I Would Teach It If I Knew How: Inquiry, Modeling, Shared Writing, Collaborative Writing, and Independent Writing (IMSCI), a Model for Increasing Secondary Teacher Self-Efficacy in Integrating Writing Instruction in the Content Areas

Melanie M. Landon-Hays

Follow this and additional works at: https://digitalcommons.usu.edu/etd

Part of the Education Commons

Recommended Citation
I WOULD TEACH IT IF I KNEW HOW: INQUIRY, MODELING, SHARED WRITING, COLLABORATIVE WRITING, AND INDEPENDENT WRITING (IMSCI), A MODEL FOR INCREASING SECONDARY TEACHER SELF-EFFICACY FOR INTEGRATING WRITING INSTRUCTION IN THE CONTENT AREAS

by

Melanie M. Landon-Hays

A dissertation submitted in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

in

Education

Approved:

Sylvia Read, Ph.D.
Major Professor

Steven Camicia, Ph.D.
Committee Member

Steven Shively, Ph.D.
Committee Member

Amy Alexandra Wilson, Ph.D.
Committee Member

Virginia Exton, Ph.D.
Committee Member

Mark McLellan, Ph.D.
Dean of Graduate Studies

UTAH STATE UNIVERSITY
Logan, Utah

2012
ABSTRACT

I Would Teach It If I Knew How: Inquiry, Modeling, Shared Writing, Collaborative Writing, and Independent Writing (IMSCI), a Model for Increasing Secondary Teacher Self-Efficacy in Integrating Writing Instruction in the Content Areas

by

Melanie M. Landon-Hays, Doctor of Philosophy
Utah State University, 2012

Major Professor: Sylvia Read, Ph.D.
Department: Teacher Education and Leadership

This is a design-based research study centered on discovering teachers’ self-efficacy in writing instruction in their content area teaching, and describing the implementation of IMSCI, a scaffolded model of writing instruction as an intervention to increase teacher self-efficacy in writing. Specifically, this study involved ten focus group interviews at one Utah high school. Focus groups were divided into two interview cycles: first, as content teachers in science (two participants), social studies (one participant), and English (two participants); and second, as a collective group comprising all five participants. Analysis of transcripts of audiotaped data revealed teachers’ perceptions of their self-efficacy as writers and writing instructors, their conceptions of the demands of writing instruction in their disciplines and school, and the effects of the intervention on their practice, while also providing insights about what constitutes effective professional
learning for practicing teachers.

By identifying and describing these teachers’ perceptions of their ability to implement effective writing instruction, in light of increased demands for writing in secondary schools, it is possible to shed light on the reasons teachers do and do not integrate effective practices for teaching writing into their classroom instruction. Descriptions of these teachers’ development as writing instructors and their definitions of writing, provide insights about their instructional choices, and how these might be affecting perceptions of content-area teacher resistance to literacy integration at the secondary level. Further, the implementation of an instructional intervention, which was the IMSCI model in this study, provides knowledge about how teachers react to inservice learning in a professional learning community model of professional development. Such knowledge could assist teacher educators in planning effective professional learning for disciplinary writing instruction.

Data collection protocols involved the taping of focus group interviews, submission of teaching artifacts and reflective blog posts by the teachers as they considered their writing instruction before, during, and after the implementation of the intervention. Findings indicate that the majority of these teachers had low perceptions of their self-efficacy in writing instruction, and the professional learning process combined with the teaching of the IMSCI model, did have a positive effect on their perceived self-efficacy.

(271 pages)
PUBLIC ABSTRACT

I Would Teach It If I Knew How: Inquiry, Modeling, Shared Writing, Collaborative Writing, and Independent Writing (IMSCI), a Model for Increasing Secondary Teacher Self-Efficacy in Integrating Writing Instruction in the Content Areas

by

Melanie M. Landon-Hays, Doctor of Philosophy
Utah State University, 2012

Framed in theories of pragmatism, self-efficacy, and ecology, this design-based research study attempted to make explicit connections between theory and field-based research. The pedagogical goal of this study was to expose in-service teachers to a scaffolded model of professional development for writing (IMSCI) that could be implemented in their own teaching. This model of professional development also served to place research participants in a professional learning community. Teachers worked in focus groups made of another teacher in their own discipline, and a collective focus group, and worked through the steps of the scaffolded model in consideration of their own writing instruction in an effort to increase their self-efficacy, while also experiencing a participatory approach to instruction that in turn improved their ability to enact this instruction in their own classrooms. The data, which included focus group interviews, blog posts by the teachers, and member checking, were analyzed using constant comparative methods. The analyses indicated that the majority of these content teachers had not experienced effective writing instruction models as students and did not learn how to teach writing in their preservice teaching programs. Additionally, their professional learning experiences as inservice teachers had not given them the tools they needed to overcome ecological factors that stopped them from teaching writing.

Teachers’ responses about their experience with the IMSCI model indicate that it has the potential to help teachers understand what effective writing instruction looks like, how to implement it in their own classrooms, and to increase their perceived self-efficacy as teachers of writing.
DEDICATION

This dissertation is dedicated to my wonderful family. Particularly to my understanding and patient husband, Ben, who has put up with these many years of research and classes by being both the father and mother to our children over the past 5 years while completing his own degree. To our precious sons, Oliver and Henry, who are growing into wonderful human beings, in spite of the fact that their mother was less available than she should have been during these young years of their lives. They have been patient and joyful throughout this process. I would not have had the stamina to finish if I had not had their support and love. I also thank my loving parents who have helped so much whenever we needed it and have given me their fullest support. They financed many a conference trip and other necessities to lighten the financial burden on our young family. To you all, I dedicate this dissertation. Thank you.
ACKNOWLEDGMENTS

I would like to thank my dissertation committee chair, Dr. Sylvia Read, for her guidance and direction throughout my graduate studies and the entire dissertation process. She has spent many hours with me through this entire degree, providing wisdom, gentle prodding, and priceless advice about my schooling and life. Without her patience, support, and important contributions, I would not have completed this project. Her sincere interest in the writing process, writing instruction, and how to improve these in classrooms have been a great inspiration to me.

I would also like to thank my committee members, Dr. Steven Camicia, Dr. Steven Shively, and Dr. Virginia Exton, for their suggestions and direction as we worked to make this dissertation a success, and to Dr. Amy Alexandra Wilson, for her guidance with both my dissertation and job search process. Your experience and guidance were a boon at the most perfect time. I also recognize the unseen mentoring of Dr. George Hruby and Dr. Alison Heron-Hruby whose invitations to write with them, their support, guidance, encouragement, and trust in my potential have made working on this degree and finding a job, a prospect for which I came to think I was qualified.

I have had many great learning and teaching experiences at Utah State University and am also grateful to the teachers, mentors, and fellow students who taught me, guided me, and provided me with opportunities to learn and teach.

Additionally, I would like to thank the teachers who participated in this study, for their time, insights, and willingness to try a new model for improving their writing instruction. The many hours we spent together heightened my thinking about the
complexity of your teaching situations and increased my admiration for the daily work you do. Finally, to Brianne Hardy for her work as an outside auditor. Your careful eye in data analysis and peer review provided valuable insights to this research study. I am so grateful for all of your help.

The process of completing this dissertation has been a privilege and I have grown so much during my time studying with you. I thank you all for supporting, helping, and guiding me.

Melanie M. Landon-Hays
# CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTRACT</td>
<td></td>
<td>iii</td>
</tr>
<tr>
<td>PUBLIC ABSTRACT</td>
<td></td>
<td>v</td>
</tr>
<tr>
<td>DEDICATION</td>
<td></td>
<td>vi</td>
</tr>
<tr>
<td>ACKNOWLEDGMENTS</td>
<td></td>
<td>vii</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td></td>
<td>xi</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td></td>
<td>xii</td>
</tr>
</tbody>
</table>

## CHAPTER

### I. INTRODUCTION

The Problem | 1 |
Defining Terms | 4 |
Purpose and Objectives | 5 |

### II. REVIEW OF LITERATURE

Purposes and Objectives for the Literature Review | 9 |
Procedures for the Literature Review | 10 |
Conceptualizing Writing Instruction from Theoretical Perspectives | 13 |
Research Studies | 22 |
Summary | 41 |

### III. RESEARCH METHODS

Research Questions | 43 |
Methods and Procedures | 45 |
Data Collection | 51 |
Data Collection and Analysis Protocol | 58 |
Major Characteristics of Design-Based Research | 61 |
Implementation as a Design-Based Research Study | 62 |
Credibility and Trustworthiness of Data | 67 |
Limitations and the Role of the Researcher | 70 |
Procedures for Implementing the Intervention | 75 |
IV. RESEARCH FINDINGS ......................................................................................... 88

Before the Intervention .................................................................................. 89
Implementation of the Intervention ............................................................... 119
During the Intervention ............................................................................... 128
After the Intervention .................................................................................. 163
Conclusions .................................................................................................. 188
Independent Confirmation of Findings Through Member Checking and Peer Debriefing ........................................................................................................... 189

V. DISCUSSION AND IMPLICATIONS ............................................................. 192

Discussion of Research Findings ................................................................. 192
Implications for Secondary Content-Area Writing Instruction .................... 207
Future Research Directions ......................................................................... 209
Conclusion .................................................................................................... 211

REFERENCES .................................................................................................. 213

APPENDICES .................................................................................................. 227

Appendix A: Writing Standards by Discipline ............................................. 228
Appendix B: Common Core Writing Standards ......................................... 231
Appendix C: Preliminary Research Questions ............................................ 234
Appendix D: Timeline for the Implementation of the Intervention .............. 237
Appendix E: Rubric Analysis Artifact .......................................................... 241
Appendix F: IMSCI Graphic Organizer ....................................................... 243
Appendix G: Inquiry Chart ........................................................................... 245
Appendix H: Sample Disciplinary Lesson Plan .......................................... 247

CURRICULUM VITAE .......................................................................................... 250
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Details About the Participant Teachers</td>
<td>51</td>
</tr>
<tr>
<td>2. Outline of Data Sources and Contributions to Data Analysis</td>
<td>52</td>
</tr>
<tr>
<td>3. Framework of Design-Based Research and the Current Study</td>
<td>63</td>
</tr>
<tr>
<td>4. Participating Teachers and Their Assigned Articles</td>
<td>77</td>
</tr>
<tr>
<td>5. Synonyms for Major Terms in the Teacher-Created Definition of Argumentative Writing</td>
<td>78</td>
</tr>
</tbody>
</table>
## LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Theoretical framework of the study</td>
<td>13</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

The Problem

In the majority of high school classrooms, across content areas, students are required to write (Applebee & Langer, 2011; Graham & Perin, 2007). Student writing is often used as an assessment of student comprehension of subject matter, to gain insight into their thinking, and as a way for them to demonstrate higher order thinking skills (Calfée & Miller, 2007). Many writing initiatives, such as process writing, traits-based writing, and writing across the curriculum have been advocated as a way to improve student writing. Despite these initiatives, reports indicate that high school writing needs improvement. Seventy percent of students in grades 4-12 are low-achieving writers (Persky, Daane, & Jin, 2003), and nearly one third of high school graduates are not ready for college-level composition courses (American College Testing [ACT], 2005; National Center for Education Statistics, 2003; Perin, 2006). Additionally, several reports have drawn attention to the adolescent literacy crisis (e.g., Biancarosa & Snow, 2004; Carnevale, 2001; Kamil, 2003; National Commission on Writing, 2004a, 2004b, 2005).

The increasing use of writing assessments in almost every state in the nation as an indicator of grade level literacy proficiency signals the importance of writing in the school curriculum. Society values writing as a skill for future success, and teachers value it as a measure of student learning. Graham and Perin (2007) stated, “Most contexts of life (school, the workplace, and the community) call for some level of writing skill, and
each context makes overlapping, but not identical demands” (p. 9). Though writing is an integral part of communication processes, its productive demands make it a difficult skill for students to grasp (Fitzgerald & Shanahan, 2000; Graham & Perin, 2007). Similarly, writing is difficult for teachers to teach and assess (Elliott, 2005; Huot, 2002). Further, with the adoption of the common core standards in 45 states, writing instruction has been emphasized in curriculum development and teacher professional learning as an indicator of student literacy and learning. These standards included the following guidelines:

For students, writing is a key means of asserting and defending claims, showing what they know about a subject, and conveying what they have experienced, imagined, thought, and felt. To be college- and career ready writers, students must take task, purpose, and audience into careful consideration, choosing words, information, structures, and formats deliberately. They need to know how to combine elements of different kinds of writing—for example, to use narrative strategies within argument and explanation within narrative—to produce complex and nuanced writing. They need to be able to use technology strategically when creating, refining, and collaborating on writing. They have to become adept at gathering information, evaluating sources, and citing material accurately, reporting findings from their research and analysis of sources in a clear and cogent manner. They must have the flexibility, concentration, and fluency to produce high-quality first draft text under a tight deadline as well as the capacity to revisit and make improvements to a piece of writing over multiple drafts when circumstances encourage or require it. (National Governors Association Center for Best Practices, Council of Chief State School Officers, 2010, p. 41)

With the implementation of the common core in many school districts, demands for student writing will likely increase, thus increasing the demand for better writing instruction and assessment (Fitzgerald & Shanahan, 2000; Graham & Perin, 2007; McCarthey, 2008; Pritchard & Honeycutt, 2006).

Despite the emphasis on writing in statewide assessments that seems to signal the importance of writing instruction in school, studies have found that teachers do not regularly give students opportunities to write and be assessed in the context of classroom
instruction (Atwell, 1987; Beck & Jeffery, 2007; Coker & Lewis, 2008; Graham & Perin, 2007; Hillocks, 2008; Huot, 2002; Murphy & Yancey, 2008; Shermis, Burstein, & Leacock, 2006). Skilled writing is neither automatic nor natural, and it does not become effortless with practice. The complex act of writing varies according to situation, audience and purpose (Fisher & Frey, 2003; Hillocks, 2008). School-based writing requires that students plan, create necessary content, and translate the content into written language. Then, they must revise and improve their writing, using self-regulation throughout the process. Though it shares some similarities with the act of reading because both are fundamental processes of literacy, writing is the opposite of reading because it is a generative, productive process. This contrasts with the receptive process that is reading (Shanahan, 2006). Furthermore, writing differs across disciplines, both in its learning and assessment (Ayers, 1993; Konopak, Martin, & Martin, 1990; Langer & Applebee, 1978; Vacca & Vacca, 1989).

The literature on writing instruction and assessment focuses on the need for improving student writing by giving students more opportunities to write, providing them with faster and more accurate feedback, and by offering instruction that focuses on the writing process rather than the writing product (Graham & Perin, 2007; National Writing Project, 2007). Additionally, this research advocates the use of good modeling, both of processes and expectations (Beck & Jeffery, 2007; Coker & Lewis, 2008; Graham & Perin, 2007; Hillocks, 2008; Murphy & Yancey, 2008; Shanahan, 2006; Shermis et al., 2006). Teachers need to model writing through demonstration and example papers, provide detailed and relevant feedback, and offer chances for multiple revisions that are
specific to individual writers (Fitzgerald & Shanahan, 2000; Hillocks, 2008). Because of the complexity of both task and product, research suggests that secondary school students need many exposures to a variety of forms of writing (Graham & Perin, 2007; Hillocks, 2008; Shanahan, 2006). Students also need numerous opportunities to write and receive feedback on their writing in order to improve (Hillocks, 2008; Shermis et al., 2006).

Although this research is well intended, much of it fails to take into account the situated nature of writing and the complexity of the writing task in relation to the training constraints of high school teachers. Harris, Graham, Mason, and Friedlander (2008) contended, “There are many reasons why students have problems with writing. One of the most obvious is simply that they’ve never been taught how to write” (p. ix). Given many teachers’ uneasiness about their preparation to teach and assess writing, it is not surprising that students tend to receive fewer opportunities to improve their writing through frequent practice and assessment (Bossone & Larson, 1980; Huot, 2002; Kiuhara, Graham & Hawken, 2009). Studies have shown that secondary teachers across content areas often feel that they are ill prepared to provide writing instruction and are unaware of how to assess writing (Bossone & Larson, 1980; Hillocks, 2002; Kiuhara et al., 2009). Consequently, teachers feel unprepared and lack the skills and self-efficacy beliefs needed in order to provide effective writing instruction.

**Defining Terms**

There are a few terms that need to be explained. *Writing instruction* refers to the types of writing instruction in classrooms given by teachers. In a broad sense, this is
defined by teaching that may include modeling, discussing, sharing ideas, and giving feedback rather than assigning writing. Though research literature accounts for different modes of instruction, including process based writing, traits based writing, workshop teaching, etc., for the purposes of this study, writing instruction is defined broadly and generally as any time a teacher is attempting to teach writing. Design-based research is the methodology used for this study. Design-based research is research that tests both theory and practice through research conducted with teachers that implements an intervention. Design-based research is iterative and pragmatic and will be discussed in more depth in the methodology section of this study. Self-efficacy refers to a person’s belief in his or her ability to succeed in a particular situation and is discussed in more depth in the literature review. IMSCI refers to the scaffolded model of writing instruction implemented in this study as an intervention to improve teacher writing instruction. IMSCI is an acronym for the following steps in writing instruction: I-inquiry, M-modeling, S-shared writing, C-collaborative writing, and I-independent writing. It was developed by Read (2010) and published as a teaching tips article in The Reading Teacher, volume 64. It is explained in detail in Chapter III of this study. Finally, content area and disciplinary are used interchangeably to refer to a specific field of study, such as science, social studies, and/or English.

**Purpose and Objectives**

Because little is known about the importance of teacher efficacy for literacy teaching, particularly in writing, as it pertains to content area middle and high school
teachers, it is important to focus research efforts in this context (Cantrell & Hughes, 2008; Graham & Perrin, 2007; Shanahan & Shanahan, 2008). Therefore, the overarching goal of this study was to examine how high school teachers conceptualize themselves as writers and implement writing instruction—defined broadly to encompass writing assignments, assessment, modeling, time spent, and so forth—in their classroom curriculum. This study was predicated upon the assumption that high school teachers are generally uncomfortable teaching writing and often believe that it is the domain of the English Language Arts teacher, while acknowledging that writing differs from discipline to discipline in ways that are specific to each discipline. Further, writing is often a neglected aspect of literacy instruction, though its benefits for improved literacy are supported by research (Fitzgerald & Shanahan, 2000; Graham & Perin, 2007). Purposeful professional development in writing can support teachers in thinking about their identity as writing instructors as they design writing instruction in their classrooms.

This study therefore implemented a professional learning model for writing instruction that promoted teacher ability to conceptualize themselves as writing teachers in addition to building their self-efficacy, describing perceptions of their ability to enact effective writing instruction, and clarifying their writing curriculum in the process. By first theorizing the importance of teacher self-efficacy and the need for pragmatism in teacher professional development for improved instruction, this study attempts to move beyond generalized teacher resistance to writing instruction that purportedly appears in all content areas and thus address issues of teacher efficacy in the process. As researchers gain insights into teachers’ ways of conceptualizing themselves as instructors of writing,
they can work with teachers to develop authentic and useful recommendations for literacy instruction that lead to improved confidence in and implementation of writing in their curriculum.

This study investigated high school content teachers’ beliefs about their ability to teach writing in their classrooms while purposefully giving them access to professional learning in writing through immersion in a scaffolded instructional model of writing instruction. Data collection and analysis focused on determining if immersion in this model increased teacher self-efficacy for writing instruction and thus student opportunity to write in the high school classroom. To accomplish this purpose, I developed a design based research study or DBR (detailed in Chapter III) focused on teachers who agreed to work toward increasing the quantity and substance of their writing instruction through professional learning and subsequent enactment in their own classrooms. Data collected provides information about teachers’ own experiences with models of writing instruction in high school and their self-efficacy and professional learning in writing instruction as both preservice and inservice teachers.

The purpose of my research was to investigate, describe, and interpret the ways that secondary teachers in the subjects of science, social studies, and English conceptualize themselves as writing instructors, perceive their self-efficacy for delivering writing instruction, and to test IMSCI as a structure for writing instruction that could be used to promote self-efficacy in content-area teachers. When we understand the ways that teachers perceive themselves as writing instructors and develop professional learning that honors these perceptions, we can begin to promote effective and viable change in
instruction that is self-efficacy building, pragmatic, and ecologically feasible. The literature review that follows will provide an overview of the research on content area literacy instruction, professional learning in writing, and on self-efficacy and its effect on teachers’ instruction.
CHAPTER II

REVIEW OF LITERATURE

**Purposes and Objectives for the Literature Review**

My purpose in this review of the research was to discover how teachers have been prepared to deliver effective writing instruction in their classes and to discover the kinds of professional learning that have contributed to improved teacher efficacy. I searched for research on secondary content-area teacher training in literacy integration because my research focuses on content-area teacher integration of the literacy skill of writing and because it seemed that training would play a role in teacher self-efficacy in delivering writing instruction. I was also looking for studies on kinds of effective professional learning for both preservice and inservice teachers and the effect of this learning on teacher efficacy because I would be implementing an intervention in a professional learning community setting. Also, because I would be working with teachers in their own context regarding their writing instruction, I looked for studies that indicated the kinds of writing instruction required of teachers, the demands of current professional learning in writing, and also what past demands have entailed. These studies helped me to identify the context of preparation these teachers may have experienced while also providing a pragmatic context for how to proceed with the intervention. Finally, I sought studies using the design-based research method because that was the method I had chosen to use and because grounding my study in design-based research methodologies would increase the generalizability of this study to other classrooms. As a former classroom teacher, I am
attentive to the needs of teachers, especially in regard to literacy integration, and I want my research to be of use.

This review will cover three main areas: (a) theories framing the current study, (b) content-area teacher preparation to integrate writing instruction in their classrooms, and (c) self-efficacy and professional learning. I also provide a review of literature on the research method, which is complex, iterative and occurs in a naturalistic setting—all qualities that are well suited to an exploratory study about teacher self-efficacy combined with an intervention. In addition, since my role was dual—facilitator and researcher—I needed to look at the roles researchers have played in naturalistic classroom settings using a design-based research model and acknowledge the opportunity and limitations of these roles. Therefore, I will discuss some of the research studies separately in terms of the methods used and the researcher’s role in the research setting.

**Procedures for the Literature Review**

I selected literature for this review based on several specific criteria. Research on adolescent literacy instruction was included if it contained the following descriptors: adolescent literacy instruction, content area literacy instruction, and secondary teacher implementation of literacy instruction. This search yielded thirty relevant articles. In order to narrow my findings and make them more specific to this research project, I then focused my review efforts on articles that discussed the challenges secondary teachers face in implementing content literacy instruction. Because this first set of literature focuses on problems in literacy implementation, I then searched for current solutions
being researched in professional development. For the literature review on teacher professional learning, I included texts that discussed professional learning in writing instruction for inservice teachers. For both reviews, I initially searched EBSCO and JSTOR as databases for articles that met the keyword criteria listed above, along with conducting a search for books in the database of the Merill-Cazier library at Utah State University. After finding these books and articles, I hand-searched their reference lists as sources to find additional related articles and books. Finally, I searched Dissertation Abstracts and then searched again just before completing the research study using the same descriptors as I did for the ERIC search to determine if new research had been conducted. I excluded studies that focused on reading as a part of literacy integration and excluded studies of student effect because my focus was on teachers and their development. For examples of intervention research that implemented professional learning and of design based research experiments, I searched for texts that included these criteria, regardless of the intervention or study purpose, and from those, selected the sources that seemed most relevant to my search in literature on inservice teachers. I also excluded studies of poor quality, defined as studies for which I judged the data to be inadequate to support the conclusions of the study.

In order to integrate the literature review, I developed a coding protocol and corresponding separation of research into two major themes: content-area teacher integration of adolescent literacy, particularly writing, and self-efficacy and professional learning for both inservice and preservice teachers. I read each article to determine how it fit within these broad thematic categories, and then, through a process of reading and
rereading for salient features of each study, I determined subheadings in the literature review. My intent was to start with a broad treatment of each theme and then to systematically reduce broad understandings of literacy and self-efficacy to specific understandings of how these themes are present in research about teachers and their writing instruction.

The theory section below focuses on three major strands that inform my understanding of needed research in developing teachers’ sense of efficacy in writing instruction both descriptively and for applying interventions. These theories are social cognitive theory, pragmatism, and ecology. Following the discussion of theory is a two-stranded review of existing reviews of literature on content-area teacher integration of adolescent literacy, and teacher self-efficacy and professional learning, with each section addressing what research has found in regard to both of these themes as well as writing instruction. The review of design-based research methods is included in the methodology section, as well as a discussion of the strengths and limitations of this method. I did this to demonstrate that the chosen method was situated in the context of well-established methods. This separate discussion of research studies about the design-based research method describes the analytical power of this method for testing both the theories outlined in the literature review and the intervention that was implemented. It also focuses on adjustments made to the intervention during the research process as data collected either supported or contradicted what was learned from the review of literature on content-area teacher adolescent literacy integration, and teacher self-efficacy and professional learning.
Conceptualizing Writing Instruction from Theoretical Perspectives

The theoretical framework for my study was informed by my understanding of three ways of thinking about teacher learning, how teacher learning effects instruction, and the contexts for teaching, namely: social cognitive learning theory, pragmatism, and ecology (see Figure 1). Key ideas from the three theories are merged to form three premises for this study, ranging from the micro site of individual teacher belief to the macro site of school contexts. The first premise is that the instructional choices teachers make are affected by their perceived ability to teach and their beliefs about their teaching capabilities. The second premise is that teachers make pragmatic choices based on their beliefs and that these choices have consequences in their instruction. The final premise is that environments and contexts affect the self-efficacy beliefs and pragmatic choices teachers make about their instruction. It is crucial that theory explication and testing be a part of any design-based research study because the methodology of design-based research not only claims to test interventions but also the theories informing these

<table>
<thead>
<tr>
<th>Ecology</th>
<th>Pragmatism</th>
<th>Self-Efficacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>• School context &amp;</td>
<td>• Classroom and</td>
<td>• Personal beliefs and</td>
</tr>
<tr>
<td>collective efficacy</td>
<td>instructional choices</td>
<td>ability to teach</td>
</tr>
<tr>
<td>beliefs</td>
<td></td>
<td>writing</td>
</tr>
</tbody>
</table>

*Figure 1. Theoretical framework of the study.*
interventions. I will describe the theoretical underpinnings of this study within the context of the study’s premises.

**Social Cognitive Theory and Self-Efficacy**

Despite national-level concerns about the importance of writing instruction, little emphasis is placed on writing in most teacher education programs (Hall & Grisham-Brown, 2011). While many research studies recommend the integration of reading and writing (Skeans, 2000), most secondary teacher certification programs require that candidates spend the majority of their time focusing on content area expertise. Further, if there is literacy instruction involved, it mostly focuses on reading, giving teachers little or no preparation related to writing instruction (Norman & Spencer, 2005).

Ultimately, teacher self-efficacy plays a key role in the teaching of writing. Teachers not only need to provide frequent assessments of student writing, they also need to teach students how to assess their own writing through instruction in the writing process, with a particular focus on revision for content writing (Coker & Lewis, 2008; Elliott, 2005; Huot, 2002). For this kind of in-depth instruction, teachers must not only have confidence in their ability to teach writing but also have the ability to translate this confidence into scaffolded instruction that gradually releases the responsibility to the student through modeling, practice, and feedback. Writing instruction based on these premises has been demonstrated to improve student self-efficacy, student output, and, ultimately, student writing, which has positive effects on their overall literacy (Pajares, 2003). It is clear that these positive effects are necessary for both students and teachers to succeed in today’s schools. When teachers’ ability to teach and assess writing improves,
they focus on teaching writing as a process, empowering themselves and their students to use writing for communicative purposes rather than just assessment (Coker & Lewis, 2008; Elliott, 2005; Hillocks, 2002; Huot, 2002; McCarthey, 2008).

From a social cognitive perspective (Bandura, 1986), self-efficacy can be defined as the judgments of capabilities one has to organize and execute the actions required to succeed at a chosen performance (p. 391). In relation to teachers, Tschannen-Moran and McMaster (2008) defined it as “a teacher’s perceived capability to impart knowledge and to influence student behavior, even that of unmotivated or challenging students” (p. 228).

Bandura (1997) claimed that self-efficacy beliefs will better predict what someone will do than what they have done prior, what knowledge they hold and what skills they have. Additionally, self-efficacy beliefs influence the choices made and the courses of action pursued; tasks and activities are selected in which the actor feels competent and confident, whereas tasks and activities for which confidence is low are avoided. Further, self-efficacy beliefs help determine how much effort will be expended on an activity, how long to persevere when confronting obstacles, and resilience in the face of adversity, while also influencing thought patterns and emotional reactions (Bandura, 1997).

Graham, Harris, Fink, and MacArthur (2001) described teachers’ sense of efficacy as the confidence they have that they can perform actions that lead to student learning. Teachers must believe in their abilities to accomplish desired outcomes in order to carry out tasks successfully (Tschannen-Moran & McMaster, 2008).

According to studies with preservice teachers, the beliefs that influence how they conceptualize teaching are firmly established and resistant to change by the time they
enter college (Cross, 2009; Ng, Nicholas, & Williams, 2010). Although preservice
teachers do not receive as much instruction that focuses on teaching writing as they do
for teaching reading and for teaching their content, they do enter teacher education
programs with an abundance of writing instruction experience both as students and
witnesses of their own teachers. These early experiences shape beliefs and attitudes
toward writing and often determine the pedagogical choices made in their own
classrooms in regard to writing instruction (Hall & Grisham-Brown, 2011; Norman &
Spencer, 2005; Street, 2003). Further, these beliefs are carried into their inservice practice
if they have not been carefully considered and/or critiqued (Cantrell & Hughes, 2008;
O’Brien, Stewart, & Moje, 1995). Examining these experiences is critical because
unexamined beliefs and attitudes can have an effect on teacher performance and student
outcomes (Cantrell & Hughes, 2008; Ng et al., 2010; O’Brien et al., 1995; Robinson &
Adkins, 2002; Weinburgh, 2007).

Low self-efficacy not only contributes to avoidance of instruction in areas where
teachers lack confidence but also can often lead to resistance (Draper, 2008; Hall, 2005;
O’Brien et al., 1995; Shanahan & Shanahan, 2008). Teacher self-efficacy is an essential
construct to consider when studying any form of teacher resistance or perceived inability
to instruct. Because teacher beliefs and attitudes have been clearly linked to teacher
actions, understanding self-efficacy in combination with the epistemological beliefs of
teachers can provide necessary insight into methods for improving teacher writing
instruction (Ng et al., 2010; Tschannen-Moran & McMaster, 2008; Hall & Grisham-
Brown, 2011; Pajares, 2003). Potential links between teacher efficacy and student
achievement have led to calls for an emphasis on improving teacher efficacy as a means for school improvement (Dembo & Gibson, 1985; Ross, 1995). Further, because individual teacher self-efficacy is developed in a social organization with its own conceptions of efficacy, based on administrative, departmental, and community conceptions of capability in certain tasks, researchers theorized that school improvement can be achieved through the development and enhancement of teacher efficacy.

**Pragmatism**

Potential links between teacher efficacy and student achievement have led to calls for an emphasis on improving teacher efficacy as a means for school improvement (Ross, 1995; Dembo & Gibson, 1985), yet educators often speak of the disconnect among theory, research, and practice. Teachers are faced with the reality of their practice every day as they enact instructional choices that have consequences for classroom management, assignment completion, and student learning. Instructional choices, though prompted by teacher self-efficacy, are also influenced by the pragmatic decisions made each day as teachers struggle to cover their curriculum, engage students in learning, and enact their values through these choices. Literacy researchers have been encouraged to embrace the pragmatic view in their work (Dillon, O’Brien, & Heilman, 2000) because education occurs in real world contexts of the classroom.

Pragmatic research seeks to clarify meanings and look for consequences. For pragmatists, values and visions of human action and interaction precede a search for descriptions, theories, explanations, and narratives (Reinking & Bradley, 2008). Because working with teachers is a complex construct with instructional change as its goal, any
theoretical foundation for research about teacher education should include pragmatic considerations of the complexity of teachers, their instructional choices, and their particular teaching situations. Further, interventions should be selected pragmatically based on the intervention’s effectiveness at improving student learning within the context of the teacher’s job and teaching environment (Reinking & Bradley, 2008). A pragmatic theory stresses the idea that researchers share the power of observation and analysis with participants, acknowledging what other stakeholders bring with their knowledge and experience. Within this context, researchers have to consider theories and methodologies that acknowledge the complexity of teaching.

From a pragmatic perspective, it is critical to reconceptualize how inquiry is conducted. Dewey (1916) encouraged learning in communities of inquiry that internally reflect “numerous and varied interests and full and free interplay with other forms of association” (p. 83). Pragmatic theory promotes the uses of multimethodological frameworks that can add breadth, depth, and numerical, pictorial, and narrative data to support themes, assertions, or findings (Dillon et al., 2000). However, this abundance and variety can either strengthen a study or lead to its downfall. Therefore, research theorized through a pragmatic lens, with its emphasis on discovering consequences of actions, must still demonstrate evidence of quality research, a result of which should be credible interventions that can be applied and adapted with stakeholders in the context of teaching situations. Pragmatism allows for practical rationality in the face of moral concerns for stakeholders, complexity of practice, and the need for interventions that promote meaningful change in teaching. Dillon and colleagues (2000) contended that “pragmatic
research for the new millennium can be a practical and hopeful inquiry, which avoids the arrogance of modernist empiricism and the angst of postmodern deconstructions” (p. 25).

Though pragmatism serves as a solid foundation to a design-based research study’s methodological framework, it is also essential for framing the research questions of this study. Teachers feel ill equipped to teach writing, especially as it differs from discipline to discipline, and need professional learning that helps them to increase their self-efficacy while contributing solutions to their day-to-day real world practice. Consequently, to pragmatists, determining what works in accomplishing consensually valued goals is as far as we can go to pinning down reality, and theories must do demonstrable work in consideration of this. With a focus on collaboration, stakeholder participation, and a commitment to democratic ideals in establishing worthwhile goals and the means to achieve them, pragmatism provides an interpretive framework for considering self-efficacy and interventions that increase self-efficacy to produce improved results in teaching. This study’s focus on “how to get from a current less satisfactory condition to a subsequent more satisfactory condition” (Reinking & Bradley, 2008, p. 37) in writing instruction, identifies pragmatic goals for improving writing instruction through an attention to teacher efficacy and context, while providing rationale for their relevance and importance.

Ecology

In pragmatism, causality built on understanding and interpreting relations between phenomena is transformed into considering the various dimensions of how teachers “make use of” or “cope with” ideas of improved instruction within their present
environment. Measuring this kind of phenomena is generally more appropriate in the natural context of schooling than seeking grand theories of causation that are based on statistical probabilities in experimental settings that often devalue complex contextual variations (Reinking & Bradley, 2008; Rorty, 1991). Yet, the instructional decisions that teachers make are not developed in the vacuum of their own classrooms. Isolating research to a single teacher in a single classroom contradicts the complex nature of the schooling enterprise itself. Barab and Squire (2004) contended, “Cognition is not a thing located within the individual thinker but is a process that is distributed across the knower, the environment in which knowing occurs, and the activity in which the learner participates” (p. 1). Classrooms are situated within larger environments of schools and communities and comprise various interactions of differing people over time—colleagues, students, and families during a set semester, season, and school year. All of these variables are compounded by the interaction of all of these environments together. Subsequently, there is an ecological importance to these work environments, particularly in terms of what teachers choose to teach or not teach and why.

Additionally, there is pressure in school environments to improve student writing. Research published by Applebee for the National Council of Teachers of English in 1981, 2006, and 2011 (Applebee, 1981; Applebee & Langer, 2006, 2011) demonstrated a need for an increase of and improvement in secondary writing instruction. Also, because many states have adopted the common core with its particular attention to improved writing, the demands for improved writing instruction have not diminished. Further, data in Applebee’s research combined with national reports like the National Commission on
Writing’s 2004a report, *The Neglected ‘R’: The Need for a Writing Revolution* and the 2006 report, *Writing and School Reform* suggested that preservice and inservice training opportunities in writing instruction have not improved in tandem with the heightened demand. This disconnect is important to note because the concept of teacher efficacy has been connected to teacher factors such as group leadership (Hoyt, Murphy, Halverson, & Watson, 2003) and job satisfaction (Caprara, Barbaranelli, Borgogni, & Steca, 2003) and, more importantly, has been most strongly associated with effective classroom practices and higher student achievement (Ashton & Webb, 1986; Ross, 1992). A RAND study conducted in 1977 by Berman and McLaughlin determined that teacher self-efficacy was the most important predictor of successful change implementation. This is important because student achievement affects teacher self-efficacy and student achievement occurs in a large school setting, not just individual classrooms.

Ecological theory acknowledges that change in work environments can only be brought about through “acknowledging and understanding the relation among the sociohistorical context, the objects and tools that are integral to the work environment, and the social interactions that mediate their use” (Reinking & Bradley, 2008, p. 27). This is significant because any work with teachers must acknowledge this complexity and incorporate theory and methodology considerate to these ideas (Barab & Squire, 2004; Brown, 1992; Dillon et al., 2000; Johnson & Onwuegbuzie; 2004; Smagorinsky, 2008). Design-based research focused on “understanding the messiness of real-world practice, with context being a core part of the story and not an extraneous variable to be trivialized” (Barab & Squire, 2004, p. 3), and ecological theory makes room for the
flexible design revision, multiple dependent variables, and social interaction involved in a design-based research project.

**Theoretical Summary**

Although there has been an emphasis on content area literacy instruction at the secondary level for many decades and rich theories exist to draw upon when articulating this research, teachers still resist integrating writing into their curriculum and instruction due to a lack of preparation to teach writing and low self-efficacy beliefs in their own ability to integrate writing within their instruction. Nevertheless, there is a continued need for improved writing instruction in schools, particularly discipline specific writing instruction. Therefore, this study will use a design-based research method to not only articulate further the difficulties that secondary teachers face when integrating writing instruction in their own disciplines but also to test a professional learning intervention based on the tenets of professional learning communities and coaching models in effective models of teacher professional development to improve teacher efficacy in writing. This writing intervention model will also attend to pragmatic and ecological theoretical implications as articulated by teachers throughout the research process as they reflect on their perceived sense of efficacy and their learning through the intervention.

**Research Studies**

This research study combined two strands of complementary research literature. First, I discuss the research on adolescent literacy and content-area literacy instruction because it provides a descriptive framework of the state of adolescent literacy instruction
today and the context in which teachers teach. Second, I consider research on teacher professional development because it illustrates the ways in which teachers have been and are being prepared to implement literacy instruction in their classrooms, leading to the development of teacher self-efficacy in the aforementioned literacy instruction.

**A Review of Adolescent Literacy in Content Area Literacy Instruction**

Adolescent literacy research provides evidence that middle and high school teachers need to know how to address the literacy needs of the students they teach (Alvermann, 2002; Biancarosa & Snow, 2004). This complex enterprise involves integrating literacy in the content areas and engaging students in a range of appropriate and relevant activities that promote both literacy and content area learning. Unfortunately, lack of teacher preparation often leaves teachers feeling ill equipped to deal with students’ literacy difficulties (Cantrell & Hughes, 2008; Greenleaf, Schoenback, Cziko, & Mueller, 2001). This, combined with traditions in secondary schools that favor transmission models of content area delivery (Bean, 2000; O’Brien et al., 1995), compounds teachers’ low sense of efficacy in regard to literacy integration, which often leads to a well-documented resistance to literacy integration in secondary classrooms (Bean, 2000; Draper & Siebert, 2010; O’Brien & Stewart, 1990; O’Brien et al., 1995; Moje, 2008; Ratekin, Simpson, Alvermann, & Disher, 1985; Shanahan & Shanahan, 2008; Siebert & Draper, 2008).

O’Brien and colleagues (1995) attributed this resistance to the general nature of literacy strategy instruction that is given in content area reading classes. Preservice
teachers feel that if literacy instruction—content area reading and writing strategies for learning across the curriculum—is too general or oversimplified and is not connected directly to the content they will teach, it is just another thing to be added to an already full teaching load and one that is unnecessary in their view of teaching (Moje, 2008; Siebert & Draper, 2008). Because general strategies in content learning and transmission models dominate, teachers often do not feel that they need to “teach” their students, but rather they need to convey content and information (Alvermann, 2002). Finally, as acknowledged by Draper, Broomhead, Jensen, and Siebert (2010), “A common point of confusion that thwarts the development of a shared purpose is the perception that instruction is either literacy-driven or content-driven” (p. 4).

This division of content curriculum and literacy instruction has been in place in secondary schools for over a century (e.g., Gray, 1925; Herbert, 1978). These hierarchies of curriculum and pedagogy contribute to a culture of resistance to content area reading and writing strategies. Teachers enact an identity of what is acceptable teaching practice in their subject area. These identities control the culture of a school by affirming to teachers that they are masters of their content and that others are responsible for teaching the literacy skills that help their students to access content. Cultural resistance is often a pervasive reason for not implementing content area literacy strategies (Moje, 2008; Siebert & Draper, 2008). Low self-efficacy in literacy instruction contributes to this resistance. Teachers may feel highly efficacious in the familiar realm of their content but often experience low sense of efficacy for helping students engage in literacy skills used in content learning, such as writing and reading (Altieri, 2011; Cantrell & Hughes, 2008;
Further, reform efforts kindled by reports like *Reading Next* (Biancarosa & Snow, 2004) and *Time to Act* (Carnegie Council on Advancing Adolescent Literacy, 2010) have motivated school leaders to increase their efforts with regard to reading and writing instruction for adolescents. Educators have been encouraged to increase their attention to promoting such general literacy skills as decoding, fluency, vocabulary, and comprehension for all learners, particularly those who struggle. Hargreaves (2007) found that secondary schools that have organized professional learning communities (PLCs) often focus their work almost entirely on adolescents’ reading and writing assessment results. These recommendations seem reasonable and necessary, because literacy is an essential component of learning; however, in light of the content and literacy division perceived by many educators, it is a troubling push in the same direction. Draper and colleagues (2010) asserted:

*We worry that current reform efforts may lead to a literacy that is too narrow to allow adolescents to fully engage in exploration, self-expression, and problem solving. While learning to read and write general print texts consisting of words, sentences, and paragraphs is essential for participation in society, it is often not enough. Participation also requires that people be steeped in ideas—ideas about the arts, the humanities, and the STEM disciplines (science, technology, engineering, and mathematics)—and have the literacy skills needed to read these ideas. Many of these ideas (as represented by a variety of specialized print and nonprint texts) and literacies are found in content-area classrooms. Consequently, content-area teachers can and should play an integral role in helping adolescents develop these literacies. This role, however, should not be to promote general print literacy by having students simply read and write general print texts to acquire content knowledge—i.e., reading and writing to learn. Instead, content-area teachers, with the help and support of literacy educators, should engage and support their students in reading and writing the full range of specialized texts typically used to create, express, negotiate, and understand disciplinary content—i.e., learning to read and write. Without these specialized literacies, students might be relegated to the position of reading and writing about what others are doing,*
rather than participating in the activities of creation, inquiry, expression, and problem solving. (p. 2)

Indeed research conducted on general literacy strategies as a means for mediating content-area literacy issues has demonstrated that it has failed to make the impact that would have secondary content teachers clamoring to become literacy integrators (Shanahan & Shanahan, 2008).

Because teacher self-efficacy is often high in regard to content knowledge in their disciplines and teacher resistance to content area literacy integration has been so pervasive, research in content literacy has begun to focus on the particular literacy demands of a discipline. Research has demonstrated that general literacy strategies or study skills taught in isolation of content do little to help students read and write in the content areas (Bean, 2000). Current thinking in content area literacy promotes the idea that content area teachers should shoulder the responsibility of teaching students how to read and write discipline-specific texts (Draper & Siebert, 2010; Shanahan & Shanahan, 2008). Because content-area teachers are educated within a given discipline at a level of sophistication and knowledge befitting a highly qualified teacher, they are best equipped to teach their students how to read and write in ways central to their discipline. Draper and Siebert (2010) contend, “content-area teachers must support the development of the discipline specific literacies of the adolescents in their classrooms” (p. 35).

As already stated, there are significant demands in writing in general in the secondary schools. These demands, coupled with the discipline specific demands of writing in each content area, provide many instructional challenges for teachers. For instance, in each discipline, teachers not only have to teach students to read discipline
specific texts but also to write in communicative modes that display their understanding of that discipline. Draper and Siebert (2010) suggested:

[C]ontent-area teachers are knowledgeable about the texts and literacies central to the discipline. Indeed, we could not expect language arts teachers to understand the differences between how to frame and support historical and scientific arguments, much less how to write a mathematical proof or critique of a painting. Rather content-area teachers must support the development of the discipline-specific literacies of the adolescents in their classrooms. (p. 35)

This reasoning makes sense in consideration of the specialized learning that occurs in content area classrooms. However, considering the number of adolescents who struggle to write at grade level in secondary schools and content-area teacher resistance to literacy integration, there is work to do in training teachers to be prepared to offer content-area literacy as an aim of content-area instruction.

**Content-area writing instruction and standards.** Teacher training in writing instruction, for both preservice and inservice teachers, needs to improve. Langer and Applebee’s work from over 30 years ago (1978) contended, “Simply put, in the whole range of academic course work, American children do not write frequently enough, and the reading and writing tasks they are given do not require them to think deeply enough” (p. 4). In Applebee’s 1981 report, *Writing in the Secondary Schools*, teacher survey data indicated that the most prevalent forms of writing instruction were the assignment sheets teachers created to describe what they wanted from students and comments given to students after the assignment was completed. Though there were some instances of teacher modeling, shared writing, and ongoing feedback, they were minimal. Applebee (1981) contended:

The most obvious finding to emerge from looking at the instructional techniques
adopted to help students with their writing is that very few such techniques are used at all. To some extent this is a function of the fact that so much of the writing students do is assigned in a test situation, rather than an instructional one. To some extent, too, it comes from a conceptualization of writing as a simple skills which a given student has or does not have. (p. 102)

Concurrent with Langer and Applebee (1978) and Applebee (1981), a large amount of research emerged that outlined the benefits to students who were placed in rigorous writing programs. These reports included the following evidence: the best incoming freshmen writers were those who did the most writing in high school (McQueen, Murray, & Evans, 1963), the best college freshmen writers were those students who did more expository writing in high school (Bamberg, 1978), and a higher percentage of college freshmen who entered as poor writers were those students who did no writing in high school (Woodward & Phillips, 1967).

Current evidence suggested that little has changed. Students are given few opportunities to write and they do not write at length often enough (National Writing Project & Nagin, 2003). Forty percent of 12th graders report that they were “never” or “hardly ever” assigned a paper of three pages or more in length (National Commission on Writing, 2004a). The National Commission on Writing (2004a) declared in its report to the U.S. Congress that writing remains the “neglected R” in our schools. Further, in 2006, Applebee and Langer conducted a follow-up study to the 1981 report, titled The State of Writing Instruction in America’s Schools: What Existing Data Tell Us. Conclusions drawn from this study suggested that

… there has been some increase in emphasis on writing and the teaching of writing, both in English language arts classrooms and across the curriculum, although this may have begun to decline from its high. Further, while process-oriented writing instruction has dominated teachers’ reports at least since 1992,
what teachers mean by this and how it is implemented in their classrooms remains unclear. The consistent emphasis that emerges in teachers’ reports may mask considerable variation in actual patterns of instruction (see Langer & Applebee, 1987). What is clear is that even with some increases over time, many students are not writing a great deal for any of their academic subjects, including English, and most are not writing at any length. Two-thirds of students in Grade 8, for example, are expected to spend an hour or less on writing for homework each week, and 40% of twelfth graders report never or hardly ever being asked to write a paper of three pages or more. Although short, focused writing is also important, more extended writing is necessary to explore ideas or develop arguments in depth. Further, there are strong patterns of differential instruction based on teachers’ notions of what higher- and lower- performing students can be expected to do. The NAEP data also highlight some external forces that are impacting the teaching of writing, in particular the spread of state standards and accompanying high stakes tests. In some cases, these may be shifting attention away from a broad program of writing instruction toward a much narrower focus on how best to answer particular types of test questions. (p. 34)

More recently, Applebee and Langer (2011) noted some improvement from writing instruction 30 years ago but none as drastic as has been recommended for students to become fully literate in using writing to communicate generally, nor specifically in the specialized tasks of content-area writing. Applebee and Langer contended, “The actual writing that goes on in typical classrooms across the United States remains dominated by tasks in which the teacher does all the composing” (p. 26).

Following the results of the 2003 study conducted by the National Commission on Writing and the National Writing Project, The Neglected ‘R’: The Need for a Writing Revolution, the group began to meet with groups of teachers to discover ways to improve writing instruction in schools. Their findings indicated that (a) many excellent examples of effective practice in writing instruction do exist, (b) the standardization and scripting of instruction threaten to undermine this writing instruction, (c) a climate to encourage writing must be created in the classroom and in the school, (d) genuine reform requires
personalization of instruction, (e) maintaining a sense of ‘community’ in schools is essential to writing, (f) integrating writing into the reform agenda, while challenging, is integral to the success of both, and (g) the best hope for improving both writing and schools generally lies in high-quality professional development (National Commission on Writing, 2006). These reports suggest that calls to improve writing instruction are not new and that they are not going away.

**Discipline-specific writing standards.** Understanding the ways that writing instruction has been used and required by and of teachers is an essential step in researching the reasons that these calls for improvement in writing instruction are not being implemented. Subsequently, because past and current research suggests that writing is not occurring enough in schools, it is important to look at school environments and teacher preparation for teaching writing to discover reasons. One indicator that there is a disconnect between what is expected of content-area teachers and what is occurring in the classroom is to look at the discipline specific writing standards that have been expounded in national standards created by national content-area professional organizations, and at the state and local levels (see Appendix A), in addition to literacy standards in these content areas advocated by the common core (see Appendix B).

For the purposes of this study’s literature review, I examined major general and overlapping writing standards outlined in the three content areas studied, English, science, and social studies, because it is difficult to provide a comprehensive treatment of standards in all three content areas, from national to state to local standards. Writing standards are included in all three disciplinary documents from the national professional
organizations, including the National Council of Teachers of English (NCTE), National Science Teachers Association (NSTA), and the National Council for the Social Studies (NCSS). Major general and overlapping writing standards in these three disciplines include, but are not limited to the following: students are required (a) to adjust their use of language for audience and purpose in pursuit of effective communication; (b) to employ a wide range of strategies while using different process elements; (c) to apply knowledge of language to create texts in the genres, modes and formats specific to communicating learning in a discipline; and (d) to participate in a variety of literacy communities while using written language to accomplish their own purposes. Though these standards set a foundation for the complexity of writing instruction required of teachers, they are not a comprehensive indicator of all that is required of a teacher to do this job well. Teachers are also required to prepare students for standardized assessments, to use writing to learn, to use writing for reflection, and to teach the skill sets required of effective writers, including vocabulary, mechanics, formats, and grammar.

These standards have led many to claim that the stakes for writing instruction are far higher today than at any time in the nation’s history (Alliance for Excellent Education, 2007; Graham & Perin, 2007). Yet, research indicates that secondary teachers still provide little writing instruction (Alliance for Excellent Education, 2007; Applebee & Langer, 2011; Langer & Applebee, 2007; National Commission on Writing, 2004a, 2006; National Writing Project, 2007; National Writing Project & Nagin, 2003).

To seek understanding for this lack of attention to writing instruction in spite of the studies calling for more and better preparation for teachers, much research has
considered the factors of teacher resistance to content-area literacy integration, overgeneralized strategies that have not gotten much traction in mediating literacy issues for adolescents, and the focus on disciplinary specific learning at the expense of literacy integration. These factors are contributors to the issue; however, writing instruction is not being ignored in disciplinary curriculum solely because of teacher resistance and a content-area/ literacy instruction dualism that has teachers making a choice to leave these out because they have determined their content is more important. Data in numerous reports indicates that there remains the question of teacher preparation to teach writing at the secondary level (Alliance for Excellence in Education, 2007; Applebee & Langer, 2011). Many teachers receive no more than token amounts of training in the teaching of writing, whether at the preservice or inservice level. Additionally, it is time consuming to read and respond to student writing. Given current secondary teaching loads, many teachers are reluctant to require more writing because they are not being taught methods for managing the paper load, though work has been done in regard to this assertion (Golub, 2005; Jago, 2005). Moreover, because teachers have had few models of effective writing instruction and training to teach writing is minimal, many teachers may assume that writing instruction is not their responsibility. All of these issues factor into content-area teachers’ sense of self-efficacy in implementing writing instruction in their classrooms.

**Review of Self-Efficacy and Teacher Development in Content Area Literacy Instruction**

In this section, I will explore the effect of self-efficacy on teachers and how this
influences their ability to provide effective instruction. Additionally, I will look at effective methods of professional learning that have been shown to have a positive effect on influencing teacher self-efficacy.

General self-efficacy has been shown to improve teacher instruction and student learning. Bandura (1986) argued that teacher self-efficacy is derived from four sources of information: mastery experiences, vicarious experiences, social persuasion, and affective states. Mastery experiences refer to the prior experiences with which individuals see themselves as successful. Vicarious experiences occur when individuals see the success of others and expect they can achieve this as well. Social persuasion occurs when individuals are convinced they can be successful with a task through social processes. Affective states refer to the effects of emotional states, such as stress, on the perception that one can succeed. Although all four sources are important influences on self-efficacy, Bandura asserted that mastery experiences were the most powerful sources of information.

While “teaching self-efficacy” has been supported as an important construct related to teacher competence (Cantrell & Hughes, 2008; Goddard, Hoy, & Hoy, 2000), little is known about how inservice teachers think about themselves as writers, or writing self-efficacy, particularly as it relates to writing performance. While teaching self-efficacy is critical to teaching performance, it is important to know about teachers’ self-efficacy beliefs for successfully engaging and negotiating tasks that are related to instruction, particularly mastery experiences in the realm of writing. In fact, teachers’ self-efficacy for teaching is an essential issue for middle and high school teachers as it
relates to successful integration of literacy in the content areas (Cantrell & Hughes, 2008). Beliefs in one’s own task competence, as well as actual skill, play an important role in teaching effectiveness (Wilson & Floden, 2003). Writing self-efficacy is an important key to understanding how teachers think about their own writing and what they do when faced with a particular writing task (Lavelle, 2006). Self-efficacy in writing has been previously linked to performance (Pajares & Johnson, 1993; Zimmerman & Bandura, 1994) and to the development of writing skill among inservice teachers.

Further, research shows that teachers, in any learning environment, “make a difference” in student education (Darling-Hammond, 2000; Goldhaber & Brewer, 1997, 1999; Hanushek, 1992; Imig & Imig, 2006; Murnane, 1987; Snow, Burns, & Griffin, 1998). In light of the questions for this study, specifically, research with elementary teachers has demonstrated that teacher self-efficacy is related to positive teacher practices in teaching writing (Graham et al., 2001). Thus, it might be inferred that teachers’ sense of self-efficacy with literacy teaching, particularly as it relates to writing instruction, would relate to their implementation of effective techniques in the classroom and their abilities or willingness to address students’ writing difficulties in the content areas.

Historically, professional development for inservice teachers has reflected the need for quick professional learning that standardizes the process for all learners. Given the dense legacy of research, theory, and practice in literacy instruction, as well as newer research indicating the rapidly shifting nature of literacy in today’s classrooms and workspaces, coverage of the teacher education curriculum too often trumps mastery, and breadth too often trumps depth (Alvermann, 2002; National Reading Panel, 2000; Yatvin,
Literacy training at the secondary level has typically followed a skills-training and informational transmission approach to instructional professional development. Do-as-I-say lectures, “sit and gets,” paint-by-number programs, decontextualized instructor “modeling,” and one-day workshops predominate in teacher inservice environments, yet these approaches have long been known to produce little lasting change in teacher’s instructional practice, often leaving teachers frustrated as the promised generalized solutions fail to transfer to the specifics of their classrooms (Joyce & Showers, 1988; O’Brien et al., 1995).

**Professional Learning Communities**

Many schools have formed professional learning communities (PLCs) as a response to what is often seen as an impoverished learning environment for teachers and students (Rosenholtz, 1989), especially due to the kinds of professional learning available to teachers. Research on professional communities is a body of research starting in the 1980s largely concerned with schools and departments as mediating contexts for teaching (Louis, Kruse, & Bryk, 1995; Talbert, McLaughlin, & Rowan, 1993). McLaughlin and Talbert (1993) found that “teachers’ responses to today’s students and notions of good teaching practice are heavily mediated by the character of the professional communities in which they work” (p. 8). Many research studies on the professional learning community movement have provided international evidence suggesting that educational reform’s progress depends on teachers’ individual and collective capacity for promoting students’ learning. This research suggests that building capacity in teachers is a critical component to changing schools from impoverished to enriched learning environments.
that blend motivation, skill, positive learning, organizational conditions and culture, and infrastructure support. Because the focus of professional learning communities is to provide teachers with more support and engaging work environments, research has shown promise in this approach for increasing teacher ability to teach more effectively (Stoll et al., 2006).

Professional communities that have an orientation to practice conducive to change and a concern for improvement, seek to establish a culture of continual learning (McLaughlin & Talbert, 2001). Additionally, certain characteristics define PLCs: shared values and vision, collective responsibility, reflective professional inquiry, collaboration, and individual/group learning. PLCs that function with these characteristics have a positive effect on teacher confidence, and thus student outcomes (Cordingley, Bell, Rundell & Evans, 2003; Little, 2002).

In short, the improvement of teacher learning has implications for instruction. Studies about the effectiveness of classroom supports for student learning, and literacy skills specifically, have shown “positive effects for programs that are designed to improve the core of classroom practice” (Slavin, Cheung, Groff, & Lake, 2008, p. 309). Providing teachers with educative experience in professional learning approaches is more successful at increasing their ability to change instructional practice than traditional lecture model programs.

**Professional learning and teacher self-efficacy.** Research studies on both preservice and inservice teachers support these approaches to professional learning that acknowledge the need for long-term teacher development that increases knowledge of
both teaching practices and self-efficacy for implementing them (Beswick, 2006; Greenleaf et al., 2001; Slavin et al., 2008; Tschannen-Moran & McMaster, 2008).

Notably, research has confirmed the complex relationship between teacher self-efficacy and teacher change (Cantrell & Hughes, 2008). Smylie (1988) highlighted the importance of personal teacher self-efficacy in enabling teachers to change their practices as teachers’ perceptions and beliefs about their practices were significant predictors of teacher change in behavior. Research conducted by Stein and Wang (1988) found increases in teacher’s implementation and self-efficacy over the course of a professional development project that included attending to characteristics of PLCs. Additionally, in a circular way, their self-efficacy increased with improvement in implementation of instructional practices due to professional learning, thus influencing teachers to seek out more effective professional learning experiences that promoted better instructional practices.

Additionally, as teacher self-efficacy increases student achievement, improved student achievement is likely to increase teachers’ self-efficacy (Guskey, 2002). However, because a teacher’s sense of self-efficacy is built over time and is often entrenched (Ng et al., 2010), professional development programs that span several months and include opportunities for collaboration have demonstrated the largest evidence for improved teacher self-efficacy (Henson, 2001; Ross, 1994; Slavin et al., 2008). Cantrell and Hughes (2004) emphasized, “These studies suggest that affecting a teacher’s sense of efficacy is a complex process that requires professional development that engages teachers in collaborative critical thinking about their practices and in
actively changing behaviors” (p. 102).

**Self-efficacy and professional learning for content literacy.** Secondary teachers often have mastery experiences in their own content areas and experience general self-efficacy when teaching in their own discipline by conveying information through transmission models of teaching (O’Brien et al., 1995; Shanahan & Shanahan, 2008); however, they often lack self-efficacy in infusing literacy instruction into the content area, especially in affecting learners who may struggle with accessing text and writing to communicate in a discipline. All four sources of self-efficacy tend to inform this perception that literacy instruction may not be their responsibility.

Despite the years of focus on content literacy in preservice and inservice teacher education, actual implementation of content literacy techniques in middle and secondary schools has been limited due to the apparent disconnect between content literacy approaches and middle and high school cultures, curricula, and pedagogy (Draper & Siebert, 2010; O’Brien et al., 1995). Indeed, content area teachers have had neither vicarious experiences nor mastery experiences in infusing content literacy methods into their classroom instruction. Historically, researchers have noted a resistance on the part of content area teachers to integrate literacy instruction into their curriculum (Moje, 2008; O’Brien et al., 1995; Shanahan & Shanahan, 2008). Recent research suggests that many teachers perceive a heavy responsibility for teaching literacy processes in their content area, but that they may not believe they are prepared to meet the literacy needs of their students (Blintz, 1993; Mallette, Henk, Waggoner, & DeLaney, 2005).

Direct work with teachers (Greenleaf et al., 2001) has confirmed teachers’ lack of
self-efficacy in content area literacy instruction. Research has shown that secondary teachers want to focus primarily on teaching their subject area and are often disappointed with students’ seeming lack of preparation in general literacy skills, particularly writing, from previous grades (Shanahan & Shanahan, 2008). This often leads to frustration as teachers also acknowledge their lack of preparation to mitigate the difficulties their students face in demonstrating literacy skills for negotiating content learning (Alvermann, 2002; Moje, 2008). Blintz (1997) found similar problems related to self-efficacy when he found that inservice teachers were concerned about students’ literacy difficulties but attributed these difficulties to external factors. Additionally, teachers often feel that student ability is fixed (Moje & Wade, 1997), which allows teachers to feel little responsibility for student literacy performance, given that their priority is content teaching. Resistance to content area literacy instruction and the feeling that it is not a secondary teacher’s primary responsibility suggest lowered sources of self-efficacy in both social persuasion and affective states, leading to low implementation and difficulty changing this in schools.

**Professional learning in writing.** In working with preservice teachers for improved writing instruction, Beswick (2006) found that effective learning occurred when student beliefs about writing were considered first and then channeled to produce desirable change. These changes occurred as students engaged in writing, examining, and reflecting on their beliefs about writing, reflection on their practice teaching, participating in collaborative group work and learning about alternative teaching models. Qualitative research by Graves (1983) supports this complexity:
The teaching of writing demands the control of two crafts, teaching and writing. They can neither be avoided, nor separated. The writer who knows the craft of writing can’t walk into a room and work with students unless there is some understanding of the craft of teaching. Neither can teachers who have not wrestled with writing, effectively teach the writer’s craft. (pp. 6-7)

However, when professional development in writing instruction is offered to inservice teachers, the tendency is for a focus on standardized assessments and rubrics. Indeed, it seems that “rubrics have consumed the curriculum” (Strickland et al., 2001, p. 391). Teachers learn about product, not process, especially processes for teaching, providing ongoing feedback, or the act of writing. In the area of secondary school writing, the tension between teacher expertise and mandated programs is often administratively finessed by instituting school-wide writing assessments or programs focused on traits-based assessment. Writing assessment mandates are a popular way to initiate reform efforts, perhaps in part because they are relatively inexpensive compared with other efforts (e.g., class size reduction, large scale professional development; Linn, 2000).

This fact, coupled with the research suggesting that teachers feel ill prepared to teach writing (Bossone & Larson, 1980; Coker & Lewis, 2008; Kiuhara et al., 2009), has fueled a movement to provide writing instruction and assessment that more closely resembles the writing process (Beck & Jeffery, 2007; Coker & Lewis, 2008; Hillocks, 2008; Huot, 2002; Kiuhara et al., 2009; Langer & Applebee, 2007; McCarthey, 2008; National Writing Project & Nagin, 2003). However, the effects of this movement have yet to be felt in many teacher preparation programs or inservice professional development models (Slavin et al., 2008). The results of The 2007 Survey on Teaching Writing: American Public Opinion on the Importance of Writing in the Schools suggested that by a
margin of two to one (66% vs. 31%), the public sees more benefit in helping teachers

teach writing than in putting those resources into testing students to see how well they are

learning to write (National Writing Project, 2007). Additionally, this same survey found

that Americans want to see teacher-training programs include courses on teaching writing

(79%, “a good idea”) and professional development for current teachers (75%, “a good

idea”; National Writing Project, 2007). In addition to these survey results, teacher self-

efficacy for teaching writing is evidenced in data that demonstrates the lack of writing

skill and opportunity for secondary students in schools today.

Admittedly, the methods used to prepare teachers for instruction, the contexts in

which they work, and the demands of the job all contribute to a complex endeavor that is

not simply explained. Though much research has contributed to our knowledge of teacher

use of content area literacy instruction, specifically in writing, and how teachers are

prepared to teach this, there is a need for research that acknowledges the complexity of

these ideas in combination, and seeks to provide complex interventions that are sensitive

to these issues. Further, there is a need for research supported by theories that

acknowledge this complexity.

Summary

The literature reviewed indicates that while many aspects of teachers’ content-

area literacy integration have been studied in a variety of ways, training and subsequent

self-efficacy beliefs of teachers about their writing instruction have not been extensively

studied, particularly in terms of how teachers incorporate effective writing instruction
into their disciplinary instruction. Also, although standards exist for writing in almost all content-areas of secondary school, research shows that available professional learning in writing focuses on outcomes rather than process, presumably the place where instruction would occur most. Given that teachers know that they should be teaching writing but are ill equipped to do this, professional learning should provide more pragmatic and self-efficacy building experiences for teachers to improve their writing instruction.

Literacy researchers generally agree that design-based research is a legitimate method for implementing research studies that test both theory and interventions with the intent of improving teacher practice. Design-based research advocates argue that this method is important because it honors the complex environment and work of today’s classrooms and teachers.

Given the findings of this literature review, the next chapter will explain the methods and procedures that I used to study the self-efficacy beliefs that secondary teachers had about their preparation to teach writing and their own classroom writing instruction, while also facilitating teacher development in a professional learning community based model about an instructional writing example that could influence those beliefs.
CHAPTER III
RESEARCH METHODS

The methods of inquiry for this study focused on the principles and practices of design-based research, using focus groups, teacher artifacts, teacher blogs, and semistructured interviews as means of data collection. I will begin with a review of design-based research and its fit within qualitative research methods to establish the foundation for this study’s method of inquiry. Second, I will review the principles of focus groups and semistructured interviews. Third, I will detail my methods for participant selection, data collection protocols, maintaining credibility and trustworthiness of the data, and acknowledge my limitations as a researcher. Finally, I will present the procedures used for implementing the intervention, while providing data and analysis that speaks to adaptations made in the implementation of the intervention.

Research Questions

My focus for this research was to discover the perceptions that secondary teachers in three disciplines—science, social studies, and English—have about themselves as writers and writing instructors and to understand how they had received professional learning to teach writing. Specifically, I examined how their perceptions of themselves influenced their self-efficacy beliefs about their writing ability, how they were taught to teach writing, and their writing instruction. Additionally, I considered effective methods of professional learning for inervice teachers and with these tenets in mind, I implemented a scaffolded model of writing instruction.
My purpose was to describe how the writing model fit with their existing self-efficacy beliefs about their writing instruction and if it had any influence on these beliefs. The research questions for this study fell into three general categories reflecting the theoretical framework of the study.

1. **How do high school teachers conceptualize themselves as writing instructors in their respective disciplines?** This question was intended to facilitate a sustained, intensive examination of teacher beliefs about writing instruction by focusing on their perceived self-efficacy for implementing writing instruction. Data gathered in response to this question served as a prerequisite to understanding how to more fully support teachers in providing writing instruction in their own disciplines. This question was also predicated on the assumption that attention to self-efficacy will increase teacher desire to critique their current writing instruction, learn more about effective methods for teaching writing in their own discipline, and implement these methods in their writing curriculum. Data gathered from a focus on this question was used to describe teacher self-efficacy in writing and changes to these perceptions as the study progressed. Additionally, it was used to inform adaptations made to the implementation of the intervention to make it useful and relevant to the context of the research site, thus informing ways the intervention could be described and generalized to improve content-area writing instruction through building self-efficacy at school sites.

2. **According to teachers, what are the principles, considerations, perceptions, and values behind their writing instruction?** As stakeholders understand more about the principles and considerations governing teacher decisions about writing instruction, they
can speculate on strategies for professional development in writing instruction that are consistent with curriculum frameworks. In short, this question was chosen to ensure a commitment to adjusting the available professional learning model to authentically reflect teacher needs. Data gathered from a focus on this question was used to test the consequential validity of the writing model and allows for pragmatic theory building in writing instruction at the secondary level.

3. Does a scaffolded model of professional development in writing inform teacher instructional choices in pragmatic ways that honor their need to build self-efficacy in writing instruction? Specific sub questions that comprised this third question emerged from the data as patterns related to teacher need in both self-efficacy and their curriculum became clearer during the interviews and ongoing data analysis of these interviews. As the teachers and I came to understand possible answers to this third question, we were able to adapt the writing model and interview questions to further support teacher thinking about their professional learning needs, both in their own classrooms and across content areas. Additionally, data gathered from a focus on this question was used to validate research on effective professional learning for inservice content-area teachers.

**Methods and Procedures**

Because my purpose was to describe not only how teachers perceived their own self-efficacy in writing instruction but also how a professional learning about a model for teaching writing might influence teacher self-efficacy, it was important to choose a
method that could account for both theory building and testing an intervention. Accordingly, this study was designed as a design-based research study. Design-based research attempts to make explicit connections between theory and field-based research: what works, why it works, and the underlying principles that might guide such interventions in the future. Its goal is to improve practice while still stressing theory building and sound research design (Anderson & Shattuck, 2012). Design-based research was developed by a group of researchers with experience using both experimental and naturalistic designs as an option for the mediating the limitations of these methods (Brown, 1992; Jacobs, 1992). The primary purposes of design-based research are to investigate the outcomes of an educational innovation and to examine the impact of that innovation on the educational environment. Design-based research studies collect data to determine factors in the education environment that enhance or inhibit an intervention’s effectiveness in achieving its pedagogical goal (Reinking & Watkins, 1998). Researchers employ an iterative process wherein they implement an intervention and adjust that intervention throughout the study in response to data analysis. Data are analyzed within one group and across time rather than by comparing two groups. Both quantitative and qualitative data can be collected. Additionally, design-based research places a high value on socially relevant research (Eisenhart & Borko, 1993).

Like experimental research, design-based research is intended to inform practice. However, unlike experimental research, which has narrow requirements useful for the controlled testing of causal processes such as random assignment to control and experimental groups and modifications for isolating measurable variables, it bypasses
these to promote migration of what would be experimental effects to average classrooms operated by and for average students and teachers, with realistic constraints in time, support, technology, and environment. Further, because teaching environments are complex and variables are impossible to isolate or narrow, it allows for the expansive description of qualitative research and interpretive freedom required of particular contexts and understanding. Data are not presented in isolation of this context, nor is it free from interpretation in a design experiment. Descriptions are not given to merely draw conclusions but to inform the teacher’s instructional practices. A design-based research study uses natural instructional situations where teachers make changes in response to their perceptions of the success of instruction, while still providing some measure of the effectiveness of the intervention, either descriptively or statistically depending on the researcher’s choice of data analysis.

Major characteristics of design-based research include being situated in a real educational context and focusing on the design and testing of a significant intervention. Additionally, this research uses a variety of methods, multiple iterations, and encourages a collaborative partnership between researchers and practitioners (Anderson & Shattuck, 2012). These characteristics were major considerations in the development of this study.

Design-based research involves flexible design revision, multiple dependent variables, and capturing social interaction. Further, “participants are not ‘subjects’ assigned to treatments but instead are treated as co-participants in both the design and even the analysis” (Barab & Squire, 2004, p. 3). Five high school teachers were purposively selected (Merriam, 1998) to participate in this 4-month, multicase study,
based on three criteria. First, they were selected based on their willingness to reflect on their own instruction and participate in long-term professional learning in writing. Joyce and Showers’ (1998) work with adult learners suggested that teacher buy in is a crucial first step to real learning for adults who may already have entrenched beliefs. This criterion assumed that these teachers were willing to consider their beliefs about writing and writing instruction but had not been formally identified as teachers who were already providing intense writing in their classroom curriculum. Second, they were selected because they represent different content areas—science, social studies, and English. The rationale behind this criterion was that writing differs from discipline to discipline. Further, literacy integration has been recommended in the language arts and the content areas for many years, yet it differs by content. This consideration informed the choice of three content areas to show similarities and differences in the writing instruction for each. Finally, the participants were selected based on their willingness to follow the guidelines of professional learning communities, such as shared values and vision, collective responsibility, reflective professional inquiry, collaboration, and individual/group learning, throughout the study’s duration. The rationale behind this criterion is that effective professional learning occurs in professional learning communities that build teacher capacity. After I selected four possible participants from each content area, I consulted with the district curriculum director, who had an interest in my study because of its focus on writing instruction. Of the 12 proposed names, she narrowed the names to nine, three in each content area, and I extended invitations to all nine with the hope that I could get at least two from each content area to participate.
Because the teachers play a significant role in the iterations and evolution of the research project, it is important to note the difference between design-based research and action research. Though this research project occurred within the context of a real school including the teachers’ present writing instructional practices, and though the teachers had a significant measure of say in the way the intervention was presented, the study is not an action-based research project. Design-based research differs in that “…the design is conceived not just to meet local needs, but to advance a theoretical agenda, to uncover, explore, and confirm theoretical relationships” (Barab & Squire, 2004, p. 5). Cobb, Confrey, diSessa, Lehrer, and Schauble (2003) pointed out that in design-based research the study must be both humble and accountable to the design, meaning that “the theory must do real work. General philosophical orientations to educational matters—such as constructivism—are important to educational practice, but they often fail to provide detailed guidance in organizing instruction” (p. 10). Design-based research makes a distinction between grand theories and “theories that work” forming a basis for this study. The theories at work herein were selected to inform the implementation of a writing intervention model that would be self-efficacy building and practical in the constraints and contexts of the secondary classrooms of the teachers studied.

The practical nature of design-based research places it in the camp of applied research; however, it rejects the linear model that places basic and applied research at polar opposites (Anderson & Shattuck, 2012). The methodology of this research should lead to practical outcomes while still contributing to theoretical and basic understandings. Schools have intricate ecosystems of instruction, learning, professionalism, teachers,
students, administrators, and community, and demands fluctuate as they all interact. As a result, it is important to understand the context of the study in order to demonstrate the practical application of the research results. Because design-based research studies encourage the researcher to be a participant, as well as finding sites of research where familiarity is built or already established, I selected and invited teachers who fit the above criteria based on my knowledge of them through my work with them as a literacy coach at the high school where they teach now, and where I taught formerly. I was employed as the literacy coach at the research site for four years prior to this study (2007-2011), making me familiar with the school’s faculty, as well as the environment that is there. Additionally, my work as the literacy coach prepared me to understand the literacy needs of teachers at this high school. Many teachers expressed interest in improving their writing instruction while I was employed there as a literacy coach. However, due to school learning initiatives, it was not something I was able to integrate into my literacy coaching. These experiences provided an impetus for this study as I realized the great need teachers have for improving their self-efficacy in writing.

I extended invitations to teachers who had expressed an interest in improving their writing instruction prior to my departure as the literacy coach, with final approval from the administration of the high school and the district curriculum director. From there, I established the focus group cohorts of disciplinary teachers in each of the following subject areas: two from science, one from social studies, and two from English. I had originally intended to have two teachers from social studies and invited three other teachers in addition to the one who had already agreed to participate. However, due to
family commitments, and a seeming lack of desire to improve their writing instruction because as two said, “Social Studies isn’t a tested subject,” I was only able to get one participant from the discipline of Social Studies. Finally, these five teachers were placed in the collective focus group of all participants, following a professional learning community model. Table 1 shows the identifier of the teacher (self-selected pseudonym) and other general identifying characteristics to establish a more detailed context for their participation.

**Data Collection**

Data collection in a design-based research study typically combines both formative and summative strategies. For these reasons, I collected multiple and complementary data pieces, creating a mosaic of data that indicate layers of qualitative measures. Therefore, analyses and interpretations of the intervention’s impact were based on many different indicators designed to examine whether the chosen model of

Table 1

*Details About the Participant Teachers*

<table>
<thead>
<tr>
<th>Name</th>
<th>Gender</th>
<th>Age</th>
<th>Years teaching</th>
<th>Content area</th>
<th>Classes taught</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tara</td>
<td>Female</td>
<td>34</td>
<td>6</td>
<td>Science</td>
<td>AP chemistry, 10th grade physical science</td>
</tr>
<tr>
<td>JoAnn</td>
<td>Female</td>
<td>32</td>
<td>7</td>
<td>Science</td>
<td>Biology, 9th grade life science</td>
</tr>
<tr>
<td>James</td>
<td>Male</td>
<td>37</td>
<td>12</td>
<td>Social studies (dept. chair)</td>
<td>AP history, 11th grade American history</td>
</tr>
<tr>
<td>Calvin</td>
<td>Male</td>
<td>33</td>
<td>4</td>
<td>English</td>
<td>10th grade</td>
</tr>
<tr>
<td>Daniel</td>
<td>Male</td>
<td>43</td>
<td>16</td>
<td>English</td>
<td>11th grade, Shakespeare</td>
</tr>
</tbody>
</table>
professional learning for writing might enhance teacher self-efficacy for writing instruction.

Bandura (1986) suggested four sources for measuring and increasing self-efficacy: mastery experiences, vicarious experiences, social persuasion and affective states. Data were collected with these sources of information in mind. Table 2 indicates the sources of data collected in the study, the methods for collection, how that data relates to self-efficacy considerations outlined by Bandura while informing the implementation of the intervention, and what type of analysis was conducted for each data piece.

**Focus Groups**

Focus groups are an accepted form of research in the fields of psychology (Reis & Wheeler, 1991), communications (Morrison, 1998), cultural anthropology (Bryant, 2007), and law (Ball, 2001). With the wide acceptance of focus groups in these and other fields, researchers have begun to use them as a practical method for collecting data in the social

**Table 2**

*Outline of Data Sources and Contributions to Data Analysis*

<table>
<thead>
<tr>
<th>Sources of data</th>
<th>Focus group interviews</th>
<th>Teacher reflections</th>
<th>Artifacts</th>
<th>Member checking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collection method</td>
<td>Audio recordings and transcription</td>
<td>Blog posts, semistructured questions</td>
<td>Teacher submission</td>
<td>Researcher, participant, and peer checking</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>Social persuasion, vicarious experiences, mastery experiences, affective states</td>
<td>Mastery experiences, affective states</td>
<td>Vicarious experiences, mastery experiences</td>
<td>Social persuasion, vicarious experiences</td>
</tr>
<tr>
<td>consideration</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contribution to IMSCI</td>
<td>Implementation of the intervention model</td>
<td>Personal inquiry about the model and data sources for implementation refinement</td>
<td>Pre- and postintervention measures of writing instruction; collaborative and independent products</td>
<td>Independent synthesis of validity and reliability of data</td>
</tr>
<tr>
<td>intervention</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of data analysis</td>
<td>Descriptive and interpretive</td>
<td>Descriptive, analytical, and interpretive</td>
<td>Descriptive and interpretive</td>
<td>Analytical and interpretive</td>
</tr>
</tbody>
</table>
Focus groups are widely used in qualitative research to uncover unique perspectives within an environment where participants can interact, share, and learn from one another. Loosely defined, “at the broadest possible level, focus groups are collective conversations or group interviews” (Kamberelis & Dimitriadis, 2005, p. 887). When participants are invited to validate and challenge each other’s ideas, a rich body of knowledge can be acquired (Lehoux, Poland, & Daudelin, 2006). Further, though at a basic level focus groups can be instruments of qualitative research, they can move beyond this intended purpose to be complex and multivariate articulations of instructional, political, and empirical practices and effects (Kamberelis & Dimitriadis, 2005). Consequently, as both instrument and method, focus groups “offer unique insights into the possibilities of or for critical inquiry as a deliberative, dialogic practice that is always already engaged in and with real-world problems” (Kamberelis & Dimitriadis, 2005, p. 887). Considering the theoretical foundations of pragmatism and ecology and the pedagogical goal of increasing both teacher and collective efficacy, it was important that the primary data collection tool provide an instrument that was theoretically cohesive and able to provide data that honored the complexity of teaching in a reflective format.

Two dimensions of research efforts with focus groups contributed to the data collection of this study. First, there was a focus on “capturing people’s responses in real space and time in the context of face-to-face interactions” and second, on “strategically ‘focusing’ interview prompts based on themes that were generated in these face-to-face interactions” and that were considered important to the research (Kamberelis &
Dimitriadis, 2005, p. 899). Due to the flexible and iterative nature of design-based research, the implementation of an intervention and its focus on self-efficacy for teachers, particularly in the context of their teaching environments, it is important to move beyond individual case studies for data collection. Kamberelis and Dimitriadis stated, “Focus groups have allowed researchers to explore the nature and effects of ongoing social discourse in ways that are not possible through individual interviews or observations” (p. 902).

Over the course of 4 months (from January to March), four types of data were collected from these teachers: focus group interviews, blog posts, teaching artifacts, and member checking reflections. First, focus groups were formed at the beginning of the project with like content teachers. These groups met every other week during the research project. On odd weeks, with their content teacher colleague; and on even weeks after all content pairs had met, as a larger group, to share their insights across content areas. Each teacher participated in ten focus group interviews over the course of the research project. Focus group sessions provided two sources of data: teacher reflection on their writing instruction self-efficacy and implementation of the writing model as an instructional intervention.

The first emphasis for data collection in focus groups for this study was to gather information about how participating teachers perceive writing instruction should occur in their content-areas, the challenges they face in teaching writing, and their attitudes and beliefs about writing. Because, “focus groups can be used strategically to cultivate new kinds of interactional dynamics and, thus, access to new kinds of information”
(Kamberelis & Dimitriadis, 2005, p. 898), data from these sessions was used to help refine the writing model to determine what teacher needs were for increasing self-efficacy in writing. Further, focus groups satisfy the need for teachers to have vicarious experience and to discuss their affective states and social persuasion in determining and building their self-efficacy. This first data source was collected through audio recordings of the sessions, later transcribed and analyzed according to set codes, and will be discussed later.

The second emphasis for data collection in focus groups for this study was to facilitate the implementation of the scaffolded writing model as a professional learning focus. Professional learning in these sessions was brief, presenting the model and its steps and then concentrating each session on one part of the model, leading to reflective collaborative conversations based on interview questions centered on the progressive steps of the scaffolded writing model. Data was collected through audio-recordings of these sessions to enable a fine-tuned analysis of how the professional development intervention piece fit with what teachers identified in focus groups and in their written reflections. These sessions served as a mastery experience source in building self-efficacy. Focus groups facilitated collection of data on an iterative, flexible implementation of an instructional model because they acknowledge the teachers’ expertise and experiences with continued implementation and allows for modification of the intervention to meet teacher needs as promoted by design-based research. Additionally, focus groups acknowledged the social effects on perceptions of self-efficacy, the pragmatic considerations for research in complex educational settings, and
the ecological effects of school environments in building or stifling teacher self-efficacy. These groups also promoted collaboration between the researcher and participants. Though questions were posed that led participants to reflect, the dialogic nature of focus group research leaves room for multiple affordances in data that is collected. Finally, the selection of focus groups as a data piece for this research acknowledged that “real-world problems cannot be solved by individuals alone; instead, they require rich and complex funds of communal knowledge and practice” (Kamberelis & Dimitriadis, 2005, p. 903).

**Teacher Reflections**

The second source of data was *teacher reflections* about their learning in the sessions that was collected on a research blog. At the beginning of the study, twice in the middle of the study and once at the end, each teacher submitted a written reflection to a blog set up in their name and dedicated to the research project in response to prompts provided about the research project. In the introductory and conclusion prompts, teachers answered questions about how they perceived their own writing instruction, their attitudes and beliefs about writing, and their self-efficacy in writing instruction. The purpose of this data piece was to give the teachers a chance to extend their conversations and thinking through the act of writing, to participate in the act itself and to use this as a forum for data collection, but also for enacted practice. It served as a way of implementing vicarious experience, while also having teachers reflect on their affective state.

Writing has been used as a method for helping people to consider what they are learning and to demonstrate their understanding. Additionally, writing provides a means
for reflection. Richardson and St. Pierre asserted (2005) that “writing is thinking, writing is analysis, writing is indeed a seductive and tangled method of discovery” (p. 967).

Though many qualitative researchers, including St. Pierre, have taken issue with these very ideas in light of their overt simplicity—much writing does none of these things—in the case of this study, having teachers participate in the act of writing was essential. Teachers were able to experience what we were talking about and maintain a record of their own ideas prior to each focus group meeting. My hope for including this data piece was to promote thinking, analysis, and discovery on their part. How this was accomplished will be discussed later in the findings section of this study.

Artifacts

The third source of data was teacher submitted artifacts related to the teachers’ writing instruction, such as handouts distributed to students, pictures of assignments given on the board, a copy of the teachers’ log book demonstrating when writing was taught during their curriculum, etc. Teachers submitted these artifacts prior to and during the beginning of the study and completed another submission at the end of the study. This provided further information about the teacher’s mastery experiences, which have the strongest influence on self-efficacy. These artifacts also helped the teachers to have a concrete representation of their instruction over time, while also serving as a source of credibility and triangulation.

Member Checking

The fourth source of data was member checking of the transcripts of focus group
sessions, teacher reflections and artifacts. This data source provided a means for emphasizing the collaborative nature of the research, while also providing for triangulation to increase the consequential validity of the research claims. As a means of increasing self-efficacy, member checking provided for consideration of social persuasion and affective states, ensuring that members contemplated their reflections and considered again what they were learning about the research project.

Member checking as a function of the participants as research instruments also helped me as a researcher:

- to work against premature consolidation of their understandings and explanations, thereby signaling the limits of reflexivity and the importance of intellectual/empirical modesty as forms of ethics and praxis. Such modesty allows us to engage in “doubled practices” where we listen to the attempts of others as they make sense of their lives. (Kamberelis & Dimitriadis, 2005 p. 903)

Member checking data guarded against the temptation to only focus on data that promoted a “grand narrative” or was purposely selected to confirm a desired research hypothesis.

**Data Collection and Analysis Protocol**

Focus group interviews were conducted in a semistructured fashion. I prepared questions based on the research questions, theoretical foundation, and literature review to determine the teachers’ sense of self-efficacy in writing instruction through looking at their preservice teacher preparation, inservice professional learning opportunities and work that they had done in their classrooms. Because I desired to build a professional learning community with the research participants and because my role was that of a
facilitator in implementing the intervention, the interviews were conversational and I participated often by acknowledging their answers, giving my own answers, and keeping the conversation going.

The interviews were recorded using a digital recording device; these interviews were transcribed by me (40%) and a transcription service (60%). Teachers’ writing reflections were collected on blogs created for each teacher. Questions were posted to the teachers’ blogs prior to the content-area interview and they responded to these questions in writing on their blogs. Teachers submitted both hard copies and electronic copies of their writing instruction artifacts to the researcher at the beginning and end of the project, and finally member-checking was completed in the middle of the project and at the end.

Smagorinsky (2008) recommended approaches to analyzing qualitative data that simultaneously account for patterns recognized in the data, the theoretical framework of the study, and the questions asked by the researcher. Furthermore, Barab and Squire (2004) recognized that “one challenging component…is to characterize the complexity, fragility, messiness, and eventual solidity of the design and doing so in a way that will be valuable to others” (p. 4).

Data were analyzed using a constant-comparison method seeking themes and patterns that related to the theories being tested and self-efficacy of teachers for writing instruction in the study (Glaser & Strauss, 1967). Consequently, coding focused on the sources of information for self-efficacy and also in discovering themes and patterns that demonstrated the value of the intervention. However, a focus in the data analysis was also on how the implementation of this model of professional learning strived to generate
consequential validity that transcended the environmental particulars of the contexts in which they were produced, selected, and refined (Barab & Squire, 2004). Analytical protocols were established to discover patterns in the data that reflect the theoretical premises of the study: self-efficacy, pragmatism, and ecological validation. As I read the focus group interview transcripts and blog posts from the teachers, I categorized them into three major categories with three main distinctions. The categories were self-efficacy, writing instruction, and the intervention. Distinctions in the categories were then categorized as positive, negative, or neutral statements within the major categories. I then read the interviews a second time and color-coded responses by subthemes related to the theories being tested in the study: self-efficacy, pragmatism and ecology. These codes were then validated by an outside auditor by reading two interview transcripts and having her come up with her own codes. Codes we had in common were used for final data analysis.

In accordance with this process, and in accordance with my first research questions, I coded the transcripts of the focus groups by looking for indicators of self-efficacy in implementing writing instruction in the teacher’s classroom. Initial coding looked at whether statements are “positive,” “negative,” or “neutral” expressions of efficacy. The second level of coding was inductive because sub codes were created to categorize the teachers’ attributions for their efficacy or for changes in efficacy as the attributions emerge from the data. Some include descriptions of themselves as writers, writing instruction they received to prepare them to teach, beliefs about writing in their curriculum, and so forth, each of which is more defined based on how the indicators
appear in the data. Likewise, in accordance with my second research question, I coded *reflective blog posts* while looking for the same self-efficacy indicators, but also *pragmatic indicators* that the professional learning sessions, reflective thinking and focus group collaboration were merging theory, research and practice for the teacher. These are discussed in detail in the findings section of this study and form the headings and subheadings used throughout that chapter.

Due to the nature of the variety and amount of data collected in a design-based research study, a critical part of the research method was to reduce the data from an “inchoate corpus to a systematically organized set from which a subset can document representative trends” (Smagorinsky, 2008, p. 397). Data were eliminated or included as representative based on its attachment to the data analysis coding protocols listed above. However, disconfirming or discrepant data was included in discussions of unanticipated effects and can be found in the final chapter of this study. Member-checking was also used as a means for data reduction as participants’ insights into the patterns of data were considered in determining the consequential validity of themes that emerged.

**Major Characteristics of Design-Based Research**

Barab and Squire (2004) explained, “Design-based research is not so much *an* approach as it is a series of approaches, with the intent of producing new theories, artifacts, and practices that account for and potentially impact learning in naturalistic settings” (p. 2). Major characteristics include developing a project that is: (a) an intervention centered in an authentic instructional context, (b) theoretical and goal-
oriented, adaptive and iterative, transformative, (c) methodologically inclusive and flexible, and (d) pragmatic, focusing on consequential validity where results have demonstrable value in improving instruction (Collins, 1992; Design-Based Research Collective, 2003; Messick, 1992; Reinking & Bradley, 2008).

Design-based research studies can be defined in various ways, as well as through various names. However, Reinking and Watkins (1998) developed the following framework for conducting design-based research, and this framework served as a foundation to this study. This framework included the following tenets: (a) establish a pedagogical goal, (b) specify an intervention, (c) collect and analyze data, (d) adapt the intervention in light of the data, (e) discuss unanticipated effects, and (f) discuss changes in the environment. For the purpose of this study I will describe how all six steps were carried out.

**Implementation as a Design-Based Research Study**

Following Reinking and Watkins’ (1998) framework for conducting design-based research, the first four steps (establish a pedagogical goal, specify an intervention, and collect and analyze data, adapt the intervention in light of the data) of the study are described in detail in this chapter and the last two steps (discuss unanticipated effects, and discuss changes in the environment) are included in the final chapter (Analysis and Implications). Table 3 provides an outline of the six steps in the design-based research framework and a brief summary of what is included in this dissertation as well as its location by chapter.
Table 3

*Framework of Design-Based Research and the Current Study*

<table>
<thead>
<tr>
<th>Framework for conducting design-based research</th>
<th>Summary of each step in this study</th>
<th>Location for the information in this study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish a pedagogical goal</td>
<td>Studies have shown that teachers have low self-efficacy for implementing writing instruction</td>
<td>Literature review</td>
</tr>
<tr>
<td>Specify an intervention</td>
<td>Teachers need models for writing instruction that are pragmatic, ecologically valid, and have the potential for increasing their self-efficacy in writing instruction. IMSCI has been shown to provide a scaffolded model of writing instruction for teaching genres of writing</td>
<td>Literature review</td>
</tr>
<tr>
<td>Collect and analyze data</td>
<td>Data were collected on both teacher self-efficacy in writing instruction and on the effectiveness of the intervention for indicators of self-efficacy and pragmatism</td>
<td>Methodology</td>
</tr>
<tr>
<td>Adapt the intervention in light of the data</td>
<td>The intervention was taught to teachers and they experienced it, additionally, the teachers and researcher created mini-lessons for using the model in their classrooms in consideration of pragmatism for their own contexts</td>
<td>Methodology</td>
</tr>
<tr>
<td>Discuss unanticipated effects</td>
<td>Teachers have large class sizes, little time to teach writing, and less time to assess. We spend a considerable amount of time discussing these issues in light of the model, then adapting the model to be taught in short time periods and with both small and large assignments (not just genre)</td>
<td>Findings</td>
</tr>
<tr>
<td>Discuss changes in the environment</td>
<td>All teachers felt that the model either validated their current good practices while giving it a more concrete systemic approach that would help them remember how to teach writing, and teachers had used the model to inform their instruction</td>
<td>Findings</td>
</tr>
</tbody>
</table>

**Step 1: Establish a Pedagogical Goal**

The pedagogical goal or purpose of this study was to expose inservice teachers to a scaffolded model of professional learning for writing that could be implemented in their own teaching. This model of professional development placed research participants in a professional learning community, and I served as the coach for implementing the intervention. Teachers worked in focus groups made of another teacher in their own
discipline, and a collective focus group made of all participants. They took the opportunity to work through the steps of the scaffolded model in consideration of their own writing instruction in an effort to increase their self-efficacy, while also experiencing a participatory approach to instruction that was intended to improve their ability to enact this instruction in their own classrooms. This pedagogical goal led to the consideration of research questions about self-efficacy, writing instruction, and the intervention, which I contextualized across three disciplines in a high school (social studies, science and English), focusing on the professional learning needs of the teachers to help them conceptualize and increase their self-efficacy in writing instruction.

Step 2: Specify an Intervention

The intervention that was used for this study was the implementation of the IMSCI scaffolded model for writing instruction with teacher participants in an extended, professional learning intervention, wherein data was collected about teacher self-efficacy and the usefulness of the model, while refining the intervention throughout. The IMSCI model (Read, 2010) is based on Vygotsky’s (1978) work that suggested that instruction should be modeled and scaffolded in order for students to be successful at completing tasks within their zone of proximal development. Though it was initially used to teach writing to elementary school children, I believed this model could be used successfully to help secondary teachers not only consider their own writing instruction, but examine who they are as writers, helping them to use discussion and reflection to determine their own needs thereby increasing their self-efficacy. Consequently, I used the IMSCI model as a the basis for professional learning and chose to have participants experience writing
firsthand by participating in teaching activities that were attuned to disciplinary writing. Joyce and Shower’s (1982, 1988, 2002) work with adult learners builds on a similar scaffolded approach and suggests that adults need to experience and reflect on their professional learning in order for it to make a difference in their instruction. Research by Tschannen-Moran and McMaster (2008) confirmed the benefits of this kind of a scaffolded-participatory model of professional learning for inservice teachers.

The purpose of this study was to investigate whether the IMSCI model would help teachers increase their self-efficacy in writing instruction and whether this enhanced self-efficacy would help teachers to increase their effectiveness in the writing instruction they offered to their students.

**Step 3: Collect and Analyze Data**

Data was collected in focus group sessions, through teacher blogs and submission of writing instruction and artifacts, and with member checking over the course of four months (January, February, March, and April, 2012) with participants meeting for a total of 10 focus group interviews each, one with their content-area partner and one with the entire research group. Data collection and analysis have been described in detail in earlier parts of this chapter. However, a breakdown of questions for the semistructured interviews and a schedule for each meeting is included in Appendices C and D of this study. Data were also analyzed throughout the study in order to discover the ways the intervention should be adapted to fit teacher needs better.
Step 4: Adapt the Intervention in 
Light of the Data

Adaptations to the intervention were made based on insights gained from teachers’ responses in the focus group sessions and in consideration of their responses to the question asked at each session and in prompts for their blog posts, “In what ways can the IMSCI model be adapted to serve your needs better?”

During the immersion phase, teachers were able to discuss their reading of the IMSCI article. Though they liked the major premises of the article, the majority of the teachers, especially those in science and social studies, were concerned about the time it would take to implement an entire genre study. Further, their concerns about assessing writing and wanting to experience small successes informed the decision to implement the model in two stages instead of one as had been planned. Also, because the teachers were nervous to write an essay, I decided to keep that portion of the professional learning in an exploratory place, informing their self-efficacy and giving them examples of argumentative essays written by others rather than having them complete an essay. Instead of having them follow the IMSCI model to the end and write an argumentative essay, I walked them through the process of inquiring into the argumentative form, modeling for them as I went and then giving them resources for working with their own students during the second and third focus group professional learning sessions.

The second stage of implementation, during the fourth and fifth focus group learning sessions was to then show them two options for using IMSCI in shorter, more manageable ways. The first time I taught them to use it by helping their students use model papers to analyze, discuss and create rubrics, thus alleviating some of their
concern about assessment. The second time I taught them how to use IMSCI to help their students write content-area specific argumentative thesis statements. Further descriptions, reasons for the adaptation, and a timeline are outlined in the procedures section at the end of this chapter, with teaching artifacts on rubric analysis (Appendix E) and lesson plans for teaching thesis statements by discipline (Appendix G) from these sessions included in the appendices of this study.

**Step 5: Discuss Unanticipated Effects**

**Step 6: Discuss Changes in the Environment**

Unanticipated effects and changes in the environment were discovered as a result of implementing the intervention. These steps will be discussed in the analysis section of this study to account for changes after its completion.

**Credibility and Trustworthiness of Data**

To establish trustworthiness (Lincoln & Guba, 1985), after I developed a preliminary system of codes in relation to the indicators of self-efficacy, pragmatism and ecological factors connected to their experiences with the intervention, I asked a second coder to look at randomly-selected data points to help revise or redefine the codes if necessary. After the codes were finalized, the second coder used our coestablished codes to independently code 70% of the data, while I coded the entire data set. We strived to achieve an agreement rate of over 80% (Smagorinsky, 2008).

To establish reliability in the analysis of the intervention sessions, I relied on member checking (Miller & Crabtree, 2005, p. 627). Participants were given transcripts
of randomly selected portions of their participation in both individual and collective focus

group sessions and wrote comments on the degree to which their interpretation of the

focus group sessions was in agreement with mine. To provide triangulation, participant
teachers were asked to review my interpretation alongside their interpretation for
reliability. Finally, participants reviewed their beginning and concluding blog posts and
wrote a synthesis summary of their experience in the study and with the intervention to
further contribute to the credibility of the study and the conclusions drawn therefrom.

Semistructured interviewing techniques have been advocated as a credible method
of data collection, allowing for freedom of revision and adaptation of questions
depending on the context and moment. Many researchers have acknowledged the
trustworthiness in interview results as accurate depictions of valid findings (Atkinson &
inherent faith that the results are trustworthy and accurate and that the relation of the
interviewer to the respondent that evolves during the interview process has not unduly
biased the account” (p. 698). Holstein and Gubrium (1995) concurred by acknowledging
that interviews occur in politics, medical research, even in criminal investigations and
state that it is a “universal mode of systematic inquiry” (p. 1). Semistructured
interviewing techniques work well in focus group settings with the intent of discovering
exploratory data (Fontana & Frey, 2005). Additionally, the nature of focus groups
themselves, wherein there is an interviewer and more than one interviewee, can be
helpful in the process of “indefinite triangulation” by putting individual responses into a
larger context (Cicourel, 1974).
Research recommends that interviewers working with focus groups be flexible, objective, empathetic, persuasive, a good listener, and so forth (Fontana & Frey, 2005). Merton, Fiske, and Kendall (1956) cautioned that interviewers had to be alert during the process, making sure that all participants got equal opportunities, encouraging recalcitrant respondents, and getting responses from all members of the group in order to ensure the fullest coverage of the topic. Further, interviewers in group sessions have to give attention to the script of questions while maintaining sensitivity to the evolving patterns of group interaction, thus the purpose of using the semistructured interview with its freedom for adapting questions.

Because every interview is just a snapshot, providing a picture taken during a moment in time, it is beneficial to gain a view of the participants’ ideas over time, as their thinking unfolds (Charmaz, 2005). This idea was subscribed to as a key part of the implementation of the intervention and in discovering what the teachers thought of their own writing instruction. Charmaz contended, “Multiple visits over time combined with the intimacy of intensive interviewing do provide a deeper view of life than one-shot structured or informational interviews can provide” (p. 529). I kept these considerations in mind throughout the process in order to increase the credibility and trustworthiness of the data, and to promote flexible and relevant adjustments to the intervention. Additionally, because they were asked similar questions before, during, and after the study, reiteration, interpretations and changes to answers over time provide message redundancy, solidifying more solid and consistent conclusions.
Limitations and the Role of the Researcher

Barab and Squire (2004) argued, “If a researcher is intimately involved in the conceptualization, design, development, implementation, and re-searching of a pedagogical approach, then ensuring that researchers can make credible and trustworthy assertions is a challenge” (p. 10). This method cannot nor does it claim that the researcher’s bias is removed from the research process, acknowledging that this inside knowledge can add but also detract from the research validity. Though Norris (1997) suggested that good research demands skepticism, commitment and detachment, design-based research requires these with the conflicting requirements of comradeship, enthusiasm, and a willingness to actively support the intervention.

Because I needed to collect credible data, while also building camaraderie with participants, I acknowledge that neutrality was not maintained. As many have argued convincingly (Atkinson & Silverman, 1997; Fontana, 2002; Holstein & Gubrium, 1995; Scheurich, 1995), interviewing is not merely the neutral exchange of asking questions and getting answers. Fontana and Frey (2005) explained that when two or more people are involved in the process, “their exchanges lead to the creation of a collaborative effort called the interview” (p. 696). Further, Scheurich acknowledged that the interviewer is a person, historically and contextually located, carrying unavoidable conscious and unconscious motives, desires, feelings, and biases; therefore interviews can hardly be a neutral tool. Scheurich maintained, “The conventional, positivist view of interviewing vastly underestimates the complexity, uniqueness, and indeterminateness of each one-to-one human interaction” (p. 241).
Because I proceeded from a stance in which neutrality was unachievable, having worked with my participants prior to the study for 4 years and being fully immersed in that school environment, I conceded that I should interact with the interviewees as a person and in a teaching role teaching the scaffolded writing model to them, and acknowledge this to them throughout the research process (Fontana & Frey, 2005). Additionally, in order to conduct a design-based research, it is necessary to be familiar with the research environment to explain context better. Further, as encouraged by Douglas (1985) and Kong, Mahoney, and Plummer (2002), I selected to take an empathetic stance, revealing personal feelings, conversing with interviewees, and having a positive outlook about the group being studied. In agreement with characteristics of design-based research and qualitative interviewing protocols, I sought to have the interviews serve not only as data collection tools, but to become “a methodology of friendship” (Kong et al., 2002, p. 254).

Consequently, I kept this stance in mind while also providing means for taking my personal biases into account and to establish internal validity. Because of my position as a former colleague of the teachers studied, in combination with my role as both primary researcher and teacher of the intervention, I also acknowledged to them my stance and stake in the research throughout the study, emphasizing my desire to collect data on their true thoughts and feelings, regardless of these supporting a positive perception of the study. This was important because my positionality may have had an effect on the collected data, as they might have reported more positive effects due to our relationship. To safeguard against this, in the middle and at the end of the study, I
provided the opportunity for member checks of the interview data. I also emphasized to them that the study was exploratory and welcomed negative, positive, neutral and combined reports of data, when they were invited to member check their data as well as throughout the study. Transcripts were sent to study participants, and they were allowed to review their responses and suggest possible revisions (Creswell, 1998). Finally, I invited a colleague to analyze my data and findings to verify conclusions, serving as an outside auditor and coding 70% of the data.

Peer debriefing was also used to help establish credibility. Brianne Hardy, a colleague in the Utah State University College of Education who is familiar with qualitative research methods, and Sharla Behrmann, a former colleague in the school district where the research site was located who is familiar with the current context of writing instruction at the high school studied, engaged in peer debriefing in order to expose my biases, and question and clarify my interpretations. In their judgment, my interpretations seemed reasonable and supported by data.

Another limitation of this study is bounding its scope to the timeframe of four months and restricting data collection to an exploratory capacity only, with iterations of the intervention and research based on what would fit within this timeframe. Anderson and Shattuck (2012) validated this limitation: “One of the challenges of DBR [design-based research] studies is that the iterative nature can exceed the resources or the time available to researchers or funding bodies” (p. 21). In their analysis of design-based research studies that have been undertaken since 2000, they found that the majority of studies were either exploratory, initial stage research or one part of a multi-iteration
This study fits within those categorized as occurring at the exploratory-initial stage of research. In this current study, my hope is to understand secondary content-area teachers’ perceptions of their self-efficacy in writing and to research a writing model as an intervention in this study. Because of adjustments made to the intervention implementation, data presented on the scaffolded writing model is also exploratory. None of the teachers implemented the entire writing model in their classroom instruction, though they commented on implementing parts, this was never observed or documented by myself, as the researcher. Consequently, data about the intervention provides commentary about teachers’ perceptions of it and adjustments that were made, not its use in or effect on their classroom writing instruction. Subsequent research based on the findings from this study will be used to inform future research studies to determine the effectiveness of the intervention as a whole, for classroom instruction, and with other groups of teachers and then to study the effect of the intervention on students’ writing.

Finally, because I identified the emergent themes and assigned them importance, while also choosing the intervention that was implemented, I may have passed over important ideas teachers shared despite my best efforts to systematically analyze the data for emergent topics and themes. Although my perspective may have been a limiting factor, my experience as a teacher, a literacy coach, and an educational scholar strengthened my ability to develop a nuanced interpretation of the data.

Despite these limitations, proponents of design-based research suggest that there is a positive place for it as a research methodology in educational research. As its use increases, many studies cite its effectiveness at providing research results that both build
theory and provide practical, effective applications for naturalistic settings (Anderson & Shattuck, 2012; Jahnke, 2010). Barab and colleagues (2007) contended, “Through our design framework, we were able to evolve theory grounded not only in practice, but in a visionary frame—one that allowed us to test not only what exists in schools but what could exist” (p. 24). Though design-based research to this date has yet to bring about large improvements in educational systems, the interventions that have been tested could be characterized as small improvements to the design, introduction, and testing of theory, research and practice in local contexts. And, the effect in these local contexts can be far reaching. Anderson and Shattuck maintained that there were examples from a variety of design-based research studies that suggested “many…individual teachers changed their attitude and understanding…and changed their whole focus of teaching” (p. 24). As a result, design-based research has been espoused as a promising methodology for conducting educational research that is useful in complex learning environments.

This complexity is difficult to present because of the necessity of collecting data about the teachers and the intervention itself, while accounting for changes to the intervention as a result of considering data about teachers’ needs. To help with the presentation of data, it is important to outline the steps taken in implementing the intervention, as well as the adaptations that were made as a result of teacher feedback throughout the process. Because a major component of a design-based research study is to examine the intervention, I also share the procedures that were followed for implementing and adapting the intervention in this Methods chapter. Though the majority of data contributing to an understanding of thematic implications and the effectiveness of
the intervention is presented in Chapter IV, research findings, it is necessary to present some information from the teachers in this procedures section to account for steps in the implementation of the intervention that were deemed effective and adaptations that were made in response to teacher need.

**Procedures for Implementing the Intervention**

I implemented a two-part intervention, both experiential and reflective. First, teachers experienced the IMSCI writing model as they began to create an argumentative writing assignment for their discipline. I facilitated their learning by teaching them argumentative writing through the IMSCI model and having them experience this model as writers. The second implementation of the IMSCI model was reflective. I guided teachers to consider their own writing instruction and their self-efficacy in providing this instruction through focus group sessions that implemented the IMSCI model with the teachers, allowing them to experience and then reflect on the model in a step by step manner, while considering how to use it in their own instruction. Because data were collected and analyzed throughout the study in regard to the intervention’s effectiveness, changes in its implementation were made throughout the study. The actual implementation and adaptations are described next, with data included to explain the changes.
Experiencing Learning with the IMSCI Model; Learning to Write an Argumentative Essay

Teachers first experienced the model as learners. Because argumentative writing was adopted as the writing focus at their school for the next two years in anticipation of the implementation of the Common Core, teachers wanted to learn how to use IMSCI to teach argumentative writing better.

Inquiry. During the first large focus group session, they (I)inquired into the model by discussing their reading of the published IMSCI article (Read, 2010) and a content area literacy article. Articles were assigned at their disciplinary focus group interviews that had occurred the week prior to the large focus group session. All five participants read the original article on IMSCI published in The Reading Teacher and each disciplinary focus group read an article on literacy and their content area for the second article. Table 4 shows the teacher names, content-area, and assigned articles.

Then, they identified a disciplinary writing assignment that lent itself to an argumentative genre. In science, teachers identified the lab report. In social studies, the teacher identified a document based analytical question, and in English, the teachers identified a thematic literacy analysis. Teachers also read the common core standards for argumentative writing in their discipline and begin to inquire into the mode and form of argument in the context of their own instruction. During this session, teachers discussed language that helps students understand the argumentative genre, and words that differ across disciplines, and then they wrote a collective definition for argument writing in response to the prompt, “argumentative writing is….?” Their collective definition was
Table 4

**Participating Teachers and Their Assigned Articles**

<table>
<thead>
<tr>
<th>Teacher names</th>
<th>Content area</th>
<th>Assigned articles</th>
</tr>
</thead>
</table>

“Argumentative writing is using information to make a claim and support it with valid, relevant, unbiased, and qualified data— information.” JoAnn emphasized the importance of an activity that enlarges both teacher and student vocabulary, allowing them to make connections across disciplines. She stated:

> I think it’s important to make these language connections. If we are talking about etymology of a vocabulary word then I try to make connections to English classes or other things we’ve talked about so that tells them they aren’t just taking English to take English and there’s a connection in Science. I think we diminish (sic) their cognitive load when we can facilitate these connections for them.

Table 5 shows the results of their language analysis with a synonym chart they developed for major terms in their argumentative definition.

**Modeling.** During the second large focus group session, I (M)modeled argumentative writing for the teachers, by providing them with models of argumentative
Table 5

**Synonyms for Major Terms in the Teacher-Created Definition of Argumentative Writing**

<table>
<thead>
<tr>
<th>Claims</th>
<th>Evidence</th>
<th>Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argument</td>
<td>Source</td>
<td>Acceptability</td>
</tr>
<tr>
<td>Statement</td>
<td>Data</td>
<td>Accuracy</td>
</tr>
<tr>
<td>Hypothesis</td>
<td>Experiment</td>
<td>Relevance</td>
</tr>
<tr>
<td>Thesis</td>
<td>Research</td>
<td>Applicability</td>
</tr>
<tr>
<td>Point</td>
<td>Experience</td>
<td>Unbiased</td>
</tr>
<tr>
<td>Inquiry</td>
<td>Information</td>
<td>Qualified</td>
</tr>
<tr>
<td></td>
<td>Facts</td>
<td>Scholarly</td>
</tr>
<tr>
<td></td>
<td>Readings</td>
<td>Interpretation</td>
</tr>
<tr>
<td></td>
<td>Experts</td>
<td>Consensus</td>
</tr>
<tr>
<td></td>
<td>Opinions</td>
<td>Sufficiency</td>
</tr>
</tbody>
</table>

writing to read, leading a discussion wherein they formulated more concrete ideas about the uses of argumentative writing for themselves. Because they had stated they were overwhelmed by the process that was related in the original article about IMSCI, I decided to show them two methods for incorporating IMSCI that could fit within this step and within the larger context of their professional learning, while also modeling for them how I approach teaching argumentative writing as a teacher.

At the beginning of the session, teachers were given student samples of argumentative writing found in Appendix C of the Common Core English Language Arts and Literacy in History/Social Studies, Sciences, and Technical Subjects document located at corestandards.org (National Governors Association Center for Best Practices, Council of Chief State School Officers, 2010). They all received the same four samples of ninth- through twelfth-grade argumentative writing. These included:
1. Student Sample: Grade 9, Argument “The True Meaning of Friendship” p. 57
2. Student Sample: Grade 10, Argument “________________School Bond Levy” p. 65
3. Student Sample: Grade 12, Argument “Untitled essay on dress codes” p. 76
4. Student Sample: Grade 12, Argument “Freedom From Structure” p. 78

Teachers read the samples of the argumentative papers to determine characteristics present in argumentative essays, and to see if these characteristics aligned with their definition of argumentative writing determined in the prior meeting. I used this exercise as an opportunity to model writing instruction in two ways, creating and reading a rubric, because all of them had expressed a concern for assessment in writing, and to model for them how to use example papers in the modeling phase of the IMSCI model. Each teacher contributed possible characteristics that could be used in a rubric for assessing argumentative writing; Calvin said, “It’s evidence based,” Daniel said, “It’s balanced and discusses both sides,” JoAnn shared that “it makes a claim,” and James said, “It fits the purpose of the writing.” Tara summed up, “These are all the characteristics we already identified and used in our definition. If our students did something similar to this, then they would have heard the language a couple of times and would feel like somehow they had ownership of their writing!”

From there, we determined that there were too many characteristics to put in an accessible rubric, so through a group process we narrowed them to three: evidence, strength of claim/balance, and organization. We conversed about how the characteristics we identified could be used as descriptors for each of these three broad categories and could then model for students how to write, while attending to the rubric created in class. We decided to revisit the rubric later in the focus group sessions, but all felt validated by
the experience of teasing out characteristics, defining them and conversing. From Tara’s, “my students could do this and it would help ease my grading burden” to Calvin’s “this would be engaging” to James’, “this is like what we do as teachers at the AP conference. I had never thought of doing this with my students. I suppose it would help them like it helps me,” this modification seemed to increase their sense of efficacy in implementing the IMSCI model in their own classrooms.

In the middle of the session, I also determined that I needed to address their expressed concerns with the writing skills of their students because it seemed like it was an issue that was getting in the way of their ability to see themselves using IMSCI on a larger scale. In a disciplinary interview with Daniel prior to the large focus group session, we had a troubleshooting conversation about writing thesis statements and he and I determined a small IMSCI lesson that would help students to turn questions into thesis statements. Daniel used it in class the next day and had success, encouraging me to use it in the next focus group session with the whole group. I conceded:

I don’t think we’re ready to really do an entire genre study. What if you used this to show us all how to turn questions into argumentative thesis statements and it would cover that grammar/whole sentence thing while also keeping us on track with argumentative writing?

I used the IMSCI model application graphic organizer found in Appendix F to record their learning and used questions about the research study and argumentative writing to provide instruction to teachers in how to turn questions into thesis statements. They first considered the kinds of readings their students were currently doing that would lend themselves to an argumentative writing response, with answers like, “we’re looking at if the American Dream is really a possibility” (Calvin). Daniel, “Yeah, we’re trying to
figure out if you can define and develop a moral code.” James said that his students were “trying to evaluate or re-evaluate the Reconstruction and if it was successful,” while Tara and JoAnn were “trying to get our students to write up the results of an experiment they had just conducted” (both talked simultaneously). I asked them to practice turning their topic statements into questions that would lend themselves to an argumentative essay. James tried first, “Was reconstruction a success? And in the years to come was it sustainable?”

After they recounted the kinds of topics they were working on currently that lent themselves to argumentative writing, we turned to the topic of argumentative writing itself, and I modeled for them how I would turn the question “Why should educators teach argumentative writing?” into a thesis statement by writing “Educators should teach argumentative writing because…..” The script that follows demonstrates the rest of the session’s conversation surrounding the scaffolding that is present in the IMSCI model.

*Researcher:* So, we talked last time about the words for evidence and validity, and I wanted to show you today how the IMSCI might look in action, walk you through it like you are students. From what I’m hearing in your interviews, the hardest part of writing instruction is getting students to write well all of the time. They know if a particular teacher requires it, but they don’t use those skills all of the time in their writing even if they have them. I know Tara said that they don’t even use nouns and verbs when writing in science class, even though it’s an implied thing that you would. But they’re not because she’s not saying it explicitly. So they’re not transferring those skills, so what we’re going to do is this. I’m going to be your teacher and we’re going to look at changing questions into thesis statements, which are a pretty elementary example, but will work with your students who are struggling writers, those who you have a hard time getting complete sentences from and getting them to write a thesis statement. So, our topic is argumentative writing and we’re going to look at how we can get our students to change a question into a thesis statement. I’ve given you questions on the graphic organizer. But, let’s start first thinking about our students. What do they do with a question when they come to it on a test, particularly if they are to write an essay response? How do they start off an essay? And what do they
typically say?

*Calvin:* They usually just choose a side to write about, which is wrong, but…

*Researcher:* Why is that wrong?

*Calvin:* Because you haven’t done any research or brainstorming or found any evidence to decide why you chose that side. You really haven’t done any thinking and you can’t choose a side if you haven’t thought about it first. And, it’s pretty standard because if you are asking them questions with the whole I’m thinking of something that I’m trying to get you to say thing, like is that really the first thing you should do? Then they might think deeper, but generally, they might say, if I ask where do we start, then they would say, let’s write about this.

*James:* I’ve had them brainstorm with a partner or with a small group and forbid them from actually writing the essay. I direct them into activities and maybe I provide them with questions to get them thinking that might lead them to get the evidence that they need.

*Researcher:* And what we’re trying to get them to talk about is what a question is actually asking them to do, what a question does for them in regard to beginning to think about their essay and promoting their thinking. So, you might even ask them, especially with something as simple as turning a question into a thesis statement…what is a question? Or what is the author trying to get at? What I’m trying to get you to do with a question? As far as their answers go, if they are simple and narrow or they say something like, you are trying to get me to think, then it gives you some sort of indication of where they are in the process. So, the questions we are going to use are what questions are and how we use them to become thesis statements for our writing. So the first thing I’m going to show you is to model for you how I turn a question into a thesis statement. You already know how to do this, but for my students I would model for them how I do this.

And our next question is, “Why should educators teach students how to write argumentative essays?” And when we look at the question we go back to Tara’s concern that they often don’t write in complete sentences or use nouns and verbs. So, let’s first in our questions identify who the subject is and I would say the subject is this, the person who should be acting, is educators. And if I’m looking for the verb in this, it would be should teach…it’s kind of split, but I’m changing my question into a sentence, then it would be a statement that looks like, “Educators should teach students argumentative writing because…” I could leave it without the because, but I want my students to think and to find evidence so I’m writing the word because. And I’ve modeled just that for them. We can come back and think through it, but I don’t want to just move on and have them work. I want to reinforce the concept and have time to move around the room and check for their understanding, so the shared step is, where I start us off and then you
work with me. So, my next question says, “How do students benefit from learning to write in an argumentative format?” So I’m looking for any sort of subject there and that would be students, right? So, I’m going to write that on the board or on my notes and I’m going to say, Students, how do students benefit from learning to write in an argumentative format? What would be my verb then? What do we do…we could say students benefit from? Or we can take out the word do because it’s redundant but it’s all already there. So, I write “Students benefit from learning to write in an argumentative format.”

Daniel: in the following ways…

Researcher: That’s good. Does anyone else have an example of how to extend this?

James: You could just put a period and then have them add details later.

Researcher: Good…you could just show them that the statement stands and that from that statement they write more sentences to support their point.

Daniel: Because…(laughs)

Researcher: Right! And you might be the student who uses the word because every time, Right? But as we talk through it as a class and we share then they start to see that there’s more than one way or more than just the teachers way. Okay. So then the next step is that collaborative writing and as a teacher I’ve modeled it for you, we’ve shared and now together you are going to do the next one. So your question is, “What kinds of thinking are supported by learning to write in an argumentative format?” So, go, with a partner…how would you turn that into a thesis statement?

Calvin: Kinds of thinking that are supported by learning to write in an argumentative format are…And do the rest of you agree? What would you do?

Daniel: Sounds good to me.

Researcher: So, I’ve seen that a lot in classrooms where you have just one partner who does it. So, what if you are the student who just can’t do it.? What do you do?

Calvin: Say I concur or yep…

Researcher: So, what you might build into an activity like this is 3 or 4 collaborative writing times and they have to take turns. You force the vocal student to not talk and make them take turns. But they still have that support where they are working together and your hands are free to wander and check and
formatively assess them in the moment, as opposed to when they are turned loose and unsupported. So then you get to that last “I” step, which is independent. So, on your own will you turn the very last one into a thesis statement?

Calvin: I got it. I used a b word, but it’s not because…not that one, but it’s not because either.

Researcher: Daniel, you got it? What’s yours?

Daniel (sheepishly): I used because

Researcher: Which is fine. We want our students to see that they can cultivate a skill and use it. It doesn’t have to be novel every time.

Calvin: I used by.

Researcher: James, what’s yours?

James: Argumentative writing develops primary skills to be successful in college and work.

Researcher: Nice example, you changed things in their entirety. And I changed it to say, a student’s overall thinking in school can be influenced by learning to write in an argumentative format by…So just a quick model and you can expand that because as they begin to work on paragraphs you model the steps.

As the teachers went through the process of turning questions into thesis statements and experiencing the model step by step, they made statements, like: “I can see now how you could use this to break things down for them along the way” (Tara); “Okay…with this, I can start to envision a little more how to scaffold my writing instruction” (Calvin); “I’m starting to see how you could take this bigger and use IMSCI along the way formatively to the whole genre you are teaching…it also makes me think I might be on the right track with some of the stuff I’m already doing” (James).

Shared writing. During the third large group focus session, the teachers participated in a (S)shared writing session wherein together we wrote an argumentative
piece based on data collected from the focus sessions and in answer to the questions that
had been turned into thesis statements. These questions included: (a) Why should
educators teach students argumentative writing?; (b) How do students benefit from
learning to write in an argumentative format?; (c) What kinds of thinking are supported
by learning to write in an argumentative format?; and (d) How can learning to write in an
argumentative format influence a student’s overall thinking in school? Their overarching
topic was to convince their colleagues of the value of writing across the curriculum and
scaffolding writing instruction for their content-area discipline. We started the session by
referring back to the thesis sentence stems we created in the previous session and related
ideas that completed these thoughts. To support their thinking and to help them to
organize their ideas, I provided them with an I-chart, found in Appendix G of this study
(Hoffman, 1992). Together, we shared research that would help them complete the chart
and add to their understanding while also helping them see the abundance of information
they had at their disposal to answer the questions. As they completed the chart through
shared writing with me, their answers demonstrated a more descriptive and enhanced
understanding of writing from reflections and conversations prior to the implementation
of the intervention. This data is shared in the research findings section under during the
intervention, writing instruction. I did not include a script for this session or subsequent
sessions, because the work was more conversational with the teachers providing most
insights and my role to facilitate the conversation, rather than lead them in learning. This
was an attempt to follow the model with the teachers as I moved the responsibility of
instruction from me to them and their collaborative work together.
Collaborative writing. In the fourth focus group session, teachers (C)collaborated about their writing and their writing process in order to discover methods for making their own argumentative writing better. My original intention for this part was to have them, in their content pair, to begin drafting a model argumentative writing lesson to use for their own teaching. However, in data collected from prior disciplinary and large group focus sessions, they had expressed hesitation with beginning to write a lesson plan from scratch. They requested the opportunity to try writing an IMSCI model lesson for writing thesis statements that would integrate what they had been learning in prior focus group sessions. They worked on modifying these for their content areas, using the language we had discussed during the rubric analysis and creation session, and modified it for their specific disciplinary needs. Their completed model lessons are included in Appendix H of this study.

Independent writing. Finally, teachers (I)independently reflected on their learning and adaptations to the model for use in their own instruction, while also sharing their final reflections on ways they had implemented IMSCI or planned to implement it in their future teaching. Data from this session, including their ideas, are included in the research findings section of this study.

Scaffolded Reflections on Learning with the IMSCI Model

The first focus group session required the teachers to (I)inquire into their own writing instruction, their beliefs about writing instruction, how they use writing in their curriculum and how they would like to use writing in their future curriculum. The second
focus group session focused on me and the teachers reflecting on the uses of models and (M)modeling of effective writing instruction for one another. The reflective piece of the third focus group session had teachers (S)share their writing in the blog posts with one another both within and outside of their own content areas in the form of their written reflections, while also providing an opportunity for them to share insights they were gaining about themselves as writers and how they perceived their writing instruction. The fourth focus group session had teachers (C)collaborate together, refining their writing curriculum and discussing methods for sharing the responsibility of writing through content area adaptations that would have a collective effect. Finally, the last focus group session had teachers discuss their final, independent reflection about their own self-efficacy in writing and the state of their writing instruction after the series of focus group session. They considered how (I)independently they could change their writing instruction to mirror their enhanced self-efficacy in writing instruction. The results of Shanahan and Shanahan’s (2008) initial study of teacher focus groups in consideration of their own content area and ability to implement literacy recommendations indicate that these collaborative reflections, conversations and documentations have an impact on the self-efficacy of teachers and the types of instruction they enact in their classrooms.
CHAPTER IV

RESEARCH FINDINGS

Because this study includes descriptive, exploratory data on teachers’ perceptions of their own self-efficacy in writing instruction as a result of their preservice and inservice professional learning before, during and after the implementation of the intervention of the IMSCI writing model, it is necessary to account for data collected about both the teachers and the intervention. I have divided the presentation of the data into three main sections: before, during and after. Within this division, I have then presented three major types of data: (a) teacher’s reflections in writing through blog posts and e-mail interaction, including my analysis of how this fit within coded themes and influenced the implementation of the intervention, (b) narrative data, focusing on the teachers’ voices with direct quotes but also including my commentary and opinions, and (c) anecdotal data, focusing on the implementation and iterations of the intervention as it was affected by teacher input. These types of data have been categorized into three major themes within the subsections of before, during, and after. These themes are: (a) self-efficacy, (b) writing instruction, and (c) the intervention. Subcategories are present within these themes and contain data strung together with beginning analysis toward a twofold understanding. The first goal of analysis within the findings section will be to begin to account for theoretical underpinnings of the participants’ statements on self-efficacy, pragmatism, and ecological issues, attending to the emergent themes from coding the data. The second goal will be to account for teacher statements about their teaching context in light of the intervention, their reactions to it, and adjustments made as a result.
This section of the chapter will include foundational analysis of the data that will be presented more conclusively in Chapter V.

**Before the Intervention**

At the beginning of the study, in the *inquiry* stage of the IMSCI model, my objective was to determine how the teachers perceived of themselves as writing instructors. This was done for three reasons. First, I wanted to describe their perceptions of their own self-efficacy to see if they aligned with what previous research contends and, second, to determine better how to implement the professional learning sequence about the IMSCI writing model with them. Finally, this data provides a baseline measurement of self-efficacy perceptions, definitions about writing instruction, and insights about the intervention from which to establish patterns of change with the implementation of the intervention.

**Teacher’s Blog Reflections**

Prior to our first meeting, I had the teachers respond on their blogs to the following questions.

1. How do you perceive yourself as a writing instructor in your subject area?
2. What attitudes and beliefs do you have about writing instruction in science/social studies/English?
3. What is your self-efficacy level in your own writing instruction?
4. How do you perceive yourself as a writer?
5. How were you taught to write?

6. How do you currently teach writing in your subject area?

Some of the teachers chose to respond to the questions in list form and others wrote a paragraph including answers to the questions written as a narrative account.

**Self-efficacy.** Self-efficacy was a major theme present in every teacher’s account of their writing instruction. As they described their own learning as students, writing instruction they received, and how they were taught to teach writing, it was evident that their perceptions of their ability to teach writing governed most of their decisions about what and how they would implement effective writing instruction in their classes. Levels of self-efficacy also varied from teacher to teacher depending on their perceptions of the writing instruction they received as students, the kind of preparation they had received in their preservice and inservice teacher development and the kind of environment where they currently teach. These perceptions were important to catalog because they often affected the way the teachers later defined effective writing instruction and how they responded to the intervention.

Additionally, the variation between the teachers served as an important comparison when teachers’ perceptions of their abilities were compared to their actual definitions of writing instruction. For example, JoAnne had high levels of perceived self-efficacy in writing because of the effective writing instruction she had experienced as a student and in her teaching program. JoAnn’s definitions of writing instruction were often aligned with research on effective writing instruction and a sense of ownership of the teaching that went on in her classroom, whereas the teachers with low self-efficacy
often blamed environmental issues on their inability to implement effective writing instruction.

**Self-efficacy through preparation in writing.** Teachers recounted how they learned to write in their formative schooling as students and compared this to their preservice teacher training and their inservice professional learning in writing instruction.

In response to the question of how he was taught to write, James recounted:

As a student in social studies, I had no high school teachers emphasize writing in any way. The short answer is that I don’t think I was taught to write at all. I know most of my development as a writer was just mimicry of what I was reading. Luckily, I enjoy reading and always had examples of good writing to inspire me. In college, I had to write more extensively, but only one professor took any time to discuss historical writing. I do remember that I was the student that composed horribly wordy prose. This professor in college really tried to get me to simplify my writing and just focus on basic communication of ideas, cut out the commas sort of thing. She was absolutely right.

Tara’s statement mirrored James’s. She wrote, “I can’t remember being taught to write. Surely I was though, right? I know I haven’t had any science writing instruction, but learned to how to do it by looking at journal articles, etc.” Calvin’s response echoed these, especially with his emphasis on learning to write through reading: “I was taught to write by reading, mostly. I’m sure I had plenty of instruction in school, but when I write something, I read over it and correct accordingly. Aside from that, reading has taught me the importance of engagement, a good description, and understanding an audience.”

Only two of the five teachers recalled receiving specific instruction. Daniel wrote, “I had some really good one on one instruction and professors and tutors who were able to work with me and make some really great strides in improving my writing. I wrote a great deal in the hard sciences and I feel that made me a stronger writer in other
disciplines.” JoAnn recalled:

My instructors used a lot of scaffolding to teach me how to write in school. I was first taught small components of writing; then, I was taught how to use those components together to achieve a certain goal, like creative writing, persuasive writing, technical writing, research papers, etc. My parents also played a significant role in teaching me how to write. They used adult vocabulary around me and taught me how to use it. They also proofread all of my papers and encouraged me to write outside of school (journals, letters to the editor, essay contests).

Not surprisingly, JoAnn’s perceptions of her own self-efficacy as a writer and writing instructor were higher than the other participants. Interestingly, though both Daniel and James made positive statements about learning to write, this learning occurred while they were college students taking content-area classes (James in History and Daniel in his minor, Science). It would seem that formative experiences in learning to write were minimal for these teachers, with only one teacher of the five mentioning receiving effective components of writing instruction as a student: scaffolding, purpose, revision and time.

Teacher perceptions of themselves as writers. Teacher perceptions of their own writing ability coincided with the instruction they felt they had received as a writer, ranging in the mostly positive range, but attributing this to their own ability to read and mimic, rather than having been taught to write. James reflected:

Like most areas of my life, as a writer, I’m a hack. I wish I was a naturally gifted writer and was writing for Rolling Stone magazine, but I’m not. I know that I have above-average writing ability, but I also know that good writers are way beyond my talents. The funny thing about teaching is that you don’t write nearly as often as you did when you were a student, especially a college student. Teachers are often out of practice and sometimes forget the difficulty of writing well.

Tara exhibited a response with the same modesty. She claimed, “I think I’m probably
better than most as a writer. But I’m not great.” Calvin and JoAnn were less self-effacing.

Calvin wrote:

Witty, intelligent, casually refined. These are the words I would use to describe my writing. But who wouldn’t? My perception and the world’s reality may very well clash. Like every English teacher, I dream of writing the great American novel and just haven’t had the time to do it. But if I took the time, it would be great. I’m sure of it. And I would be so very rich. I have had some commercial success as a copywriter, and my mom thinks I’m funny, so if that doesn’t make me a writer, I don’t know what does.

JoAnn reflected, “I see myself as a good writer. I do believe that I can always improve my vocabulary and I would like to learn new and more effective forms of delivery.”

Daniel was less confident and mirrored some of James’ reserve, especially as he considered the idea that writing better happens when one writes more. He wrote:

In college and grad school when I was writing nearly every day, I felt like I was really evolving as a writer and I felt I produced some really good pieces. Now that I don’t write as much, I think my skills have deteriorated and I really have lost all my confidence in being able to write with any competence.

This range of responses demonstrates that successful experiences in writing produce a higher sense of efficacy in writers. These teachers had all experienced self-efficacy as a writer at one point or another in their schooling or teaching, and this aligned with research on teaching. Many teachers are able to determine how to write in their content-area with little direct literacy instruction through mimicking, reading, or based on their motivation to learn in that content. However, because they have not experienced modeling in writing instruction, this sense of self-efficacy they hold as writers does not often transfer to efficacy in teaching writing.

**Writing instruction.** To add depth to preliminary data about teacher self-efficacy in writing, collected from the blogs, it was also important to have teachers define their
current writing instruction. I used this data to determine how these teachers enacted writing instruction in their classrooms as a comparison to the writing artifacts they turned in and as baseline data for comparison of their definitions of writing instruction during and after the implementation of the intervention.

Because self-efficacy is not about confidence, but about perceived abilities, it is important to understand how teachers view themselves as writing instructors, what they think writing instruction should look like in their classrooms, and how they are able to apply their beliefs in the classroom, producing mastery experiences. Daniel wrote:

I really think I am pretty effective as a writing instructor in English. I think I can pull prompts and writing topics out of the literature that really lend themselves to writing and not classroom discussion. Students have more time to think about the questions and make more cogent arguments. Many of the writing assignments I do in my class are to look for good thinking—good writing is good thinking. If a student is showing me they are really thinking but don’t have the tools to show it through writing then I can work with that student. I think I would be unable, however, to teach writing without relating it to literature. Many times I see students unable to write well simply because they have not made a connection to the literature and are unable to get excited about the accompanying writing. So, in regard to teaching writing without it just being them thinking about what they’ve read, I teach writing poorly.

I present Daniel’s data here as he wrote it; it was as if he talked himself out of his self-efficacy as he thought through the actual process of teaching more than literature response in his class. Calvin wrote:

I see myself mostly as a moderator when it comes to writing. Yes, I choose the prompts and offer a brief 5-15 minute introduction to any writing they do, but the vast majority of my time as a writing instructor is spent observing writing and offering suggestions for improvement. Writing is, despite its complex nature, a very simple thing. The most effective method I have found is to get them to write a lot. Beyond that, most writers are in such different places that broad swaths of instruction are less than effective. Ideally, writing instruction would work one-to-one with a student over a long period of time. Further, I believe that writing instruction should be useful, that it should emphasize that every type of writing
should be creative, and that most teachers have no idea how to help their students write beyond general instruction. When teaching classes of 40 students, the level of intimacy that good writing instruction requires is difficult to achieve. The workload is just too great for it to be done as well as we’d like. Because of this, my current writing instruction has a focus on practical writing, journaling, written responses to reading, the 6 traits of writing, and by reading and editing what students write. We cover generic topics like argumentation and figurative language as a class, and most of our grammar instruction happens along the way as errors occur.

Calvin’s response suggests ecological factors such as class size and workload, while hinting at a frustration because of the disconnect between what he would like to do and what he can do given these ecological constraints.

JoAnn’s answer was very discipline specific. She reflected:

As a science instructor, I believe it is my responsibility to increase students’ science literacy specifically, and demonstrate the interconnectedness between science and language arts in general. In my experience, this approach allows students to appreciate the relevance of literacy (general and content) as well as reinforce and enrich scientific concepts. Students need to learn specific writing skills for science (ex. being able to write a lab report, being able to write an effective argument). Additionally, I believe it is essential to recognize the importance and relevance of their general language arts classes in helping them to be successful science students. This practice legitimizes the instruction of both subjects to students, which may help with student motivation. As far as my instruction goes, I currently teach parts of speech, etymology, and vocabulary. I also teach students how to use evidence from informative texts to support their conclusions. Finally, I model to my students and let them practice how to write the different parts of a scientific lab report.

In contrast, Tara, who also teaches science, related:

I don’t think of myself as a writing instructor. However, I do believe that writing in science is very important and that it needs to be taught in the science classroom. But, I don’t do much instruction about writing. The little bit I do is mostly through modeling and I try to give at least one writing activity every unit, but it’s rarely scientific writing.

The contrast in Tara and JoAnn’s answers is notable, especially in relation to their statements of how they were taught to write. Tara did not remember receiving any
instruction in writing, whereas JoAnn had a rich and varied education in writing. This contrast eventually played a part in their focus group sessions and provided rich data about self-efficacy and writing instruction because of the comparison.

In social studies, James felt he played two roles as a writing instructor. In his AP class, his self-efficacy was high and in his regular education classes, his self-efficacy was low, confirming definitions about self-efficacy being task specific. He wrote:

One aspect of my teaching assignment, AP U.S. History, forces me to assume the role of a writing instructor. The AP test uses a rubric that focuses student writing on writing thesis statements, organization, evidence and detail, analysis and complex thinking, and basic conventions. One of my main responsibilities is to make sure my students can write according to the rubric. I have tried to teach my regular students a similar rubric, but often get frustrated by students’ limitations and abandon the task. Students need to KNOW details to write historically and when students struggle with basic facts, their writing becomes unbearable for me to read. As a teacher, few things make me happier than great writing from students. At the same time, poor writing invokes feelings of sadness and despair, which discourages me to assign more writing. However, I need to repent because I know that writing is essential to the social studies discipline. It’s not a coincidence that my best thinking classes have also been my best writing classes.

James is often noted as one of the best writing teachers at this high school for the work he does with his AP students; however, James maintains that his success is attributable to the AP format, the common assessment and rubric, and the training given at AP conferences in knowing what is on the test. He laments that there is not a state test in his content-area that would motivate him in the same way for his other classes. He believes that rubrics are an essential part of his writing instruction, stating:

I teach writing in my subject area by introducing the rubric usually on the second day of class and then assigning the first essay shortly afterward. I have students evaluate their first essays and try to have them take ownership of their own writing. I assign an essay usually every other week and require students to schedule writing conferences with me to discuss their work. Most students can understand where their writing falls on the rubric, but often struggle knowing how
to make their writing better. I wish I could do a better job identifying strategies for student improvement.

This statement provided one of the first pieces of insight about the teachers’ need for manageable ways to assess writing in order to take the intervention seriously. Additionally, this statement was the first of many wherein James voices frustration at the variety of writing abilities in his students. As an AP teacher who also teaches regular education social studies classes, he felt empowered by the AP model of professional learning, which was similar to the model of learning involved in this study. Yet, he struggled to transfer this kind of teaching to his other classes and was unable to find methods for teaching that worked there, which demonstrates variability in self-efficacy related to context and task, an important thematic element of this study.

As evidenced by the teachers’ written reflections, all five teachers had varying perceptions of their own self-efficacy and ability to enact effective writing instruction in their own classrooms. The majority had not had what they would consider good models of instruction and felt, for the most part, that they had taught themselves. Their experiences ranged from JoAnn’s high perception of efficacy wherein she had experienced rich and varied writing instruction, to Tara’s low perception of efficacy wherein she had experienced “no writing instruction,” with degrees in between wherein Daniel and James recalled one teacher who taught them a portion of writing, and Calvin who recalled learning to write from reading. Further, all claimed responsibility for teaching writing in their subject area, but the majority did not feel prepared, supported, or able to do this in the way they had defined good instruction to be. Additionally, though they did claim this responsibility, the specific parts of writing for which they felt
responsible varied from person to person. Tara claimed that middle school teachers needed to teach grammar better and James validated much content-area literacy research when he said, “I love the content more than the students. I often have an academic mind first and then a teaching mind.” From these reflections, it is clear that efficacy and its effect on perceived ability to instruct are an important construct when determining why teachers have difficulty implementing effective writing instruction in their own classrooms.

**Content-Area Focus Group Sessions**

Blog posts were completed 2 weeks prior to our first research meetings. The data recounted in these blog posts served as foundational information for determining levels of self-efficacy, perceptions of learning about writing instruction, and the methods teachers currently used to enact writing instruction in their own classrooms. The next step in the research study was to meet in the first content-area focus groups to interview the teachers using similar questions, in order to provide further evidence of their answers, stabilize the data, and provide them with an opportunity to extend and reflect. Questions that informed these disciplinary focus group interviews were as follows.

1. How do (scientists/historians, geographers, political scientists, English students and scholars) write? What do (scientists/historians, geographers, political scientists, English students and scholars) write about? Why do (scientists/historians, geographers, political scientists, English students and scholars)? What are the uses of writing in your (science/social studies/English) teaching?

2. Please think of the type of writing experiences you had throughout your
school years. Overall, do you think you have more positive or negative experiences with writing? Will you please explain that? What experiences did you have with writing in your subject area?

3. Did you have any writing assignments in your subject area (science/social studies/English) that you particularly enjoyed or disliked? If so, will you please describe those?

4. Do you think of yourself as a writer? Will you please tell me more about that?

5. Do you currently incorporate writing in your instruction?

6. Do you see yourself as a teacher of writing in (science / social studies / English)? Would you mind explaining that?

7. How do you want to improve your instruction in terms of the types of writing assignments that you give students?

8. How were you taught to write in (science/social studies/English)? What methods do you find are effective for helping you write in science?

Data collected in response to these questions served to validate data from the blog posts as well as informing methods for implementing the intervention. This data also influenced the selection of reading assignments given to teachers in advance of the first meeting to immerse them in the research topic of writing instruction and the intervention and to orient their thinking for the implementation of the intervention, while also helping me to determine more exact methods for implementing the intervention.

The intervention was implemented during the focus group sessions. I met with teachers in their content areas to assign the reading, discuss their blog posts, and to
determine what they already knew about scaffolding writing instruction. Through questioning, I also determined what their knowledge was of scaffolded writing models or what kind of scaffolded instruction they performed in their own classes. At these initial content-area meetings, I assigned the readings listed in Table 4 to be completed before the collective focus group session to follow the week after. Findings of these content-area sessions are presented through subheadings of the study’s dominant themes of self-efficacy, writing instruction, and the intervention.

Narrative data collected in the disciplinary focus group interviews addressing teacher’s perceptions of self-efficacy was that the majority had a negative view of their ability to deliver effective writing instruction. As an example, of 36 data pieces coded for self-efficacy from the first three disciplinary focus group sessions, 29 relayed negative messages of self-efficacy in either learning to write, or to teach writing in their own classrooms. These views were based on their perceptions of their own experiences and learning with writing, which signaled an attention to social cognitive theoretical implications but also to environmental constraints that have pragmatic and ecological theoretical implications. Analysis for theoretical implications will be given in the next chapter.

**Self-efficacy perceptions as influenced by experiences as a student.** At the beginning of the content-area teacher interviews, teachers recounted in more depth their formative experiences in learning to write, before recalling issues in their current situation that were affecting their ability to teach writing. Reflecting on her experiences in high school, Tara stated:
I don’t remember being taught to write. Honestly. I don’t remember being taught to write. I remember doing writing assignments but I don’t remember the process of being taught to write and I remember in college having to write a lot and doing lots of lab reports, and I remember having to teach myself. Looking at examples and trying to figure out from those. Scientific journals and those sorts of things and I just remember trying to make mine look like that. I don’t remember anyone telling me how; I just had to figure it out.

Calvin concurred when speaking about his own experiences learning to write.

I don’t want to say I didn’t learn anything in high school, but, it was never shown to me, and the feedback I did get seemed so subjective based on that teacher’s opinion and whether they were having a good day or bad, rather than something they could teach me that I never really paid much attention to it, because it was just a few written things on your paper, and then you moved on.

Daniel had a much more direct and simple response. He said, “in regard to writing, I didn’t learn anything in high school.” In James’s discipline specific interview, he recounted:

I would say my social studies education was really sub-par, in high school. We didn’t write at all. Our teacher would dictate verbatim notes on the board, and we would copy them, and then our test would be just regurgitation. I never really wrote in my high school social studies classes. However, to be honest, I was fine with that. Give me some basic knowledge, give me a multiple-choice test, and I can rock it. I can rock it hard. I was actually a science-math nerd in high school. I can honestly say it wasn’t until college that I figured out the importance of social studies. It wasn’t until I got to college that I took some history classes and saw that social studies can be taught differently. That’s when I really began to figure out the art of social studies, and the arguments and how exciting it could be. That’s probably where I learned how to write. It was a couple of history professors who were able to coax better essays out of me, but they still didn’t teach me how to teach writing, they just helped me to be better. Their method for teaching was kind of the embarrassment method, I think, is what you might want to call it. But, they never really had direct instruction. But they would give back essays and say, “Your prose is horrible. You want to kill somebody with that.” I’d re-read it and they were exactly right and I was mature enough to understand what they meant.

The other participants shared similar ideas in both their blog posts (as have been shared) and in statements about their preparation to teach writing. Calvin recounted, “as a
preservice English teaching major, I was taught to help my students analyze literature, to prepare units on teaching novels, and to do some direct grammar instruction, but as far as writing instruction is concerned, we really only learned about the 6 traits.” Daniel mentioned that in English he felt he was never taught how to teach writing, even in his preservice teaching pedagogy classes, and that “it was only in my science classes that I took for my minor, that I learned how to write in a discipline. But even then, that instruction was about teaching me to write for science, not to teach others how to write.” Both agreed that it was almost a given that because they were majoring in English, “we already knew how to write and could therefore teach it.” JoAnn’s comment provides the contrast:

From what I put on the blog, I feel like it was a multifaceted process and first of all we were split into groups, like reading groups, starting in Kindergarten, we were tracked through the whole process, it was really scaffolded. We were taught the parts of speech and writing and how we put them together as a whole and my father and mom never dumbed down their speech for kids and they talked to us like adults and our vocabulary was always really up there in comparison with other kids ad they would always proofread my papers and all of those things and they encouraged journaling and entering essay contests and they had me write a letter to the editor and so at home there was always a lot of reinforcement and then really good teachers who broke things down and then put things together for us. And, then, I do remember clearly in fifth grade, there was some state writing test that we had to take and we were being prepped for that and I remember being given instruction in how you write this kind of essay and we would get grades and feedback on how we would do that. And we got lots of instruction and scaffolding and feedback to prepare us for that exam and it was, yeah, pretty comprehensive.

Concerning writing instruction these teachers had received as students and in their preservice teaching programs, all but JoAnn felt that they had had poor models of formative writing instruction that did not build their self-efficacy in teaching writing in their classrooms.
Like James’ experience, a marked contrast in many of the teachers’ development as writers was the kind of writing instruction they had modeled for them in college. These models served as a way for them to conceive of effective writing instruction but ultimately were hard for them to transfer to their own teaching. JoAnn related her memory of learning to write in college.

I remember in college that they broke everything down and gave us guidelines and again it was really structured. How do you write a scientific paper? My technical writing class was wonderful. Actually my husband was a business and computers major and one of his favorite classes was a technical writing class. And the way we were taught too… I remember we all had different majors and the teachers had us write from the perspective of whatever field we were going into and everything was based on what are you being trained to do and what kind of writing you would have to use in your profession and maybe I just lucked out, but that’s how it was.

Tara was excited to recall that there was a class during college where she actually began to consider writing in her teaching.

I remember having a really great writing in the content area class and we did a lot of things with literacy and coming up with reading and writing activities and feeling like it was one of the most productive classes I took while I was there, but when I got into the classroom, it was so difficult to figure out how to translate this into my own instruction with everything else I had to do and having never really seen it done at a high school level. It was really a disappointing experience for me as a teacher.

Calvin mentioned, “I never considered myself a writer, and then I won. I had a teacher that made me enter something I had written in a contest and I won. So that was success. I had written some marketing stuff for a couple of companies, and as well, and when they pay you to write, that helps too.” Daniel also had a more positive experience in college, and expanded on comments he had made before.

I had some really good professors, and I don’t know what they’re called now, rhetoric associates, tutors or whatever, and I respected them because their
comments were pertinent. I thought they really improved my writing that way, because I was horrible at first. And then, I would go to those rhetoric associates and they were able to go over my papers and point out some things. They were really pertinent and I really liked it. And if I have to go back in all the writing I had to do in biological sciences in college that organization and that structure helped me in my English essays just because I got structure and I’m glad I got all of that training where I could put down my thoughts and then be organized, it helped me that cross disciplinary activities were used.

Their statements confirmed much of the research about self-efficacy. It seemed that when they had good models and could envision how to do something and then enact it, having a mastery experience, they were better able to perceive that they could write. So, these experiences improved their self-efficacy as writers in those situations. However, because writing is complex and situational and these experiences were about them as writers in one context, it was hard for these teachers to translate this self-efficacy to their own writing instruction.

Self-efficacy and ecology. In addition to their perceived lack of models for teaching writing, another major issue was time, which affected all teachers’ perceived ability to teach writing, even those with high perceptions of their own self-efficacy in offering effective models and strategies. Each teacher taught 5 hours of a 7-hour day, with each class lasting 55 minutes and a shortened class time (40 minutes) at least 1 day (sometimes 2) a week for professional learning and student activities. Tara stated:

There’s not enough time in my curriculum, but even if writing is mandated, I don’t know how to teach them because I wasn’t taught myself. I don’t remember being shown how, I can model it and they watch me write, but I see all of that which is why I don’t do much of it because I don’t know how to do it. I assign it and they do a lot of writing to learn to demonstrate, but other than that, I don’t really know where to go.

Calvin and Daniel’s content-area focus group interview revealed that they had similar
views to Tara about time they were given, both in the curriculum and during the school
day, to teach writing, which had an effect on their perceived self-efficacy to teach
writing. They had the following conversation.

_Calvin:_ We have so much that we try and cover that nothing gets covered in
depth. If you do, you feel like you are doing it at the expense of something else. It
shouldn’t be. Part of it I think is because we focus so much on content. Not the
analysis of content, but getting them to get the basic idea of the book that we’re
reading or to just follow the plot.

_Daniel:_ …and to teach writing like it should be taught, I can’t. It really bugs me.
The frustration is I spend the class period helping them to figure out the act or
scene, whether it’s in the text or parenthetical, yada yada, and then give them an
assignment to analyze it and we’re out of time for me to model or scaffold for
them, we have to get to the writing lab and then they do it wrong. I would like to
go with more of the let’s develop as we go, but then, two days later, they hand it
in to stay on schedule and I figure let’s go on because it would be too big, too
much to just go back and fix everything I did wrong in not actually teaching them.

_Calvin:_ That’s exactly the way I am, though. There’s so much, I can’t do all of
this, so I end up doing nothing really.

_Daniel:_ Part of the problem is that there’s so much to do and so little time that…

_Calvin:_ We always feel restrained and like we really can’t teach writing…

_Daniel:_ We just don’t have time.

Although, time to instruct writing well was identified as having an effect on their
perceived self-efficacy, it was always intertwined with negative statements about their
ability to negotiate time and to know how to use that time to teach writing with the
knowledge of writing instruction they had.

James’s interview revealed similar misgivings. He lamented his ability to
implement effective writing instruction due to the lack of skills his students had and the
size of the classes he taught. He stated:
Because if you assign writing, and they are still struggling with the nuts and bolts, they don’t have the building blocks. They can’t build a building, which is what your essay actually is. It’s doing something with these events. I think that’s where...You give a writing assignment and you get such drivel back, you basically give up and just focus on events. Now, what is amazing is what little writing you can do in social studies. Social studies can be writing heavy and at its best, it is, but it certainly doesn’t have to be. Certainly, when you have large classes, teachers shy away from a very heavy writing load. I know I do that myself, so I’m not blaming my colleagues or anything like that. But, a typical class size for me this year is 36 to 44. I have an AP class with 43 and another with 35, and AP is a writing heavy class.

James was not the only teacher who struggled with large class sizes and a variety of ability levels in the students in his classes.

Class size had a major effect on teachers’ perceptions about their ability to offer writing instruction. James also taught three sections of 11th-grade history with no sections having fewer than 35 students. One class in particular had 35 students and 23 of these students had failed the semester before. Daniel taught a senior-level Shakespeare class with 52 students, while his four other 11th-grade English classes had no less than 36 students, and Calvin’s five sections of 10th-grade English all had between 32 and 38 students. Tara and JoAnn fared no better in science. Tara’s classes ranged from 30 in her AP Chemistry class, to between 34 and 36 in her four sections of tenth-grade Biology, while JoAnn’s three sections of ninth-grade Earth Systems Science and two sections of tenth-grade Biology had similar numbers of students. In considering class size, even JoAnn expressed frustration at her inability to teach students who didn’t come into her class with a solid skill set in writing. All five teachers maintained a perceived lack of efficacy in writing instruction with statements like, “I cannot teach writing in this environment” (Daniel), “am not able to envision how to give writing strategies to a large
class of students who can’t seem to write a complete sentence” (Tara), “can only assign and give minimal feedback and I know I could do better, but am not sure how” (Calvin), “would love to find ways to actually teach students who struggle to write well so they could learn in my discipline, but I just end up not giving writing assignments because I don’t know how to do this” (James).

**Self-efficacy and inservice teacher training in writing.** These teachers had not only seen their class sizes grow in recent years, but the demands for writing instruction had increased. With the adoption of Common Core writing initiatives, all five teachers had the opportunity in the summer and fall preceding this study to attend five extended, day-long sessions on improving writing instruction and integrating it into an already full curriculum. Calvin and Daniel both characterized it as “a waste of time,” an “attempt to sell books published by the author in charge of the classes,” and “something that, even if it had been effective, wouldn’t negate these time issues, because nothing will change with my classroom size, and my administrators’ knowledge of how to support me as a teacher.” Tara and JoAnn shared similar misgivings about these trainings, while James stated, “it’s not really about writing instruction at all. We’ll be held to these higher standards and they’ll say they trained us, but the fact is that we don’t feel any better prepared to teach writing in the complex environments we work in.” Tara said, “I still haven’t seen effective models of actually teaching writing, just some suggestions and book titles to buy.” JoAnn stated, “I’m still trying to teach the way I was taught from my high school experience, though it’s clear after listening to Tara’s experiences, and yours (the interviewer), my education was unique.”
All but JoAnn shared misgivings about the instruction they had received as students, some pride in being able to overcome that and write well in their own schooling, and frustration that their students could not do the same. So, perceived self-efficacy in teaching writing was affected by effective models for teaching and time for including writing in the classroom.

These interviews unearthed solid data about these teachers’ low sense of efficacy whether due to their own perceptions of ability because of lack of training or their ability to instruct because of pragmatic or ecological considerations. These findings are significant in contrast with the ways these teachers defined how writing should look and instruction should occur in their classes in their blog posts. Data in the following section extends the contextual issues in this study affecting these teachers’ sense of self-efficacy. Whereas data in the previous section was categorized under the theme of self-efficacy because it was about the teachers’ personal experiences with writing or perceptions of their classrooms and their role in teaching writing, data in the next section was included because it is about their students or writing instruction that is currently happening in their classrooms, thus it is less perceptual and more concrete.

It is clear from the findings in the next section that they have an idea of what effective writing instruction should look like. In the context of this study, it is important to note that these teachers do have an awareness of their responsibility for writing instruction in their discipline and a fairly clear idea of what it should look like. This is in contrast to much prior research that has addressed teacher inability to implement writing instruction as either being attributed to resistance because content teaching takes
precedence or neglect because they believe it is the job of elementary teachers or English teachers. However, the data in this study demonstrate that they do have an idea of effective instruction and a sense of their responsibility for teaching in their own content area, but feel unable to offer this instruction because of lack of self-efficacy or ecological issues.

Writing Instruction

Statements about writing instruction, their expectations for writing, and issues with both their students and their writing instruction follow in the findings for this section. Categorizing the data in this way provides a contrast between the teachers’ perceptions of their environment and abilities with statements about the reality of their instruction and what issues they are having. These statements were used to get a more nuanced understanding of their self-efficacy, while also informing more specific ways for implementing the intervention. Similar to self-efficacy, statements about writing instruction were framed by more negative examples and tone; teachers were better able to define what writing looks like in their classrooms but found many reasons it didn’t equate with their vision of effective writing instruction. Often they blamed their students and other teachers’ instruction, rather than making statements about their ability to adapt and change for the task at hand, an important element of conceptions of self-efficacy. Because conceptions of self-efficacy are task specific, it is essential to understand the task.

Goals for writing instruction in content-area teaching. Teachers had a variety of ways to discuss the kinds of writing they expect from their students and goals for their
writing instruction. Tara expressed dismay at the low grammar and writing abilities of her students but still felt a responsibility for teaching some science writing and said simply, “nobody else is going to teach my students to write scientifically.” JoAnn said she sees the same issues with grammar, and is surprised at how little writing her students have actually done. She feels responsible for sharing the burden of grammar instruction and tries to use the academic language of “noun, verb, pronoun, all the parts of speech, and to label them with the students to show that what they are learning in English isn’t isolated, but necessary for writing in science too.” Her writing instruction also focuses on “reading aloud with my students from articles in science and discussing what academic writing looks like, teaching vocabulary, providing model sentences, and then having them write short paragraph responses that we correct in class in an effort to get them confident with science writing.” James was conflicted about his goals. In his AP class, he sets goals that match those of the AP exam: writing essays, reading and using a rubric, providing ongoing feedback and helping students to use their writing to demonstrate what they are learning in their class. However, when he tried to articulate what his goals are for his other classes, he said:

I wish I knew. I wish it could be like AP, with a clear exam and other expectations, but I can barely get them to write complete sentences and there is such a wide variety of ability between my two courses and within my two courses, it’s very difficult to plan for my regular education students. AP is easy because I’m trained by the College Board, but when it comes to teaching students who don’t know how to write, it’s not a skill set I possess. And often, in my department, I’m the only one even trying to teach writing, so my students are really upset that I’m asking them to write. In fact, in my department I’m not even seeing them assign writing, let alone teach it. They think it’s happening in the English Department and I say that yes, they are doing a fine job, probably for their subject, but it isn’t translating when they come to my class.
James also had defined ideas about the purposes for writing in history and claimed responsibility for teaching writing about social studies as his own, much like Tara and JoAnn had done for science. He recounted:

In history, you are trying to get them to communicate something stronger about their understanding than just a list of dates and people—even though that happens in most history classes as an indicator of learning, because it’s easier to teach—at least in my college history classes, we weren’t just learning to think about history, but to think more about the argument and how to use rhetorical tricks to make our argument sound better than it actually was. You’re arguing for an interpretation of the past. There are certain events that, we know that they happened, but what we are always arguing is how important were they? Was that the significant event leading into the American Revolution, or was it something else? What we’re arguing is, what role did these events have in how the past occurred and what it means to us today? Which is a much more complex approach than if I just have the students list dates and names for you and almost, then, say to you, “This is exactly how it happened.” To put these events in order, and analyze why that order, is certainly a better indicator of learning. You can’t write history without knowing the events. I think that’s why social studies can kind of devolve into a recitation of names and dates and events. And, I think that’s why most of my students struggle because they lack content knowledge and to top it off, their writing skills are weak. Their other teachers in social studies aren’t teaching them to write, and I’m not sure where to begin if you don’t have much of a skill set coming in to my class.

Because both Tara and James had expressed ownership for writing in their own discipline as a demonstration of content but some dismay over the writing skill sets of many of their students, particularly in the grammar preparation of their students, I was interested to see how the English teachers conceptualized their writing instruction, because an implication from the science and social studies teachers was that it was not their job, but that of the English teachers, to teach grammar.

When Calvin and Daniel were asked what writing should look like in their discipline, they began with general commentary on what they felt writing should be in their disciplines and then began discussing grammar almost immediately thereafter they
said the following.

**Daniel:** I would say to show me that they’re thinking about what we read. I think I said that in a blog post, because I think good writing is good thinking, and good thinking is good writing. If they can show me that they are thinking about the piece of literature we read, then you’re showing thinking, and then I can work on the writing after the thinking because the writing process is the thinking process, so if you can get them like force them to keep writing past what they normally would, then they do more thinking than they normally would. So it builds on itself. The problem comes when they can’t communicate their understanding. So much of it [grammar] they know, but they aren’t capitalizing “I” and you’re just like, “Really?” you don’t need to be taught that and that bugs me. But my goal is to get them to write and not sound like an idiot. That’s communication skills. That’s an ideal goal, too. Ideally, you teach them to communicate well, but, I think, it realistically ends up being a lot of completion stuff, and it ends up being volume. A lot of the grades you grade, you’re just, “Oh, I’ve written this much,” so check.

**Calvin:** I’ve taught grammar separately and within writing instruction and the only thing that I’ve done with grammar that’s worked is when we pull bits from their essay up and go over them as a class and then talk about what they’re doing wrong and why it’s wrong. I still try and do it the other way every year. I lecture on parts of sentence and they remember it somewhat, but, again, it’s like citation length. More than anything, I think they just need to know…except it doesn’t work quite that way because you have the foundation to go back to. I never used grammar until I got to the grammar test that I had to take. I learned it and then I never had to use it since because everything I’ve learned I just learned by reading it. If it sounded right, I left it and I went back and changed it if it didn’t.

Both Calvin and Daniel mentioned methods for teaching grammar but some dismay at their perception that is was solely their responsibility. They, along with the other teachers, maintained that often the problem with their classroom instruction was the students and their low expectations of themselves as writers. These separate content interviews indicated all five teachers’ discouragement in teaching writing combined with a lack of awareness of what other teachers in the school were teaching, in regard to writing.

**Variations in student ability during writing instruction.** In addressing issues
they were seeing with their students and writing instruction, Daniel and Calvin

conversed.

*Daniel:* When you go to conference with a student, and then you hand it back and say what’s wrong with this, and that’s all they fix, though, when they’re not interested in becoming better writers if you say we’re going to do our paper twice and fix things and then it’s like, “see, I fixed this comma splice.”

*Calvin:* Then, that’s all they go for!

*Daniel:* Yeah, they don’t want to be a better writer. They just, “See, I fixed this one thing.” But, again, the hardest time I have is engaging them in the literature. Half of them haven’t read, so how are they going to write about nothing?

*Calvin:* And those are the essays I get, even when I thumb through them and ask the student, “What did you write about here? Again, half the days they are just writing about whatever is on their mind, like, “I’m so hungry. What’s for lunch?”

*Daniel:* And in that case, they’re writing, it’s true, but they’re just not taking it seriously. So, now when I’m reading papers, I’m usually looking for more ideas in structure and content and then it seems grammar is something separate. I can’t read…maybe it’s my mental lack of acumen but I can’t read for comma splices or anything like that anymore because of what I just described. It just slows me down so much that I just halt and I have all the papers to get through, and then I’m just skimming. I’ll circle non-capitalized letters at the first and things like that that are real quick but other things I really can’t read for.

Tara had a similar statement, “They don’t know the difference yet, maybe in my class, that this is formal academic writing. When they start out sentences with ‘look’ or ‘well’, it’s like, now, they need to know the difference so that you’re not texting.” JoAnn

somewhat agreed with Tara that her students didn’t know the difference, but went further by saying:

And that’s my responsibility. When I read with them and write with them, I’m trying to point out what academic writing sounds like and I’ll even do some comparison/contrast stuff with their regular language. I find when I teach them how to do it and they read examples, that they become more motivated because they feel they can do it. They start making less mistakes and start sounding like they can write for school. I think they want to be better writers, but they often don’t know how.
James’s position was much like JoAnn’s. He struck a balance between critiques of student skill and the kinds of thinking most high school students do, demonstrating a knowledge of development in adolescent learning. He stated:

I have kids that are technically pretty proficient writers but their ideas are very simple and I shouldn’t be surprised. They are high school kids, so the hardest thing is to get their ideas on paper. Because technically they can write efficiently. And it’s informative writing as a genre and all their writing tends to lead to this. And it is an entry level chance...one of the things I think they need to be better writers is maturity. That doesn’t necessarily coincide with academic skill...so it’s difficult, to say the least, and I’m starting to have a little more empathy for my high school teachers and the instruction, or lack of it, that I received.

All five teachers had ideas about the kind of skills that are involved in writing well, and they made comments on both product and process. Clearly, the majority were frustrated with a lack of grammar skill in their students and weren’t sure how to mediate this and still teach the other parts of writing, such as process and content for writing, that would make their students better. Only James and JoAnn provided insights into the complexity of this task, which was opposite of Calvin’s statement that teaching writing should be simple. These conflicting ideas were a mark of the confusion present at this early stage in the research study.

**Teachers’ ideas about effective writing instruction.** Because the focus of the study was on the teachers and not their students, I tried to consistently direct the interviews to questions about what teachers thought their writing instruction should be and how they perceived of their ability to fix the contextual issues they were articulating. I also wanted to discover if their frustration was rooted in their ability to conceive of effective writing instruction combined with their belief that they were incapable of
producing it, which could lay a foundation for the implementation of the intervention.

Calvin related:

Teachers feel like it should be this simple process. It is a simple process because it’s just communicating an idea, but there’s so many different parts. I feel like my writing instruction right now is just scattershot. You just shoot whatever you think of in the moment and hope that it helps because there’s so many things wrong with what they’re doing that you don’t even know where to start…but, really, it’s the one on one, though, that you need. Like really, you just need somebody to sit down with you and your paper and go over what you’re doing wrong, because a lot of the stuff doesn’t need to be written down. A lot of stuff’s hard to write down, but when you can talk them through what they’re doing and say, “OK. Your transition here doesn’t really make a lot of sense. You could try something like this or this,” where like that takes 10 seconds. And, if you wrote it down, it would take you another 45 minutes just to write that much, and then they probably can’t read your handwriting.

This statement demonstrated evidence of a need for a better, more explicit model of writing instruction, while also informing adaptations to the intervention to include a portion of the teaching on assessment.

JoAnn discussed concrete ways that she has adapted her writing instruction to help her students when she has found that they arrive with a skill set that doesn’t match her expectations:

I started out with grandiose plans and I’ve actually had senior level classes and even taught an honors physics class my first year and I gave them a website and it told them what is in a lab report and they had to look at it and write it up. And it didn’t work. They struggled. So I’ve broken it up since then and especially if I’m teaching freshmen in high school…. I model for them, and say here are our questions, our hypothesis and they are writing along with me and we write it up together and they have that example to go on. You know the hope is to build up to where they are doing it on their own. And I use a lot of articles in my classes and we read them together and they have to seek evidence from the text and use it to support what they are doing. And we are going through it twice this way and they have to re-read to support and then we go back and write on their own. And I try to emphasize as much as I can good grammar and writing complete sentences because that seems to be something that was lost and I remember being drilled as a student…this is how you write a complete sentence, you go back to the question.
and you reword it and you say…. And it seems like my students have not heard anything along those lines before or they’ve forgotten, so instead of being upset, I incorporate it, I teach it, I require it.

After listening to JoAnn, Tara commented:

I rarely have had them do scientific writing. They are rarely doing lab reports. I have them respond to at least one writing prompt each unit because I think they learn a lot by having to write, having to put it down on paper and see if they understand. Just short prompts and answering questions, but that’s it, and that’s no more than a paragraph or two at a time, just getting them to explain, but I’d like my writing instruction to help them to write similarly to what you would see in a scientific journal: intro section, data, discussing your data, drawing conclusions, etc. So just having the different sections and what went into it and how to format it and present it. I remember writing a lot of those in college, in my upper level years, especially in chemistry classes and they were quite lengthy. I’d like my students to learn to do the same thing.

JoAnn then mentioned similar requirements in her goals to teach scientific writing. She stated, “I think of it as telling the story of the scientific method, basing your arguments on the evidence that you get, where you started, what was your thought process, and now that we have this data, what can we make of it? What implications are there, what does it say directly?”

James outlined that writing was an essential way for his students to learn history that he could not separate the act of writing from the kind of learning he wanted for his students in his social studies classes. He related:

The way I understand writing in social studies is, for me, the basis is kind of the Benjamin Bloom’s taxonomy. What level of knowledge are you at? A multiple choice test is at that basic level. The best social studies are going to be higher up. Analysis, synthesis, and evaluation. To me, that evaluation part is the ultimate why. Why is this important, why should we know it? What value does knowing this event have in history? You really can’t do those upper kinds of levels without writing. That’s kind of the basis.

Calvin and Daniel shared similar expectations for their writing instruction. Calvin stated,
“It’s about thinking, right? Communicating your ideas and really analyzing and evaluating a text to show what it means to you, what it means to be in this world with others?” Daniel maintained the same conclusions, but added, “And it’s about process. I really want them to understand a process, to think, to organize, to be confident enough to evaluate their learning and draw their own conclusions. That should be the foundation…not this grammar stuff, not even this assessment stuff.”

Though these interviews occurred separately, with differing content areas, similar conclusions about writing instruction were reached in each content area about student preparedness, lack of formative models, the effectiveness of good models, and the use of writing for disciplinary learning.

The Intervention

The data collected in content-area focus group interviews afforded insights about the implementation of the intervention. These interviews demonstrated that four of the five participants had low self-efficacy perceptions of themselves as both writers and writing instructors. Though they all recounted some positive experiences, the majority of their experiences left them feeling as if they could not adapt their writing instruction to the reality of their situations as teachers with little time, large class sizes, and poor role models. Data about their perceptions of good instruction came from the positive models they had experienced. They were able to recount positive experiences and then operationalize this in the ideas they had for their own instruction.

As a result, I determined it was important to implement the IMSCI writing model by having them read the original article (as assigned at these interviews) and about
literacy in their content area. I felt this would be effective because all of them had mentioned learning about teaching from reading and it would attend to a dominant form of learning all had acknowledged. Additionally, because they lacked models in writing, I determined that my proposed plan to walk them through the model and instruct them in it step by step (with separate steps occurring at each session, sometimes with a two week break between sessions) as they went would probably need to be modified. At this beginning stage, I felt that they needed to see it holistically first and experience some success with it quickly. I adapted the implementation of the intervention to still include a session-by-session in-depth discussion of each step but also include modeling for them each time with shorter lessons that they could use to lead into longer unit based lessons. This was an important modification due to their expressed concerns about time and numbers of students. I wanted to show them the flexibility of the model, especially as the published IMSCI article showed a unit approach to implementation.

Implementation of the intervention began at the first collective focus group meeting. All teachers were asked to read their required articles prior to the meeting and then we used those as a foundation to the inquiry phase in discussing purposes for writing in the discipline areas. Finally, the teachers experienced IMSCI as we engaged in argumentative writing. More details about the logistics of the implementation are included in chapter 3 and data collected about the teachers’ perceptions concerning the themes is presented in the next section.
Implementation of the Intervention

I begin this section by sharing data from the article discussion portion of the training session, which comprised the first collective focus group session. The questions that served as the foundation to this focus group session were as follows.

1. How do you write?
2. What do you write about?
3. What are the uses of writing in this school?
4. How is writing taught at this school? What methods are effective for teaching writing?

At this point, it was the first time all five of the teachers had worked together, and though all of these teachers had worked concurrently at the same school for the last 4 years (some longer), they did not have close relationships outside of their departments. Tara and JoAnne taught together in science and also did things together socially outside of school. Daniel and Calvin taught together in English, but did not socialize outside of school unless it was a professional learning opportunity. Finally, James was closer to Calvin than the other teachers because Calvin’s closest friend at the school taught in James’s department and they often all ate lunch together, but that was the extent of their associations. At faculty meetings and socials, teachers stuck with their own departments and rarely had the experience of talking outside of those.

Though they were open and friendly in the content-area focus group sessions, they began this collective focus group session guarded and less quick to talk and share. They would raise their hands to speak, defer to others and seemed more nervous about
their answers. This was an interesting phenomenon to me because much professional learning and content-area literacy research suggests that there needs to be more opportunities for teachers to articulate to others what they do in their content area, to meet cross curricularly and from these meetings have a better understanding of what is happening holistically in a school.

**Immersion and Inquiry About the Intervention**

I began our meeting by having them discuss the articles and comment on the kinds of professional learning they have found beneficial in their careers. This was done to set the tone for our meetings, to establish a shared rationale for meeting as a community, and to build a foundation of understanding about shared perceptions of the IMSCI model and the study’s enactment itself.

**Reading Discussion**

All five teachers found the assigned articles to be useful. They felt that the content-area literacy article was a good assignment because it “got their head in the game” (JoAnn) and “made me familiar with the conversations other people are also having about this literacy content thing that I’m still trying to do better at implementing” (James). Their commentary on the Read (2010) article, “A model for scaffolding writing instruction: IMSCI” was also positive. Though they felt they could not implement it in the way that the article suggested because they are not in an elementary classroom and don’t have the kind of time they felt the participants in the article had, they thought the information was useful. I was glad for this because I was nervous to have them read an
article addressed to elementary teachers. My prior experience in working with secondary
teachers had revealed resistance to research or strategies that they found to be for
elementary teachers. Their responses in the group interview validated the reading
choices. JoAnn recalled:

I started discovering some of this on my own before we started this study, from
my own experiences…like when I modeled for my students they had less
questions, when I gave them time to talk to a peer, their confidence grew…and
reading this study and knowing that I’d get to participate in learning about this
more was really re-affirming to me and encouraging to me that I was on the right
track and I think before I was doing a lot of the steps but I think now, having even
just read the article and starting to think about who I am as a writing instructor, I
think now I’m highly likely to follow through to make it more structured, more
consistent throughout the year. I have something now to make things consistent
and to help me know I’m on the right track.

Tara concurred. She shared that “it was good to read this. I haven’t read academic
research for a long time and I liked learning about something so practical and knowing
that the reading was just my first exposure and that we were going to take time to talk
about it and try it, was kind of exciting to me.” James was less enthusiastic, but still
positive. He said, “it was weird to read about an elementary classroom doing a history
walk because I don’t think I’d ever do something like that, but even though the example
didn’t fit my teaching style, I really felt like the way they structured the instruction could
fit my style, especially with my struggling writers.”

Positive Perceptions of the IMSCI Model

James did not have a partner in his content interviews, but brought insights that
accounted for many in his department. As the department chair, he was responsible for
going his department members on board with the Common Core, especially the writing
initiatives. He had attended extensive training for the implementation of the Common
Core in the summer and felt the pressure of being one of the only teachers in his
department to use writing as a form of learning or assessment for students. He related:

I think it’s a very commonsense model, I don’t think there is anything that is earth
shattering or revelatory. Some of those things that are in there are things I’ve been
trying to do and in that sense, reading about this and knowing I’d be participating
in learning the process better, it was really self-affirming and it boosted my
confidence the way the AP conferences on teaching do. Finally, I felt like I had
some research to back what I was doing as I just winged it in my classroom and I
felt very effective all of a sudden. Also, as I think about what can help
students…we need to see models of writing. What if we got students together and
had them collaborate on their writing? And those things made sense to me as to
how to get that across and seeing that in a model makes so much sense. And I’m
not sure that every teacher has arrived at that on their own, so in that sense it’s
extremely useful to have a model that would articulate this.

As indicated in the data above, James saw potential in the model early on for helping his
fellow teachers to improve their writing instruction. Similarly, Calvin likened it to good
lesson planning around an objective, rather than just a product or too general instruction.
He said, “Anytime you’re patterning something after a model, anytime you’re not just
winging it, it helps. It gives you boundaries.” Daniel agreed, “I think that this would go a
long way to show a more balanced approach and help them to include both process and
product goals.”

**Perceptions of Effective Professional Learning**

As the discussion about the articles waned, I asked them about the types of
professional development that they perceived are most effective and ways that those
findings should inform this study. Calvin and Daniel had much to say about what they
found to be effective in professional learning and how this study would include that.
Some of their insights include modeling, sharing, and collaboration, ideas that are supported in the model itself. Their conversation follows.

_Calvin:_ It breaks down the barriers between departments for one. We don’t have problems with each other or anything. We just don’t go out and actively seek an opportunity to work with them. So, that’s helpful. It legitimizes what we’re doing and what they’re doing and gives both of us a way to improve because we don’t get to collaborate often…the logistical barriers are almost insurmountable because we don’t end up having the same students and we don’t have common prep hours. So, this kind of professional learning helps. Specifically, like we’re talking about using the same language. That was really good form. I thought I did it before this, but I didn’t do it before. However, as we’ve started looking at it, I plan to make a conscious point of trying to explain something and being explicit about language every time, like saying, ‘This is probably what they would call it in science. This is what they would call it in math.’

_Daniel:_ Yeah, you know why it’s effective? Because you’re using a research method in that you are questioning us all the time and getting our insights and adjusting and you’re basing it on what the research says works with teachers. It’s not just you thinking oh I should do this because it sounds like a good idea. That, and it makes it easier to plan because you have a set plan. This doesn’t happen often enough in school’s professional learning…here, it’s just like, oh, that teacher has a good idea about something because of a conference they attended and we have this meeting scheduled in like one to two weeks, let’s get them to do that so we don’t have to. That’s how our administration works. Last minute, no planning, no big ideas attached to research. It gets frustrating and hard to buy into.

_Calvin:_ This kind of conversational professional learning definitely benefits because…well, for one, anytime you’re talking about what you’re doing, it’s helpful. That’s been the most helpful thing with any professional development. It’s just that it gets you talking and thinking about what you’re doing. Like when you have a student teacher, it’s just the act of having to explain yourself that makes you better.

_Daniel:_ Because there’s this inquiry, immersion piece and there’s an emphasis on sharing and collaboration, well, then I think the IMSCI model in and of itself is helpful. And then, using that model to learn from where we are talking and inquiring into our practice while you model and share with us better ways to make it systematic, it’s the same thing. It’s so much more specific than saying ‘we just need to write more and here are some traits you can put into a rubric to make sure there’s some quality to the writing.’ Don’t get me wrong, the 6 traits is helpful and does increase the level of the conversation you are having about writing, but it’s not as helpful as this in connection with my writing instruction. This, the
IMSCI model, makes me have to think about why a genre is the way it is, why a mode looks that way, and you’re thinking about the writing process itself while you’re doing what you’re doing. In this case, specifically with writing and how you TEACH writing, it just gets you…I don’t know if it’s the end all, but it gets you to look at it. I think that’s the biggest benefit.

Calvin: It’s good because any time you can have a system, the kids remember it longer and there’s continuity. The problem with scattershot is they don’t connect the dots. You teach them to write, and they’ll probably get better with it, but they won’t know why they’re getting better and they won’t be able to keep getting better after you leave them. If you can give them a set of predictable steps that they can hold you to as a teacher and you can hold yourself to so that you know you are instructing, well then it’s helpful.

Having worked with both of these teachers in the English department, I had some idea of their resistance to many of the professional development opportunities that they had been given while working at this high school. Our conversations had never moved to the point where they could articulate what would be effective. It was interesting to hear their insights and match them to the research on professional learning that supports their claims, which are that having a chance to enact learning and have it fit within classroom instruction is beneficial. Additionally, both had expressed frustration at the many demands of writing instruction in their content area and the pressure from other teachers in the school that they were expected to do most of the writing instruction work. Their answers provided evidence that the theoretical claim of pragmatism held strong validity in the IMSCI model. Additionally, commentary on the benefits of cross-curricular and group talk extended the implications for self-efficacy improvement to those of collective efficacy.

James, Tara and JoAnn expressed similar views of what they found to be effective professional learning experiences. They maintained that they had to be experiential,
honor their disciplinary knowledge while also building cross-curricular connections, and have time built in for practice and feedback.

**Negative Perceptions of the IMSCI Model**

Calvin was hesitant to speak too optimistically about the IMSCI model though he had positive feelings about what he had read. Additionally, prior to his participation in the study, Calvin had been put in charge of professional learning at the school, so his critical eye turned to the ways it might not work. He was especially concerned about selling it too confidently and having teachers try to use it in their own instruction and experience frustration when it didn’t work as planned. He stated:

> It’s the same thing with any writing instruction. It’s not perfect and it doesn’t catch everything. It catches a lot, but it’s like with grammar instruction, some of us teach it one way, some of us another, and the kids have to be a little bit motivated to get it. Everybody does the best they can and hopes that it works, and the more we as teachers could be familiar with and tie it to research you can use, well that’s better…when I started teaching my grammar stuff more in line with research, it was much better but I still had to do a lot of work and there were still a lot of kids not getting it. The same thing with IMSCI. As soon as you start using it, I imagine it’s helpful, but it’s also not going to be because it doesn’t cover everything and you’re going to have to figure that out and still adapt. If people use it as the end all be all, then you’re in trouble again.

Daniel reiterated some of Calvin’s concerns. As the most veteran teacher of the group, he had seen many professional learning initiatives fail when teachers tried them and found that they didn’t really suit their practice or who interpreted the learning too simplistically and became resistant. He said:

> Perhaps it’s the issue with labeling the steps? It’s like labeling a student as somebody who…any label, I guess, with the students. Same with teaching. Once we label things, we risk being wrong and if teachers take it too simplistically and then for some reason can’t fill in the blanks, they might write it off altogether before trying more.
JoAnn, in her separate disciplinary interview spoke similarly, but extended this to its effect on students. She felt that there was a difficult balance in implementing professional learning to keep it simple so there would be consistency, but not so simple that teachers wrote it off altogether as if it didn’t apply to them. She maintained that this caused issues for students because they had to constantly do the work of reading their teachers’ varying methods for implementing instruction, which affects the way an instructional model is perceived as effective. She answered:

The other issue is probably trying to get some consistency with teachers so students don’t feel like they’re learning the same thing 50 different ways so they never actually figure out how to write. Like, I don’t have all the 10th grade students, and I don’t have all the students who other teachers who don’t teach writing will have, so some of them will have had good writing instruction and some will have had nothing and then how do you implement the model with all that variation in student ability? That’s another issue.

Their concerns were valid and in line with the literature on teacher resistance to content-area literacy integration and difficulties faced in implementing effective professional learning for teachers.

Data collected prior to implementing the intervention on the teachers’ perceptions of themselves, their writing instruction, professional learning, and the intervention itself was used to inform the way the model was implemented. Additionally, this data served as baseline information for comparison of the model’s effectiveness and theoretical implications both during and after the implementation of the intervention. Data presented in the next section will highlight findings from blog posts, focus group interviews and member-checking that occurred during the teachers’ participation in the intervention.
During the Intervention

At the beginning of the study, in the inquiry stage of the IMSCI model, my objective was to determine what the teachers perceived of themselves as writing instructors. This was done for two reasons. First, I wanted to describe their perceptions of their own self-efficacy to see if they aligned with what previous research contends, and second, to determine better how to implement the professional learning sequence about the IMSCI writing model with them. Data described in the next section follows the same thematic heading and subheading pattern as the before the intervention section, with major themes labeled as (a) self-efficacy, (b) writing instruction, and (c) the intervention and will include insights gained from blog posts, content-area focus group sessions, and collective focus group sessions. This section will include data from the second, third and fourth content-area and collective focus group interviews. Some data about the teaching the intervention and adaptations to the intervention are included in chapter three as information about the procedures for the implementation of the intervention.

Blogs

During the intervention, teachers were asked to submit two blogs: one after the first collective focus group session wherein we discussed the reading and began the implementation of the intervention and the second between the third and fourth group meeting. They were given the questions as a group and given the freedom to respond to them as a list in answer to each question or to combine their answers and present it as a narrative. The questions they were asked to consider for both blog posts were as follows.
1. Please describe what your writing instruction has looked like since our last meeting.

2. How is your writing instruction similar to what you have always done? How is it changing?

3. What are the successes you are experiencing and what limitations are you discovering?

4. What are you learning about yourself as a writer, and your writing instruction, as you have been participating in this project?

5. In what ways would you like to improve your students’ writing in your content area?

6. What would you like to learn more about in order to improve your subject area writing instruction?

**Self-efficacy.** Responses between the second blog post and third blog post indicated an increase in self-efficacy for those teachers who chose to address it. Because my hypothesis was that the intervention combined with the experiential and reflective mode of professional learning would increase teachers’ perceptions of their self-efficacy in writing instruction, I’ll share data first from the second blog post and then from the third when there was a change in answers from post to post for the teacher. Indicators of self-efficacy were included if they appeared as either as statements of the teacher’s perceptions of their writing instruction or as an attempt at implementing the model in their own teaching.

James’ second blog post demonstrated a small perceptual change in his self-
efficacy as a result of participation in the study. He stated:

Over the past weeks, I haven’t changed writing instruction in any major way. I hope this doesn’t sound like I feel completely solid as a writing instructor. I understand I still have a lot to learn in that area. However, I do feel that the writing assignments in my classes have been thoughtfully planned out and are more or less executed well by my students. In some ways, I feel that learning the IMSCI model has given my instruction at least some validation. Especially for my advanced classes, they do quite a bit of shared, collaborative, and independent writing. I wish I had more class time to complete other writing activities, but I feel limited by the need to teach content and by classes with 40 students. I still need more experience with my at-risk students and the grading of student writing and helping students understand their strengths and weaknesses so they can improve. Overall, I’ve enjoyed learning about recent research in writing and now feel that I’m on the right track in my writing instruction.

The validation he felt for what he was already doing provided insights into the ways that self-efficacy can be fostered in teachers. Even though it did not affect his actual writing instruction, James began to feel more confident about himself and became more open in subsequent meetings as he discussed the IMSCI writing model. Daniel was the only other teacher who commented on self-efficacy in the second blog post. His answer was shorter, but he wrote, “I’m feeling like this could work in my classroom. I’m still at that stage where I don’t know enough to try it, but as I think about the steps and what I do now, I think it’s definitely got potential, especially over what I’m currently doing, which is more often than not, just assigning writing.” JoAnn, Tara, and Calvin did not discuss self-efficacy in their second blog post, but instead focused their writing reflection more on what they’d like to do better in their writing instruction. I will include this data in the section on writing instruction that follows this.

In the third blog post, I began to see indicators of improved self-efficacy from all of the teachers. They were more open in their statements and addressed their perceptions
about themselves and their own instruction more directly. Calvin wrote:

I’ve just been put in charge of professional learning and I’m starting to think of how many teachers are like me when we started this study, don’t really know how to teach writing and aren’t sure what to do. I can honestly say that my thoughts about my own instruction have improved. I’m not changing it as dramatically as I could, in that I’ve not taken the time to really integrate IMSCI into my instruction, but I can tell I’m following the steps more. I model more often and share my writing with them while soliciting their feedback. I’m also building in more opportunities for student collaboration and I feel better about myself as a writing instructor. I think I can take some of my newfound confidence and find ways to help other teachers to analyze their writing instruction too.

Tara’s confidence was not as improved as Calvin’s, but she did feel like she had some more options for improving her instruction. She said:

I’m feeling a little bit better about myself and my writing instruction. Maybe because I’ve seen that others struggle too and I’m not the only one, or maybe because of the IMSCI model, but I feel like I have more tools at my disposal to guide my improvement at teaching writing better.

Daniel’s response was similar. He reflected that, “I am beginning to see myself as someone who can teach writing now. I’m more intentional in my planning and am finding that I think of the IMSCI acronym often when trying to figure out if I’ve left something out of my instruction.”

JoAnn was specific about her improvement. Prior to this blog post on their perceived self-efficacy, the teachers had participated in a focus group session where we talked about how to be more explicit in our language as we modeled and label parts of speech and parts of sentence as we wrote in order to tie in some of the grammar instruction about which they had expressed frustration. JoAnn recounted:

Successes I’ve had are an increased use of complete sentences in classwork, group reading activities that stimulate discussion, and I’m paying more attention for allowing greater clarification of vocabulary. Some general thoughts I’ve had as we’ve progressed through this study are that I’m surprised and pleased that I
already use components of the IMSCI model in my teaching. I think it provides a
great starting framework for teaching content area writing. I’ve also enjoyed the
dialogue between teachers during this research.

JoAnn’s response was similar to James’ second blog post where he reflected on the
validation he felt from learning about IMSCI. This validation for effective practices
served as a good measure of self-efficacy because it provided the teachers with mastery
experiences, which Bandura found were the most effective at promoting sustainable
perceptions of self-efficacy for teachers.

James expressed perhaps the greatest growth in self-efficacy as a result of the
study. He wrote:

The self-reflection of writing instruction has been extremely valuable over the
past couple of months. The IMSCI model has been a practical way of looking at
the instruction process and has encouraged me to experiment with the way I’ve
assigned writing. I have been much more aware of the limitations of individual
students and now think more closely about strategies that could allow them to
succeed. The IMSCI model certainly can be applied to any group at any level of
ability. I am also much more aware of the instruction that I need to ensure
happens so that students have a basic understanding of facts, interpretations, and
arguments. If I teach with the end writing assignment in mind, I am fairly certain
the students will be better prepared to accomplish the task.

James’ comments concerning his improved self-efficacy demonstrated improved
perceptions of his ability to teach because he was better able to articulate an
understanding of the need for differentiation and methods for differentiating for his
struggling students. This is in contrast to prior comments and blog posts in which he first
he said he taught content and not students, then expressed frustration about his students’
limitations, but had no ideas for how to mediate this in his classroom. This was mirrored
in the blog posts of others, who were better able to articulate what their needs and
limitations were in their own instruction as opposed to just considering the environment
and students as the issues. Commentary on the teachers’ writing instruction follows.

**Writing instruction.** Teachers’ blogs about their writing instruction demonstrated more definition and attention to their own learning needs than in prior posts. James wrote in his second blog post.

Writing serves as the best method by which students show understanding of content. A good historical essay contains a strong thesis, supported by detailed content, and sophisticated analysis, and unfortunately, is extremely rare. My struggling students can barely put two sentences together and have little command of the content. My best students have difficulty communicating strong ideas and have little analytical skill. I suppose my hope would be that all students will learn the form/mode of historical essays and realize they have the ability to answer complicated historical questions. I want my best students to improve writing analytically and I want my struggling students to begin answering historical essays, even if they have major problems. I need to learn more about direct writing instruction and strategies to teach the art of historical analysis. I need help in building up struggling students so that they can just begin the process of writing.

In JoAnn’s third blog post, she defined her writing instruction:

In the last two months, writing activities in my class have included: responding to informative texts (articles) by answering questions based on evidence provided in the text, creative writing to demonstrate understanding of an abstract concept, and writing individual components to a lab report. Writing in my classroom is changing in response to the new ELA Common Core Curriculum in that I am modeling/emphasizing the use of evidence in argumentative writing.

It was interesting to note the effect of the intervention being articulated through statements about self-efficacy and writing instruction. Changes in writing instruction were hard to attribute directly to the implementation of the intervention because these teachers were working in a complex environment where many things were changing. The advent of the Common Core did have an effect on their instructional choices, and the intervention was modeled by using the genre of argumentative writing. As a result, it’s hard to explicitly tease apart these changes in writing instruction choices. JoAnn, who
started the study with high levels of self-efficacy in writing, was already implementing many effective practices in her instruction and had the ability to contemplate the Common Core and large-scale changes she would like to adopt.

Tara, on the other hand, did not mention the Common Core. Tara’s levels of self-efficacy at the beginning of the study were low; she did not see herself as a writing instructor and claimed to have no models to follow. She wanted to start smaller. Tara’s second blog post claimed:

To improve my students’ writing in science, I think I would like to start small. I’d like them to improve their writing, in general. I’d like to see their spelling, punctuation, and grammar improve. I’d also like to work on having them write thesis statements and supporting those statements, especially with evidence that they have collected themselves in the lab.

Calvin articulated similar needs at first, but did expand to include more general writing skills and motivation. In Calvin’s second blog post, he wrote,

I would like to improve my students’ writing in English by giving them the foremost understanding that every type of writing involves the same core skills: voice, tone, audience, clarity, etc. We say it all the time, but I don’t see the connection being made. Unrealistically, I would like them to care as much about how they write when posting to Facebook as when they write a final essay for an AP test. Not in thinking they are equally important, of course, but rather that they put the same amount of effort into writing well regardless of the forum.

Daniel maintained that he would like to continue “to improve my intention with my instruction. I’m starting to see the possibility of weaving these steps into all of the assignments and instruction I already do and I’m getting anxious to get started.” These statements indicated clearer conceptions of Calvin and Daniel’s needs in professional learning for their writing instruction. Interestingly, these two teachers failed to mention the effect of the Common Core on their instruction, though they had experienced the
As teachers articulated definitions of their writing instruction, ideas about their limitations and needs for further learning followed. In these intermediate blog posts, every teacher except James included requests for how to help their students improve or adaptations to the model. These blog posts seemed to influence their developing definitions of self-efficacy and informed my modifications to the intervention. For example, because three of the five teachers discussed issues with assessment in these blog posts and their interviews, I added interview questions about assessment and a rubric analysis component to extensions of the modeling portion of the intervention, as well as collaboration. I have included their insights in this section to show support for the changes made in the implementation of the intervention as well providing evidence of ecological issues, which contributed to the teachers’ lack of integration of writing instruction. JoAnn wrote:

Some limitations in my instruction are time for reviewing student work individually is still a concern, so we go over most answers in class together or students correct their work using a common class key. I would like to improve my students’ writing in science in a very elementary way. I would love to help them to improve their basic sentence writing skills. Without this most basic of skills, more sophisticated writing becomes nearly impossible. As for science writing specifically, I would like my students to improve their argumentation and learn how to correctly write and format a scientific lab report. I would also like to learn efficient strategies for evaluating and providing adequate feedback on my students’ writing assignments. So, in regard to the IMSCI model, some possible refinements that I can think of are to integrate an assessment protocol for students to use in class, or find a way to demonstrate how to use IMSCI with assessment.

Tara still struggled with her students’ inability to write complete sentences. She found this to be a major stumbling block to her ability to implement other effective writing instruction. She wrote:
As far as what I’d like to learn more about, I guess I’d just like some strategies and some specific ideas about how to meet the goals I have for getting them to apply what they know about grammar and writing, especially in answer to this big question: How you do get kids to write a coherent sentence?

Calvin cited the lack of definition in the English curriculum as a major issue with his writing instruction. Though he did not mention the Common Core, he implied that the higher demands for writing on students within English, and outside of his content area, created confusion. In addition to this, his answer demonstrated the many conflicting demands of budget cuts and current professional learning initiatives at this school: large class sizes, differentiation, time, technology integration and assessments. He wrote:

I’d like to learn more about how to deal with my ever present frustration with the English curriculum as subject matter, because there are no hard and fast answers. When a student attempts to identify the main idea, they may get it wrong because they misunderstood the writing, the context, or the assignment. When they get something viable, I don’t know if it was a fluke or because the students are demonstrating actual ability. So what would I like to learn more about? I would like to learn how to deal with larger classes. I would like to learn how to differentiate my assignments without spending a week on a single lesson. I would like to know if what I’m doing with computers is actually making a difference, and I would like to know if what I’m doing as a teacher is actually making a difference. The formative assessments are great, but I worry that I’m seeing the results I want to see, or that I’m assessing the wrong things. And summative assessments just take so long to grade.

Though we were unable to adapt the intervention to cover all of their expressed needs in these blog posts, it was important that teachers were able to reflect in more depth on their instruction, to articulate their needs, and to clarify their current instruction.

The Intervention

Though none of the blog post prompt questions asked the teachers to specifically address the IMSCI intervention, some of the teachers did provide commentary on their
experience with the model and how it was affecting their instruction. One comment in particular stood out for its direct commentary about IMSCI and the intervention’s connection to James’ growing self-efficacy. In his third blog post, he wrote:

During the past month, I have filtered most of my writing assignments through the IMSCI model. I have tried to model the writing behavior I hope to see in my students and have led class discussions on the pre-writing process as it relates to the argumentative writing they will see on the AP exam. I have become more convinced of the importance of the pre-writing process and having students create written outlines to guide their essays. I even tried using the I-chart idea you used with us. This is also the area that I have experimented with the most. I have asked students to pre-write at home, with a friend in class, with a small group, with class notes, without class notes, with limited time and with ample time. Ultimately, if students have limited ideas to express, this will be evident in their writing. However, if we make sure that students have an idea about argumentation and have a grasp of details, they can do a fairly good job. I outlined an essay prompt with a class of ‘developing’ writers and allowed them to write the essay for extra credit, which most of them need, and I only had one student write the essay. The two groups clearly exist in different worlds. And, I feel almost hypocritical because I use writing in my advanced classes. I try to in my regular classes, but more often than not I just give up. But I’m giving up slower as I think of ways to strategize because of this model.

James’s comments about the intervention validated the use of a design-based method, even at the exploratory stage. Even though naturalistic settings are a difficult setting for experimental research aimed to discover interventions that may work in the classroom, this methodology demonstrates the potential of intervention research with teachers in their own classrooms while still collecting exploratory data on teacher perceptions.

**Content-Area Focus Group Interviews**

During the intervention, content-area focus groups met three times. These interviews occurred prior to the collective focus group sessions where the implementation of the intervention and interviews about it occurred. Questions that served as the
foundation to these interviews were as follows.

1. In what ways would you like to improve your students’ writing in (science/social studies/English)? What would you like to learn more about in order to improve your subject area writing instruction?

2. Was there a time that you gave a writing assignment in the last few weeks since we met?

3. If not, will you please tell me a little about that? What obstacles did you face in assigning writing?

4. If so, would you please describe what you did?

5. How did the writing lesson go? What went well? What would you do differently next time?

6. How did your experience with providing writing instruction compare to your experience in our focus groups?

7. Did you learn anything from the readings/focus groups that you applied to your instruction?

8. Do you have anything else to say about your writing instruction?

9. I know we’ve collaborated together by sharing our writing over the last few weeks in subject area (science/social studies/English) groups. Would you mind telling me your opinion about the collaboration?

10. What about the collaboration was especially helpful to you?

11. Was there anything about the collaboration experience that could have been improved?
12. Have you done any collaboration with your subject area partner outside of this focus group? If so, will you please describe that collaboration?

13. How has participating in this collaboration affected your instruction (if at all)?

Because the interviews were more informal and only semistructured, not all questions were asked in the order listed, but the majority of questions were covered with each disciplinary content group. Because all three components of the intervention, modeling, shared writing, and collaboration, were covered at all of the during intervention focus group sessions as the teachers discussed and worked through their thinking—revisiting ideas, implementing new ideas, and adjusting their thinking, I will not present the data in a step by step fashion. Additionally, the intent of the IMSCI model was never to be used in a lock-step fashion. In personal conversations with Read (2010), I discovered that she was hesitant to have the model portrayed in any way that would give teachers the impression that it was a strict formula. I kept this in mind consistently throughout the research study and was sure to reiterate this message to the teachers. In respecting this concern as well as making an effort to present the data authentically as allowed by the iterative nature of the design-based research framework, the data will be categorized into the major themes of: self-efficacy, writing instruction, and the intervention. Following this loose categorizing of the data, I will also weave in data about the artifacts teachers chose to submit as part of the study.

**Self-efficacy.** As teachers reflected on and experienced the IMSCI model, they articulated insights in these interviews about their perceptions of their own self-efficacy as writers and writing instructors. Some of them shared improved self-efficacy and others
felt the same. Additionally, depending on environmental issues like class size and time, their answers often varied over the course of the study. For example, Tara, during the second disciplinary focus group session, maintained a low sense of self-efficacy and stated:

The thought of teaching my students how to write like scientists is overwhelming to me at times. I don’t know that I know how to write scientifically very well. I’ve had no professional training in how to teach writing and I’m not a writing instructor.

To back up this perception, evidence of writing instruction from Tara’s first submission of artifacts about her teaching did not indicate that she used any sort of modeling, scaffolding, or instruction. She provided writing prompts for reflective journal pieces her students had written over the last two months. She said, “This is all I’ve got. I don’t teach writing and it’s not about Science, but I do try to have them write.” Later on in the study, her feelings started to change and she said, “I’m beginning to see ways I could start to teach writing. Lab reports are really just another way of writing an argumentative essay and I have a language and model for teaching this now.” The artifacts Tara submitted at the end of the study showed this change. She submitted a lesson plan she had written using the IMSCI model to begin teaching lab reports. She had only gotten to the inquiry stage in her instruction, but she turned in copies of the questions she asked, such as “What kind of writing do you think you’ll see in a lab report? What is included in a lab report?” And she had begun to collect model lab reports from the Internet that she was planning to use as models in the next step of her instruction. There was a contrast from her first submission and last submission in that her first submission was comprised of writing assignments and the second submission, after the intervention, comprised
instructional pieces to scaffold writing instruction for a particular disciplinary genre, the lab report.

Daniel’s insights demonstrate a similar growing realization. During the second disciplinary focus group interview, he said:

I don’t really think of myself as a writing instructor, it seems counterintuitive but I don’t think I really learned that much in my writing classes. I don’t really know how successful I am at this.

Daniel had majored in English and minored in biology while in college. In prior interviews he had expressed frustration with his preparation to teach writing, and, even in casual conversation while I was his colleague, he related that he saw himself more as an “entertainer,” someone who could teach literature well, especially if it was a novel he was passionate about, but always lacked confidence in his ability to “instruct” or to scaffold writing instruction. During the third disciplinary focus group interview, he related the following after we had discussed modeling in more depth.

I think the crux of some of this is getting them to feel like writers. I think part of it comes from us being writers ourselves; that modeling step where you model for them can be pretty powerful, but that’s really where it falls apart for me. I can’t write anymore.

He carried this expressed lack of confidence into the collective focus group session and shared the same sentiments, while also describing how he often told stories to his students to engage them in the literature and that they loved the stories, but he often shied away from teaching writing or expecting them to do much more than any writing beyond responding to literature. However, during the fourth disciplinary focus group interview when he had experienced the modeling and shared writing stages, his perspective on his own self-efficacy to teach writing began to change. He said:
I used the IMSCI model for teaching in my class last week…. I used IMSCI and we turned questions into thesis statements and my students were engaged and I came away from it feeling like I had really taught them something, not just assigned something for them to intuit. And it was so great to go through the steps and have them work on it and practice and have it be a normal part of their language.

Daniel’s growing self-efficacy was demonstrated in the insights shared from these interviews, and also in the artifacts about his writing instruction that he turned in for the study. The writing he assigned in class was usually literature response based or creative, descriptive writing. His first writing instruction artifacts were copies of two prompts he had assigned to his students as they studied *The Great Gatsby* and a menu from Outback Steakhouse where students were asked to use it as a model for writing concise, descriptive summaries. When I asked him what his instruction was like when he gave these prompts, he shrugged and said, “There isn’t any. We talk about the books and then they write or we talk about the example, like on the menu, and they write it. They like it, but I’m not sure I’m teaching them how to write.” Near the fourth focus group session, he brought new artifacts and they were markedly different from the writing prompts. These artifacts included graphic organizers wherein students provided information about their learning, by comparing scenes for effectiveness in thematic interpretation from two different version of *Hamlet* that they had watched in class. They completed the graphic organizer following an IMSCI model, wherein Daniel modeled the first part for them, shared the second scenes analysis with them, had them collaborate on the third scene and then work independently on the final scene analysis. Additionally, his attitude was more positive and he was excited to show them to me, giving them unprompted. In comparison, when he turned in the artifacts at the beginning of the study, he was
apologetic and said he was “embarrassed to even show these to you.”

In Calvin’s second disciplinary focus group interview, he addressed his perceptions of his self-efficacy by saying:

I am having a hard time figuring out how to fit this into my already full curriculum. I have a new group of students and can honestly say that I’m still stymied. I don’t think they can write, and I’m not sure I want to change my curriculum from what I’ve already done because even though it’s not the best out there, it at least works okay for me. I mean, my prompts align with the books I’m teaching, and I know what’s on the standardized test. I’m also really excited about technology and am still trying to mull over how I can get this to fit with what I want them to do on the computer. My mind is kind of elsewhere right now.

Calvin’s perception of lack of time spilled over into both his submission of artifacts and completion of blog posts. He submitted artifacts at the beginning of the study and these were prompts for literature based essay questions on his unit exams. However, he did not submit prompts at the end of the study, nor did he complete the fourth blog post. As such, Calvin’s comment demonstrated well one of the reasons it can be hard to change teacher’s instruction. Although sometimes professional learning is seen as inauthentic, it can also be seen as useful but difficult to implement in one’s own classroom. At this point, the participants had read the articles, discussed modeling, and had a portion of the model demonstrated for them. They were not fully immersed in or knowledgeable about the IMSCI model.

However, during the fourth disciplinary focus group session, Calvin too demonstrated a growing sense of self-efficacy. He related:

I think I’m getting better at defining what I’m looking for and I’m finding this really helps me structure my instruction and therefore they (my students) are getting better at structuring their writing. I can better say, “this is how I want it.” I want to know what you are thinking and then your thesis and work from there as an organized structure and then we can go back to the lab and do it. Before, it
looked more like, here’s our prompt and here’s how to do it, now go. I can now say, I think I should model this, or they should have a chance to collaborate and share. I’m getting more mileage out of my instructional time. I’m also realizing that I could do some follow up and make some cross curricular content connections for my students. After listening to JoAnn and Tara in our last whole group meeting, I can say that I know what they’re looking for and show them how what we are doing in my class can translate to theirs. It would be good if I could bring in some type of science writing just to make the point, like, “here’s an excerpt from your Science textbook. Here’s what we just did with Bloom’s taxonomy on this,” and then tell them what types of questions fit with what they are learning and make my prompts look like what they would get elsewhere.

Evidence of Calvin’s self-efficacy was demonstrated through statements of both mastery experiences and vicarious experience. As he reflected on the IMSCI model in his own instruction and was able to use it to label his effective practices, as well as use it to fill in the instructional practices that he was missing, he found increased self-efficacy in his own teaching. As he listened to his colleagues in other disciplines and his understanding about their content and its writing demands increased, he was able to have vicarious experiences that added to his own growing confidence in his own abilities.

James’ interviews and submitted artifacts over the time he participated in the during intervention portion of the study also indicate evidence of a growing perception of self-efficacy in his writing instruction. The artifacts James submitted at the beginning of the study included rubrics from the college board for sample AP exam questions, as well as sample AP essay prompts that he was intending to use with his students. However, at the end of the study, he submitted essay prompts he had adapted for his regular education students, as well as a rubric he had co-created with them. Additionally, he submitted a sample student essay from a before/after instruction episode. He brought a short two-sentence essay a struggling student had turned in prior to the study when he had assigned
minimal writing and, even then, only for an exam. Then, he explained that he tried using
the IMSCI model to prepare this same student’s class for the most recent history exam.
He related modeling, shared writing, and collaborative experiences he had offered the
students and brought in the student’s essay after this process. It was two paragraphs,
content-rich, and showed evidence of critical thinking. He was happy with the results and
said, “I probably need to do this more for these students. The difference is dramatic.”

Data from the second and third content-area focus group interviews with James
indicate frustration over class size and variations in student ability. In his second
interview, he responds:

In the class I’m teaching where over three fourths have failed, it’s the only class
I’m teaching besides AP because my student teacher has the others and I didn’t
have the heart to give her that class, so whenever I’m giving out any sort of
assignment or instruction to them, it’s a crapshoot. They’re basically just working
on understanding basic definitions.

James’s response reveals little change in his perceptions. He was still frustrated by the
students in his class, though his answer also revealed a shift in his instructional approach.

In the prior quote, he indicated that his instruction is often a crapshoot, whereas in the
next quote, he indicates that he is working to change his students’ motivation, rather than
just conduct his teaching as usual. He stated, during his third interview:

At this point, I’m not feeling as good as I was about writing instruction, not
because of this research study, but because it seems like the group of kids I’ve got
is just lazy. And I’m trying to figure out how to change that because I know Tara
and Joann talked about it in our last group interview, that they –the students––
don’t really care about writing, and it seems like the only time they really care is
when it is for a scholarship or for a school entrance essay, when there’s big
relevance to it. When they suddenly care and they take the time to do it, they’re reasonably well written.

By the fourth interview, though James was still frustrated by his students’ lack of
motivation, he spoke about implementing the IMSCI model in his instruction.

I even tried doing some writing with the low level classes using the IMSCI model. I mean, I’ve been trying out some of the pieces of the model with my students and paying conscious attention to what I’m doing, and I’m going to say that it with my low students all they wanted to know was how to get a certain number of points. There were not internal motivators for them whatsoever. That becomes a problem, I think IMSCI depends on a minimal internal motivator. However, I believe the model works best with highly motivated students, regardless of their skill level.

His insights about the lack of student motivation for success were shared in a subsequent collective focus group meeting. JoAnn’s response was, “well that’s the problem with any learning, they have to be motivated. I’m not sure you can say that only applies to writing instruction.” Though she is right in many ways, it was interesting to hear their commentary on student motivation and success with writing because it mirrored research on self-efficacy with teachers. Social cognitive theory postulates that motivation is enhanced by increased self-efficacy, thus affecting motivation reciprocally. As the teachers’ expressed increased self-efficacy and gave statements about specific ways their writing instruction was improving as they were motivated to try new strategies, I couldn’t help but think of the connectedness of these experiences.

JoAnn expressed high levels of self-efficacy in writing instruction throughout the study. Her statements did not indicate growth of self-efficacy as a result of participation; however, she did maintain throughout the study that reflection and the intervention validated her confidence in her abilities and motivated her to continue working as she had. As evidence of her writing instruction, she submitted two artifacts, one at the beginning of the study and the second at the end. They were similar in intent and their ability to demonstrate her effective writing instruction. They were graphic organizers for
reading from science text as a pre-writing activity prior to summarizing their learning. The graphic organizers were similar structurally, in that they had questions about major topics and students completed a square for information of what they learned and then synthesized it all into a summary in a large box at the bottom, suggesting her ability to scaffold both reading and writing as a means to demonstrate understanding.

Though JoAnn began and ended with high perceptions of self-efficacy in writing instruction, her statements that the model affirmed what she was already doing validated her confidence in her abilities and were mirrored by James in his task specific statements about his AP writing instruction. In James’s other classes, and as indicated by statements made by the other four teachers, there was evidence of increased self-efficacy and attempts to implement parts or all of the model in their own instruction as the study progressed.

**Writing instruction.** During the content-area focus group sessions held throughout the middle portion of the study, I still collected data on the teachers’ writing instruction, both their practice and context, as a basis of comparison to their beginning statements of writing instruction, to note any differences in their definitions, and to contribute to thematic and theoretical analysis.

**Teacher statements about writing instruction.** Though some of their statements were reiterations of what they had already said, portions of their statements that were different were those concerning their disciplinary specific writing demands. It seemed that as they became more self-efficacious in their writing instruction, they were able to think beyond the expressed issues with grammar and basic skills, to define further what
writing looks like in their specific content-areas. This information is important to note in light of new directions in content-area literacy research that are focused on disciplinary learning. James recounted:

The complexity of writing in history is often difficult to grasp and often they don’t get much past names and dates. The writing they are doing right now is usually take home assignments where they have to transfer some sort of knowledge. I don’t know if I could do impromptu writing. I’d end up with a lot of I don’t know what to write and then I would have to reteach. I used to do writing midterms for my regular history classes and I was always very surprised when I would get the writing. They actually did okay. And every year it was like this because I’ll think to myself each time, this is the year where I’ll get a bunch of blank tests back, and even if they don’t have notes or cheat sheets, they always turn something in. Additionally, writing is often messy, with many of its components that define good writing being subjective to the reader.

Tara, who in the beginning of the study had major concerns about grammar and basic skills instruction for her students, as well as stating that she did not have them do scientific writing, shared a much more specific and disciplinary oriented definition. She stated:

Now I’m thinking beyond lab reports, or at least ways to make lab report writing in my class more engaging, and I would say that in Science, when you think of argumentative writing you have a point to prove and you have to state your thesis, is the way you would say it and you need to back it up with evidence and your evidence is the data and a lot of scientists’ work is to validate this statement that you are making.

This statement, in connection with her growing perceptions of self-efficacy in writing instruction, demonstrated evidence of the positive effect of reflection, collaboration, and the intervention.

Daniel and Calvin had similar ideas to those expressed by James and Tara, but extended these ideas by trying to connect them to other whole school writing initiatives and a desire to make more cross-curricular and school wide connections. Daniel said:
It seems that writing needs to be tethered to some standards or values for both students and teachers to make sense of it and because of that, I’m still somewhat tied to the six trait model. While I never teach or assess all six at any one time, I still try to stress the solid basics that I think the six traits teach.

This aligned with statements Daniel had made prior in conversations. Additionally, having taught at the school the longest, he had been present when the English department was in charge of teaching the six traits model to the entire school. He mentioned that the experience of learning that model and teaching it to others had made it a relevant way for him to teach writing. Calvin mentioned, “I can see ways of using the IMSCI model with the six traits. I mean, whatever you’re modeling, and whatever your objectives are, you can attach language from the 6 traits in conjunction with this scaffolded model of instruction.” Further, Calvin agreed with Daniel as he too was committed to the use of the six traits, having learned it in his preservice teaching program. Beyond that, he maintained that he would like:

- to see the connection between all types of writing; this is unrealistic, but when I write something for work or for a class, I put the same amount of detail, but it’s for different audiences, so a way of connecting more of what we are doing and then taking that school wide.

Insights gained from Calvin and Daniel were interesting because they had a difficult time defining exactly what kind of writing they should be teaching. They often mentioned “feeling the pressure of being responsible for the writing instruction in the school” and being torn between the demands of their own content. These conflicting demands of a literature rich content as outlined by departmental mapping done years before, and a more skill based curriculum advocated by the District Curriculum director, frustrated them, making it hard for them to determine clear definitions of what they would like to do in
their writing instruction.

**Teacher perceptions of their context.** Though the teachers all demonstrated increasing levels of self-efficacy throughout the study, their difficult context did not change. As a complement to any study done on teacher efficacy, in light of theories of pragmatism and ecological theory, it is important to catalog environmental issues that affect the teaching environment. These issues can play a sizeable role in a teacher’s ability to do their job. Further, even if they have positive perceptions of their own ability to instruct, environmental considerations can trump these perceptions if the balance is off. As has been mentioned, these teachers teach in a school where budget cuts have drastically influenced class size. Additionally, four years ago, their schedules were switched from a trimester system in which they had 70 minute classes to a semester system where their class time was cut to 55 minutes. James reiterated:

> In my 11th grade Social Studies class, I have 34 students, and 23 of them failed last semester. In addition to that, on any given day, I only have 22 or 23 students there and it’s not always the same absence, so it’s really hard to teach writing because there’s so much repetition and you can’t just do it in one day. And, it seems like when students get to my class they can write or they can’t write and that’s it. When we were on trimesters, though, I had more stand-alone days to focus on writing and now we have to put it in there quickly and just move to the next content topic. So we’d be going for three weeks of content and they would need a break and we’d do three days of writing and it’s too broken up that way. When I had longer class time, I could do more reading and writing and discussing together.

Daniel shared the same sentiment, “many of my students have given up and have formed a notion that they can’t write and refuse to even attempt it.” Both Tara and JoAnne found it difficult to teach the way they wanted to because of the large class sizes and short amount of instructional time. Both maintained during the third content-area focus group
session that they were frustrated because they could not get to all of the students who needed their help. Tara said, “What they need is one on one time when it comes to those who are really struggling and I can’t do that when I have 35 students to get to and only 50 minutes to teach.” JoAnn jumped in, “Yes, yes, and sometimes if I’m modeling or giving explicitly instruction, it takes half the class hour to instruct well, and then when they get settled in and start writing they have maybe ten minutes to write.”

James discussed some of the instructional implications of shortened class periods. Early on in the interviews he had explained that when they had the trimester system and classes were longer, he was able to instruct with more depth because he could model and discuss assignments with students and then give them time to write. James recalled, “You know writing takes time, uninterrupted thinking and composing time, so that you can get your ideas on paper.” These shortened classes combined with over 30 students per section caused issues across the board. He also stated:

My suspicion is the semester system has made us teachers of breadth and not depth and students don’t have the attention span that they used to because classes are so short and packed over time that I don’t think I’m able to teach the depth.

Calvin extended James’ thoughts and solidified the practical difficulties these teachers face because of environmental constraints. He explained:

Writing instruction in larger classes is a very different thing than when we were in school and the assessment side of writing instruction, like I don’t know how that applies to all this stuff I’m doing with computers, etc. Formative assessments are great they are hard to read the data and you aren’t sure if you’re reading the data right and summative assessments are too long and that’s what I’d like to work on is breaking it down into smaller tasks so that your assessment along the ways is manageable and attached to the process.

Evidence about the context of secondary teacher instruction is useful when determining
issues leading to a continued literacy/content dualism, as well as factors shaping their resistance to instructional change. It is clear that these teachers face significant environmental challenges when implementing any kind of effective instruction and attention to these challenges is necessary to have a better understanding of the complexity of their teaching situation. Further, these combined issues of class time, size, and assessment informed adaptations to the intervention, such as rubric analysis, the writing and modeling of shorter iterations of the IMSCI model. As adaptations were made, teachers expressed increased confidence in the model because their ideas were taken into consideration. Evidence such as this affirms the literature on professional learning and coaching and their ability to cater learning experiences to teacher’s particular circumstances.

The intervention. Because the method of design-based research was carefully chosen as a foundation for this study due to its provisions for flexibility, commitment to an iterative process and theory testing, I collected data on professional learning for teachers that affirms and builds their self-efficacy in a pragmatic way and gives heed to their context. As a result, it was important to include evidence that spoke to the teachers’ perceptions of the professional learning itself as it was an important part of how the intervention was administered. Daniel summed up one way the model itself was contributing to his ideas about his own self-efficacy: “If anything, IMSCI starts to give you a language and a label for what you’re doing, and if the process breaks down, you can figure out where it broke down.” Daniel contributed the following insights about how the study was helping him to envision his writing instruction and his own continued
professional learning. He said:

At this point with the meetings and the model, I want to see how to do it in a shorter amount of time, not for teaching an entire genre, but could I try it in a one to two day teaching cycle and have it be more manageable, maybe like you’ve said you’ve done with your students, teaching them how to read and create and understand rubrics…maybe we could work on one for argumentative writing since we’ve been talking about that anyway, but I’d like to see some mini lessons that fit within the IMSCI framework so I could take and try something in the next day, rather than creating an entire unit around it. I also want to see how others are translating this into their content area…Tara and JoAnne with science and James with social studies because they always have seemed to be really resistant to literacy integration; I think I’d also like to have them understand that English is as much a content-area as it is a skills based curriculum. Yes, we do teach some measurable skills like grammar and writing—sometimes—but we also have to teach thinking and interpretation and that’s where I think literature is the most useful. Because of that, I like the collaboration part of this model so much. In the past, I’ve always done like a day for peer review and it’s not effective and I’ve always wondered what to do with student collaboration. But with this, you have a specific task, it was modeled, it was shared in instruction with your teacher and now you are collaborating about that task. So, maybe the task is to turn your question into a thesis statement, turn to your partner and tell how you did it. And then they can work on that. It’s just something defined. It can be quick. And it has a beginning and an end. If that collaborative step is simply just telling someone else how you learned something, all of a sudden they are being metacognitive and it works better! All of a sudden it’s more effective.

Calvin shared similar ideas. He recounted ineffective professional learning sessions that he had attended and explained why he thought they were ineffective:

You know, we’ve been to so many professional learning sessions where they present the same thing in the same way to every teacher. One afternoon, a lecture with PowerPoint and if you’re lucky you get some handouts to remember what you learned and then all of a sudden you are supposed to integrate it seamlessly into your instruction so that they can note it when they come to observe you once a year. It’s really the most ineffective method of teaching, but they’re doing the same thing we’re doing in our classes. They’re operating with little time, a large group of students which are us faculty, and large variability. So, with this model it does what we’d really like to do in our own classrooms, but a limitation might be what you have to invest in time to do it right. I’m not sure you can’t do this in a day, as I’m going to present this from noon to three on a Friday…you just can’t do this with this model. Teachers need to read about it and learn about it and experience it.
Daniel continued in response to Calvin’s comment. He shared more examples of ineffective professional learning and data about why the way this type of scaffolded professional learning was more useful and sustainable. He said:

“I’ve liked the way this professional development became useful to me because we’ve gone through the steps that you’re doing, that you would do for your students. Not just here’s my PowerPoint of what we’re doing in the inquiry phase and then in this you’re doing the process with the professional development, not just here it is, figure it out. In other words, we’re doing it as we go along, and then you can do it in your class. We do exactly what we’re doing while we’re doing and it then becomes clearer when you’re working with kids. If anything it kind of gives you a language and a label for what you’re doing, and if the process breaks down, you can kind of figure out where it broke down. And, it’s true, it works, so far. Because before, I’m like, “so why are these papers sucking so bad? Didn’t they read? Did they do whatever?” Now I realize well, they didn’t have… I showed them, and just because I did that, well that’s only one step, but they didn’t take it to the next level and work on their own or with other people. They didn’t get a practice before they got to actually write. And I think that’s the way it is for a lot of these kids and their teachers. We just tell, and then there’s no chance to rehearse or practice. It’s just like, “do this,” and then if you don’t, it becomes high stakes or whatever…and as it has been, I’m going straight from modeling to defined product, and that’s bad.

In response to Calvin’s mention of time, he also expressed concern over the time they have as teachers to learn effectively and implement what they are learning in a safe and practical environment. He said, “You weren’t in on the great curriculum mapping. It was a debacle.” When I asked why it was a debacle, he said it turned into a mess because they were invited to some afternoon meetings where they were told what they would be teaching and how it should be taught so that all of the skills would be covered. He mentioned that “we spent as much time doing that as this, but they paid no attention to any expertise we had and in many ways made us feel like we had less expertise than when we started because it didn’t fit with the way we teach.” Calvin responded that the Common Core extended training that the English teachers and other content-area teachers
had attended last summer was conducted in much the same way. He said, “They just brought us together with a bunch of teachers from other schools and said this is the Common Core and here’s a way to teach it…one example lesson plan from the presenter that had some inquiry to it.” In her interview, JoAnne shared similar insights. “I was the only one from my department and I didn’t come away from it with any practical way to improve my writing instruction. Sure, I felt like I needed to do more, but saw no way around how to actually do that.” James also attended the Common Core training meetings. His insights included similar ideas to those expressed by others. He said:

I know the English teachers were all there, and then just me from social studies, some from science and some from tech. To be honest, there wasn’t a lot of writing instruction, it was more this is what is in the core, this is what it looks like, we want the kids to have opportunities to read informational text, we want most of their writing to be argumentative and I was the only one who went to that from my department. They contend it’s for language arts and not social studies.

It was clear that the teachers felt pressure from the adoption of the Common Core and the new writing expectations for teachers. They shared that they were excited that the new recommendations would promote an emphasis on writing, making their frustration greater, but their work more relevant. They worried that their administrators and those holding them accountable for the implementation of the Common Core would not understand the difficulties they faced in their writing instruction.

As a result, they shared insights about their struggle to implement the intervention in their own instruction and improve, when their context was unchanging. In his second interview, James recounted:

I’m trying to be conscious of our conversations when I’m teaching, but I haven’t been as much as I’d like, but one thing I did do that reflects our conversation, that I wouldn’t have done if we weren’t meeting, was to have my students outline with
a partner before they wrote. And when I looked over the essays they were almost identical when they did the outlines, and then they wrote the essays and they were similar. For me, I didn’t know whose thoughts were whose, especially when I had a stronger student and a weaker student I could probably tell but when they were equal, it was hard…was it a true collaboration, I’m not sure? And I think it could maybe serve as a scaffold for a strong and weak student, but then again, I’d have to see at the independent stage if it was a scaffold or a crutch, if they could do it on their own. So, the problem is every writing prompt is different, so they may have the skills to write a good essay, but they wouldn’t have the content knowledge and carry that so that would be one of the variables when trying to determine their skill level and it would be hard to say if they have the skills, if their content knowledge is low, but maybe they do? I’m still trying to figure out how to do some of this with my lower level students. Because there’s such a wide range of writing, mostly on the bad side, that it doesn’t even bear a resemblance to the form I’m looking for most of the time and I’m not exactly sure how to change that because this is maybe the most they’ve had to write in a mainstream class in a very long time, so that became hard. There are a couple that are really bad and a couple that are really good and it’s a difficult time to deal with such varying writing.

Insights like these about their attempts to pay attention to the intervention while planning their instruction, their heightened sensitivity to the varying abilities of their students, and their metacognition about the ways that learning works best for teachers were important clues about the effectiveness of the intervention and modifications being made throughout the process.

Daniel restated the effectiveness of coaching within professional learning and how informal learning attuned to teacher needs provided the support teachers needed to adopt more positive perceptions of themselves as teachers that they could sustain in their classrooms. He said:

This model and the way you’ve taught it to us almost lends itself to not doing it in an afternoon. It seems like it would work well as you’ve planned it for this study or if you were coaching teachers and just came by their class during a prep hour to go over the steps and show them how to do things with the lesson they already have planned. Then they see that, and therefore we talk about it once or twice and we see what the steps are. OK, then, you come back in a couple of days and we
can have the kids who can collaborate. They can see what to do and not walk in and, “oh, he’s teaching writing today.” And then you don’t know what’s going to come next. It lends itself to a more informal framework as opposed to a “sit and get” professional development session.

Daniel’s thoughts were supported by Tara and JoAnns’ content-area interview. They liked the format that honored their expertise and the specificity of an attention to the particular ways writing occurred in their content area. JoAnn said, “I’m really excited about seeing current research informing the way we are learning rather than someone’s pet project.” Tara made theoretical claims, “I think a scaffolded model of professional development is pragmatic and helps me feel confident as a teacher.” Additionally, teachers liked what they were learning about the other content areas and their writing demands because of the collaboration. Daniel said, “I’m looking forward to our next whole group meeting because I want to see how this translates into science and other disciplines because they’re always…well, not always…but it seems like they are resistant to using literacy ideas in their teaching.”

Combined patterns from the content area focus group interview data on self-efficacy, writing instruction, and the intervention demonstrate a gradual and positive increase in teacher’s perceptions of their ability to teach writing, to clarify what they want from their instruction, and to use the intervention to continue to improve. What follows is data from the collective focus group interviews concerning these same themes.

**Collective Focus Group Interviews**

During the implementation of the intervention, the majority of time in the collective focus group interviews was spent discussing and trying out the intervention.
Questions that lay the foundation for the reflective portion of these sessions were as follows.

1. In what ways would you like to improve your writing as a teacher?
2. What would you like to learn more about in order to improve writing instruction in this school?
3. What shared and/or disciplinary specific methods are you discovering to improve your effectiveness in providing school based writing instruction?
4. What school wide collaborations would help to improve writing instruction for teachers in your school?

We spent time building camaraderie and reflecting on these questions at the beginning of each session and then the intervention was implemented with the steps and adaptations outlined in the procedures section of the Methods chapter. I will categorize the data not included in chapter three under the same three main themes: self-efficacy, writing instruction and the intervention.

**Self-efficacy.** Statements made in these interviews about the teacher perceptions of their self-efficacy were less concrete than in the content-area focus group interviews. However, they still provided insights into how the teachers were forming perceptions of their abilities in writing instruction. In the third collective focus group interview, James stated:

I’ve noticed after starting to discuss my writing instruction more in this study and as I’ve considered what effective writing instruction looks like, I’m much more prone to get frustrated because they can’t write. I think before I used to just stop assigning writing and then I didn’t have to deal with it.

Daniel responded to James’ comment and shared insights similar insights:
I agree! Though I’m really excited about what I’m learning and feeling a little more confident… I go back and forth because I’m more in tune with my writing instruction than I’ve been in a long time and because of that, I think I still don’t feel super capable of inspiring them to write because I think they really don’t think that what I’m teaching has any bearing on their lives and they don’t feel like they’ll ever need it… like, what’s a protagonist, I’ll never need that. And they think it’s just something Daniel dreamed up! So, even though I struggle with this, the best way I deal with it is to teach what I know and like best… that goes within our curriculum… the literature I know most about, am most comfortable with, am most passionate about and hopefully that goes with them and I can influence them. If I’m happy, everybody’s happy. So, a goal I have with this is to find some happiness with this model and see if I can find that I like teaching writing again.

The reflection process played a major role in data collected. Teachers had multiple opportunities to talk in their content-area grouping, to write, and to consider this in the context of their instruction. At first, I was discouraged by their statements of self-efficacy in the group interviews because I did not want their participation to make them feel worse about their writing instruction. However, I realized that a quick and wholehearted turn might not demonstrate authentic change, especially in consideration of the research literature on resistance and their statements prior to the implementation of the intervention.

**Writing instruction.** As the study progressed and questions attuned teachers to major ideas in the study and intervention, a greater crossover between the three major themes became more evident. For example, in statements about their context, though they still expressed frustration with their students, they shared more specific examples and an increased willingness to critique the purposes of school writing, instead of statements of blame. Calvin related an example of student writing.

I know right, like when you have an “I,” you should capitalize, but they don’t. And a kid I saw today, I saw his submission and he capitalized the word “after” in
a sentence, but two words later he didn’t capitalize the word “I” and even if that’s an accident, you capitalized this but not this and it takes an extra keystroke to make that mistake and there’s no rhyme or reason as to when they’ll do it and won’t and to what they do and that’s the frustrating thing. And is that our problem?

In response to Calvin’s comment, James related:

It’s also frustrating grading assignments, but what do you grade them on? You can grade them on content, but there are so many different level of abilities and how do you grade them when it’s 11th grade and you have some kids who keep turning it in and turning it in and turning it in and they’ll never be on par with the kids who just get how to write, and so you have grade inflation that’s just frustrating.

Daniel related that often he, himself, was at odds with the purposes of writing in school.

He found it hard to sell to them because he had a hard time selling it to himself. He said:

Well a lot of the writing you do in school is something you’ll never use again. Essay writing in general is academic and if they don’t plan to go to college or even if they do, they don’t see it as an actually valuable part of their life, which in a sense is correct. I’ve never had to write an essay outside of school, and it’s hard to sell that.

In response to this, Tara shared insights about the students’ resistance to writing:

I’m not even concerned about if they think it’s useful. When I think of my students in regard to writing? Well, I’m seeing a lot of resistance to writing in general. They keep saying, well this isn’t an English class why am I writing? Why do I have to write? They don’t get that everyone has to write and maybe that’s part of my resistance to having them write because it’s such a battle. And I don’t want to fight that battle some days and so they are really resistant to seeing that everyone writes and it’s all connected and it’s a good way to learn…even if it’s not scientific writing. They can’t write me a paragraph, they can’t spell, don’t know where to put a period and I don’t have time to do that on everybody’s, and then I wonder if they aren’t getting those things corrected is it really helping them and I really struggle with that as a teacher.

JoAnn had ideas that merged their frustrations and put a positive spin on them. She said:

I find that I really pay attention to cross curricular ideas and when it comes to grammar or other literary devices I mention them in science because I want them
to know that what they are learning in English class is not exclusive and it plays a role and I think it’s basically the same, at least there are huge similarities. And, even though this is an example of horizontal alignment, there’s also vertical alignment. And, that’s where the whole vertical alignment comes in and it should go from pre-school to college, which makes a study like this good…cooperative work between high school and college. Because I’ve taught college kids who can’t write sentences. I wish we could talk about these things with elementary teachers. Especially when you consider the Common Core…shouldn’t we be talking about this as an entire district? Why send like three or four teachers to a training from various departments or hope it just trickles through the school?

As conversations progressed and these teachers worked together in more focus group sessions, their talk turned to the kind of writing being studied. They discussed argumentative writing in more depth and compared and contrasted it to the types of writing they often assigned.

During the third collective focus group session, after the teachers had defined argumentative writing, developed an informal rubric and looked at sample argumentative essays, Calvin told the group:

You know in English, we’ve always done persuasive writing but with the Common Core it is supposed to change to argumentative writing and we have to remember that it’s so different because you aren’t trying to emotionally persuade them to see your point, but it’s more scientific and information based and that’s where we have to work together, because these students are going to have to provide data that supports their point and that’s a major kind of thinking we need to support always.

Calvin also spoke of the mental demands that students faced as they had to switch from class to class, change gears, and then figure out how to carry over the writing skill set they have from year to year. He said:

The hard part of it is they are learning all kinds of different writing, not just in one class, but when they go from my class, they may go to James’ class and he does a different type of writing than me…his is very AP history type of writing and that doesn’t apply to normal writing and a lot of it does and there’s not a set method and it’s because writing is so messy to begin with, every type of writing is
different and even in one class we jump from narrative writing, to argumentative, to research writing and even in one class, there are so many types of writing there’s no continuity. I’ve done the same thing where I’ve taught the exact lesson to kids I’ve had a grade level previous and some get it and some have no idea.

Daniel concurred. He maintained that, “writing is good thinking…Ken Kesey said good writing isn’t always good reading. And that’s important to remember. If they don’t know the kind of thinking they are supposed to do and they’re told it’s ‘just writing’ from class to class, they’ll be confused.” Calvin responded:

I think because of that they like personal narratives, but that is the least relevant kind of writing in my opinion. That’s what they do mostly in 10th grade and the whole first semester when it’s supposed to be my focus, I wonder, why in the world am I teaching this? Why am I teaching them to write a short story about themselves? You can teach them the narrative skills to make it better, but argumentative writing is the most useful, I mean even narrative writing is argumentative, arguably. but the problem with teaching writing in general is if you have a kid on the front row in every single class who can’t punctuate or capitalize or anything and another kid who is just ready to go to college and even if you just have 30 kids and they all need such a different type of writing instruction and you do scattershot and how do you do this? It’s frustrating.

JoAnn jumped in and said:

That why I try to teach them that narrative writing can work in science, they just have to make the shift. Science writing is like telling the story of the scientific method because you are doing the scientific method as you go through the experiment, you are basically telling the story because you are doing the method and then going through it.

James added another layer to the conversation. He discussed the changes in his instruction as a result of the Internet. He said, “When you start to add that then no wonder they write personal narrative well. And it’s a nice addition because they are writing more than ever, but it’s hard to transfer those skills to school.” JoAnn responded:

My students are learning a lot about how to write from reading online. And I think that’s a huge issue, getting them to recognize this idea that you have to support what you are thinking With a lab report you are arguing the validity of your
hypothesis, that it’s got to be based on the data you gathered, it can also be based on other people’s data, which would require research, but when the students do the research, they don’t know where to look, they don’t know what constitutes a valid source, they don’t know how to cite it, they don’t know how to gather the information and put it together from all of these sources so that they can, like Daniel said, compare it, and come to some conclusions based on that, you know most of them put something into Google and the top hit, that’s where you go, it doesn’t matter who wrote it who they are because it doesn’t matter because it was on the Internet, on Google, no less—top hit.

As the teachers bantered back and forth at each session it became clear that their writing instruction demands were becoming increasingly complex and insights like these were necessary for understanding the myriad challenges these teachers face in providing effective writing instruction that is considerate to their students’ needs yet balanced with school needs. As a result, at each learning session, I continued to emphasize the flexible nature of the model, ownership of content-area literacy processes as a method for building student understanding, and the expertise they held as disciplinary teachers.

**The intervention.** Teachers’ comments about the intervention occurred within the timeframe of the implementation. Specific data about how they were asked to participate was shared in Chapter III, procedures for implementing the intervention. However, teachers did make some statements that affirmed their growing confidence in the model, confirming data collected on self-efficacy. During the second focus group meeting, after learning about the intervention, Daniel said, “teaching writing this way will give my students more experiences with writing, increasing their confidence, giving them more arrows in their quiver.” JoAnne started a conversation thread in the third group interview when she said, “I’m feeling so validated by this now. All of the things I’ve tried and wondered about in my writing instruction I’m seeing in the research you are sharing with
us and even in what you are showing us to do…” James jumped in, “I know…me too. I’m feeling like I did when I came back from AP conferences and learned from other teachers and got caught up on what works. I feel like trying these ideas to see how this could work for teachers in my department.”

These insights confirmed patterns in the data that suggested at this point the intervention held some promise of effectiveness at helping teachers see themselves differently as writing instructors. They were better able to label their instructional process, fill in where they felt there may be gaps and assess their successes and limitations in a way that fit their context and current challenges.

**After the Intervention**

Before the final focus group interviews, teachers were asked to reflect on a set of questions that were similar to those they had answered at the beginning of the study. These questions were asked in an effort to discover their perceptions of self-efficacy and writing instruction as a result of participation in the study and to demonstrate any growth or stasis from the beginning of the study until the end.

**Blogs**

When the study ended, the participants had been meeting with me and other teachers in the study every week over a ten-week time period. Their weeks would alternate between content-area interviews and collective group interviews. Each meeting lasted between 30 and 45 minutes, and a comfortable camaraderie had grown both within their content areas and as a whole group. Interestingly, these written posts were their
longest and most detailed. Prior to the final meeting, each teacher reflected on the following questions.

1. How do you perceive of yourself as a teacher of writing in your subject?
2. What attitudes and beliefs do you have about writing instruction in your own subject?
3. What is your self-efficacy level in your own writing instruction?
4. How has your writing instruction changed?
5. In what ways do you plan to teach writing in your subject?
6. How do you perceive of yourself as a writer?

I’ll share each teacher’s reflections as they were written on their blogs, breaking them up and categorizing them into the same themes of self-efficacy, writing instruction, and the intervention. I should note that they wove these themes together in these final blog posts in an almost narrative format. Their posts were not written in brief paragraphs that only responded to the question asked, but were longer and detailed. They provided written evidence of an increased confidence to share their thoughts using the mode being studied, writing. Not only does this give insight into their thinking but provides a physical marker of increased comfort in the act of writing itself. In contrast, their beginning blog posts were concise, but less detailed and informative, answering only the questions asked. This data lends important insights about the teachers, their writing instruction and the intervention.

**Self-efficacy.** The majority of teacher blog responses included statements that defined them more clearly as a writer and writing instructor, suggesting improved self-
efficacy. For example, James included information about his wish to write more, to improve his own writing, and to use this to then influence his students by finding ways to give them more practice with writing. This is in contrast with his reflection at the beginning wherein he related his tendency to avoid teaching or assigning writing in all but his AP classes. James reflected:

Well I’m beginning to think of writing the way I think of physical exercise. An individual needs to get into ‘shape’ in order to be a proficient writer, and therefore needs consistent time to practice. If one spends time away from writing, it will be similar to adults going weeks between any physical activity. Some people are naturally athletic, some are naturally better writers. While some of us need extra guidance in our exercise, some students need extra help with writing. An individual may never reach the physical competency of a highly trained athlete, but one may easily be able to run a mile, participate in a team sport, or regularly exercise for personal enjoyment. I think the same could apply to writers. Our students will not be Hemingways, but they will be able to write a simple narrative, argue a point, or write a letter. After participating in this project, I think I will be more committed to giving all students the opportunity to write often and to get the proper support they need to succeed. As for me, just as many people wish they had more time to exercise, I wish I had more time to write and develop my skills in various types of writing. I’d love to be able to free-lance and write entertainment reviews, historical thought pieces, or even larger projects that would be the literary equivalent to a marathon.

Further, James related a clear and detailed account of his conception of himself as a writing instructor. This included details about his discipline specific definitions of writing instruction and the role he plays in helping his students understand this. Though he concedes the difficulty of teaching this to all students, this account provides a contrast to his earlier conceptions of himself as a writing instructor that has learned to teach through participating in AP conferences; he still acknowledged the impact of the learning he received from his AP training, but presents a more well-rounded definition than before. He wrote:
I conceptualize myself as a writing instructor as someone who helps my students understand that history is the interpretation of past events in an attempt to show change over time. Whether that interpretation is demonstrated in a book, video documentary, or through pictures, it is ultimately an argument and requires a thesis, analysis, and evidence. In my college studies of history, I was assigned readings that demonstrated historical argumentation. Additionally, I was assigned various types of historical writing that began to teach me the process of writing, even if that process wasn’t explicitly taught. Historical writing is really not that different from any evidence based writing, but unlike science and math, the subjects that historians write about are complicated, often contradictory, and don’t conform to most natural laws. This complexity is often difficult for students to grasp and often don’t get much past names and dates. As an AP teacher, I have a wonderful opportunity to teach writing to advanced students and have relied extensively on the writing prompts and rubrics created by the College Board. While I have attempted to teach the same skills to my regular ed classes, the process has often discouraged both me and the students. I often feel that there is very little for them to write about, if they don’t have the basic building block facts mastered.

JoAnn’s account of her before and after conceptions of herself as a writing instructor include a continued acknowledgment of the self-efficacy she had in teaching writing prior to the study, but the impact of the study in helping her to maintain this self-efficacy as it affirmed to her the effective ideas she already had. This reinforcement helped to strengthen her self-efficacy beliefs, while also providing her motivation to continue to teach writing, this time using the IMSCI model. She wrote:

Before this study, I did see myself as somewhat of a writing instructor. I recognized that there are certain types of writing (lab reports and research papers) that students need to be proficient in to enter science careers and upper level science studies. I saw my role as a freshman level science teacher to be that of introducing students to these forms of writing and helping students learn the basic skills necessary for their construction. I had little preparation for teaching writing in my science classroom other than last years’ ELA Common Core Academy, during which other ELA teachers shared many of their own techniques with me.

After this study, I don’t think my conceptualization of myself as a writing instructor or the purposes of writing in science have changed; but now I do have a model/template that I can use to prepare lessons to teach specific science writing concepts. My discussions during these interviews have also helped to prepare me
for evaluating student writing.

Tara’s blog posts were equally informative. Tara, who started the study as the most hesitant participant, claimed that she was not taught to write and did not see herself as a writing instructor, was extremely wary of writing. Her blogs were always short without much detail. But, her final reflection was much more detailed. She wrote:

I don’t really think of myself as a writing instructor, but I’m realizing more and more that nobody else is going to teach my students how to write scientifically. Writing is an important part of science; it’s how scientists communicate with their colleagues about their research and discoveries. The thought of teaching my students how to write like scientists is overwhelming to me at times. I don’t [think] that I know how to write scientifically very well. I don’t remember being taught how to write, let alone being taught how to teach writing. I appreciate that I was able to participate in this study. I feel like the IMSCI model is a great tool to use as I start to teach writing more in my own classroom.

Neither Calvin nor Daniel reflected specifically on their self-efficacy in their blog posts at the end of the study.

Information contained in these post study reflective blog posts provides insights about the growth and affirmation of writing instruction self-efficacy that these teachers experienced as a result of reflecting on their writing experiences and learning about a model of scaffolded writing instruction. The details that they shared about their conceptions of who they are as writing instructors, as well as the ways this affects their changing definitions of writing instruction are more specialized, especially in regard to discipline specific language, indicating a growing level of task self-efficacy.

**Writing instruction.** Blog posts also contained details about how these teachers defined the principles, considerations, perceptions and values of writing instruction. These posts discussed the ways that reading and writing can build on one another, as well as
as a continued acknowledgement that teachers in all discipline areas are responsible for writing instruction in their classes. Further, in this study, these teachers emphasized the ecological factors that affect effective writing instruction, such as standards for writing, class size, time, and school environment. James related:

It’s tough to reflect on the principles, considerations, perceptions, and values in a teachers’ writing instruction. I don’t know if I speak for all teachers. The teachers that seem to value writing are usually the ones that have developed their own writing skills with some degree of competence. They understand that writing and reading are usually complimentary [sic] skills and often require a significant amount of reading. Writing is often messy, with many of its components that define good writing being subjective to the reader. It is often easier to teach students information that is black and white. It seems that writing needs to be tethered to some standards or values for both students and teachers to make sense of it. I think if there were understandable writing standards, that more teachers would feel comfortable with its instruction.

JoAnn described ecological factors, as well as acknowledging what she believes is an erroneous belief by many content-area teachers that writing instruction should be the English Language Arts teachers job. Her writing reflects the continued complexity of teaching writing well in the actual school setting. She recounted:

In consideration of the beliefs that teachers have about writing instruction, well, before the study, I believed many teachers acknowledged the importance of writing instruction in their subject areas. However, there is also considerable concern about how they can be effective in their writing instruction when they have such inflated class sizes. I think teachers want to be able to give their students thorough feedback on their writing, and the perception is that this is simply impossible given class sizes exceeding 40 students… so why teach writing? I also think this is a daunting task for many teachers when a huge percentage of their students do not possess basic writing skills when they walk into the classroom. On the other hand, there is also that segment of non-ELA teachers with a limited view of their subject area, who think that English teachers should teach writing.

Tara presented a more complex view of writing instruction than in her blog posts at the beginning of the study, which in contrast had stated, “I don’t know how to teach writing.”
She wrote:

When I think about what writing instruction in my classroom should look like, there are several aspects that come to mind. First of all, students need something to write about. If they are truly to write as scientists, they should be writing about some experiment that they carried out themselves, attempting to explain observations and make conclusions based on scientific principles. They would need to see this process modeled, perhaps several times, before they could accomplish this on their own. Before they could write, I would need to teach the content, allow them to experiment, model the writing process, and then they would need time to write. In order to accomplish all of this, I feel like would need more time than I currently have. This problem will require some creativity on my part. Also, I feel like students’ critical thinking skills aren’t where I would need them to be to get through this process quickly. I do feel like this is an important process and their critical thinking skills will improve as we go, but there will be a learning curve.

These more specific characterizations of writing instruction that also included concessions about the ecological issues provide evidence of the positive effect of long term reflection on teaching practices in an effort to build self-efficacy in teachers as well as better defined ideas that can lead to improved practice.

Calvin, too, related both ecological and personal factors that contribute to his definitions of writing and who he is as a writing instructor. He felt affirmation from the long-term reflections he had given to writing instruction, but didn’t feel that it was much of a change from the conceptions he had of himself and writing prior to the study. He related:

I conceptualize myself as a writing instructor of fundamentals. Many teachers spend inordinate amounts of time focusing on formatting and conventions, but I tend to focus on basics like finding the main idea or making an accurate inference. Writing an essay is often misconstrued as the purpose of writing in English, but that’s far from true. We teach writing to teach critical thinking, and to teach the basic process of writing so that it can be applied to any type of writing. I prepared to teach this way mostly because I kept asking myself what the point of teaching students something before I taught it. If the answer was too specific to my class, I backed up and revised it to the point where it applied to other situations.
After experiencing the IMSCI model during the second session, my conceptualization didn’t change too much. I still see myself more as a facilitator than an instructor, and it still comes down to teaching the fundamentals. In practice, it meant using IMSCI, but in conceptualization, not much changed.

At the end of his reflective post, he reiterates the ecological challenges faced by teachers’ writing instruction. Calvin wrote:

I think that the principles, considerations, perceptions and values behind teachers writing instruction is governed more by reality than anything else. In reality, most teachers teach writing the way they were taught. Some consider the goals of a specific type of writing (an AP exam, for example) and others focus on the fundamentals of writing. Others subscribe to the idea that it doesn’t matter what students write so long as they write a lot. Others spend so long on one writing assignment to the exclusion of all others. Ideally, the Common Core guides writing instruction and serves as its value base. In reality, most teachers don’t use the core. They take it day by day or week by week and just keep asking themselves what it is that they want students to know.

This information is important because it reaffirms the idea that ecological considerations must be made in any form of research for teachers, as well as the kinds of professional learning that are offered.

These teachers’ final reflective blog posts about writing instruction present better defined and detailed descriptions of what they believe their writing instruction should look like. Additionally, they reiterate the ecological challenges that teachers face in providing instruction that fits their beliefs about effective writing instruction in environments that are often anathema to what they need to do their job well. Finally, this data is important to include because it demonstrates the complexity of effective writing instruction at the secondary level, further establishing the necessity of responsive professional learning and models that can be adapted to fit varying teacher needs.

**The intervention.** The bulk of the teachers’ reflective posts included information
about their insights on professional learning and the IMSCI model itself. In many ways, the ideas in the IMSCI model were not new to these teachers, but affirmed ideas they already had about what could work in their classrooms. Their responses also included statements that provided validity of the theoretical underpinnings of this study. James included words like “pragmatic,” “adaptable,” “classroom environment” as indicators of how his growing understanding of IMSCI could increase teacher efficacy in writing instruction while adhering to the theoretical tenets of the study. He wrote:

The IMSCI model seems to be a very pragmatic method to teach writing. Most of the writing instruction I deliver in my AP classes have been developed through the pragmatic “trial and error” method. I was pleased to see the scaffolding model confirm the many experiences I have had teaching writing. However, I believe the model works best with highly motivated students, regardless of their skill level. Students need to understand the rubric and be able to judge their own writing against the rubric. They must see the value in writing skills and push themselves from developing skills to mastery. Poorly motivated students, whether they are high or low level, rarely improve no matter the instructional process.

Later in his written reflection, James recounts the benefit of the IMSCI model for differing content areas as well as its potential for improving teacher success. He related:

The IMSCI model is highly adaptable to teacher skill and content discipline. I would think that most teachers could use the model with success in their classes. The model can expose teacher’s own insecurities with writing, but showing those insecurities could be beneficial in reaching struggling students. The classroom environment would have to be a safe place that both students and teacher could feel free to make mistakes.

JoAnn recounted similar ideas about the potential of IMSCI to provide both pragmatic and self-efficacy building learning experiences for teachers in light of their efforts to improve their writing instruction. She wrote:

After looking at the study, and discussing, and modifying the IMSCI model with my colleagues, I think we have developed a framework for writing instruction that allows us to teach subject-specific writing skills to a large number of students
while also enabling us to assess those skills effectively and efficiently. I think what will make this framework successful is that it “chunks” out the writing instruction process. Students are taught how to write parts of a paper before they are asked to put all of those parts together to write an entire paper. This allows students to focus on one skill at a time, while also minimizing the time required to provide thorough feedback. Another strength of this framework is that it’s designed to be used over the period of an entire school year. This aspect encourages multiple opportunities for reinforcement and enrichment, which, I feel, will result in higher retention of skills.

Both tied their statements about the IMSCI model to issues that had been identified at the beginning of the study, namely, discipline specific writing demands and scaffolding as an important component of writing instruction.

Tara asserted similar ideas. She enjoyed the way the professional learning experience was structured so that they were able to experience the model, while learning about it. She found the IMSCI model to have potential in her teaching, as well as potential across the disciplines. She wrote:

I think a scaffolded model of professional development in writing can inform teacher instructional choices in pragmatic ways. The model is loose enough to allow freedom for teachers to come up their own assignments and can work for all different types of writing. It provides enough structure, though, for students to become familiar with how the process works and apply it across content areas. I really liked that IMSCI was used to teach us about IMSCI. We read the article and thought about it ourselves, Melanie modeled the process as we did shared writing, and we also collaborated with other people in our content. I feel like doing this kind of small group professional development was ideal for learning about IMSCI. It would be hard to get the same kind of involvement and buy in if it was first introduced on a school-wide level. Using small groups lets people actually participate and experience the model rather than just listening to someone talk about it.

Later, in JoAnn’s post, she recounted ideas that she had for implementing professional learning of the IMSCI model for teachers. She stated:

Having participated in this study, by reflecting on and experiencing IMSCI, I’ve thought of many ways that I can see this model, taught in small, subject-specific
groups improving teacher self-efficacy in writing instruction:

1. It reaffirms what many teachers are already doing in their classrooms.
2. It addresses many of the concerns teachers have about writing instruction in their classrooms (e.g., time constraints, large class numbers, effective grading practices, etc.)
3. It provides teachers with a reliable framework for writing instruction that can be adapted to meet each department’s or each individual’s instructional needs.
4. This kind of professional learning allows for a great deal of professional collaboration in the development of subject-specific writing lessons, which reinforces personal and collective efficacy in writing instruction.

All three blog posts related positive ideas about the IMSCI model for improving teacher writing instruction, ability to provide effective writing instruction, and its ability to affirm these effective practices. Additionally, these blog posts provide data about the theoretical premises of this study, namely the potential of the IMSCI model for providing pragmatic, efficacy building opportunities that can have some effect on ecological factors that discourage writing instruction in secondary classrooms.

Teachers learned the IMSCI model within a professional learning community setting where their learning was facilitated in a scaffolded manner by small disciplinary groups and a larger, combined learning group. Because of this, teachers also provided commentary on the nature of the professional learning format in combination with their learning of the IMSCI model. The majority of their responses affirmed the need for small group learning that fit identified teacher needs, as well as long term immersion in this learning with the support of the facilitator and/or learning group. James wrote:

I also enjoyed the small group process that we learned the model. Most professional learning is done in one session with large groups, with little or no follow-up or accountability from administration, that ultimately lead to no changes in teacher behavior. The small groups, meeting several times over the school year, and moderated by an expert professional, was a more effective
method to teach the IMSCI model. Overall, I enjoyed the process and feel it could be a better way to implement professional development.

Calvin expressed similar views, while emphasizing the need for teacher buy-in to produce sustainable results. He recounted:

A scaffolded model of professional development can only inform teacher instructional choices if they buy in to the idea. I think the main way a model of professional learning like the one in this study could improve teacher self-efficacy mostly in collaboration. As teachers work through the shared and collaborative writing steps, they are more likely to open a dialogue about what they do differently and what they do that is similar. It encourages best practices across the board and will then improve teacher self-efficacy.

These statements have broad implications for the kind of professional learning that is provided to teachers. Their statements reaffirm the research that proposes effective professional learning should have teacher buy-in, affirm what teachers know is effective and then build on that in a safe way that allows them time to consider and experiment with their building knowledge.

JoAnn provided the most detailed information about these ideas within this study, as well as what this can mean for teacher professional learning. She reported:

When I think about the kind of professional learning that teachers need, well before the study, I imagine that at the onset, before they engaged in this process, I can see teachers having a few different sets of opinions regarding professional development in writing instruction:

1. They are disenchanted with professional development, because they’ve had many unsuccessful experiences in the past that don’t cater to their subject-specific needs or don’t provide adequate practice.
2. They are not English teachers and so they feel it is not their job to teach writing, so why go through professional development that focuses on writing instruction.
3. They recognize the need for writing instruction in their classroom and they welcome any opportunity to learn how to easily and immediately incorporate it into their curriculums.
After the study and my participation in a mini version of this type professional development in our meetings—where we learned like we would teach our students, I can say YES on all counts! I felt the strategies we discussed were very practical to teachers’ instructional needs and that they allowed sufficient room for teachers to adapt those strategies to their individual classroom settings. I also feel that, if implemented as a department, this process would increase students’ abilities to write for different subject-specific purposes, which would build a feeling of collective efficacy within the teaching department.

Her insights about the ways that teachers may perceive their own writing instruction and the professional learning they have received provide validation of research that has been conducted on this already, while demonstrating the potential for replication of this study with other teachers and in other settings for mediating these identified issues.

Because the timing of the final blog post reflections occurred during the end-of-level testing for the English teachers, Calvin and Daniel lost their prep time due to student testing occurring in their classrooms all day. Both expressed confidence in their ability to complete the blog posts, but only Calvin turned his in. Daniel’s data from his final reflections come from his interview responses.

**Content-Area Focus Group Interviews**

By this time, the teachers had experienced the model in three different iterations, had discussed their perceptions of themselves as writers, and had met together with their content-area person 10 times. These final interviews were relaxed, the teachers were more open, and they had all considered ways that they could use the IMSCI model in their instruction. Each teacher demonstrated a gradual increase in their perceptions of their self-efficacy, clearer definitions of their own writing instruction, and positive opinions of the intervention. In this section, I have categorized their insights with the
three themes that have been used throughout this findings chapter: self-efficacy, writing instruction, and the intervention.

Self-efficacy. As demonstrated by their growing perceptions of self-efficacy during the implementation of the intervention, their participation in the study as well as their learning about the IMSCI model, the teachers were feeling more confidence in their writing instruction. Several comments indicated an alignment of their growing perceptions of themselves as writing instructors and their definitions of effective writing instruction. Daniel commented, “This model has given me a way of being more of a guide and a facilitator in the writing process rather than just an assigner.” James shared a new definition of how he saw himself as a writing instructor and the ways the model had helped him construct this definition. He said:

When I think of how to define myself as a writing instructor, I think I have a more developed and concrete view now, supported by this model. I like to step in there and help them hone those skills they already possess and guide them in a direction that hopefully strengthens them as writers. Those students who have written themselves off as non-writers I try to give them a variety of genres and topics in the hope they will find something they are truly interested in and become inspired to write. I would say my success is still variable however. I do think I am fairly successful in showing them the process of writing and that they can improve their writing if they will keep practicing. I’m still working on improving myself as an instructor who gives them better chances to practice, especially if they struggle as writers. But, I can think of ways to improve my instruction more systematically and consistently now. I don’t really think of my instruction as a crapshoot anymore.

James also discussed how the IMSCI model validated the instruction he was giving, boosting his confidence and giving him insights into how to continue growing as an instructor.

Most of the writing instruction I deliver in my AP classes has been developed through the pragmatic “trial and error” method. I was pleased to see the
scaffolding model confirm the many experiences I have had teaching writing and to give me a better structure for doing this more consistently in the future. I’m also realizing through talking with others that if I continue to teach them structure and good writing while also using that writing as a means to develop good thinking, I hope the core will transfer to other writing and they’ll do better in all of their classes.

Not only did this comment include information about the way the model had increased his confidence in his instruction, it provided him a means to make this instruction sustainable in the future. Additionally, his insight about his hopes for transfer, promoted a greater understanding of the possibility of the possibilities of this writing model taught in this way to teachers increasing collective efficacy.

At the beginning of the study, Tara had expressed low perceptions of her self-efficacy as a writing instructor. During the intervention she had started to perceive that her self-efficacy was increasing, making statements about using the model to improve her wiring instruction, envisioning herself teaching writing, and feeling that she would be able to teach better. In the science content-area focus group session, she was able to express that she could see potential for using IMSCI in her own teaching, while also sharing insights about how the process would be adapted for her instruction. This was a change from her prior statement, “I don’t see myself as a writing instructor” to being able to articulate specific ways that she could improve. She stated:

I’ve learned that my students would need to see this process modeled, perhaps several times, before they could accomplish this on their own. Before they could write, I would need to teach the content, allow them to experiment, model the writing process, and then they would need time to write. In order to accomplish all of this, I feel like I would need more time than I currently have. This problem will require some creativity on my part. Also, I feel like the students’ critical thinking skills aren’t where I would need them to be to get through this process quickly. I do feel like this is an important process and their critical thinking skills will improve as we go, but there will be a learning curve.
James shared similar sentiments about the ways he would need to adapt the IMSCI model to suit his students’ needs. He also acknowledged the way the IMSCI model gave heed to his own expertise as a history teacher, sharing the critique of general literacy strategy instruction. He, too, was able to share insights about the specific ways he would adapt the model moving from a general understanding during the intervention to a more specific understanding and application after the intervention. Finally, though he felt that his self-efficacy was still not perfect for his teaching in his class of struggling writers, he was able to define self-efficacy specifically and the ways he could see his grow as he continued to use the model. He said:

So one of the things I keep coming back to is that you have to be able to be an expert in your content area to teach this way, to immerse them in the ideas of your discipline and share the process and show that you can write. And it really kind of takes away from the way literacy has been presented to us for so long, like “try this strategy and see if it helps.” The foundation to this is my content knowledge and my expertise in my content area as a literate person. That is one of the main things I ended up focusing on with my student teachers is getting them to know the content well. I told them, ‘you don’t know the content well enough, and it affects all of these other areas. It affects classroom management. It affects assessment, it affects all these things that you’re measuring. You’re going to have a struggle until you really master the content. And that’s where it seems self-efficacy is important in this, not only my writing instruction, but my ability to teach writing in social studies because my students will have an abundance of knowledge, because like you told me at the beginning, self-efficacy is task-specific. I think that’s why I do well with my AP students in both writing and content, but not so well with my other students. I have the content knowledge, but feel iffy about teaching writing to them and so I don’t have self-efficacy in my ability to do that task. But, what I’m taking from this, especially as I look at the class I don’t feel I have self-efficacy in, is that the advantage of this model is that you don’t have to explain, necessarily, what a good paper is, if you have examples and you make them think about it. Any teacher, I think, can point out that something is a good essay, and that’s what we want our students to learn. And, if you give them that analysis, where they’re talking about why it’s good, then I think sometimes there’s a buy in for them, rather than you telling them why it’s good. If they come up with it themselves, then it’s easier.
In regard to modeling and using example papers, he also felt that the IMSCI model would promote collaboration and sharing among teachers because they would have to talk in order to find good examples of writing to share with their classes in the inquiry stage. He shared, “And, here’s something that I thought of…if you are a first year or a student teacher and you don’t have examples, then you have to write and create one, or you have to collaborate and share with your colleagues and I’m not sure that’s a dialogue that ever happens amongst teachers. It doesn’t happen in my department, and it would benefit them.”

Additionally, he discussed the knowledge his students had about his ability as a writer, by saying:

I think my students know I can write. And I think that sometimes students feel that the teacher can’t do it themselves, so what’s the point? Because of this, I think I’m a little more accessible to them, because I let them know that I have done what they are doing. I try to explain that. I have been there. I know the frustrations. I know that time constraints are an issue with them. I try to let them know that this is a process that thousands of history students had to go through. I let them know that I have gone through it as well. I don’t know if it helps, but as I tried it more with my struggling class, showed them my process, they seemed to be more engaged.

This was an important piece of teachers’ perceptions of their self-efficacy and the way it made them feel as writing instructors and writers. He maintained that if students could begin to see their teachers as writers themselves that their own self-efficacy could grow, as well.

Statements about self-efficacy in the post intervention interviews demonstrated a more layered and complex understanding of what self-efficacy is, how it affects teachers’ instruction, and the specific ways that teachers begin to envision their instruction
changing because of their changed perceptions. These statements included mention of portions of what they had learned throughout their participation, with words like “modeling,” “sharing,” “collaboration,” and “efficacy” infused in their statements. Even when statements were not overwhelmingly positive about the teachers’ efficacy, they had gone from general statements about their writing at the beginning of the study to articulating more specific ways that they would adapt the model to fit their own needs at the end of the study.

**Writing instruction.** In the post intervention content-area interviews, teachers expressed a more fully articulated vision of what writing should look like in their classrooms, rather than just looking at obstacles to implementing writing instruction. Earlier Calvin had expressed frustration at the difficulty of integrating authentic writing into the curriculum. In the post intervention interview he said, “There has to be potential for teaching writing at school and have it still be worth it. Writing is important because it’s the best measure of deep understanding. And, our writing instruction at school could improve if we could do more teacher to teacher collaboration, like in this study.” Daniel, too, shared clearer definitions of his writing instruction and improved self-efficacy from preintervention to post. He conveyed:

> I have always thought of good writing as just good thinking and the ability to put those good thoughts down in such a way they make sense. Because thinking is a process, I like to really focus on writing as a process and to tell the students to continually work on the pieces I assign, so there is some sort of process, not product goal. I’m learning more and more how to integrate process into my writing instruction rather than just talk about it and then do that Monday we brainstorm, Tuesday we draft, etc. sort of thing. They need to start with ideas and abundance, more than brainstorming, it needs to come from prior knowledge and what they are learning in class and I should be structuring their reading more for writing. They should also do a better job of categorizing as they write and read,
like sort it into pros and cons and evaluate which of those is the most supportable and then order your arguments and come up with supporting arguments for your main argument and then you actually write it and get to a thesis statement and it doesn’t vary much in other subjects, it’s all in the things you are learning and they need to understand that, that why they are learning is important for them because they’ll actually have to say it in writing and they can because I can teach them how to write from understanding.

Daniel not only articulated a more specific understanding of how to use the model for his writing instruction, he discussed using it to differentiate his instruction. Prior to the study, he was frustrated with varying abilities of writing in his classroom and his inability to differentiate. He said:

I sometimes doubt the value of teaching purely academic writing. I wonder how to best serve those students who don’t continue their schooling. Should I be teaching more resume writing, cover letters, or diary entries? While I have attempted to teach the same skills to my regular ed classes, the process has often discouraged both me and the students. I often feel that there is very little for them to write about if they don’t have the basic building block facts mastered.

Post intervention, he said:

On the collaborative step, you can make the groups into more differentiated ability based groups to make your teaching more manageable and to tailor your instruction to differing student needs. I also know that whole school that could be really useful, whereas the 6 traits were not…with those, it still became just an English department thing that everyone was asked to do. This is more useful than that.

JoAnn expressed similar ideas in the science content-area teacher interview.

I would say, I don’t know that we’ve talked about this much. I think it’s an excellent way to modify instruction for special education students without making your differentiation too overt and too singling out. I’m really big into making and doing anything I can to differentiate instead of just doing too much of the work for them and this would help me to modify more discretely and modify across the board.

Important insights in this data include information about teachers’ attention to ‘process
writing” over products, differentiation, and authentic instruction. These statements align with current research on writing instruction, especially research contained in Applebee’s 1981 and 2006 reports encouraging the integration of process writing for improved student learning.

These interviews also revealed data about the teachers’ connections to the model in light of their current instruction. James related:

One piece that is helpful is the emphasis on modeling and providing them with models to read from. They do this for AP teachers and it’s beneficial, even the bad models. In fact, sometimes the poor examples are most helpful because students like those better, they can say at least, ‘this is bad. I’m at least better than this.’ Because sometimes a student doubts themselves when they see a good paper and say, ‘there is no way I can do that.’ And we can’t always have the models be ours either because that’s intimidating. In fact, this year I gave an example paper to my students and some of them were like, ‘well, that’s the teacher’s paper. It doesn’t help me.’ But one of the reasons I like to do it is it’s not that they can do it themselves. But they can see, ‘OK. I have a problem with citing the documents. How does my teacher cite documents? How does he use that specific document?’ That what I tell students to focus on. If there’s a question they have, specifically about how to construct their document-based question, use that as a reference.

James’ statement displayed a nuanced understanding of how to use models for writing instruction and their effect on students. He had mentioned that he liked the AP model in prior interviews, but his ability to connect it to the process he had learned in IMSCI, demonstrated a more sophisticated understanding of writing instruction in his perceived ability, not just the specific context of AP.

Post-intervention interviews also revealed data about the teachers’ ideas concerning disciplinary-specific writing instruction. Both Tara and JoAnn had more specific insights about writing in science. JoAnn had already expressed many ideas about science specific writing, but Tara’s statement about the importance of writing was a
positive step toward her defining writing in a way that she could take ownership of it, in light of her improved perceptions of her own self-efficacy. Tara said, “Writing is an important part of science; it’s how scientists communicate with their colleagues about their research and discoveries.” These statements aligned with the research on content-area teachers’ needs to have their expertise kept in mind, while also encouraging literacy specialists to acknowledge the discipline specific nature of literacy processes for content learning.

James gave a final important insight in these content-area interviews about the context of writing instruction in secondary schools today. He expressed:

I’ve heard that a big thing our students are facing is a lack of stamina for writing. This is one of the first groups of students who have gone through school with NCLB governing all of their schooling. They haven’t written much. Writing is work and many of these kids have never really had to sit down and write something for an extended period of time.

James offered the following solution and I include it because it speaks to the necessity of writing for demonstrating understanding.

One of the things I do with writing in my class is I will assign larger essays to students who just can’t do it in class for extra credit. I said I don’t give any extra credit other than writing. I don’t know if that’s a bad message, that writing is an extra credit source. And for me there doesn’t seem to be anything else that’s worthwhile, other than more writing. If I’m going to give you extra points, you’ve got to earn them, and you’ve got to show me that you understand. And you have to write to do that.

It seems that if writing as a primary means for conveying student learning and understanding, rather than just as an assignment, were understood more broadly in secondary schools, there would be potential for implementing the use of better models of instruction for improved teacher efficacy, thus increasing student stamina for writing.
Intervention insights. Teachers provided data about the IMSCI model itself. These included statements about the pragmatic nature of the model, its adaptability and structure, and the way it can increase teacher confidence. Daniel said:

The IMSCI model is highly adaptable to teacher skill and content discipline. I would think that most teachers could use the model with success in their classes. The model can expose teachers’ own insecurities with writing, but knowing those insecurities could be beneficial for them in finding ways there are holes in their instruction, which would then help them teach struggling students better.

Calvin provided evidence of the model’s ability to scaffold instruction by saying,

I like that it breaks the steps down. It’s more specific than the I do, we do, you do thing, and it really breaks the steps down and gives a structure to what we are doing.

Finally, Tara related, “The IMSCI model seems to be a very pragmatic method to teach writing,” while Calvin shared, “I feel like the IMSCI model is a great tool to use as I start to teach writing more in my own classroom.” This information is useful for generalizing the positive effects of the model for influencing teacher efficacy in a pragmatic and sustainable way.

Both during and after the intervention, data was collected on teachers’ perceptions of the professional learning format itself. Research suggests that coaching is an effective method of delivering empowering and sustainable teacher learning. Data collected included insights about the content-specific grouping methods, and disciplinary and whole group opportunities for reflection. Daniel said:

I also enjoyed the small group process that we experienced while learning the model. You know, there are people at this school who would be resistant to anything that made them change their practice, but it’s a great model. It might even influence them. I liked how you taught us by having us experience it over time…not just a one-time thing and then sending us off. You were with us every step of the way and modified and changed it as we expressed needs. You teach it
yourself by doing it and you learn it yourself by doing it. I’m getting really excited to try it. There’s no better way than learning like this.

Calvin agreed.

The small groups, meeting several times over the school year, and moderated by an expert professional, was a more effective method to teach the IMSCI model. Overall, I enjoyed the process and feel it could be a better way to implement professional development in secondary schools.

Additionally, both Tara and JoAnne felt like professional learning that involves a coaching model provided more sustainable ideas for their future instruction. Tara said, “Learning has to be ongoing with opportunities to talk about issues and I think the way you’ve implemented this would be an ideal way to do this with teachers.” JoAnne concurred, “This was my first time talking to some of these teachers and that opportunity alone made me feel more confident and excited about providing better writing instruction.”

Calvin extended the comments about the format of professional learning, especially because the teacher-to-teacher talk provided more opportunities for ownership. He said:

It seems like when you implement professional learning like this with teachers, by teachers and for teachers, there’s less of a chance for it to be ‘messed up’ by a misguided administrator who enjoys making professional development joyless. Because the teacher has ownership and it is so cross curricular I feel it is extremely valuable and useful. The best professional development is useless if nobody is going to use it. I just feel IMSCI would be used, including by non-writing teachers, due to the fact that by learning it you are doing it and by teaching it you are doing it again.

James also reflected on the collaborative piece of the implementation of the intervention.

I know I was best prepared for writing by writing in many disciplines, so this kind of format where different disciplines have worked together has been good for me
to see and think about how to contribute best for my students holistically, rather than just in my class.

Teachers also commented on the need for professional learning that still paid attention to the need for scaffolding and the need for a larger plan with someone to model instruction for the teachers, rather than just collaborative tasks that didn’t lead to defined improvement. Calvin stated:

I have to do professional development for all of the teachers on Friday, about teacher evaluations. But, what I wish I could do is show them this and working through it like this rather than just this quick presentation in an afternoon. I can see it being useful when you do it like this because it’s about their process rather than just labeling something.

Finally, James added insights about the modeling piece as a means for helping teachers to envision the way it could look in their classroom.

In order to get this to work on a whole school basis, rather than just with individual teachers who already feel some sort of need to improve their instruction, would be to have administrators who are professionally well versed in curriculum and basically said, ‘this is going to be our standard for chemistry, or math or US history.’ And look at these core subject classes and say, ‘while the state does not measure the core in this way, we as a high school have a high standard and we’re going to do it that way.’ And then that administrator would have to use the results from that in some way to make it fair to all the instructors. But to say, ‘if a teacher keeps coming up with low scores, what does that say about the teacher? Or what does it say about the kids that take his class?’ Because I know as an AP teacher or even as a teacher who has a reputation that I require writing, I get a different kind of kid. They are motivated to learn and write when they come to my class. And we’d have to figure out better incentives like that to see if this could work across the board. The problem is that if someone gets in front of 80 people and says this is how we’ll teach writing and half of them are immediately doing other things and the other half are saying I don’t know why we have to do this? Then, you have some implementation issues.

Statements from these interviews create a better understanding of teachers’ perceptions of what is effective for them in professional learning at both an individual and school wide level.
Postintervention Collective Focus Group Interview

In the final collective focus group interview, the themes of self-efficacy, writing instruction, and the intervention were revisited for the entire group. Patterns in the data held from the during intervention phase, demonstrating a growing self-efficacy, clearer definitions of writing and positive insights about the intervention. Their statements were difficult to tease apart by theme so I have presented them together below.

Though these statements are similar to comments made before and during the intervention, their inclusion is important not only for the repetitive emphasis they provide but for the credibility it lends the data because of the sustained timeframe and multiple reflections. JoAnn stated:

I started discovering this on my own before we started this because it was reaffirming to me and encouraging to me that I was on the right track and I think before I was doing a lot of the steps but I think now I’m highly likely to follow through to make it more structured, more consistent throughout the year. I now have something to make things consistent.

Calvin’s statement was similar, “There’s some comfort in knowing you are on the right track, in knowing you are doing things with some scaffolding and I like that it breaks the steps down.” The meeting had a positive tone as the teachers interacted together. There was a sense of finality and a light tone in the meeting. Without my prompting, James asked the group, “So, if we were to draw any conclusions from what we’ve done to help wrap this up, what cold we say?” Daniel said, “It’s useful.” Tara followed with, “This kind of professional learning works better and there’s a bigger impact on instruction, even though it takes time, it is so much more effective.” JoAnne said, “It helps teachers who teach writing to label what they do already, while if you are working with colleagues
who don’t teach writing, you are giving them a language and maybe a way to get on the
same page.” Calvin concluded, “There are pragmatic ways to teach writing to secondary
teachers that are small and they could do quickly rather than genre study with big units.
And because they are teaching, they feel better about writing instruction and they and
their students win.”

Conclusions

Data analysis revealed that models for writing instruction play a role in a
teacher’s perceptions of their own self-efficacy in both themselves as writers and in
teaching writing. Statements made prior to the implementation of the intervention
indicated that four of the five teachers had low self-efficacy perceptions of their writing
instruction. In one case, that of James, his self-efficacy was high with his AP students
where he had been provided models and ideas for implementing effective writing
instruction, validating definitions of self-efficacy as a task specific concept. Additionally,
as teachers reflected on and became more aware of their perceptions about their self-
efficacy in writing instruction, their definitions and conceptions of writing instruction
became more nuanced. They moved from statements of blame for their environment and
the students they worked with, to seeing the intervention serve as a means for them to be
able to influence their environment and to differentiate their instruction for their students.
This, too, fit with definitions of self-efficacy as a teachers’ perception that they could
influence their situation and context.

Insights gained about teacher efficacy also informed teacher perceptions of their
writing instruction. As they expressed higher perceptions of efficacy, their definitions became clearer, with better defined goals and methods for differentiating and adapting their writing instruction to fit contextual issues.

Providing professional learning through forming a professional learning community as a means of implementing and adapting the intervention was seen positively. Teachers reacted optimistically to both the professional learning format and the IMSCI writing model. Data indicated that the IMSCI model provided teachers a clear and stable structure for conceptualizing writing instruction, while paying attention to their particular context and providing them with pragmatic adaptations for their own instruction.

Independent Confirmation of Findings Through Member Checking and Peer Debriefing

Results of Member Checking

Each participant was sent transcripts of a content-area focus group interview and collective focus group interview at the middle and end of the study. Further, each participant was asked to review their beginning and during research blog posts before composing their final blog post, which was a synthesis. These reviews were done to ensure accuracy of representation of participant viewpoints throughout the sessions. Finally, each participant was given a portion of the research findings chapter to review the data and cross-check it with assigned codes, while commenting on the reliability of the analysis. James replied, “I looked over parts of the transcription and it is accurate;
additionally, the way you have coded my thoughts is an accurate representation of my participation in this study” (Personal communication, May 29, 2012). Though participants are not always reliable interpreters of their own behavior, the act of member checking the transcripts in the middle and at the end of the study, while cross checking that with the research findings, lends a higher level of credibility and reliability to this data.

**Peer Debriefing**

Peer debriefing was carried out by Brianne Hardy, a colleague in the Utah State University College of Education and Human Services, who is familiar with qualitative methods and who had conducted research in her master’s program focusing on data analysis methods and coding similar to those used in this research. Her evaluation of the data codes and data collected was positive: “As I read your proposal plan and then coded data with the codes we developed, I was able to see the validity of your hypothesis and the codes for the data because of the statements made by teachers.” Additionally, after reading the literature review, methodology and research findings sections of this study, her evaluation of my interpretation was also positive: “Your interpretations pay heed to the thematic implications, the complicated nature of the research design and the self-efficacy perceptions of the teachers as you implemented the intervention” (personal communication, June 15, 2012). She also felt that, rather than making me biased, my investment in these teachers as former colleagues as well as my previous work with them as a literacy coach were part of what made my interpretations strong. Though there are often limitations in personal interpretation due to these relationships, the framework of
design-based research as an iterative, on-going process in schools where researchers have a deep knowledge of the context, can lend reliability to the interpretations. Further, the analysis of blog posts, disciplinary interviews, whole group interviews, artifact submission, outside audit, peer debriefing, and member checking, does allow a greater degree of confidence in the credibility of the data.
CHAPTER V
DISCUSSION AND IMPLICATIONS

Discussion of Research Findings

As suggested at the beginning of Chapter IV, I believe that some of the analysis and interpretation of the data came naturally through the narrative presentation in that chapter. Threading my thoughts and ideas about what was being said through the interviews provided at least an introductory level of analysis. However, there is a need for elaboration here, especially in regard to theoretical implications and research method validation.

My intention in this chapter is to theorize about how teachers’ perceptions of their own self-efficacy as writing instructors was influenced by their participation in the intervention, to test the combined theories of self-efficacy, pragmatism and ecology for conceptualizing this intervention and to test the design-based research method as a framework for providing insights about theories and interventions that can inform authentic teacher practice. Additionally, I will demonstrate how the research questions were answered in the data.

Further, because writing instruction has often been neglected in secondary schools (Applebee, 1981; Applebee & Langer, 2006), resulting in poor instructional models for current students and past students who might become teachers, and because little attention is paid in teacher preparation and inservice programs to improving writing instruction, it is important to understand how teachers’ perceptions of their own self-
efficacy in writing instruction, pragmatic considerations of instructional models, and ecological factors work together to either promote enhanced teacher identities for improved instruction or decrease teacher confidence in their ability to teach writing.

My theorizing is grounded in the data I collected and is an important component of design-based research. It could be further refined by replicating this research with other teachers. Perhaps through replication with several other groups of teachers I might find that these were exceptional teachers and their perceptions and attitudes were unique. However, because this research was done over the course of 2 months, is comprised of ten interviews for each participant, both within and outside their content-area partnership, and data was triangulated with blog posts, artifact submission and member checking, I believe that my findings would be similar with other groups of teachers. I will discuss this further in the last section of this chapter. This discussion of the findings is organized around the original research questions and the implications of the data in answering these questions keeping both theory and the testing of the intervention in mind. The research questions were as follows.

1. How do high school teachers conceptualize themselves as writing instructors in their respective disciplines?

2. According to teachers, what are the principles, considerations, perceptions, and values behind their writing instruction?

3. Does a scaffolded model of professional development in writing inform teacher instructional choices in pragmatic ways that honor their need to build self-efficacy and collective efficacy in writing instruction?
Finally, I will discuss the design-based research methodology itself and its contribution to
the research findings, with analysis for its use as a model for future literacy research. I
will then discuss implications for the classroom and possible future research directions.

These categories of findings were derived from the transcriptions of the
audiotaped interviews and teacher blog posts that I coded and categorized using the
constant comparative method (Glaser & Strauss, 1967). These are not discrete categories,
but rather they overlap, occur simultaneously, and are intertwined throughout the data.
However, in an effort to provide a clear examination, I will discuss each of these
categories separately.

**Teachers’ Conceptions of Themselves as Writing Instructors**

Data collected about teachers’ conceptions of themselves as writing instructors
indicated that the majority of these teachers had low perceptions of themselves as both
writers and writing instructors. This was not surprising in light of research that has been
conducted on teacher perceptions about preparedness to teach writing (Bossone &
Larson, 1980; Coker & Lewis, 2008; Kiuhara et al., 2009). Additionally, research on
teacher self-efficacy links teaching performance to their beliefs about their ability to
teach a subject, including writing (Pajares & Johnson, 1993). Self-efficacy is the belief in
one’s effectiveness in performing specific tasks. Bandura (1986) stated, “People who
regard themselves as highly efficacious act, think, and feel differently from those who
perceive themselves as ineffectual. They produce their own future, rather than simply
foretell it” (p. 26). Self-efficacy theory is an important part of Bandura’s social cognitive
theory, which suggests a high interrelation between individual’s behavior, environment, and cognitive factors. Importantly, Bandura maintained, “a theory that denies that thoughts can regulate actions does not lend itself readily to the explanation of complex human behavior” (p. 42). Reflection is an important feature of social cognitive theory because through it, people make sense of their experiences, explore their own thinking and beliefs, engage in self-evaluation, and alter their thinking and behavior accordingly. Bandura contended that how people behave is often better predicated by the beliefs they hold about their capabilities than by what they are capable of accomplishing.

There are four major sources of information used by individuals when forming self-efficacy judgments. The first and most influential is that of mastery experiences, those experiences based on personal accomplishments, such as previous successes or repeated failures. Vicarious experiences also influence conceptions of self-efficacy, as these are experiences gained by observing others perform activities successfully. Often referred to as modeling, these experiences can generate expectations in observers that they can improve because they have witnessed how to do something and learned from this witness. Social persuasion can also influence conceptions of self-efficacy through activities where participants are led, through suggestions, into believing that they can cope successfully with specific tasks. The final source of information to effect self-efficacy perceptions is that of affective states wherein an individual’s physiological or emotional state can influence their self-efficacy judgments with respect to specific tasks. Emotional reactions to tasks, such as anxiety, can lead to negative judgments whereas confidence can lead to positive judgments.
Though preliminary data presented in the research findings section of this study demonstrated evidence of low self-efficacy for the majority of teachers and growing perceptions of efficacy as the study went on, this data was categorized generally as before, during, and after data in regard to the timing of the intervention. This data provides understanding gained from studying ideas promoted by the first research question. I will now discuss this data in terms of the four categories of self-efficacy listed above: (a) mastery experiences, (b) social persuasion, (c) vicarious experiences, and (d) affective states and explain them.

**Mastery experiences.** The majority of the participant teachers had not had mastery experiences in writing when they were going through school, in their preservice teaching programs, or in their inservice professional training. At the beginning of the study, this became clear from statements like, “I don’t think of myself as a writer,” (Daniel) to “I don’t really know how to teach writing” (Tara). Further, they could distinguish between feelings of low self-efficacy and high self-efficacy because each teacher had experienced at least one time in their schooling a teaching episode that they perceived as a mastery experience. When teachers spoke of these mastery experiences, their tone often lightened, they were more positive and made statements like, “for once, I could see what I was supposed to do” (Daniel), or “when I learned what a specific kind of writing looked like and what the standards were for teaching it, I felt like I could teach it myself and do this with confidence” (James).

Additionally, statements of low self-efficacy were often accompanied by frustration about their teaching situation. They expressed dismay at their large class sizes,
the variety of levels of ability in their students, and the vague standards they were held to in their writing instruction. As the study went on, teachers were able to experience the IMSCI model, reflect on it, and converse with others about their reflections. All of them tried to implement aspects of the model in their instruction and came away with positive results. These mastery experiences served to build their confidence in their ability to teach writing, as well as to channel their previous stated frustrations into opportunities for implementing strategies that would solve some of their expressed problems.

While many studies have shown the lack of writing instruction in schools (Applebee, 1981; Applebee & Langer, 2006), these studies have not been linked to the effects of these missed opportunities on teachers. Of the five participants in this study, all of them had attended grade school through secondary school in the decades where research findings suggest models of explicit and effective writing instruction were unavailable, and the effects of this were keenly felt by these teachers. This study demonstrates the need for mastery experiences in writing instruction in order for teachers to feel confident about their abilities to do this in their own classrooms. Because these teachers had few mastery experiences, it was hard for them to replicate effective instruction in their own classrooms. This is an important understanding in light of research on content-area teacher resistance to literacy integration because their resistance might be less about a perception that literacy is unimportant and more about their feelings of inadequacy for the task (Draper, 2008; Hall, 2005; O’Brien et al., 1995; Shanahan & Shanahan, 2008).

**Social persuasion.** Social persuasion can influence self-efficacy as teachers are
led through activities and suggestions into believing that they can cope with a task. The format of the study led to many opportunities for social persuasion to influence these teachers’ perceptions. As teachers participated in content-area focus group interviews and collective focus group interviews, they had the opportunity to hear from others about the difficulties they were facing with their writing instruction, ways their perceptions were being influenced by the intervention, and learned more about research on writing in general literacy and content-area literacy. These groups modeled after research which suggests that a professional learning community format can improve teacher learning, provided social persuasion to the subjects through shared suggestions about the implementation of the intervention (Stoll et al., 2006).

Their own and their colleagues’ feedback led to adaptations of the intervention to fit their perceived needs, leading to higher levels of perceived efficacy and empowerment because they felt like their ideas had been honored. This iterative process of feedback and professional learning influenced the teachers’ efficacy, which was evidenced by their statements about their increased belief in the success of the model for meeting their differing needs in their writing instruction. Additionally, their heightened beliefs in their ability to cope successfully as writing instructors were solidified at the end of the study through statements like, “Though I’m not perfectly confident yet in my ability to teach writing, I feel like I can do it better than when the study started. I have concrete ideas about ways to change my instruction and a built in support system with the other people I have worked with in this study” (Tara). Further, these reflections provided insights about the teacher’s particular classroom situations, leading to pragmatic and ecological
considerations in implementing the intervention, testing both theory and the intervention
in the context of this setting.

**Vicarious experience.** Modeling is a main feature of the IMSCI model. It was a
major focus at the beginning of the study and an explicit goal of the way the study was
implemented. I wanted teachers to experience the IMSCI model as students and to do so,
I had to model the IMSCI model for them in various iterations, walking them through the
steps not only as students, but as teachers who may choose to use the model themselves
in their instruction. So, though their participation was scaffolded with the majority of the
modeling done at the beginning of the study with a gradual release of responsibility until
the end, I still began each session with a modeled demonstration of how I might teach the
particular area of focus, be it inquiry, modeling, shared writing, collaboration, or
independent writing, in my own instruction. This had an impact on their perceptions of
self-efficacy.

Bandura explained vicarious experiences as the times when self-efficacy is built
by learning from observation, in knowing that someone else has done it successfully and
then extending that success to one’s own conception of themselves. As has been
mentioned, much of the modeling in this study led teachers to adopt positive beliefs that
led them to adapt their instruction to incorporate the IMSCI model in their own
instruction, thus producing mastery experiences. And, the section on mastery experiences
above explained the negative effects of a lack of models on these teachers’ perceptions of
themselves as writers. James maintained that seeing the model in action had helped him
to figure out ways to incorporate it in his own instruction, while JoAnn contended that the
modeling validated the experiences she had, helping her to feel better and more confident about what she was doing.

**Affective states.** Though it is hard to validate tone and demeanor while coding transcriptions of audiotaped interviews, statements made by teachers lend credence to the idea that these teachers showed a gradual increase of self-efficacy in their writing instruction evidenced by direct quotes about their perceptions of efficacy, clearer definitions of writing, and enthusiasm for the IMSCI model. For example, at the first group meeting teachers were hesitant to talk to each other and answers had to be coaxed out of them. At later meetings, they were more positive, eager to talk and interact and excited to share the ways they had tried implementing parts of the model in their instruction. The tone of the meetings shifted from the teachers being frustrated about their students, class sizes, and time for writing to an optimistic tone as their individual and shared experiences created a support system for implementing the intervention as a means for mediating their ecological issues. Additionally, they did not feel good about the prior professional learning they had received in response to increased demands for more writing instruction because of the adoption of the Common Core. As the meetings progressed, their frustrations did not disappear. Their classes were still large, many of their students still had difficulty writing, and they did not get an increase in class time for writing, though they were still being prepared for accountability measures that were being put in place for the Common Core. However, their mood lightened, they stayed on topic more often, and offered solutions when talk turned to contextual variables that frustrated them.
Whereas many research studies have suggested that teachers do not teach writing enough, giving assignments rather than instructing, they have indicated that a contributor to this lack of instruction is that teachers don’t often know how. This research has recommended (Applebee, 1981; Applebee & Langer, 2006) that studies be conducted about what teachers know about writing instruction. Following this recommendation, this study was conceived and implemented to discover more specifically what content-area teachers know about writing instruction (Hall & Grisham-Brown, 2011; Shanahan & Shanahan, 2008; Tschannen-Moran & McMaster, 2008). Data collected in this study reveals specific reasons that secondary teachers have low self-efficacy in their writing instruction: lack of models, lack of training, high demands with little contextual support, and a lack of confidence in their own ability because of these factors. This study also shows that a scaffolded model of writing instruction can increase teacher efficacy by incorporating elements of effective professional learning, such as coaching and modeling that contribute to mastery experiences, social persuasion, vicarious experiences, and affective states of the participant teachers.

Principles, Considerations, Perceptions and Values of Secondary Teacher Writing Instruction

An important implication that emerged from the teachers’ comments about their writing instruction throughout the study was that although only one of the five participant teachers claimed to have high self-efficacy as a result of the instruction they had received in school and in their teach training programs, they still had strong conceptions of what constitutes effective writing instruction. This can be best summed up in this phrase from
Daniel, “though I might not feel good about my writing instruction, I know what the students need and I understand the standards but I also know the reality of my situation and my lack of ability to adapt to my context, and this disconnect is what frustrates me most.” In many ways, this statement might sum up the major theoretical implications of this study. If teachers are struggling to improve their instruction to fit the needs of their classroom situations, interventions that are used to increase their professional understanding and capabilities must build self-efficacy in pragmatic ways that pay heed to their ecological constraints (Dillon et al., 2000).

At the beginning, middle and end of the study, teachers were asked to define their writing instruction. Early definitions were less detailed than later; additionally, these definitions focused more on basic and formative skills in writing. Teachers expressed statements about grammar and assessment, and often defined writing in terms of what their students could and could not do, without delving into their own types of instruction. As the study progressed, their definitions became more detailed, including specific ideas about assessment, ways they could fine tune their instruction, and added layers of challenge to those previously stated, such as dealing with increased technology use in writing. Finally, at the end of the study, their definitions were complex and nuanced. These definitions included insights about differentiation, grouping strategies and methods for implementing more collaborative work and student led rubric creation to ease their assessment burdens. Further, they had created lesson plans that incorporated the language used in inquiry lessons as they experienced the IMSCI model, which made cross-curricular connections such as labeling parts of speech. Two comparative statements
illustrate this well. At the beginning of the study, James said, “I care more about content than students. They can either write or they can’t when they get to my class and if they can’t write, I just stop requiring writing because I don’t want to take the time and I don’t really know how to adapt my instruction for them.” In comparison, at the end of the study, James stated:

I really think writing is the best way to demonstrate understanding and be engaged. I know that some of them are harder to work with and may never improve, but because I believe writing is so important for all students, and because I feel like I have some strategies for teaching differently, I’ve been considering different ways to teach these students who need to learn to write.

These examples demonstrate not only an increased efficacy in instruction, but a shift of their perspective because of it. They saw themselves as teachers and felt an increased capability to account for student needs in their instruction.

Consequently, statements about writing instruction contributed insights about the pragmatic and ecological theories at the foundation of the selection of this model. The context of these teachers’ working situations demonstrated that the environments where these teachers work are complex and don’t often lend themselves to the kinds of instruction expected of teachers, especially that validated in research on writing. Large class sizes, short time periods, and large variability in student skills demonstrate the need for research that is pragmatic and ecologically valid. The design-based research method allowed adaptations to the intervention in light of statements made by the teachers concerning their classroom circumstances, promoting pragmatic changes to the model so it could build self-efficacy in light of their expressed needs (Reinking & Bradley, 2008).
The IMSCI Model for Scaffolding Writing Instruction

The two constructs of self-efficacy and writing instruction, both informed by data collected in response to inquiries informed by attention to research questions one and two, were influenced by teachers’ growing acceptance of and confidence in the IMSCI model. The IMSCI model was taught as a model for scaffolding writing instruction wherein teachers both experienced and reflected on the model as an intervention to adopt in their own instruction and as a format for professional learning. Teachers felt that this model affirmed the effective instruction they were already implementing through modeling, collaboration, and giving feedback, but organized it into a more consistent and stable format as a result of their participation in the model. Teachers who expressed a negative ability to implement effective writing instruction at the beginning of the study, later recounted ways they were implementing the IMSCI model in their own definitions of writing and in their instruction.

Additionally, teachers provided definitive data about the types of professional learning that worked for them. Contrasting statements like Daniel’s, “large group sit and get professional learning that is one size fits all for everyone does not work to improve my instruction” with James’s statement:

I think if teachers would just try this once with their writing instruction, I really think they would have confidence precisely because they have the ability. They have taught it, they have done it. I rarely get excited about any professional development but I must say that I am won over to this model because I can see it working, it is not that complicated and it can be so universal.

This statement provided evidence of the effectiveness of the intervention both in consideration of the theoretical foundations of this study and in the practical dimensions
of uncovering an effective intervention for improving secondary teachers’ writing instruction.

Consequently, the analysis of the research findings about the intervention found in the previous chapter provide insights into the theoretical implications and effectiveness of this scaffolded model of writing intervention on teachers’ conceptions of their own writing instruction before, during, and after participation. Additionally, data drawn from teachers’ reflections in disciplinary and collective interviews suggest that coaching in a professional learning community format can have a positive effect on teachers’ conceptions of their own self-efficacy, thus improving classroom instruction, in this case in writing instruction.

**Design-Based Research as Methodology**

This study, formulated as a design-based research study, tested secondary teachers’ writing instruction through the theoretical lenses of social cognitive theory, pragmatism and ecology. Additionally, because all three theories held implications for how teachers perceived of themselves as writing instructors and provided insights about ideas that may improve these perceptions, it also tested a scaffolded model of writing instruction as a possible teaching method that would improve writing instruction in the context of a real school setting. Data collected and analyzed herein suggests that teachers may have an improved sense of self-efficacy in their writing instruction if they implement the IMSCI model as a part of their writing instruction, because it has the potential to build efficacy and account for pragmatic adaptations in light of teachers’ real classroom environments and challenges.
Additionally, because of the pragmatic and ecological considerations afforded by this method for adapting the model, it is appropriate to discuss the final two characteristics of design-based research that have not been addressed in other areas of this study in an effort to provide analysis toward all three research questions. These final two characteristics of design-based research are an analysis of unanticipated effects and changes to the environment.

**Unanticipated effects.** One major unanticipated effect in the study was the necessity of skipping the planned final step to have teachers write an argumentative essay. The cause of this at the beginning of the study was the majority of participants’ low self-efficacy in writing, vocalized early and often, which contributed to their reluctance to see the model through to the end as had been planned, wherein they would write an essay. This influenced changes in the implementation of the intervention, scaling it to more manageable and pragmatic tasks that would have more immediate payoff in building teacher efficacy. A second unanticipated effect of the study was the difficulty teachers had visualizing how to use the model for large or long-term projects. This was caused by their concern for their students’ writing skills. Data that contributed to this perception were shared in the findings section as well as modifications that were made to the model based on these unanticipated responses.

**Changes in the environment.** One major change to the environment of this study was the camaraderie that developed between the participants, many of whom had never spoken to teachers outside of their department. This added a layer to the data on effective professional learning and demonstrated how these kinds of learning experiences can build
teacher self-efficacy. Additionally, the original plan for implementing the model did not encourage teachers to use IMSCI in their own teaching, only having them reflect on ways they may use it because I had perceived they had low self-efficacy in writing instruction. However, though my perception of their low self-efficacy was confirmed, they did try implementing IMSCI on their own, in small ways like making future plans with it, using it to differentiate instruction, and in James’s and Daniel’s case- teaching students one type of essay writing, following the steps as they understood them. This was due to the quick success they felt in the more condensed presentations of the IMSCI model during the intervention. When they implemented it, it validated their definitions of effective instruction, increasing their efficacy and solidifying their use of the model. I had originally intended to only introduce the model and not collect data on its use in the classroom. Data in these research findings did offer some confirmation that it may have a positive effect on teacher efficacy in applied practice.

**Implications for Secondary Content-Area Writing Instruction**

This research supports giving secondary content-area teachers ample opportunities to reflect on their own learning and preparation to teach writing. In addition, it shows that teachers are in need of professional learning experiences that consider their pragmatic and ecological constraints when applying their learning in their particular classroom environments (Reinking & Bradley, 2008). Most of the participants in this study worked in collaborative partnerships, which embedded their work in social interaction and disciplinary reflection, thus taking advantage of the social nature of
disciplinary learning (Shanahan & Shanahan, 2008). This research supports giving teachers the opportunity to work collaboratively (McLaughlin & Talbert, 1993). Additionally, all participants met together, cross curricularly. This collaboration contributed to increased understanding of the particular demands of each discipline and the shared skill-based demands of writing. Because they had others with whom they could share their reflections, they were able to process their experiences more thoroughly, clarifying their definitions of writing instruction, improving their perceptions of self-efficacy, and discovering means for trying the IMSCI model in their own instruction to mediate contextual issues.

It is important to emphasize the effect of self-efficacy on a teachers’ ability to provide effective instruction (Pajares, 2003; Pajares & Johnson, 1993). Teachers’ beliefs in their ability to accomplish a task will influence the methods of instruction they use in their classroom and how they conceive of themselves as instructors (Tschannen-Moran & McMaster, 2009). The teacher with the highest self-efficacy in this study took responsibility for her writing instruction and tended to place less blame on contextual factors. Interestingly, as the other teachers’ perceptions of their own self-efficacy in writing improved, they placed less blame on external factors and were more confident trying the IMSCI model.

To maximize the impact of the development of improved teacher efficacy, teachers learned the IMSCI model through professional learning that was administered in professional learning communities built of their disciplinary group and the collective group (Stoll et al., 2006). Teacher buy in and an attention to their expressed needs in
adapting the model is a key to success, though these adaptations don’t always have to be in response to all expressed needs (Reinking & Bradley, 2008).

These teachers expressed improved self and collective efficacy, clearer and more nuanced definitions of their writing instruction, and a positive reaction to the IMSCI model. Additionally, they were able to use their interpretation of the IMSCI model to solve contextual problems expressed in the study. For example, at the beginning of the study they conveyed frustration about the variability in their students’ skill levels, while at the end of the study, they articulated the potential of the IMSCI model for helping them differentiate their instruction to meet varying student needs. I believe that if teachers’ needs are respected and considered in light of the instruction they are asked to do, while also providing them with practical models of professional learning that they can implement in their classrooms confidently, they will, for the most part, improve their writing instruction.

**Future Research Directions**

The majority of design-based research studies that have been undertaken since 2000 have been either exploratory, initial stage research or one part of a multi-iteration project. This study does not break this mold. It is an exploratory/initial stage research study. In the current study, my hope was to understand secondary content-area teachers’ perceptions of their self-efficacy in writing and to research a writing model as an intervention. This was accomplished for these participants; however, I was only able to explore five teachers’ perceptions in one secondary school. As a result, several directions
for future research seem useful.

1. Would a larger or different group of teachers in this school or other schools have the same perceptions about their experiences learning to write in their formative schooling and in their teacher preparation courses concerning writing instruction?

2. What accounts for the contextual factors that affect teacher efficacy in writing instruction? This question is important to ask for efforts either to replicate the findings about the factors herein (class size and time) or to add another layer of understanding from contextual factors in other environments.

3. In what other ways could the IMSCI model be implemented? For example, in the original article (Read, 2010) it was used to teach a genre from start to finish, whereas in this model it was truncated to teach smaller portions of writing while using the framework of the IMSCI model. What if a follow up study was done with these teachers to try teaching a genre from start to finish?

4. What is the impact of particular forms of collaborative groupings? For instance, in this study, teachers met first with a content-area peer to discuss their disciplinary understandings prior to collective group meetings. Would the results be different if they had met collectively first and then in content-area groups? What if they met in cross-curricular partnerships first and then experienced the collective group reflection as a department?

5. How appropriate is design-based research as a methodology for investigating writing instruction with secondary teachers? Future research projects could be framed using the design-based research method, but testing different theories and interventions to
discover the potential viability of this method.

6. Finally, was this group of teachers less resistant to content-area literacy integration and more or less capable in their writing instruction than another group might be? Only replication with other groups in other settings would allow me to determine if other teachers’ perceptions of self-efficacy in writing instruction could be influenced by the same theoretical implications framing the implementation of the IMSCI intervention.

Conclusion

The ultimate goal of my research study has been to describe five secondary teachers’ perceptions of themselves as writers and writing instructors, to catalog their levels of self-efficacy in writing instruction, to discover their conceptions of writing instruction in their discipline, and to determine if an intervention implementing a scaffolded model of learning instruction would have an influence on their ideas of efficacy and instruction before, during and after the intervention.

Overall, the results of this study show that the majority of these secondary teachers began with low perceptions of their ability to teach writing, thus manifesting a lack of self-efficacy for writing instruction in their classrooms. As the teachers reflected on their writing instruction, their perceptions of themselves as writers, and participated in a scaffolded model of professional development by learning about and reflecting on the IMSCI writing model, their self-efficacy perceptions increased. Particularly, they used the IMSCI model to mediate contextual issues in their instruction (e.g., class size, time, student variability) that prior to the intervention had frustrated them and ultimately
stopped many of them from teaching writing. Further, they articulated clearer definitions and objectives for their disciplinary writing instruction, and had positive insights about the intervention, ultimately trying it in their own instruction, demonstrating increased self-efficacy in writing instruction.
REFERENCES


Appendix A

Writing Standards by Discipline
Writing Standards by Discipline

English


1. Students read a wide range of print and non-print texts to build an understanding of texts, of themselves, and of the cultures of the United States and the world; to acquire new information; to respond to the needs and demands of society and the workplace; and for personal fulfillment. Among these texts are fiction and nonfiction, classic and contemporary works.

2. Students read a wide range of literature from many periods in many genres to build an understanding of the many dimensions (e.g., philosophical, ethical, aesthetic) of human experience.

3. Students apply a wide range of strategies to comprehend, interpret, evaluate, and appreciate texts. They draw on their prior experience, their interactions with other readers and writers, their knowledge of word meaning and of other texts, their word identification strategies, and their understanding of textual features (e.g., sound-letter correspondence, sentence structure, context, graphics).

4. Students adjust their use of spoken, written, and visual language (e.g., conventions, style, vocabulary) to communicate effectively with a variety of audiences and for different purposes.

5. Students employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes.

6. Students apply knowledge of language structure, language conventions (e.g., spelling and punctuation), media techniques, figurative language, and genre to create, critique, and discuss print and non-print texts.

7. Students conduct research on issues and interests by generating ideas and questions, and by posing problems. They gather, evaluate, and synthesize data from a variety of sources (e.g., print and non-print texts, artifacts, people) to communicate their discoveries in ways that suit their purpose and audience.

8. Students use a variety of technological and information resources (e.g., libraries, databases, computer networks, video) to gather and synthesize information and to create and communicate knowledge.

9. Students develop an understanding of and respect for diversity in language use, patterns, and dialects across cultures, ethnic groups, geographic regions, and social roles.

10. Students whose first language is not English make use of their first language to develop competency in the English language arts and to develop understanding of
content across the curriculum.

11. Students participate as knowledgeable, reflective, creative, and critical members of a variety of literacy communities.

12. Students use spoken, written, and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion, and the exchange of information).

Social Studies


“The framework of the standards consists of ten themes incorporating fields of study that roughly correspond with one or more relevant disciplines. The first theme, “Culture,” for instance, includes elements of anthropology, geography, history, and sociology. These ten themes span the educational levels from early to middle grades to high school. The standards are expressed in statements that begin “Social studies programs should include experiences that provide for the study of” - for instance, Culture. Student performance expectations within that theme are then specified, and examples of classroom activities are provided as illustrations of how to design learning experiences to help students meet the performance expectations.

Teachers and curriculum designers are encouraged first to establish their program frameworks using the social studies standards as a guide, and then to use the standards from history, geography, civics, economics, and others to guide the development of grade level strands and courses. Using all of these standards in concert with one another allows educators to give adequate attention to both integrated and single discipline configurations. “

Science


Changing in response to the adoption of the common core. The new science standards are being developed through an unprecedented partnership of the National Academy of Science, the National Science Teachers Association, the American Association for Advancement of Science, and Achieve Inc. Achieve Inc (http://www.achieve.org/) is the lead organization for developing the Common Core mathematics and language arts standards. Although roles overlap, each organization has specific responsibilities.
Appendix B

Common Core Writing Standards
Common Core Writing Standards

From: www.corestandards.org

For English Language Arts, grades 10-12, argumentative writing, http://www.corestandards.org/the-standards/english-language-arts-standards/writing-6-12/introduction/

W.11-12.1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

- Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences claim(s), counterclaims, reasons, and evidence.

- Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience’s knowledge level, concerns, values, and possible biases.

- Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.

- Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.

- Provide a concluding statement or section that follows from and supports the argument presented.

For Literacy in History/ Social Studies, Science and Technical Subjects, grades 10-12, argumentative writing,


WHST.11-12.1. Write arguments focused on discipline-specific content.

- Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.

- Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience’s knowledge level, concerns, values, and possible biases.
• Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.

• Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.

• Provide a concluding statement or section that follows from or supports the argument presented.
Appendix C

Preliminary Research Questions
## Preliminary Research Questions

<table>
<thead>
<tr>
<th>Disciplinary Focus Group Topics:</th>
<th>Disciplinary Focus Group Topic:</th>
<th>Disciplinary Focus Group Topic:</th>
<th>Disciplinary Focus Group Topic:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SCIENCE, SOCIAL STUDIES, ENGLISH:</strong></td>
<td><strong>SCIENCE, SOCIAL STUDIES, ENGLISH:</strong></td>
<td><strong>SCIENCE, SOCIAL STUDIES, ENGLISH:</strong></td>
<td><strong>SCIENCE, SOCIAL STUDIES, ENGLISH:</strong></td>
</tr>
<tr>
<td>How do (scientists/historians, geographers, political scientists / English students and scholars) write? What do (scientists/historians, geographers, political scientists / English students and scholars) write about? Why do (scientists/historians, geographers, political scientists / English students and scholars)? What are the uses of writing in your (science /social studies / English) teaching?</td>
<td>In what ways would you like to improve your students writing in (science /social studies / English)? What would you like to learn more about in order to improve your subject area writing instruction?</td>
<td>Was there a time that you gave a writing assignment in the last few weeks since we met? If not, will you please tell me a little about that? What obstacles did you face in assigning writing? If so, would you please describe what you did? You said xxx...can you tell me more about that? How did the writing lesson go? What went well? What would you do differently next time? How did your experience with providing writing instruction compare to your experience in our focus groups? Did you learn anything from the readings/focus groups that you applied to your instruction? Do you have anything else to say about your writing instruction?</td>
<td>I know we’ve collaborated together by sharing our writing over the last few weeks in subject area (science /social studies/ English) groups. Would you mind telling me your opinion about the collaboration? What about the collaboration was especially helpful to you? Was there anything about the collaboration experience that could have been improved? Have you done any collaboration with your subject area partner outside of this focus group? If so, will you please describe that collaboration? How has participating in this collaboration affected your instruction (if at all)?</td>
</tr>
<tr>
<td>Please think of the type of writing experiences you had throughout your school years. Overall, do you think you have more positive or negative experiences with writing? Will you please explain that?</td>
<td>What experiences did you have with writing in your subject area? Did you have any writing assignments in your subject area (science/social studies/English) that you particularly enjoyed or disliked? If so, will you please describe those? Do you think of yourself as a writer? Will you please tell me more about that? Do you currently incorporate writing in your instruction? Do you see yourself as a teacher of writing in</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collective Focus Group Topic:</td>
<td>Collective Focus Group Topic:</td>
<td>Collective Focus Group Topic:</td>
<td>Collective Focus Group Topic:</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------------------------------</td>
<td>-------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>How do you write? What do you write about?</td>
<td>In what ways would you like to improve your writing as a teacher? What would you like to learn more about in order to improve writing instruction in this school?</td>
<td>What shared and/or disciplinary specific methods are you discovering to improve your effectiveness in providing school based writing instruction?</td>
<td>What school wide collaborations would help to improve writing instruction for teachers in your school?</td>
</tr>
</tbody>
</table>

**Teacher Reflections / Blog Post Topics: Personal Reflection, Individual Baseline Data Prior to Focus Group Sessions, and Metacognition**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>How do you perceive of yourself as a writing instructor? What attitudes and beliefs do you have about writing instruction in your own subject area? What is your self-efficacy level in your own writing instruction?</td>
<td>Please describe what your writing instruction has looked like this month. How is it similar to what you have always done? How is it changing? What are the successes you are experiencing? What are limitations you are discovering?</td>
<td>Please describe what your writing instruction has looked like this month. How is it similar to what you have always done? How is it changing? What are the successes you are experiencing? What are limitations you are discovering?</td>
<td>What are you learning about yourself as a writer, and your writing instruction, as you have been participating in this project?</td>
<td>How do you perceive of yourself as a writer? How do you perceive of yourself as a writing instructor? What attitudes and beliefs do you have about writing instruction in your own subject? What is your self-efficacy level in your own writing instruction? How has your writing instruction changed? What differences have you discovered during your participation in this project?</td>
</tr>
</tbody>
</table>
Appendix D

Timeline for the Implementation of the Intervention
Timeline for the Implementation of the Intervention

There were four monthly meetings: two at the beginning of the month, one as a disciplinary partnership and the second as a professional learning community. This cycle repeated every two weeks. Each meeting lasted about 40 minutes; the first part of each meeting was spent reflecting on the IMSCI model, in both their experience as writers and as teachers and the final 15 minutes were spent experiencing the IMSCI model as writers, learning to write in the argumentative genres.

MONTHLY MEETINGS AND DATA COLLECTION GOALS

1ST HALF OF JANUARY
(Focused on establishing a baseline of how teachers perceive themselves as writers and as teachers of writing in their discipline, and characterizing the instructional context)

Week One: All teachers responded to blog post topic 1 and submitted artifacts and photographs as evidence of their writing instruction.

Week One:
Researcher met with science teachers, social studies teacher and English teachers separately, in their disciplinary partnership and implemented the intervention, both experiential and reflective with disciplinary considerations in mind.

Week Two:
Researcher met with all six teachers, collectively, and implemented the intervention collectively, both experiential and reflectively.

2nd HALF OF JANUARY
(Focused on identifying factors that enhance or inhibit movement toward the pedagogical goal)

Week Three:
All teachers responded to blog post topic 2. Week Three:
Researcher met with science teachers, social studies teachers and English teachers separately, in their disciplinary partnership and implement the intervention, both experiential and reflective with disciplinary considerations in mind.
Week Four:
Researcher will meet with all six teachers, collectively, and implement the intervention collectively, both experiential and reflectively.

1ST HALF OF FEBRUARY
(Focus on documenting the effects of instructional moves aimed at enhancing the intervention; begin to identify and seek explanations for unanticipated effects and outcomes; solicit feedback on the intervention and negotiate ways to adjust the intervention to better suit teacher needs)

Week One:
All teachers will respond to blog post topic 3 and submit artifacts as evidence of their writing instruction.

Week One:
Researcher will meet with science teachers, social studies teachers and English teachers separately, in their disciplinary partnership and implement the intervention, both experiential and reflective with disciplinary considerations in mind.

Week Two:
Researcher will meet with all six teachers, collectively, and implement the intervention collectively, both experiential and reflectively.

Week Two:
Each participant will help with member checking and negotiating the intervention. They will read a blog post from another participant, focusing on their thoughts about the intervention’s effectiveness and limitations and will provide suggestions for revisions to the intervention for the remainder of the study.

FEBRUARY
(Focus on documenting the effects of instructional moves aimed at enhancing the intervention; continue to identify and seek explanations for unanticipated effects and outcomes; implement suggested adjustments to the intervention and document these changes)

Week One:
All teachers will respond to blog post topic 4.
**Week Two:**
Researcher will meet with science teachers, social studies teachers and English teachers separately, in their disciplinary partnership and implement the intervention, both experiential and reflective with disciplinary considerations in mind.

**Week Three:**
Researcher will meet with all six teachers, collectively, and implement the intervention collectively, both experiential and reflectively.

**MARCH**
*(Focus on determining the extent to which an intervention has transformed a learning environment; identify conditions under which an intervention does or does not work well toward developing theory and improving practice; compare and contrast the effects of the intervention across diverse contexts)*

**Week One:**
All teachers will respond to blog post topic 5 and submit artifacts as evidence of their writing instruction.

**Week Two:**
Researcher will meet with science teachers, social studies teachers and English teachers separately, in their disciplinary partnership and implement the intervention, both experiential and reflective with disciplinary considerations in mind.

**Week Three:**
Researcher will meet with all six teachers, collectively, and implement the intervention collectively, both experiential and reflectively.

**Week Four:**
*Each participant will member check a portion of data from the sessions and my interpretation to see if the data is accurate.*
Appendix E

Rubric Analysis Artifact
Rubric Analysis Artifact

<table>
<thead>
<tr>
<th>Inquiry / Immersion</th>
<th>What does a good argumentative essay look like? What are characteristics that should be assessed? Read example essays and identify characteristics.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modeling</td>
<td>Create a rubric based on the characteristics inquired into above, teacher will model creating a rubric for characteristic 1</td>
</tr>
<tr>
<td>Shared Writing</td>
<td>As a group we will share the responsibility for creating a rubric for characteristic 2 of argumentative writing; teacher will lead the discussion, soliciting input from the group</td>
</tr>
<tr>
<td>Collaboration</td>
<td>In pairs, create an example rubric for characteristic 3 of argumentative writing; teacher will monitor pair discussions and see how they contribute to the rubric</td>
</tr>
<tr>
<td>Independent</td>
<td>Determine what ways characteristics may differ for your subject area, revise the rubric to fit your needs</td>
</tr>
</tbody>
</table>

What are the characteristics present in argumentative essay? What should these look like at the mastery, proficient and coming along levels?
Categorize these into three broad categories...
Create a rubric together on the back of this page...

INDEPENDENT WORK
1. How can these characteristics that we have outlined differ in your content area?
2. In what ways can you refine this rubric to fit the needs of your own content area’s argumentative tasks?
3. How can introducing students to rubrics—how they are made, how to read them, etc.—improve their writing?
4. How can you use the IMSCI model to now teach the required characteristics of good argumentative essay writing to your students?
Appendix F

IMSCI Graphic Organizer
Apply the IMSCI model, by practicing turning questions into thesis statements, while guiding students to understand necessary parts of sentences.

<table>
<thead>
<tr>
<th>I</th>
<th>Inquiry</th>
<th>What topics are you teaching that would lend themselves to teaching argumentative writing?</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>Modeling</td>
<td>Why should educators teach students argumentative writing?</td>
</tr>
<tr>
<td>S</td>
<td>Shared Writing</td>
<td>How do students benefit from learning to write in an argumentative format?</td>
</tr>
<tr>
<td>C</td>
<td>Collaborative Writing</td>
<td>As a partnership, turn the following question into a thesis statement:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>What kinds of thinking are supported by learning to write in an argumentative format?</td>
</tr>
<tr>
<td>I</td>
<td>Independent Writing</td>
<td>On your own, turn the following question into a thesis statement:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>How can learning to write in an argumentative format influence a student’s overall thinking in school?</td>
</tr>
</tbody>
</table>
Appendix G

Inquiry Chart
<table>
<thead>
<tr>
<th>I-Chart</th>
<th>Why should educators teach students argumentative writing?</th>
<th>How do students benefit from learning to write in an argumentative format?</th>
<th>What kinds of thinking are supported by learning to write in an argumentative format?</th>
<th>How can learning to write in an argumentative format influence a student’s overall thinking in school?</th>
</tr>
</thead>
<tbody>
<tr>
<td>What I know already…</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Read, 2010</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Content-specific article</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Common Core</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Summary of my learning…</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix H

Sample Disciplinary Lesson Plan
### Sample IMSCI Lesson Plan

**Writing Thesis Statements in English**

<table>
<thead>
<tr>
<th>I</th>
<th>Immersion/ Inquiry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing a claim or argumentative statement looks a lot like writing a thesis in history, a hypothesis in science, or an explanation of your thinking in Math. An argumentative or persuasive piece of writing must begin with a debatable thesis or claim. In other words, the thesis must be something that people could reasonably have differing opinions on. If your thesis is something that is generally agreed upon or accepted as fact then there is no reason to try to persuade people. Although the scope of your paper might seem overwhelming at the start, generally the narrower the thesis the more effective your argument will be. Your thesis or claim must be supported by evidence. The broader your claim is, the more evidence you will need to convince readers that your position is right.</td>
<td></td>
</tr>
<tr>
<td>We’re going to read some example argumentative essays and determine the criteria that will help you to write a strong and debatable thesis or claim.</td>
<td></td>
</tr>
<tr>
<td>Students will read essays and determine first where the thesis statement is and then what makes it good or bad...teacher will model.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>M</th>
<th>Modeling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Let’s read the first essay together and determine where the thesis or claim is.</td>
<td></td>
</tr>
<tr>
<td>As I read the first couple of paragraphs, I think to myself, this__________________is what makes it a good thesis statement or claim.</td>
<td></td>
</tr>
<tr>
<td>I’ll show you one more:</td>
<td></td>
</tr>
<tr>
<td>So, as I read, I’m beginning to determine that the thesis statement is usually__________________ and sounds like this__________________,<strong><strong><strong><strong><strong><strong><strong><strong><strong>,</strong></strong></strong></strong></strong></strong></strong></strong></strong>,__________________.</td>
<td></td>
</tr>
<tr>
<td>Students will read essays and determine more criteria, merging this to shared reading/writing.</td>
<td></td>
</tr>
<tr>
<td>Teacher will then model writing a good thesis statement based on the identified criteria.</td>
<td></td>
</tr>
<tr>
<td>I write my thesis statement like this:</td>
<td></td>
</tr>
<tr>
<td>Because I know a strong thesis follows these criteria:<strong><strong><strong><strong><strong><strong><strong><strong><strong>,</strong></strong></strong></strong></strong></strong></strong></strong></strong>,__________________.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>S</th>
<th>Shared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Now, you try. What are some ideas you have that you’d like to write your argumentative essay about? Or, if teacher is assigning the topic, talk about it a little bit.</td>
<td></td>
</tr>
<tr>
<td>Knowing that this will be our topic, what are some things we want to keep in mind to make sure we are writing a strong thesis statement?</td>
<td></td>
</tr>
<tr>
<td>Alright, using this topic__________________ .</td>
<td></td>
</tr>
<tr>
<td>Let’s write a thesis statement together. I’ll start: teacher begins writing and guides students to finish the thesis statement with the identified criteria.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C</th>
<th>Collaborative</th>
</tr>
</thead>
<tbody>
<tr>
<td>I’ve made a practice sheet for you. For the first three, there are paragraphs. With a partner, you’ll read these introductory paragraphs, and then identify the thesis statement. On the graphic organizer, write out what makes it a strong or weak thesis statement. If it’s weak, see if you can find ways to make it better.</td>
<td></td>
</tr>
</tbody>
</table>
For the final three examples, you will be given a topic. Together, brainstorm some ideas for how to approach writing about the topic and then write a thesis statement to practice writing strong claims or argumentative thesis statements…

<table>
<thead>
<tr>
<th>Independent</th>
</tr>
</thead>
</table>

On your own, think of what you’ll be writing your argumentative essay on. Write one or two thesis or claim statements to help me see where you are going with your writing…

*Or if you are working on a single topic in class, have students identify how they would approach writing a thesis statement for this topic.*
CURRICULUM VITAE

MELANIE LANDON-HAYS

Utah State University
Emma Eccles Jones College of Education and Human Services
School of Teacher Education and Leadership

335 Emma EcclesJones
2800 Old Main Hill
Logan, UT 84322

haysmelanie@gmail.com
phone: 435-535-6532
346 East Center Street
Logan, UT 84321

CURRENT APPOINTMENT

Instructor: Departments of Elementary and Secondary Education, Utah State University, Department of Teacher Education and Leadership, Emma Eccles Jones College of Education and Human Services.

EDUCATION

Doctor of Philosophy: Currently pursuing a Ph.D from Utah State University.
Anticipated graduation date: June, 2012. G.P.A. 3.9, Graduate assistant.

- DISSERATION: “I Would Teach It If I Knew How”: IMSCI, A Model for Increasing Secondary Teacher Self-Efficacy in Integrating Writing Instruction in the Content Areas. (To be completed, June 2012).
  - COMMITTEE: Sylvia Read (Chair), Steven Camicia, Virginia Exton, Steven Shively, Amy Alexandra Wilson

AREAS OF SPECIALIZATION
Adolescent literacy; literacy coaching; writing instruction; content area literacy; elementary reading assessment; teacher self-efficacy; effective professional learning models.
**Master of Education Degree:** Idaho State University, 2005, Literacy.  
Master’s Thesis: *One Child’s Struggle to Overcome Reading Difficulties: A Case Study Focusing on the Need for Individually Formulated Reading Remediation.*  
Dean’s List, G.P.A. 3.9, Graduate Assistant Fellowship working in the ISU Reading Clinic assessing struggling readers of all ages, and developing remediation plans.


**Bachelor of Arts Degree:** Brigham Young University, 1996, English Major, Literature and Editing emphasis. Study Abroad, London, England—BYU English and Theater Department.

**ENDORSEMENTS**
State of Utah Current Teaching License, Level 2  
Secondary Education (Grades 6-12): English, Basic Reading, Advanced Reading, Visual Art

**TEACHING HONORS**
Graduate Assistant of the Year, Teacher Education and Leadership Department, *Utah State University*, Logan, UT, 2009-2010.


**GRANTS**
Recipient of the *Utah State Office of Education* Secondary Literacy Grant for “Professional Learning in Literacy at the Secondary Level,” Logan City School District, 6 month award: $4,000.

Recipient of the *Utah State University* Graduate Student Senate Student Travel Grant, (2) at $300, 2011.  
Recipient of the *Utah State University* Teacher Education and Leadership Department Graduate Student Travel Grant, $400, 2011.


**GRANT AFFILIATIONS**
2009-2012 Data Collection Supervisor, Logan City School District  
*Juvenile Justice Grant*
Identified and monitored projects that provided integrated academic experiences to minority and marginalized youth to promote academic engagement and ameliorate dropout effects. Principal Investigator: Robin Williams, Curriculum Director
Amount: $250,000

**TEACHING**

**ACADEMIC POSITIONS**

- 2010-present  Instructor  School of Teacher Education and Leadership  
  *Utah State University*
- 2007-2010  Adjunct Instructor  School of Teacher Education and Leadership  
  *Utah State University*, Logan, UT
- 2004-2007  Instructor  Teacher Education  
  *BYU-Idaho*, Rexburg, ID

**GRADUATE ASSISTANTSHIPS**

- 2008-2010  Teaching Assistant  School of Teacher Education and Leadership  
  *Utah State University*, Logan, UT
- 2003-2004  Research Assistant  Reading Clinic  
  *Idaho State University*, Pocatello, ID

**PROFESSIONAL POSITIONS**

- 2007-2011  Literacy Coach  Logan High School  
  *Logan City School District*, Logan, UT
- 2007-2011  English Teacher  Logan High School  
  *Logan City School District*, Logan, UT
- 2007-2011  Course Instructor and Organizer  Northern Utah Curriculum Consortium  
  *Logan City School District*, Logan, UT
UNIVERSITY COURSES

Utah State University

ELED 4040 Reading Assessment and Intervention for Struggling Readers
ELED 4030 Teaching Language Arts
SCED 4200 Language, Literacy and Learning in the Content Areas
ELED 6380 Effective Writing Instruction (via face-to-face/broadcast combination).
TEAL 6310 Content Area Reading and Writing (via face-to-face/broadcast combination).
TEAL 6570 Advanced Comprehension (via face-to-face/broadcast combination).
TEAL 6190 Theories of Teaching and Learning (via face-to-face/broadcast combination).

BYU-Idaho

ElEd 375 Literacy 1—Developmental Literacy
ElEd 380 Literacy 2—Intermediate and Advanced Literacy Instruction
ElEd 385L Literacy 3—Reading Practicum
SecEd 410 Reading in the Content Area
ElEd 350 Art Methods for Elementary Education Majors
ECSE 491 Early Childhood and Special Education Toddler Lab
ED 200 Foundations of Education
English 355 Children’s Literature
English 313 Advanced Writing for Elementary Education Majors

HIGH SCHOOL COURSES

Logan High School
English 10A and 10 B Sophomore English, course of study focused on reading classics (Shakespeare, 
To Kill A Mockingbird, Lord of the Flies), poetry, short stories and writing.
English 1010 Concurrent Enrollment English course through Utah State University, focusing on college writing and research writing.

TEAL 1010 Introduction to Public Education. Team taught concurrent enrollment course through Utah State University and Logan High School. Pilot course as model for state of Utah schools.

Latinos in Action. Cross-age tutoring course. Bilingual high school students are placed with elementary students and trained to tutor in literacy methods. On-site teaching at high school focuses on diversity education, honoring cultural heritage, and advocacy for disenfranchised minority groups.

**PROFESSIONAL RESPONSIBILITIES**

**Instructor**

*Utah State University*

- Course articulation committees in both elementary and secondary sections of the Teacher Education and Leadership Department; required to articulate teaching philosophy, requirements and assignments and to develop commonalities between courses for student consistency and success.
- Liaison between school district and University. Develop talking points for Common Core implementation, supervisory requirements and connections between school experiences and teacher education courses.
- Serve on diversity committees to increase University awareness of school partner programs, articulate needs for training teachers and develop training experiences for preservice teachers at both the high school and University levels.
- Pilot TEAL 1010 at Logan High School as a partner school/University partnership to increase student interest in education as a major, while also furthering commitments to diverse students in teacher education.
- Supervise student teachers and clinical students in practicum settings to ensure their success in completing their programs and furthering their education.
  Negotiate meetings between University students, cooperating teachers and cooperating administrators to establish criteria for successful student experiences.

**Teacher / Literacy Coach / Latinos in Action Developer & Supervisor**

*Logan High School*

- Teach literary analysis, research paper writing, personal narrative, rubric building, reading comprehension, and study skills.
- Work with students to develop revision and editing skills and an ability to be well-versed in the language of the 6 traits.
- Teach whole class novels, literature circles, critical thinking and analysis, short story, and text structures.
- Teacher development in literacy.
- Taught reading endorsement courses to faculty.
- Assess and intervene with struggling readers.
- Lead faculty meetings (large and small groups).
- Work with administration to align school literacy goals with district wide initiatives.
- Formulate a struggling readers’ course to aid students in need of remediation.
- Serve on state board for the State Adolescent Literacy Project.
- Implement and develop the Latinos in Action program to prepare Latino/a bilingual students to mentor in elementary schools in a cross-age tutoring program with the purpose of increasing language, literacy and academic skills for both elementary and high school student populations. Additionally, to increase high school student opportunity for participation in school culture, ensuring their success as college bound students.

---

**RESEARCH / SCHOLARSHIP**

**PUBLICATIONS**

**Chapters**


**Peer Reviewed Book Review:**


**Peer Reviewed Journal Publications**


Landon-Hays, M. & Read, S. (in preparation). “Who will teach them to write?: Writing in the content areas in secondary education.” (preparing submission to Journal of Adolescent and Adult Literacy.)


Books In Progress

Heron-Hruby, A. & Hays, M.L. (Eds.). (In proposal). Digital Networking for School Reform: The Role of On-line Spaces in the Grassroots Efforts of Parents, Teachers, and Youth. (preparing submission to The Teachers College Press.)

NATIONAL PRESENTATIONS


REGIONAL/STATE PRESENTATIONS

Conference (NRMERA), Jackson Hole, WY.


LOCAL PRESENTATIONS


SERVICE

NATIONAL / STATE SERVICE

PRESIDENT. Cache Valley Reading Council. Worked to revive a dormant council. Attended state meetings, recruited members, led efforts to build professional learning that would sustain the council. (2008-2011).


**UNIVERSITY**

CLINALS SUPERVISOR. Level 3 semester, prior to student teaching. *Utah State University*, School of Teacher Education and Leadership. (2009-present). Observe students in cooperating classrooms, negotiate their roles with teachers, build school and university partnerships.


LOCAL


MEMBER. Professional Leadership, Professional Development and, Data Collection Committees. *Logan High School*. 162 West 100 South, Logan, UT 84321. (2007-present). Work on teams within the responsive school framework to lead faculty, provide teacher learning and professional development opportunities, and formulate a data collection plan to track student progress in the school.

MEMBERSHIPS

American Educational Research Association (AERA), 2009-present
  Division K-Teaching and Teacher Education
  SIG-Critical Educators for Social Justice
  SIG-Research in Reading & Literacy
Association of Literacy Educators and Researchers (ALER), 2008-present
Association for Supervision and Curriculum Development (ASCD), 2007-present
International Reading Association, 2003-present
National Council of Teachers of English, 2002-present
National Reading Conference, 2008-present
Utah Council International Reading Association, 2007-present