layers of genre present among the eight teacher participants. While each of the nine themes was present among each of the focus groups, opportunities to collaborate with fellow educators, plan interdisciplinary units, and participate in professional growth opportunities (i.e., professional development seminars,

conferences, and graduate college coursework), influenced the teachers' literacies dispositions and the literacies implemented within their classrooms. Although literature suggests that literacy is more than the mechanical skills of reading and writing (Pattison, 1982) and therefore calls for a plurality of literacies (NCTE, 2011), many teachers continue to default to the basic, functional skills when referring to their literacies practices. However, as the literacies practices as adolescents continue to evolve and as today's workforce calls upon multimodal and specific literacies practices, it is essential that teachers and schools incorporate multiple literacies into their content area instruction. Therefore, discussing the current range of literacies perceptions and the multifaceted instructional literacies practices utilized across the content areas can help inform the changes and evolution of literacies instruction needed to meet the needs of the contemporary adolescent learner.

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Appendix A - **IRB Approval**

KANSAS STATE UNIVERSITY | University Research Compliance Office

TO: Todd Goodson
Curriculum & Instruction
Bluemont Hall, 261

Proposal Number: 7358

FROM: Rick Scheidt, Chair
Committee on Research Involving Human Subjects

DATE: 10/15/2014

RE: Approval of Proposal Entitled, "Interdiciplinary Insruction: Benefits of Multiple Literacies."

The Committee on Research Involving Human Subjects has reviewed your proposal and has granted full approval. This proposal is **approved for one year from the date of this correspondence, pending "continuing review."**

APPROVAL DATE: 10/17/2014

EXPIRATION DATE: 10/17/2015

Several months prior to the expiration date listed, the IRB will solicit information from you for federally mandated "**continuing review" of the research**. Based on the review, the IRB may approve the activity for another year. **If continuing IRB approval is not granted, or the IRB fails to perform the continuing review before the expiration date noted above, the project will expire and the activity involving human subjects must be terminated on that date. Consequently, it is critical that you are responsive to the IRB request for information for continuing review if you want your project to continue.**

In giving its approval, the Committee has determined that:

☒ There is no more than minimal risk to the subjects.
☐ There is greater than minimal risk to the subjects.

This approval applies only to the proposal currently on file as written. Any change or modification affecting human subjects must be approved by the IRB prior to implementation. All approved proposals are subject to continuing review at least annually, which may include the examination of records connected with the project. Announced post-approval monitoring may be performed during the course of this approval period by URCO staff. Injuries, unanticipated problems or adverse events involving risk to subjects or to others must be reported immediately to the Chair of the IRB and / or the URCO.

203 Fairchild Hall, Lower Mezzanine, Manhattan, KS 66506-1103 | 785-532-3224 | fax: 785-532-3278 | k-state.edu/research/comply

Appendix B - **Solicitation Letter**

KANSAS STATE UNIVERSITY | College of Education
Department of Curriculum & Instruction

Date: _____

Dear _____,

My name is Amanda Lickteig and I am a former middle school English/language arts teacher and a current Ph.D. student and Graduate Teaching Assistant in Curriculum & Instruction at Kansas State University. I recently received a Phi Delta Kappa "Innovations in Education" grant to help fund portions of my dissertation research involving the multiliteracy practices of secondary social studies and science teachers, and now I am looking for teachers to participate in the study.

Participant Requirements:

- Participants must be highly qualified, licensed educators in the fields of social studies or science.
- Participants must be currently teaching in a secondary (grades 6-12) classroom.
- Participants must work within a 25-mile radius of the research university.
- Participants must be willing to complete small tasks (e.g. short surveys and questionnaires, brief reading assignments, etc.) as well as participate in two 60- to 90-minute focus group discussions with other educators (located at the most central location, based on participants).
- Participants should be open to brief, infrequent classroom observations.

In return for their participation, teachers will receive professional development, a free copy of the book Adolescent Literacy in the Academic Disciplines: General Principles and Practical Strategies by Jetton and Shanahan, a $10 Visa gift card, and will be entered in a drawing for an additional gift card.

After participating in the study, it is my goal that teachers begin to adopt a "perspective of plurality, to focus on literacies, recognizing the multiple values and meanings along with the ways literacies are inflected by different contexts" (NCTE policy research brief, 2001, p. 1) as well as begin to implement the different forms of literacy in their content area classrooms while using multiple and varied text types.

If you are interested in participating in the study, please reply by email by _____ to the address listed below.

Thank you,

Amanda Lickteig

Amanda Lickteig | 126 Bluemont Hall | 785.532.5943 | alickteig@ksu.edu

Appendix C - **Diversity of Participants**

Table B.1 Distribution of Participants' Diversity (self-identified)

		Social Studies	Science
Sex	Female	2	2
	Male	2	2
Race (select all that apply)	Asian		
	American Indian or Alaskan Native		
	Black or African American		
	Hispanic or Latino		
	Native Hawaiian or Other Pacific Islander		
	White	4	4
	Unknown		
	Other		
Military Connectedness	Active Duty		
	Reserves		
	Retired	1	2
	Dependent		
	Civilian	3	2
Highest Level of Education	Bachelors of Arts/Science	2	3
	Masters of Arts/Science	2	1
	Ph.D./Ed.D		
	Other		
Years of Teaching	<5	1	2
	5-10	1	2
	11-25	2	
	26-45		
	>46		
Number of Teaching Positions	1-3	3	4
	4-6	1	
	7-10		
	More than 10		
Teaching Level	Middle School (6-8)	2	4
	High School (9-12)	2	
Employed by USD #	001		
	002	4	4
	003		
Number of Professional Organizations	0		
	1-3	4	4
	4-6		
	7+		

Appendix D - **Informed Consent**

KANSAS STATE UNIVERSITY

INFORMED CONSENT

PROJECT TITLE: Interdisciplinary Instruction: Benefits of Multiple Literacies

APPROVAL DATE OF PROJECT: 10/17/2014 **EXPIRATION DATE OF PROJECT:** 10/17/2015

PRINCIPAL INVESTIGATOR: CO-INVESTIGATOR(S): Dr. F. Todd Goodson & Amanda Lickteig

CONTACT AND PHONE FOR ANY PROBLEMS/QUESTIONS: (785) 532-5904, tgoodson@ksu.edu

IRB CHAIR CONTACT/PHONE INFORMATION: Rick Scheidt, Chair, Committee on Research Involving Human Subjects, 203 Fairchild Hall, Kansas State University, Manhattan, KS 66506, (785) 532-3224.
Jerry Jaax, Associate Vice President for Research Compliance and University Veterinarian, 203 Fairchild Hall, Kansas State University, Manhattan, KS 66506, (785) 532-3224.

SPONSOR OF PROJECT: None

PURPOSE OF THE RESEARCH: This research is being conducted to understand how practicing, secondary-level social studies and science teachers perceive literacy and incorporate multiple literacies into their instruction.

PROCEDURES OR METHODS TO BE USED: This study will involve a paper survey to be completed by the participants, semi-structured focus groups of secondary teachers, observations of the teachers in their classrooms, observer field notes, and audio-/video-recordings of the focus groups interviews, and collection of artifacts.

ALTERNATIVE PROCEDURES OR TREATMENTS, IF ANY, THAT MIGHT BE ADVANTAGEOUS TO SUBJECT:

NA

LENGTH OF STUDY: Approximately 2-3 months

RISKS ANTICIPATED: None

BENEFITS ANTICIPATED: The participants will receive professional development through the reflective nature of the survey and focus groups conversations as well as printed literature about literacy in the disciplines and a small Visa gift card.

EXTENT OF CONFIDENTIALITY: During the study, all data will be kept in a locked drawer and electronic files will be password protected. Furthermore, in the presentation of data, the participant's name and other identifying factors will be removed.

IS COMPENSATION OR MEDICAL TREATMENT AVAILABLE IF INJURY OCCURS: No; there are no known risks associated with this study.

PARENTAL APPROVAL FOR MINORS: NA

Last revised on May 20, 2004

TERMS OF PARTICIPATION: I understand this project is research, and that my participation is completely voluntary. I also understand that if I decide to participate in this study, I may withdraw my consent at any time, and stop participating at any time without explanation, penalty, or loss of benefits, or academic standing to which I may otherwise be entitled.

I verify that my signature below indicates that I have read and understand this consent form, and willingly agree to participate in this study under the terms described, and that my signature acknowledges that I have received a signed and dated copy of this consent form.

(Remember that it is a requirement for the P.I. to maintain a signed and dated copy of the same consent form signed and kept by the participant)

Participant Name: _____

Participant Signature: _____ **Date:** _____

Witness to Signature: (project staff) _____ **Date:** _____

Last revised on May 20, 2004

Appendix E - **Initial Participant Questionnaire**

Initial Participant Questionnaire

Thank you for your participation in this study; your participation is strictly voluntary. Participants should expect to spend between 5-15 minutes to complete this survey. Any questions that cause you to become uncomfortable may be skipped.

PART I: Please use the highlighter tool to select your answer.

Contextual Information

Please indicate the best option in the multiple choice questions below:

1. Please select your gender.
   a. Male
   b. Female
2. Please select your race (choose all that apply).
   a. Asian
   b. American Indian or Alaskan Native
   c. Black or African American
   d. Hispanic or Latino
   e. Native Hawaiian or Other Pacific Islander
   f. White
   g. Unknown
   h. Other
3. Please indicate your highest level of education.
   a. Associates
   b. Bachelors
   c. Masters
   d. Doctorate
4. Please select your level of military connectedness.
   a. Active Duty
   b. Reserves
   c. Retired
   d. Dependent
   e. Civilian
5. Please describe the type of geographical location where you currently reside.
   a. Rural
   b. Suburban
   c. Urban
6. How long have you been teaching?
   a. <5 years
   b. 5-10 years
   c. 11-25 years
   d. 26-45 years
   e. >45 years
7. How many teaching positions have you held in your career?
   a. 1-3
   b. 4-6
   c. 7-10
   d. More than 11 positions
8. Have you taken any kind of "Literacy in the Content Areas" or "Interdisciplinary Instruction" courses in your post-secondary education?
   a. Yes
   b. No
9. Are you certified to teach a content other than what you are currently teaching?
   a. Yes
   b. No
10. Please select the level of education where you have done the majority of your teaching.
    a. Preschool-Elementary
    b. Middle
    c. High School
    d. College/University
11. Please describe the type of location where you have done the majority of your teaching.
    a. Rural
    b. Suburban
    c. Urban
    d. Equal split between rural and urban
12. Please select the number of educational professional organizations (local, state, national, or international) to which you belong.
    a. 0
    b. 1-3
    c. 4-6
    d. 7+

PART II: Place your cursor in the appropriate box and insert an "X"

Ranking Information

Please rank the statements below from 1-5, with 1 being *none* and 5 being *extensive*, or select *unsure*.

How would you rank:	**1** (None)	**2** (Little)	**3** (Adequate)	**4** (Above Average)	**5** (Extensive)	**?** (Unsure)
1. Your familiarity with the previous Language Arts standards (grades 6-12) for the state of Kansas.						
2. Your familiarity with the previous Social Studies standards (grades 6-12) for the state of Kansas.						
3. Your familiarity with the previous Science standards (grades 6-12) for the state of Kansas.						
4. Your overall familiarity with the Common Core State Standards (CCSS).						
5. Your familiarity with the CCSS Literacy document.						
6. Your familiarity with the CCSS History/Social Studies document.						
7. Your familiarity with the CCSS Science/Technical Subjects document.						
8. Your level of interest in local educational policies.						
9. Your level of interest in national educational policies.						
10. Your participation level in professional development opportunities (at any level).						
11. Your level of involvement in planning professional development opportunities (at any level).						
12. Your general receptiveness to new curriculum changes at the local level (scope & sequence, new instructional materials, etc.).						
13. Your general receptiveness to new curriculum changes at the national level (new standards, etc.).						
14. The benefits of incorporating literacy skills into non-English/Language Arts classes.						
15. The amount of functional (reading and writing) literacy skills you currently teach in your class.						
16. The amount of functional (reading and writing) literacy skills you believe your content colleagues currently teach in their classes.						
17. Your familiarity with multiple literacies--e.g., multiliteracies, new literacies, disciplinary literacy, content area literacy, etc.						

How would you rank (cont.):	**1** (None)	**2** (Little)	**3** (Adequate)	**4** (Above Average)	**5** (Extensive)	**?** (Unsure)
18. The amount of multiple literacy skills you currently teach in your class.						
19. The amount of multiple literacy skills you believe your content colleagues currently teach in their classes.						
20. Your likelihood of using a "traditional" text (printed textbook, article, novel, etc.) in your instruction.						
21. Your likelihood of using a "non-traditional" text (YouTube clip/video, blueprints, diagrams/graphs, sheet music, blog, Prezi presentation, etc.) in your instruction.						
22. The benefits of utilizing cross-curricular instruction, in general.						
23. The amount of cross-curricular instruction, in general, you currently provide.						
24. The amount of cross-curricular instruction, in general, you believe your content colleagues currently provide.						
25. The amount of cross-curricular instruction, in general, you believe all teachers in your building provide.						

Thank you for your participation in this survey. Please "save as" and return this form to Amanda via email (alickteig@ksu.edu).

Appendix F - **Heterogeneous Focus Group Discussion Prompts**

Location: _____ Date: _____

Heterogeneous Focus Group Discussion Prompts

1. Can you tell the group a little about your background with education?
    a. Your name?
    b. Where you've taught?
    c. How long you've taught?
    d. Grade levels you've taught?
    e. The subjects/classes you've taught?
2. How familiar are you with the Common Core literacy standards for social studies or science?
3. How do you define literacy?
    a. Are there different forms of literacy? Can you elaborate?
    b. What does literacy look like in a social studies/science classroom?
    c. How do you feel about incorporating literacy into your content-area instruction?
4. What does the literature say about literacy in the disciplines?
5. How do you define text?
6. (Other questions, as applicable)

Appendix G - **Homogeneous Focus Group Discussion Questions**

Interviewer: _____ Location: _____

Participants: _____ Date: _____

Homogeneous Focus Group Interview Discussion Questions

1. Can you tell me a little about your position at your school now?

2. What is your experience with the new "Literacy in History/Social Studies" or "Literacy in the Science/Technical Subjects" document?

3. What is your opinion of the incorporation of (any type of) literacy into Social Studies/Science?

4. What issues or problems do you foresee with literacy incorporation into yours (and other) contents, if any?

5. What benefits do you foresee with literacy incorporation into yours (and other) contents, if any?

6. How are you, or how do you plan to, incorporate multiple literacies (functional literacy, content-area literacy, disciplinary literacy, multiliteracies, new literacies, etc.) into your instruction this year?

    a. What can you show me/describe to me that illustrates your literacies instruction?

    b. How does this differ from previous years you've taught, if at all?

7. How would you describe your students' sentiments or attitudes about the incorporation of literacy into their other contents, such as Social Studies or Science?

8. How do you think non-English/Language Arts teachers—especially Social Studies & Science teachers—should approach literacy integration?

    a. Are there any resources they should use or seek out?

    b. Are there any specific instructional strategies you believe that are cross-curricular?

    c. Other:

9. What does the literature say about literacy in your academic discipline?

10. Is there anything else you'd like to share with me that you think would be beneficial to this study?

Appendix H - **Post Participant Questionnaire**

Post Participant Questionnaire

Thank you for your participation in this study; your participation is strictly voluntary. Participants should expect to spend between 5-10 minutes to complete this survey, which resembles the initial questionnaire. Any questions that cause you to become uncomfortable may be skipped.

Direction: Place your cursor in the appropriate box and insert an "X"

Ranking Information

Please rank the statements below from 1-5, with 1 being *none* and 5 being *extensive*, or select *unsure*.

How would you rank:	**1** (None)	**2** (Little)	**3** (Adequate)	**4** (Above Average)	**5** (Extensive)	**?** (Unsure)
1. Your overall familiarity with the Common Core State Standards (CCSS).						
2. Your familiarity with the CCSS Literacy document.						
3. Your familiarity with the CCSS History/Social Studies document.						
4. Your familiarity with the CCSS Science/Technical Subjects document.						
5. Your level of interest in local educational policies.						
6. Your level of interest in national educational policies.						
7. Your participation level in professional development opportunities (at any level).						
8. Your level of involvement in planning professional development opportunities (at any level).						
9. Your general receptiveness to new curriculum changes at the local level (scope & sequence, new instructional materials, etc.).						
10. Your general receptiveness to new curriculum changes at the national level (new standards, etc.).						
11. The benefits of incorporating literacy skills into non-English/Language Arts classes.						
12. The amount of functional (reading and writing) literacy skills you currently teach in your class.						
13. The amount of functional (reading and writing) literacy skills you believe your content colleagues currently teach in their classes.						
14. Your familiarity with multiple literacies--e.g., multiliteracies, new literacies, disciplinary literacy, content area literacy, etc.						

How would you rank (cont.):	**1** (None)	**2** (Little)	**3** (Adequate)	**4** (Above Average)	**5** (Extensive)	**?** (Unsure)
15. The amount of multiple literacy skills you currently teach in your class.						
16. The amount of multiple literacy skills you believe your content colleagues currently teach in their classes.						
17. Your likelihood of using a "traditional" text (printed textbook, article, novel, etc.) in your instruction.						
18. Your likelihood of using a "non-traditional" text (YouTube clip/video, blueprints, diagrams/graphs, sheet music, blog, Prezi presentation, etc.) in your instruction.						
19. The benefits of utilizing cross-curricular instruction, in general.						
20. The amount of cross-curricular instruction, in general, you currently provide.						
21. The amount of cross-curricular instruction, in general, you believe your content colleagues currently provide.						
22. The amount of cross-curricular instruction, in general, you believe all teachers in your building provide.						

Thank you for your participation in this survey. Please "save as" and return this form to Amanda via email (alickteig@ksu.edu).

Appendix I - **Statement of Disclosure**

KANSAS STATE UNIVERSITY | College of Education
Department of Curriculum & Instruction

DISCLOSURE STATEMENT

April 30, 2015

Dear Participant,

Thank you for your participation in the research regarding the multiple forms of literacy and interdisciplinary instruction.

A written pre- and post- questionnaire; multiple semi-structured, open-ended focus group interviews; participant observations; field notes; and artifacts were utilized with the participants of this study. The goal of the questionnaires, interviews, observations, field notes, and artifact collection was to gather information on secondary social studies and science teachers' perceptions of literacy and their instructional literacies practices. It is predicted that there will be a various beliefs about the definition of literacy, the types of instructional practices and activities that involve literacies, and the feasibility of incorporating multiple literacies into the content-area classroom. If you would like to learn more about the CCSS or literacy instruction in the content areas, please see the references listed below.

Research has found that, historically, content-area literacy has been a source of contention for most secondary non-English/Language Arts (ELA) teachers for a variety of reasons. First, content area teachers find the "purposes and methods of content literacy instruction as 'paradoxical' (p. 446), meaning that teachers often do not see the connection between literacy skills and content information" (O'Brien, Steward, & Moje, 1995, as cited in Fisher & Ivey, 2005, p. 5). These feelings may be a result of the mantra *every teacher a teacher of reading*, which according to Vacca and Vacca (2005), "is not working" (p. 6). Another reason content-area teachers may be hesitant to incorporate literacy instruction into their teaching is because they may be afraid of trying new methods. In a study conducted with middle and high school content teachers during the summer of 2005, Cantrell, Burns, and Callaway reported that a high percentage of teachers sampled expressed "experiencing at least initial discomfort and/or anxiety implementing CLP [Content Literacy Project] training and expressed their initial reluctance to deviate from more traditional teaching methods. In general, discomfort was reported as reluctance or fear of trying something new" (2009, p. 87). This feeling of fear is exasperated because content area teachers "often do not believe they have sufficient knowledge, abilities, or preparation for integrating literacy instruction into their content area" (Cantrell et al., 2009, p. 78).

Your participation in this study was important in helping researchers understand your perceptions of literacy and your instructional literacy practices, as influenced by the CCSS, into your secondary social studies or science instruction.

Final results will be available from the investigators, Amanda Lickteig and Dr. Todd Goodson, by August 30, 2015.

Amanda Lickteig | alickteig@ksu.edu | 126 Bluemont Hall | 1100 Mid-Campus Dr. Manhattan, KS 66506

You may contact me via email, alickteig@ksu.edu, to receive an electronic copy of the final report. Your participation, including your name and responses, will remain confidential, even if the report is published.

If you have any additional questions regarding this research, please contact Dr. Todd Goodson (tgoodson@ksu.edu) or myself.

Thank you,

Amanda Lickteig

References

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Appendix J - **Research Timetable**

Table E.1 Research Timetable

Dates	Actions
March 12-26, 2015	Arranged for focus group participants.
March 12-March 30, 2015	Distributed initial questionnaire, professional development literature, and focus group discussion prompts.
March 12-April 2, 2015	Participants read excerpts from book and take notes; potentially identified artifacts to share.
April 2, 2015	Conduct heterogeneous focus group.
April 2-16, 2015	Transcribed and analyzed heterogeneous focus group transcripts.
April 16, 2015	Conducted social studies homogeneous focus group.
April 16-24, 2015	Transcribed and analyzed social studies homogeneous focus group transcripts, reading notes, and artifacts.
April 21-30, 2015	Conducted classroom observations, collected artifacts, and took field notes.
April 24, 2015	Conducted science homogeneous focus group.
April 24-June 1, 2015	Transcribed and analyzed science homogeneous focus group transcripts, reading notes, and artifacts.
June 1-July 16, 2015	Wrote up findings and completed dissertation.
July 20-July 23, 2015	Dissertation delivered to committee members.
August 6th, 2015	Defended dissertation.