The Influence of a theory based U.S. History curriculum on Student Content Knowledge, Student Historical Interpretation Skills, and Student Self Efficacy for Historical Inquiry

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THE INFLUENCE OF A THEORY BASED U.S. HISTORY CURRICULUM ON
STUDENT CONTENT KNOWLEDGE, STUDENT HISTORICAL
INTERPRETATION SKILLS, AND STUDENT SELF EFFICACY FOR
HISTORICAL INQUIRY

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Of the Requirements for the Degree
Doctor of Philosophy

By
Sherry Joiner Harrell
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____________________________________________________

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Abstract

The purpose of this study was to examine the impacts of a theory based U.S. History curriculum on middle school students’ historical content knowledge, historical interpretation skills, and self-efficacy for historical inquiry. Current middle school social studies curricular models are poorly designed and do not provide teachers with effective instructional strategies for creating knowledge, developing historical thinking skills and solving problems. These curricular models should focus on historical skills such as investigation, sourcing, interpretation, corroboration, evaluation, contextualization, collaboration and development of historical understanding through a variety of learning opportunities (Barton & Levstik, 2003; Martin & Wineburg, 2008; Wineburg, 2001). Therefore, this study highlights the impacts of an inquiry-based curriculum in an effort to inform researchers, teachers and other curriculum stakeholders of the components that positively impacted middle-school students’ content knowledge, historical interpretation skills, and self-efficacy for historical inquiry. The findings from this study would assist in narrowing the gap between research, or academic theory, and classroom practice by informing and modeling for teachers how they can cover and control as well as challenge and make connections by embedding collaboration, evaluation and analysis in their instructional practices. Finally, this research seeks to determine whether or not historical thinking skills such as historical interpretation can be embedded in the learning environment while mastering the content information at the same time. Data was collected using a U.S. History multiple choice assessment, unit performance assessments, and a social studies student self-efficacy survey.
CHAPTER 1

Statement of the Problem

In our democratic society today, the possession of basic content knowledge and the ability to repeat this information in scholastic settings is not enough preparation for the challenges students will face after they complete their schooling. Students today must know how to use that information as well as possess a sense of inventiveness, creativity, productivity, integrity, interpersonal communication, cooperation and most importantly, the capability to use these skills to continue learning and solving life problems (Scot, Callahan, & Urquhart, 2009). However, in many middle school social studies classrooms, the curriculum models in use have not incorporated effective learning experiences that allow students to develop thinking skills as well as opportunities to use these skills in authentic ways. Some teachers are more focused on coverage of content to ensure that students are successful on objective assessments given by states (Barton & Levstik, 2003; Martin & Wineburg, 2008). This allows current middle school social studies curricula to focus on covering core content themes through textbook driven assignments, recall questioning, listening to lectures, rote memorization and replication of information (Monte-Sano, 2011; Viator, 2012). A focus on coverage does not necessarily achieve connection or historical thinking skills that students will need to be productive members of our democratic society. The problem exists when the current middle school social studies curricular models do not provide teachers with effective instructional strategies for creating knowledge, developing historical thinking skills and
solving problems. These curricular models should focus on historical skills such as investigation, sourcing, interpretation, corroboration, evaluation, contextualization, collaboration and development of historical understanding through a variety of learning opportunities (Barton & Levstik, 2003; Martin & Wineburg, 2008; Wineburg, 2001). To ensure that these skills are embedded in instruction, there must be seamless alignment between curriculum, instruction and assessment. Therefore, this study will investigate the impact of an inquiry-based U.S. History curriculum on middle school students’ historical content knowledge, historical interpretation skills, and self-efficacy for historical inquiry.

**Background of the Study**

A strong democratic society relies on its members to be able to think critically to solve problems and concerns, as well as be able to work together to protect and preserve the freedoms established for its citizens (Reidel & Draper, 2011). People must be able to interact in a collaborative manner to communicate, evaluate, and compromise because social interdependence is essential to the success of a democracy (Anderson & Lubig, 2012). In order to prepare middle school students for these roles in society as well as an unpredictable future, the focus for social studies education must shift from coverage to connection. Instructional practices must shift from repetition of basic content knowledge and rote memorization of people, places, and dates to application in a collaborative setting and development of the historical thinking skills a democratic society needs from its members. Learning experiences must be incorporated that teach students how to learn in order to produce citizens that are capable of adapting and gaining new skills over time. Students must learn how to help each other and how to be helped. At the same time,
social studies content is not to be dismissed as insignificant; it is essential to the
development of historical thinking skills. As compared to other disciplines, the social
studies curriculum in the United States is affected by the social, economic, and political
changes of our society, making social studies instruction unique (Bolinger & Warren,
2007). Curriculum content is continually questioned, challenged and revised as a result
of these external influences and to meet the changing needs of society. The question of
what people, events, and concepts should be included in the social studies curriculum is
frequently reevaluated and reformed. Therefore, with the evolving content information,
historical thinking skills of sourcing, corroborating, and contextualizing are necessary for
understanding decisions and perspectives, interpretation, making connections, and
developing the skills necessary for application (Bolinger & Warren, 2007; Wineburg,
2001). Skills cannot be developed without content; however, currently, social studies
content in many middle school classrooms is taught without the accompanying skills.

The social studies content is typically not being utilized in middle school
classrooms to develop and enrich historical thinking skills such as source checking,
corroborating sources in multiple places, contextualizing to determine surrounding
circumstances, collaboration and interdependence (Wineburg, 2001). In some cases,
social studies instruction consists of memorization, basic reading comprehension and
summarization (Monte-Sano, 2011). In other situations social studies curriculum itself
has been narrowed or instructional time has sometimes been eliminated altogether to
allow time for tested subjects only (Anderson & Lubig, 2012; Common Core, The Farkas
Duffett Research Group, 2012; Tieso, 2013; Torrez & Waring, 2009). Social studies time
as a whole has been devalued in light of math and language arts, which are tested subject areas for measuring adequate yearly progress (Anderson & Lubig, 2012; Tieso, 2013).

**U.S. History Curriculum**

Historical thinking is a unique skill not found in other disciplines; it is not innate, nor a skill that comes naturally with time and development. Achieving historical thinking at a critical level goes against our everyday thinking and must be taught (Wineburg, 2001). Memorization comes more naturally as it is a skill that is used across disciplines and is taught across grade levels. Storytelling and recounting familiar events of the past is also a familiar form of historical learning. However, both of these methods of learning involve basic-level content knowledge and do not require students to analyze evidence, synthesize ideas or construct knowledge. With memorization and storytelling the students become passive learners instead of active participants. If teaching democracy is essential in order to continue a democratic society, then the whys and hows of the decisions that our founding fathers made are essential in preserving the integrity of our culture today. Therefore, social studies instruction in the middle-school classroom must include historical thinking skills in order for students to take on the role of citizen and be able to analyze and evaluate the past.

**Instruction**

Current middle school social studies instruction includes a continuous stream of learning experiences that do not necessarily encourage students to see history as an investigative, open-ended and research-based discipline (Bollinger & Warren, 2007). Instead, too often the focus is on discrete facts that will be tested (Reidel & Draper, 2011; VanSledright & Frankes, 2000; Viator, 2012). In some cases, students are bombarded
with dozens of skills to be mastered at first introduction (Beyer, 1984). They may also be required to read sections of the social studies textbook and locate answers to the questions at the end of a section or chapter in order to replicate the information on a future assessment (Barton & Levstik, 2003). Most middle school social studies classrooms are not utilizing the content information to make connections to conceptual ideas or develop disciplinary skills. Instead, the social studies textbook and ancillary materials are the history curricula that drive instructional decisions (Bolinger & Warren, 2007; Reidel & Draper, 2011; Viator, 2012), and learning revolves around memorization of facts rather than investigation (Barton & Levstik, 2004; Levstik & Barton, 2001; Martell, 2011; Monte-Sano, 2011; VanSledright, 2002; Wineburg, 2001). This type of instruction most often includes “homework assigned from the textbook, review assignments in class, excessive teacher talk (lecturing, clarifying, and explaining), recitation of someone’s approved story of people, places and events, or seatwork with the occasional use of audiovisual aids and field trips” (Bolinger & Warren, 2007, p. 70). Reading historical texts involves focusing on the literal meaning of documents with no interpretive work, or consideration to sourcing of documents (Monte-Sano, 2011). Middle-school students are faced with conflicting historical accounts of the same event and are not equipped with the skills or knowledge to corroborate, source, or contextualize in order to interpret accounts and decipher the accurate account (Wineburg, 2001). Finally, there is very little to no analysis of documents incorporated when students are writing. Instead, their writing becomes a listing or arranging of facts (Monte-Sano, 2011). It appears that middle school social studies instruction is moving away from education for democracy and citizenship with opportunities to analyze historical events
for understanding and connection. Instead many learners are being asked to recall information and blindly accept historical accounts delivered by authorities as truth (Monte-Sano, 2011).

Understanding the hows and whys of historical events, documents, and decisions has come to have various and multiple meanings within the social studies community. It could “mean anything from memorizing a list of dates to mastering a set of logical relations, or being able to recite an agreed upon story to contending with ill-defined problems resistant to single interpretations” (Wineburg, 2001, p. 29). Mature historical thought and understanding is not being developed in classrooms today because the level of historical-thinking instruction is poor or non-existent and the curriculum itself is poorly designed (Reidel & Draper, 2011; Tieso, 2013). For example, on the 2007 National Assessment of Educational Progress (NAEP) exam,

Of children tested in reading, five percent could interpret the author’s point as written, provide supporting examples for their conclusions or opinions about the document, make connections between multiple texts, or recognize that a text’s author had a purpose in writing a particular document. (Monte-Sano, 2011, p. 213)

In addition, only 5% of students tested critically evaluated a source and 2% consistently supported arguments with evidence (Monte-Sano, 2011; NCES, 2007). Middle School social studies instruction seems to resemble more of a march through time without making any connections to people or events in the present or focus on skills of the discipline (Bolinger & Warren, 2007; Levstick & Barton, 2001).
Curriculum

A poorly designed curriculum that lacks continuity, connection, and rigor can have a negative impact on instruction and student achievement. For 35 years, Marzano (2003) has conducted research to determine the various factors that impact student achievement. In his meta-analysis of school, teacher and student factors, he identifies “a viable curriculum, challenging goals and effective feedback” (Marzano, 2003, p. 10) as school-level factors that have the largest impact on student achievement (Schmidt, McKnight, & Raizen, 1996).

As part of a Third International Mathematics and Science Study (TIMSS), Schmidt et al. (1996) evaluated 491 curriculum guides and 628 textbooks in math and science from countries around the world (Schmidt et al., 1996). The United States math and science curriculum plans were found to be unfocused in comparison to other countries, and results show that curriculum, textbooks and teaching covered a large amount of content at a surface level and did not dive deep into application (Schmidt et al., 1996). Therefore, a curriculum that is unfocused or fragmented and that does not clearly define content and skills to be taught impacts the depth of what our students are learning. Educators must focus on designing social studies curriculum that is focused on content connections, incorporates authentic application of historical thinking skills as well as embraces literacy instruction in order to increase student achievement and prepare students for unforeseen challenges in the future.

Teachers

In addition to middle school social studies instructional practices and curriculum structure, teacher factors must be considered when implementing an inquiry-based
curriculum. Limited understanding of the history content as well as instructional pedagogy is a barrier preventing teachers from teaching historical thinking skills such as historical interpretation (Martell, 2011). Some teachers are not confident with their own background knowledge of various historical people and events (VanSledright & Frankes, 2000), nor are they self-assured in their instructional practices. With a lack of content and pedagogical knowledge, some teachers do not know how to integrate content with historical thinking skills or how to implement investigation and evaluation learning experiences. Analyzing and questioning historical texts is done in practice by historians in the field; however, it is not regularly incorporated in classroom instruction. This analysis and questioning of historical texts is being evaded in the classroom even though it is the heart of daily practice for historians and is a skill that becomes second nature in the field (Martin & Wineburg, 2008). With a lack of knowledge, confidence and time to analyze meaning, background, intent, and purpose of historical text, teachers are pressured to focus on coverage and not connection (Martell, 2011).

**Teacher beliefs.** The teacher’s disposition, or what the teacher believes about student capabilities, can also impact the instructional planning and assessment decisions that he or she makes (Martell, 2011; Viator, 2012). Some teachers believe that only the advanced students are capable of complex reasoning and critical analysis; therefore, leaving the low-achieving students typically with rote, low-level instruction and learning experiences (Kohlmeier, Saye, Mitchell, & Brush, 2011; Torrez & Waring, 2009). In addition, the belief that their (teacher’s) purpose as a social studies teacher is to control student behavior and cover the content material impacts the focus and drives planning and assessment decisions (Barton & Levstik, 2003; Martin & Wineburg, 2008).
Consequently, having students move about the classroom in small groups, investigating various accounts of a single historical event, collaborating with peers to evaluate primary source documents, or embedding open-ended activities into student learning, would go against their goal of control and cover. Some teachers view these types of learning experiences as extras, and with so much content to cover for state assessments, there is rarely time for anything extra (Barton & Levstik, 2003). These beliefs about student ability as well as controlling students in order to cover content could impact whether the teacher creates a rote learning experience or implements inquiry learning.

**Instructional effort.** Finally, the effort that is involved in creating inquiry learning experiences that include investigation, evaluation, sourcing, corroborating, analysis, and contextualization is too great for some teachers to tackle (Wineburg, 2001). The challenges teachers face range from finding and organizing resources for all learning levels and needs to creating authentic learning activities that will allow students time to analyze, evaluate and develop. Not only are these challenges that arise in preparing for historical inquiry learning a barrier, but the differences in knowledge between teachers can also become an obstacle. For example, there are some teachers that have a deep and exact understanding of the history content, while others have a deep understanding of how to create historical knowledge (pedagogy) (Barton & Levstik, 2003). At the same time, there are some teachers that have a vast knowledge of both content as well as how to create understanding (historical pedagogy). These teachers know how to incorporate historical thinking skills and content into instruction and learning experiences that challenge students to analyze primary documents, evaluate perspectives and develop their own interpretations of history. The opposite of this is a teacher that does not have a
wealth of content or cognitive development knowledge and therefore does not know how to implement historical inquiry learning experiences (Martell, 2011). This teacher is more likely to rely on the textbook and ancillary materials as a curriculum base instead of creating instruction that utilizes a plethora of resources and blends content information with historical thinking skills.

**Purpose of the Study**

Current middle school social studies curricular models are poorly designed and do not provide teachers with balanced and effective instructional strategies in order to develop historical thinking skills needed to create meaning of content knowledge. In order to support middle-school social studies teachers and guide them towards improved practices, curriculum experts must revise and rebuild the social studies curriculum to include background knowledge as well as specific strategy implementation guides. Instruction must shift away from the current practices of rote memorization, textbook driven assignments, and basic recall questioning. One way to support and cultivate change in the middle school social studies classroom is by providing middle school social studies teachers with an inquiry-based curriculum that embraces a balance of historical thinking instruction with self-discovery and opportunities for students to interact with their peers and the content. This curriculum should provide connection to the students’ prior knowledge, be relevant to society today, and be manageable for teachers to implement. Therefore, this research examined the impacts an inquiry-based curriculum had on middle school students’ content knowledge, historical interpretation skills, and student self-efficacy for historical inquiry. Researchers created an inquiry-based curriculum that incorporated social studies content with the historical thinking skills of
historical interpretation, collaboration, investigation, and evaluation. Units of study embedded collaborative learning experiences, allowing middle school students to interact with their peers as well as the content documents. Due to the unique learning needs of middle-school students, lessons were structured in a spiraling manner in which content information and skills were revisited throughout the course of the unit as well as between units. Each lesson began with a hook to capture the students’ interest as well as active prior knowledge for new learning to be attached. Essential questions and conceptual understanding were embedded in each lesson to provide purpose and structure for the student to organize new information. Prior to implementation, students’ content knowledge, historical interpretation skills, and student self-efficacy for historical inquiry were measured to reveal improvements in knowledge and skill. The following research questions are the foundation for analysis of the impacts of an inquiry-based curriculum.

**Research Questions**

1. To what extent does a U.S. history inquiry-based curriculum improve American history content knowledge for middle school students as measured by the U.S. History Assessment 1?

2. To what extent does a U.S. history inquiry-based curriculum improve historical interpretation skills for middle school students as measured by the Post-Reconstruction and Civil Rights model unit performance assessments?

3. To what extent does a U.S. history inquiry-based curriculum improve middle school students’ self-efficacy for historical inquiry as measured by the student self-efficacy survey?
Significance of the Study

This study sought to examine the impacts of an inquiry-based curriculum in an effort to inform researchers, teachers and other curriculum stakeholders of the components that positively impacted middle-school students’ content knowledge, historical interpretation skills, and self-efficacy for historical inquiry. This study differs from similar curriculum studies in that it provides units of study to the teachers at the middle-school level for implementation as well as background historical information for the teacher. In addition, the study made provisions for comparison data to be collected from middle-school social studies classrooms that were not implementing this inquiry-based curriculum, but were utilizing other curriculum materials. Effective elements of an inquiry-based curriculum would be essential to incorporate in social studies curriculum development at the national, state, and local level, in order to eliminate some of the instructional effort on teacher’s planning time. The findings from this study would assist in narrowing the gap between research, or academic theory, and classroom practice by informing and modeling for teachers how they can cover and control as well as challenge and make connections by embedding collaboration, evaluation and analysis in their instructional practices. Finally, this research seeks to determine whether or not historical thinking skills such as historical interpretation can be embedded in the learning environment while mastering the content information at the same time.

Definitions of Key Terms

Constructivism: Constructing own understanding and knowledge of the world through experiences and reflecting on those experiences. Learning is an active and
constructive process in which the learning is constructing meaning (http://www.learning-theories.com/constructivism.html).

Curriculum: A proactive plan designed to organize, sequence and manage interactions among teachers, learners, content knowledge, understandings, and skills we want students to acquire (Burns, Purcell, & Hertberg, 2006, p. 88).

Historical Inquiry: “a process that involves asking questions, gathering and evaluating relevant evidence, and reaching conclusions based on that evidence” (Barton & Levstik, 2004, p. 188). Historical inquiry is also, a process of reflection in which students attempt to solve problems by examining historical evidence (Martell, 2011).

Historical Interpretation: A type of pedagogy that is used to guide students towards understanding other people’s interpretations of the past, but also allows students to construct their own interpretations using the evidence from multiple resources (Martell, 2011). It is a circular process in which interpretations are made, challenged and revised (Chapman, 2011).

Inquiry-Based Learning: Inquiry-based learning is a complex process where students attempt to convert information into useful knowledge through a structure of posing “real” questions, finding resources to gather information in answering the “real” questions, interpreting the information and reporting the findings (Chard, 2004). During this process, students constantly refine the “real” questions, evaluate and verify information, reinterpret information in light of new information, and report findings, often in non-traditional ways.

Self-Efficacy: Personal judgments of one’s own capability to accomplish specific tasks and deal with different realities (Pajares, 1996).
**Teacher Self-Efficacy**: A teacher’s judgment of his or her capabilities to bring about desired outcomes of student engagement and learning, even among those students who may be difficult or unmotivated (Tschannen-Moran & Hoy, 2001). A teacher’s belief that factors under their control ultimately have greater impact on the results of teaching than do factors in the environment or in the student-factors beyond the influence of teachers (Tschannen-Moran, Hoy, & Hoy, 1998).

**Summary**

This study seeks to further the understanding of the impacts of a theory-based or inquiry-based social studies curriculum on middle school students’ content knowledge, historical interpretation skills, and student self-efficacy for historical inquiry. In addition, this study hopes that by providing teachers with historical background knowledge and instructional strategies, a sense of comfort in their own instructional abilities will develop and their instruction will engage students in collaboration, evaluation and historical interpretation.
CHAPTER 2

Literature Review

This literature review provides an overview of the type of environment that is needed in the middle school social studies classroom to be conducive for students to create knowledge. It begins with an examination of learning theory, ways children create meaning, and the ideal learning environment in an effort to build a foundation for designing inquiry-based social studies curriculum. It presents characteristics of a high quality curriculum as well as the unique components of social studies instruction that must be considered. Inquiry learning as well as historical interpretation are two instructional strategies presented as elements of high quality social studies curriculum that will require students to become active participants in their learning and set the stage for historical skill development. Finally, similar studies are examined for effective practices, study limitations, learning outcomes, and research findings.

Curriculum Learning Theory

Effective curriculum design for social studies education must be built upon a foundation of learning theory that describes how children create meaning and defines characteristics of the ideal learning environment. For example, Jerome Bruner, psychologist and educational thinker, proposed that the purpose of education is not to impart knowledge to a student, but to assist the student’s thinking and problem solving skills (as cited in McLeod, 2008). Meaning is constructed by the learner instead of being
a reaction to or reflection of an external stimulus (Bruner, 1964; Tobias & Duffy, 2009). As active participants, students construct their own knowledge and then transfer their learning to new and different settings. Bruner referred to this as discovery learning when the students create their own knowledge instead of being told by the teacher (Schunk, 1991). Bruner’s (1964) discovery learning allows students to construct knowledge and meaning by participating in three progressive stages: enactive, iconic, and symbolic. The enactive stage creates meaning through movement or muscle memory and involves physical movement. Iconic is when information is stored in the form of images or mental pictures (the mind’s eye). Finally, symbolic representation is when information is stored in the brain in the form of a code or symbol like language. At this stage information is most often stored as words or other symbols. Bruner (1964) suggests that a learner is capable of mastering material as long as it is presented or instruction is organized in this step-by-step progression from enactive to iconic to symbolic representation over time.

Instruction through Bruner’s three-stage process can be done through the use of spiraling curriculum (Schunk, 1991). A spiraling curriculum is structured so that complex ideas or concepts are taught at a basic level first and over time the concept is revisited and taught at a more challenging level. The instructor would gradually increase the level of complexity, spiraling until understanding is met and students are solving problems independently (Bruner, 1964). The role of the teacher is to be the guide on the side and facilitate the learning process instead of solely utilizing direct instruction or rote learning. The goal of a spiraling curriculum is for students to progress through various stages of learning, increasing in complexity with each step, and learn the process of learning or learn how to learn (McLeod, 2008).
John Dewey, philosopher, psychologist, and educational reformer, also believed that learning is a social and interactive process in which students should be active participants (Scot et al., 2009; Simpson & Jackson, 2003). Based on Dewey’s ideas, meaning and understanding are created through authentic learning experiences that capitalize on students’ prior knowledge and build upon their interests (Simpson & Jackson, 2003). Therefore, the curriculum, instruction, and the student are interrelated in such a way that they cannot be separated or considered as separate entities. Curriculum and instruction are shaped upon the students’ interests, prior knowledge, abilities, and identified standards of content information. The teacher assesses the students’ interests and abilities based on their interactions with the environment and determines how to proceed through the educative process (Simpson & Jackson, 2003). Teachers become partners in learning by creating and developing ways in which the subject matter can be used to guide students toward discovery and understanding with hands-on or inquiry experiences. The students guide learning through the use of questioning, and the teacher facilitates their discovery by stretching their thinking to include more complex ideas as well as the stated curriculum. The teacher is also concerned with their own knowledge of the subject matter and how that knowledge can be used to create real world encounters in which the students can engage and explore (Simpson & Jackson, 2003). Dewey’s ideas concerning the role of the teacher are best captured and synthesized in the National Board for Professional Teaching Standards (NBPTS) Five Core Propositions. Three of these propositions state:

- Teachers are committed to their students, knowing their interests, strengths, and weaknesses and are able to set appropriate goals based on these qualities.
• Teachers know their subject matter and how to teach that subject matter to these students based on what they know about the students strengths and weaknesses.

• Instructional and curricular decisions are based on these students’ needs, at this time and in this place. As students’ progress towards the intended learning outcomes, teachers monitor their progress and think systematically about the direction of learning and make decisions about teaching and learning based on student progress. (NBPTS, 2005)

Dewey described the teacher as the adult that observes, assesses, creates, develops and reflects in a cyclical manner, constantly blending students’ interests and abilities with curriculum. The teacher is not the knowledge guru that dispenses all facts upon the students for them to absorb. They are partners with the student and make curricular decisions based on the student’s continued learning needs.

Constructivist theories of teaching and learning support student creation of knowledge by making the quest for understanding the focus of all activity and learning experiences. Knowledge and understanding are created in a classroom environment that is interactive, challenging, and concept-based as well as allows continuity between the curriculum, instruction, and assessment (Tobias & Duffy, 2009). In a constructivist environment learning should be structured to solve real and authentic problems, or learning by doing, as Bruner suggested with his three stage process. The opposite of a constructivist environment would be one that is focused on the behaviorist theories, or practices such as direct instruction. In a behaviorist classroom, the students would be told or shown what to do and external influences, such as the teacher, regulate learning.
In order to construct meaning students will need guidance within instruction. However, constructivists and critics of constructivism cannot agree on what the form of guidance should be for effective instruction (Tobias & Duffy, 2009). Kirschner, Sweller, and Clark (2006) have said that unguided or minimally guided instruction is less effective and due to the lack of depth of student’s background knowledge, students often become lost or confused during discovery. Therefore, the goal should be to align the instructional environment with content knowledge and skills of the curriculum, as well as with the students’ interests and abilities. While instructional approaches will vary to match the content of the discipline as well as the interests and cognitive needs of the learner, there will be times when direct instruction is also needed. At some point the instructor will need to provide the learner with background knowledge and factual information as well as explain concepts and lead skill development through direct instruction. At other times constructivist approaches will be more appropriate to allow students to discover connections and make sense of historical events. A balance between direct, or guided, instruction and unguided will need to be reached to allow for optimal academic growth. Too much guidance will lead to dependence and a student that cannot think or produce independently on later performances (Kirschner et al., 2006). The absence of the right amount of guidance will lead to misunderstandings, frustration, and possibly defeat.

Student Self-Efficacy for Historical Inquiry

While effective instructional models and learning environments are essential to student achievement, attention must also be given to student self-efficacy for historical inquiry. Self-efficacy is a cognitive process in which students construct perceived ideas about their ability to perform at a certain level and succeed overall academically
Student self-efficacy focuses on how a students’ feeling or perception of their abilities impacts their academic performance. There is a difference between the perceived ability level and the actual ability level; however, the perceived ability has a larger impact on behavior and therefore student’s academic performance (Pajares, 1996).

According to Bandura (1994), self-efficacy is developed from four different sources of information: mastery experience, vicarious experience, social messages, and physiological states. The most powerful source of information for developing self-efficacy comes from the students’ own academic success or failure, or the mastery experience (Bandura, 1994; Pajares, 2000). Students interpret their own performance on various tasks and based on these results a judgment is made regarding ability. For example, a successful score or evaluation would raise self-efficacy and the students would develop strong confidence in their abilities, while a failure would lower the students’ self-efficacy and weaken their confidence. Vicarious experiences are the second sources of self-efficacy and this involves the words and actions of other people. This would include the encouragement or discouragement of an influential teacher, adult, or even a peer or peer group in the students’ lives (Bandura, 1994; Pajares, 2000). Included in vicarious experiences are also the social comparisons that are naturally made between peers and peer groups regarding academic success, values, and skills. The third source of information comes from social messages that we receive from others. These are positive messages of compliment, encouragement or empowerment that someone says in passing, or negative ones that weaken and defeat. These types of remarks make a lasting impression and affect a person’s confidence for a lifetime. Finally, Bandura
(1994) says that physiological states such as increased stress, mood changes, and fatigue add information for building self-efficacy beliefs. These physical reactions contribute to levels of confidence and most often create doubt regarding ability.

These four sources work simultaneously to constantly provide information used to create perceptions of ability that in turn can impact the students’ level of participation in learning experiences as well as their effort and perseverance. According to Pajares (1996), these perceptions of ability, or students’ level of self-efficacy, can impact academic behavior in three different ways. First, the students’ perception of their academic abilities can influence their decision to participate in challenging learning experiences presented within the classroom. Most often people choose to participate in tasks that they feel confident they will achieve and avoid the ones in which they do not feel they will be successful. If the students do not feel that they have the knowledge or skill ability to achieve (low self-efficacy), then they are less likely to attempt the more challenging tasks that push them just past their comfort zone. They will not be receptive to taking risks in their learning and alternatively will choose not to participate. Second, the students’ level of self-efficacy can also impact how much effort is put forth towards achieving the challenging tasks (Pajares, 1996). Students who have a high level of self-efficacy, or feel that they are capable of achievement, may expend greater levels of effort and perseverance to accomplish a task. Whereas, students that feels that they do not have the necessary ability or low self-efficacy, may not spend as much effort or time on the task since they do not think they can succeed anyway. Finally, Frank Pajares (1996) indicated that self-efficacy beliefs could influence students’ thoughts and emotions when faced with difficult problems. Students with low self-efficacy and facing a challenging
problem may perceive the situation as being harder than it really is and will not attempt to work through the situation. The challenge ahead creates such an overwhelming feeling of panic and anxiety that their focus becomes blinded and they cannot break the problem down, explore options and arrive at a solution. However, students with high self-efficacy would welcome the challenge and explore all angles of the challenge before arriving at a solution. Thus, curriculum design, delivery method, and classroom environment are not likely to lead to success if students do not perceive that they can accomplish the task.

“Efficacy beliefs influence how people feel, think, motivate themselves, and behave,” particularly in academic settings (Bandura, 1993, p. 118). Therefore, there is a strong relationship between self-efficacy beliefs and academic achievement in the classroom setting (Tieso, 2013; Tschannen-Moran et al., 1993).

To increase both student performance and the use of advanced cognitive strategies, student self-efficacy must be raised to make students feel confident in their abilities and be willing to take risks in their learning. Content knowledge, skills and confidence need to be embraced in unison in order to provide learning experiences that will develop citizens with the ability to think critically and develop solutions to problems. The goal is to create independent learners that know how to learn and can teach themselves (McLeod, 2008), in order to be ready to explore difficult subjects of the future, for careers and jobs that do not currently exist. To achieve this lofty goal, curriculum developers must evaluate the current structure, content, and cognitive levels of all social studies curriculum to insure students are receiving instruction that is relevant and rigorous. High-quality curriculum is the heart of teaching and learning and is the school-level factor that has the greatest ability to impact student achievement (Burns et
al., 2006; Marzano, 2003). Without the strong integration of instructional environments, curriculum, interests, abilities, and student self-efficacy, students will not be prepared for the challenges of the future.

**High Quality Curriculum**

To provide relevant and rigorous learning experiences that will develop citizens with the ability to think critically and develop solutions to problems, high quality curriculum must be created that allows students opportunities to construct their own knowledge. Burns et al. (2006) have identified 10 fundamental traits of high-quality curriculum that can create such an environment. These traits include content, assessments, introductions, grouping strategies, teaching activities, learning activities, products, resources, extensions, and differentiation.

**Traits of High-Quality Curriculum for All Students**

1. **Content**: what students will know, understand, and be able to do
2. **Assessments**: how knowledge is measured; formative and summative
3. **Introduction**: authentic purpose; why study topic; connect to interests/life
4. **Grouping Strategies**: arranging students for effective teaching and learning; this should match content and instructional strategies that have been chosen as well as ability or interest levels.
5. **Teaching activities**: learning experiences that will provide students with the information, challenge, and support needed to process information and make connections between background knowledge and new information as well as improve performance.
6. Learning Activities: cognitive tasks designed to develop knowledge, understanding and skills

7. Products: work samples, performances, products created by students that provide evidence of student learning.

8. Resources: materials to support the learning process

9. Extensions: experiences that emerge from the learning environment and enhance students’ understanding.

10. Differentiation: modifications made to the curriculum by the teacher to accommodate students’ varied levels of knowledge, cognitive skills, learning styles, or interests. (Burns et al., 2006, p. 90-92)

High quality curriculum begins with a seamless alignment among standards, content, concepts and processes that will challenge students just beyond their current level of independent cognitive ability (Scot et al., 2009; VanTassel-Baska, 1986).

Psychologist Lev Vygotsky (1978) called this instructional push just beyond the students’ current level of independent cognitive ability, the zone of proximal development. It is the distance between what the students can do independently and what they can accomplish with guidance or collaboration (Vygotsky, 1978). These types of learning experiences activate the students’ prior knowledge, create links to new information and increase the depth and complexity of the students’ understanding of the content. Varied instructional strategies as well as high interest learning materials will stimulate cognitive engagement and increase attention to the task. Minimal-skill based learning and rote memorization must be replaced with authentic concept instruction that includes advanced content, critical thinking skills, and strategies that offer students insight into what “experts in the
discipline do, question, develop or investigate” (Burns et al., 2006, p. 94). Authentic learning experiences that incorporate open-ended responses and are aligned with the learning goals will provide students the opportunity to grapple with complexities of the content and create their own meaning (Scot et al., 2009). These learning situations will require the transfer and application of knowledge and skills to solve complex problems. Finally, assessments of teaching and learning must be aligned with the content goals, objectives, and instruction. With varied formative and summative assessment tools, students will be able to demonstrate the fullest extent of their knowledge and skills across time. The desire is to create a multi-layered environment that matches the academic needs of the students as well as stretches them beyond what they can do independently.

**Uniqueness of Social Studies Instruction**

When constructing a high-quality social studies curriculum, one must also consider the unique characteristics of the social studies discipline. Social studies is a messy field of study. It is multi-logical with competing perspectives and arguments (Kohlmeier et al., 2011; Levisohn, 2010). With varying perspectives and narratives created by historians, curriculum developers must consider which story to teach. Which story is the truth and how do we know it is the truth? Stories, events, conflicts and other content information must be confirmed by consulting multiple and various resources. There are complex ideas as well as multifaceted concepts that cannot be memorized from a single source. It is not a set of facts to be learned, but something to be constructed and knowledge must be pieced together from various sources as well as by uncovering diverse perspectives (Viator, 2012; Martell, 2011). The social studies content information is something that students must grapple with in order to make sense of the
thinking and decisions behind the actions and events. Therefore, social studies curriculum, instruction, and assessment must be created in a multi-layered approach to insure students have the opportunity to grapple with various sources and perspectives. When properly conducted, history instruction should “lead to a thoughtful weighing of arguments, pro and con, a survey of both sides of a question so as to reach a reasonable conclusion” (Bolinger & Warren, 2007, p. 68). Therefore, social studies instruction should allow students to be active participants in analyzing and contending with various historical narratives as well as questioning the origins of such stories. However, before students can grapple, analyze, question, evaluate, reason, and interpret, they must learn how to think like a historian through direct instruction and modeling of these historical thinking skills.

A student centered environment would include learning tasks that represent the work of historians as well as include conflicting historical sources and primary documents for students to analyze and evaluate. Student exposure to both primary and secondary resources that provide challenge at different levels of reading ability and understanding will provide opportunities for students to grapple with the content, evaluate evidence, and arrive at a conclusion that is supported by facts. When analytical learning experiences complement student background knowledge and understanding of the discipline, historical thinking will occur (Monte-Sano, 2011). To reach historical thinking the social studies curriculum must build opportunities for students to be active participants in hands-on experiences as well as be engaged in authentic research and simulation type exercises. Other instructional strategies that encourage the development
of multiple perspectives are debate, Socratic Inquiry, role-playing, and individual research (Bollinger & Warren, 2007, p. 76).

In addition, making decisions about social problems requires a unique set of skills and “a different type of reasoning than more bounded problems of science or mathematics” (Kohlmeier et al., 2011, p. 57). In order to be an effective citizen within a democratic society, one must develop the unique skills of “decision making, problems solving, drawing conclusions, interpreting written texts, analyzing multiple sources, identifying cause-and-effect relationships, judging the strength of an argument, distinguishing factual claims from value judgments, detecting bias, point of view, perspective, and credibility of sources” (Beyer, 2008a, p. 196). Skills instruction must be at various cognitive levels, going just beyond their comfort zone to work in the “zone of proximal development” (Vygotsky, 1978). Bollinger and Warren (2007) would surmise that this would mean providing learning experiences in which students predict, develop, explore, construct, explain, investigate, interpret, apply, and analyze new information. Content information is essential for developing critical thinking skills needed for understanding and the critical thinking skills are needed to apply the meaning of the content information. For example, exposure to primary documents alone will not create the historical thinking skills needed to interpret such documents, students must be taught questioning skills that historian’s use that will guide students towards historical understanding (Viator, 2012).

Students will need to deal with more sophisticated ideas and concepts that will help them organize the random facts of history as well as consider various perspectives to develop these unique skills (Reidel & Draper, 2011; VanSledright & Frankes, 2000). The
pure nature of social studies education in dealing with social issues and people, various disciplines, and global concerns, demands that we provide students with inquiry-based learning experiences in which they grapple with the various issues to construct meaning. These particular learning experiences should include various thinking opportunities that include “multiple perspectives, appropriate methodologies, critical use of appropriate source material, and interdisciplinary methods” (Bollinger & Warren, 2007, p. 72).

Finally, the given nature of a historian’s work has a heavy emphasis on reading, writing, and critical thinking skills, all of which are foundations for advanced literacy (Monte-Sano, 2011). Students must question what they are reading, critique the text and challenge ideas as well as interpret various sources from a variety of perspectives in order to make meaning of the past. Being able to locate, comprehend, evaluate and synthesize written and visual information is critical for all citizens within a democratic society (Reidel & Draper, 2011). Passively accepting the text during reading does not create the critical thinking skills necessary to be an active citizen and solve social issues. Therefore, instruction in the history or social studies classroom must include opportunities for students to actively evaluate content, but it must also include critical thinking instruction that will provide students with the ability to create knowledge and apply meaning.

**Inquiry-Based Instruction**

One way to create learning experiences that will marry students’ interests, abilities, skill level and content knowledge in the social studies classroom is through the process of inquiry-based learning. Inquiry by definition means to ask for information or the act of asking questions to gather information. Barton and Levstik (2003) define
historical inquiry as a process involving “asking questions, gathering and evaluating relevant evidence in order to reach conclusions based on that evidence” (p. 188).

Students utilize historical evidence and reflection to attempt to resolve questions and draw conclusions. Historical Inquiry requires students to be active participants in the process of gaining historical perspective through analyzing evidence and using dialectical thinking (Kohlmeier et al., 2011). Torrez and Waring (2009) describe historical inquiry as creating historical perspective through the analysis of historical evidence. Chard (2004) also defines inquiry-based learning as a process in which students use evidence to create knowledge through creating questions, gathering and analyzing evidence, and reporting findings. Therefore, through historical inquiry students are active participants in analyzing historical evidence by questioning or grappling with the content to create meaning. This instructional method, or learning process, is grounded in Dewey’s philosophy that students should be active participants in their learning by beginning with their curiosity (Scot et al., 2009; Simpson & Jackson, 2003). The student is at the center of the learning, directing the investigation based on their questions and curiosities. The teacher is the facilitator, guiding students towards analysis of evidence and complex levels of thinking.

Inquiry-based learning begins with students asking meaningful and purposeful questions and the teacher acting as the facilitator who models how to interpret and evaluate resource information as well as corroborate information before reporting their findings (Chard, 2004). The student is at the center of the learning as they are creating and developing questions, analyzing resource information, and exploring alternative findings. However, when establishing and maintaining an inquiry-based environment,
there needs to be a balance between direct instruction and independent inquiry. Students first must learn inquiry skills and processes in order to make meaning of and report their findings. Therefore, the components of inquiry-based instruction, the value and the purpose will need to be taught and modeled for students through the use of direct instruction (Beyer, 2008b).

Contrary Views of Inquiry

An inquiry-based environment alone will not increase student understanding or content knowledge. Kirschner et al. (2006) have proposed that based on the “human cognitive architecture,” or the manner in which the brain organizes and recalls information, unguided or inquiry-based instruction is less effective and efficient than guided or direct instruction. The format of inquiry-based learning experiences do not necessarily match the organization of the brain and how working as well as long-term memory operate. The working memory is where all new information is introduced and where conscious processing occurs. As students are introduced to new information, it is first processed in the limited space of the working memory. If this new information is not practiced immediately then it will be lost and learning will not occur. In addition, this portion of the memory is limited in the amount of information it can retain. Within the structure of inquiry-based learning students are expected to process larger amounts of new information in a short period of time in order to draw conclusions or solve problems. The working memory does not have the capability to complete such tasks and inquiry-based learning environments place a large burden on this structure. The central or more dominant structure is the long-term memory. While the working memory acts as the introductory phase, the long term memory is the application or usage phase where
everything we see, hear, and think is dependent on influenced by this memory (Kirschner et al., 2006). This portion of the memory acts as a massive knowledge and experience bank in which items can be retrieved to solve problems and for other cognitive activities. As that same information is mastered and knowledge is created, it is stored in long-term memory. In order for learning to occur, long-term memory must be changed or transformed. Kirschner et al., (2006) suggest that if nothing is changed in long-term memory, then nothing has been learned and the means used to create learning are inefficient (p. 77).

The current inquiry model does not take into consideration the unique cognitive processes of working memory and long-term memory that are needed to create learning. This instructional model allows students to explore new content for solutions to problems and/or answers to questions. During this discovery period students are utilizing their working memory to process novel information at a rate that does not allow the student to commit findings to long-term memory, or allow learning to occur. In addition, issues arise when students do not have the background knowledge to support effective discovery and learning as well as to incorporate new learning with prior knowledge. Finally, with little feedback, discussion or instructor interaction during pure discovery, misunderstandings and misconceptions in learning may occur. Inquiry-based experiences alone do not instruct students how to interpret the information they are processing or how to make meaning that will alter the long-term memory and cause learning to be stored. Therefore, there must be a balance between guided and unguided instruction prior to, during and after discovery learning.

Direct Instruction or Inquiry-Based Instruction
VanSledright and Frankes (2000) specifically examined the use of direct strategy teaching (direct instruction) versus inquiry-based instruction. In a comparative study between two fourth grade classes in different Maryland elementary schools, one teacher focused intentionally on implementing direct strategy teaching while the other teacher utilized inquiry-based study to enhance the student’s concept and strategic historical knowledge.

Table 1

| Fourth Grade Class Comparison Between Direct Instruction and Inquiry-Based Instruction |
|-----------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Class 1 | Class 2 |
| Location | Newly suburban/rural Middle and upper middle class Predominantly Caucasian population | Suburban Middle to upper middle class Diverse population |
| School | Fourth grade class Using state social studies curriculum assigned to fourth grade and beginning with Native Americans | Fourth grade class Using state social studies curriculum assigned to fourth grade and beginning with Native Americans |
| Sample | Veteran teacher 26 students total 25 students are Caucasian 1 student is African American 11 boys 15 girls | Veteran teacher 27 students total 10 students are Caucasian 9 students are African American 5 students are Hispanic 3 students are Asian 10 boys 17 girls |
Each of these classes was located in different elementary school buildings, however they are were both part of the same school district in Maryland and both were using the same district curriculum. In the fourth grade in Maryland students were studying state history and both classes were focused on Native Americans in Maryland. In this convenience sample, both teachers were veteran teachers, having taught over 25 years between them. Of the two classes, one was more ethnically diverse than the other, however both were almost equal in gender. Students’ reading characteristics were matched between classes and select students were identified to share from their perspective what they learned during unit learning experiences. There were 12 students identified to participate in interviews regarding their learning experiences. Social studies instruction was observed daily for four weeks in one class and every-other-day for five weeks in the other class. Classroom observation field notes were taken in conjunction with student interview notes as well as formal and informal teacher interview notes. Interview protocols were established for both student as well as teacher formal interviews.
Table 2

*Fourth Grade Curriculum Comparison*

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<thead>
<tr>
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<th>Class 1</th>
<th>Class 2</th>
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<tbody>
<tr>
<td><strong>Instructional Purpose</strong></td>
<td>1. Increase content knowledge</td>
<td>1. Inquiry-based study</td>
</tr>
<tr>
<td></td>
<td>2. Enhance social studies concept knowledge (validity and reliability of</td>
<td>2. Create student interest in culture of the Native Americans</td>
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<tr>
<td></td>
<td>sources, point of view, etc.)</td>
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</tr>
<tr>
<td></td>
<td>3. Increase strategic historical knowledge (research procedural skills)</td>
<td>3. Collect/gather content information</td>
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<tr>
<td></td>
<td></td>
<td>4. Discover conceptual knowledge</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*No direct instruction or intention to increase concept or strategic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>knowledge.</td>
</tr>
<tr>
<td><strong>Curriculum Focus</strong></td>
<td>1. Native American culture</td>
<td>1. Culture of the Native Americans</td>
</tr>
<tr>
<td></td>
<td>2. Integrate language arts, reading and social studies where possible</td>
<td>2. Empathy for life style and choices</td>
</tr>
<tr>
<td></td>
<td>3. Research skills</td>
<td></td>
</tr>
<tr>
<td><strong>Instructional Methods</strong></td>
<td>1. Integrating history and research strategy instruction</td>
<td>1. Self-discovery of culture of Native Americans</td>
</tr>
<tr>
<td></td>
<td>2. Direct skill instruction of strategic and conceptual knowledge using</td>
<td>2. Information collection and gathering</td>
</tr>
<tr>
<td></td>
<td>reading strategies and skills in context</td>
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<tr>
<td></td>
<td></td>
<td>3. Self-discovery of strategic and conceptual knowledge</td>
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</tbody>
</table>

Throughout the teaching of this unit on Native Americans, the first teacher focused her instruction on incorporating culture of the Native Americans, integrating language arts and reading where possible with social studies, and teaching her students effective research skills. She incorporated more direct instruction for teaching reading strategies, evaluating resources and skills in context with their research. The second teacher focused heavily on the culture of the Native Americans and creating empathy for
their life style, knowledge, and life choices. Teacher number two used an inquiry-based approach, having students research or discover what they could about the Native Americans without direct instruction of research skills. The inquiry-based experience was used to collect information about the Native American’s culture as well as create interest in their life style. Students were to discover strategic and conceptual knowledge whereas teacher number one used direct instruction to teach students specific knowledge and skills.

As a result of these teaching differences and an analysis of the data collected, VanSledright and Frankes (2000) concluded that the direct instruction approach had a sizeable impact on developing content knowledge and improving research skills. The results also indicated that the inquiry-based environment in the second teacher’s classroom did produce some gains in conceptual and strategic knowledge. Students in neither classroom showed gains in understanding the background concepts. Students did not feel prepared with enough background knowledge of the Native Americans. Finally, students in the first teacher’s classroom showed a greater sense of confidence about their research abilities as a result of the direct instruction of research skills. At the same time, some of the students in the second teacher’s classroom also showed confidence in their research abilities as a result of the research experience itself. Therefore, the researchers concluded that a blend of direct skill and knowledge instruction with discovery opportunities would provide students with a learning environment where they are active participants and have the skills to construct knowledge.

Inquiry in Action
In order to establish an inquiry-based classroom environment enriched with guided instruction, teachers must engage in purposeful pre-planning. Pre-planning allows for consideration of students' interests and abilities as well as how this project will fit in the larger scope of the discipline, curriculum, and student learning. Teachers must consider the skill and content needs of their students and what direct instruction will be needed to alleviate the lack of background or skill knowledge. In addition, teachers will need to consider age-appropriate and valid resources as a place for students to begin their research. Depending on student needs, these preselected resources could begin a discussion with students about valid and reliable resources, how to determine if a resource is acceptable, and what to do if you have conflicting information between resources (corroborating). Pre-planning will help teachers closer match the needs of their students with the expected learning outcomes as well as create an environment in which students have the skills and knowledge to explore the depths of curriculum topics and make connections between concepts.

After pre-planning, Bruner (Chard, 2004) provided four steps to creating an inquiry environment: Pose real questions, find resources, interpret information, and report findings. Posing real questions means that students develop these questions based on their interests and perspectives, not the teachers. They are not preselected research questions that the teacher wants the student to explore. The teacher acts as the facilitator to probe students into refining and deepening their questions to address their real interests as well as make sure they are answerable. Bruner (Chard, 2004) suggests that students create a hypothesis with their question(s) to determine if they are answerable or not. Students then take their questions and find valid and reliable resources to assemble
evidence that will assist them in answering the question. The challenge will be to guide students to finding appropriate resources to answer their question and evaluating the quality of that information. Interpretation of that evidence occurs when students begin to determine the relevance of the information and the relationship between the various sources. Finally, students report their findings to the class as a whole. This reporting of findings is not a regurgitation of facts and information. Bruner describes it as a retelling of their learning journey. Students explain to the audience where they began their experiences and what discoveries they made along the way. Their findings would also include their interpretation of the data and what it means to the larger study of social studies, or other discipline concept. Careful planning and facilitating is required of the instructor to create such a rich learning environment. However, the benefits of inquiry-based instruction can offer students the opportunity to be active participants in discovering, interpreting, grappling, synthesizing, and presenting historical findings.

**Historical Interpretation**

Within an inquiry learning environment, knowledge is constructed through discovery, investigation, evaluation, and analysis of evidence. Within the uniqueness of the social studies classroom, this process also incorporates historical interpretation. Historical interpretation is a “process through which interpreters make, challenge and revise interpretive decisions” (Chapman, 2011, p. 24) with the goal of being able to think critically about issues. It is the act of considering multiple perspectives not only to draw personal conclusions, but also to determine how the evidence could lead to varying interpretations of the viewpoints held in the past (Barton & Levstik, 2003). Many students see history as being only one story to tell and composed of right and wrong
answers. They do not realize that there are multiple stories to be told as well as multiple answers. Teaching history as interpretation, within the discovery learning environment, invites the student to be an active participant in evaluating various perspectives and drawing their own conclusions. It also provides a learning experience in which students recognize that the work of historians does not occur in isolation. Participants construct their arguments with consideration of the interpretations of other historians as well as new information (Cohen, 2011). Therefore, inquiry is the process or means used to gather knowledge and interpretation uses that information to build understanding and construct knowledge.

Through the blending of discovery with integrated skills instruction, students are able to interact with content, interpret meaning and build knowledge based on evidence found. Students would begin with questioning skills to hone the focus of their study, use inquiry to gather information related to these questions, and with guidance interpret historical evidence or primary documents. Due to the difficult language and possible lack of background knowledge, students need scaffolding through essential questioning as well as big idea or concept connection to make meaning (Viator, 2012). These big ideas and essential questions create a bridge to development of historical thinking skills.

Therefore, historical interpretation should be taught through the creation of learning experiences that will allow students to question, investigate, evaluate, reflect and revise. Just like with background information and inquiry process knowledge, interpretation skills must be modeled and taught well before students are asked to use these skills on their own. Direct instruction of historical interpretation skills with many opportunities for practice will give students a solid foundation upon which they can
Teaching students how to engage in historical interpretation can be done through the use of two similar cognitive processes: Wineburg’s (2001) historical habits of mind (sourcing, contextualizing, and corroborating) and VanSledright’s (2004) four related cognitive acts of identification, attribution, perspective judgment, and reliability assessment. The first step in both processes (sourcing or identification) is to determine the setting or context in which the document was created as well as what type of document is being examined in order to know what type of information can be drawn from the document. Knowing what type of document is being examined will determine what type of questions can be asked as well as what type of information can be drawn from its contents. This is done through the intense examination of the document and the author(s).

Contextualization means placing historical events in their proper context, or understanding the circumstances and occurrences that are happening within society at the same time as a particular event (Reisman & Wineburg, 2008). Historical events and documents should not be examined in isolation, but should be considered in relation to what is occurring within society during the same time period. Many times students come to history class with the thought that each historical event occurs or document is created in isolation of any other. Contextualization teaches students to make connections between the various events and begin to look at history as an inter-related web of occurrences. This is where background knowledge is critical to students understanding of the mindset, politics, and culture of a place in which events are occurring. Without background knowledge students are unable to contextualize an event and understand the impact it has on the community and the influences the community has on the event. The
background knowledge sets the scene for students as they begin to inquire about who, what, when, where and why of a particular historical event (Reisman & Wineburg, 2008).

VanSledright (2004) takes contextualization further in his second and third steps of attribution and judging perspective. These steps are not only looking at the social, political, and cultural context in which the document was created, but also identifying the author’s purpose and perspective when creating the document during this time period. Attribution is looking at the author’s purpose for creating the document at that time and in that place. Why did the author create this document at this particular time in history? What was his or her motivation at this time in history? Perspective judgment is using the context of the when the document was created, as well as clues within the language, to determine the author’s position on issues that may impact the meaning of the document. VanSledright (2004) refers to this as “reading between the lines, or below the surface of the text” (p. 231).

Finally, information deemed from these sources must be corroborated or reliability assessment must be determined. This is the act of checking multiple sources to confirm the facts surrounding a particular historical event. Confirmation regarding related accounts is needed to determine the truth about the event. These habits of mind, or ways of thinking about evidence, do not develop naturally in the traditional classroom (Wineburg, 2001). Teachers have to build capacity to think historically through the use of guided instructional experiences that model for students each of these steps as well as unguided discovery that will allow students to practice each step with teacher feedback.

With the care and detail that is required to create meaningful inquiry experiences with sufficient background information and incorporate direct instruction for inquiry
processes and historical interpretation skills, it is not surprising that many teachers do not teach history as interpretation. Some teachers report a lack of time for creating such intricate learning experiences and lack of content knowledge. In addition, they are concerned with coverage of the content for standardized testing, classroom management issues that hinder instruction, and they have doubts that their students’ have the abilities to think critically about history (Barton & Levstik 2004; Martell, 2013; VanSledright, 2004). Other teachers have reported they lack the understanding of how historical knowledge is created and how to teach this process to students.

Finally, some teachers know the history and understand the construction process and they are still not implementing historical interpretative learning experiences within the classroom (Barton & Levstik 2003). With the time pressures educators are under and the lack of content specific knowledge, teachers are less likely to create such learning opportunities or feel confident about conducting historical interpretation experiences within their classroom. Consequently, teaching and learning about history too often becomes more of a memorization game at the middle school level and receives less and less instructional time at the elementary level.

**Bringing History Home**

In an effort to increase the quality of history instruction at the elementary level (K-5) in Iowa, Fillpot (2012) created an elementary history curriculum project entitled Bringing History Home (BHH). Funded by Teaching American History grants (Fillpot, 2009), the purpose of this curriculum and professional development project was to bring history instruction back into the forefront of learning in the K-5 classroom. In addition, history is not a subject that educators typically provide opportunities to learn skills,
theories, or rules in increments across grade levels, increasing in levels of complexity over time. In the elementary grades history is not a subject that is even systematically taught. Therefore, BHH began creating units of study to provide elementary (K-5) teachers with “systematically developed and supported” history curriculum in order to increase historical thinking skills with elementary students (Fillpot, 2012, p. 207).

Bringing History Home began on the assumption that elementary children can learn to think critically and understand historical themes and concepts. Therefore, if students methodically studied history in an “interpretive, evidence-based” manner in the elementary grades, then they would be able to develop historical thinking skills (Fillpot, 2012, p. 206). Specific historical interpretation skills included in the BHH instructional units are Wineburg’s (2001) ideas of sourcing, contextualizing, and corroborating in order to determine the truth about an event. Based on these presuppositions, two units of study were created for each grade level that provided an inquiry-based learning experience where students are active participants in the learning process. Instructional materials included resources such as trade books, historic visuals, and primary and secondary resources. Students were asked to evaluate and analyze sources to determine the context in which these documents were created.

Several criteria and previous research was considered when choosing the unit topics for each grade level in the BHH project. Fillpot (2009), creator and principal investigator, listed the following as the most important of the criteria:

1. Post-Civil War era topics are applicable to almost any community in the U.S., and local documents may be studied in addition to the BHH documents to provide local perspectives on historic movements and events.
2. The first units in kindergarten and first grade focus on students’ life histories, the most effective means to teach very young children a vocabulary of history and the general concept of change over time.

3. The topics parallel existing social studies curricula whenever possible. For example, environmentalism is a widespread second grade social studies topic. Accordingly, BHH provides a second grade unit on the history of the environmental movement. In another example, slavery and civil rights are often taught in third grade; BHH’s segregation history fills a critical gap between these topics.

4. The units emphasize significant issues and events in political, social, and economic history. This purposeful emphasis aligns with Barton and Levstik’s (2004) rationale for teaching history in order to expose learners to overarching social issues or concepts such as justice, racism, sexism, warfare, or gender roles. These concept connections give purpose and meaning between historical events of the past and societal issues today.

In addition to selecting age-appropriate topics and alignment with current curricular requirements, the BHH units also incorporate five processes that are embedded in every unit at each grade level. This provides incremental skills instruction and practice across grade levels, increasing the complexity of resources over time. These processes include timelining, reading for background knowledge, interpreting sources, mapping geographic historic information and synthesizing various sources in order to create knowledge (Fillpot, 2009). These processes align with Wineburg’s (2001) concepts of sourcing, contextualization, and corroboration as well as with VanSledright’s (2004) four cognitive
acts: identification, attribution, perspective judgment, and reliability assessment. Ideas from all three researchers allow students to become familiar with the political, social and cultural dynamics of the time period, evaluate sources to construct meaning about impacts and influences on the source, synthesize evidence, and source checking to insure truth about historical events. The only difference is that the BHH units of study also incorporate visual displays of history through timelining and creating maps of historical information. These displays provide students with an interactive tool in which they can begin to contextualize visually the time period and begin to put history into a chronological order.

During the grant period, participation in the three years of the project varied slightly due to natural mobility or retirement, however no major attrition issues were reported. Approximately 123 K-5 teachers taught history to elementary school students during the study period and roughly 3,000 students participated in study activities. After seven years of implementation, reflection and revision, Fillpot (2009) reported that Bring History Home instructional units were being taught in six Iowa school districts and the pedagogical components were transferring through staff development training to schools in Illinois, Michigan, Missouri, and North Dakota. However, in 2007 the Teaching American History grants were discontinued and the Bringing History Home study was suspended.

In December of 2007, the Center for Evaluation and Assessment at the University of Iowa conducted an external program evaluation of the Bringing History Home project. Data were collected through the use of teacher surveys, teacher focus groups, classroom observation, student written assessments, and student group interviews (Kearney, Lai, &
Evidence collected with these tools supported the project’s assumption that if children methodically study history as an interpretive, evidence-based discipline in the elementary grades they can develop critical historical thinking skills (Fillpot, 2012; Kearney et al., 2007). The main focus of the evaluation process was to report teacher and student outcomes. Teacher survey results indicated that after participation in the BHH project they were more likely to teach history as a mainstream subject in their classrooms and they rated their students’ content knowledge and historical thinking skills higher than the control group teachers (Kearney et al., 2007). These same survey results showed that a result of participation in the BHH project, treatment teachers provided a more informed explanation as to why history should be taught and how to develop historical thinking skills. When asked what history the control group teachers taught in their classrooms topics such as states, capitals, regions, voting, or national holidays were common responses (Kearney et al., 2007, p. 7). After participating in the study and the implementation of the BHH curricular units, treatment teachers were more thorough in teaching history, felt like their students had the capability to learn the content as well as how to think historically, and understand the purpose for teaching history in the elementary school classroom.

Student content and skill growth was measured during the final evaluation utilizing assessments that had been piloted during the first two years of the study. Final assessments were taken for all treatment and control classrooms in grades three through five. Each student completed one type of written assessment from the particular time period studied through the BHH project in his or her grade level. These assessments involved students either writing a narrative with vocabulary from the time period or
analyzing a photo from the time period. These assessments were given in a pre- and post-assessment format. For the treatment group, their performance on these written assessments increased from the pretest to the post-test indicating that students learned the content and skills necessary for that unit of study. There was no change between the pretest and post-test for the control group. The treatment group however, outperformed the control group on all narrative and photo analysis assessments. Finally, during small group interviews, treatment group participants provided a deeper understanding of historical content and were able to use their background knowledge and learn new information from historical photographs. The control group revealed very little background knowledge and did not show skills necessary to learn new information from historical photographs. Therefore, with the implementation of a systematically developed curriculum and professional development for teachers to learn application, students at the elementary levels (K-5) were able to develop and implement historical thinking skills.

After the study’s suspension, Fillpot (2009) continued to investigate historical interpretation instruction and the impacts that BHH curriculum has on student learning. In 2009 she questioned if the third-grade students could learn and implement the historical thinking skills that Wineburg (2001) identified: sourcing, contextualization, and corroboration. Therefore, she conducted a think aloud interview with one student in Cedar Rapids, Iowa. The student was asked to read and analyze seventeen sources on the Dawes Severalty Act of 1887, a historical topic that he had never encountered before. This student had been participating in the BHH project at his school since he was in kindergarten, meaning he had studied history since the beginning and had been exposed to the five processes for two full years. From this interview and the student thinking out
loud as he analyzed the seventeen documents, two of his comments include examples of sourcing, 18 were contextual in nature, and 15 included references to corroboration (Fillpot, 2012). Within his responses as a whole there was much overlap between the three skills of sourcing, contextualization and corroboration. What was surmised from these findings was that the BHH project did help children develop historical thinking skills; however there was still room for improvement. For example, there was a discrepancy in the students sourcing responses that showed a lack of author’s perspective and how that would influence the creation of the source (Fillpot, 2009). This also relates to contextualization and looking at all aspects of society at the time, including the author’s perspective that could influence the source. So, scaffolding direct instruction for developing these two skills was an area that might improve student learning.

**Grant Wood History Institute**

While the Bringing History Home (BHH) study was implementing carefully constructed interpretive, evidence-based units of study in the elementary grades, researchers expanded the core principles and processes into selected middle and high schools under the Grant Wood History Institute (GWHI). This professional development project (GWHI) was also funded by the U.S. Department of Education and a part of the Teaching American History Program (Kearney, Lai & Yarbrough, 2010). While the focus of the BHH project was to construct units of study and support teachers in implementation, the GWHI was a professional development program to instruct and support history teachers in the middle and high schools. This professional development began in 2007 and concluded in the summer of 2009. Working with approximately 72 public school history teachers from 21 school districts in Iowa, professional development
opportunities were provided to develop the five processes of the BHH project and provide upper grade teachers with a framework in which to organize their knowledge of historical narrative as well as inquiry-based instruction. GWHI was more focused on developing teacher pedagogical knowledge in order for them to develop learning experiences based on the five processes: timelining, reading for background knowledge, interpreting sources, mapping geographic historic information, and synthesizing various sources in order to create knowledge (Fillpot, 2009). Since middle and high school teachers are history content experts and do systematically teach history content, the focus of the GWHI was to increase pedagogical knowledge, not provided them with units of study as in the BHH project.

These learning experiences for teachers were provided during the spring and summer of 2007 and 2008. During a total of 12 days of professional development, there was time for reflection and evaluation of the GWHI theory and ideas for teaching history as well as content and pedagogy learning experiences. From the resources that are available on the Bringing History Home website as well as under the Grant Wood History Institute, teachers worked on lesson and unit development that included the five processes, critical questioning, historical thinking skills, sequencing, statistics, and primary resources. Additional support beyond these workshops was provided throughout the study via site visits, one-on-one visits, email, phone calls, and mentorship (Kearney et al., 2010).

Throughout the GWHI project, various types of data were collected via observations of teacher professional development workshops, teacher content knowledge assessments, teacher lesson planning surveys, workshop surveys, implementation
surveys, student content knowledge assessments, and student historical skills assessments (Kearney et al., 2010, p. 3). Pre- and post- measures were used with both teachers and students in participating schools to measure content knowledge and students’ historical skills throughout the course of the study. However, because some contributors were graduate students without a classroom to practice the GWHI processes and some did not participate in a sufficient amount of programming, only a core of 39 teachers was included in the evaluation activities. In the summer of 2009, at the end of the project period, the Center for Evaluation and Assessment at the University of Iowa conducted a final project evaluation as a third-party evaluator in order to measure change in teacher and student content knowledge and historical thinking skills. The content assessment measure was constructed of some retired National Assessment of Educational Progress (NAEP) items and some researcher created items. All items were either multiple choice or short answer in nature. Through survey measures, both middle and high school teachers reported that their teaching of historical events had become more thorough as a result of participating in the GWHI project (Kearney et al., 2010, p. 4). Teachers also reported feeling more confident in their students’ historical thinking and content knowledge abilities after participating in the projects professional development activities. In addition, after each of these professional development workshops, teachers also reported increases in their content knowledge. Assessment results showed an increase in knowledge between the pre- and post- assessment. However, only one small group of teachers showed a statistically significant increase in scores, and this group was less experienced in history than the other teachers. Finally, at the end of the study, lesson planning surveys conducted before and after the project indicated that all teachers
approached planning in a different way. Middle school teachers in particular were more focused on scaffolding for students, interpretation and evidence-based instead of rote-memorization, and incorporating primary sources (Kearney et al., 2010, p. 5). The changes in the high school teachers' approach to planning were also more focused on scaffolding, interpretation, and incorporating primary sources, however the magnitude was not as great as the middle school teachers.

Student content knowledge and historical thinking skills were also measured for growth throughout the study. A subset of items on the teacher content knowledge assessment was taken to create the student content knowledge measure, with some being retired NAEP items and other being researcher created. This assessment was also composed of multiple choice and short answer items. According to the program evaluation report, all students showed significant content knowledge growth during both years evaluated. For example, in 2007-08, 76% of students being assessed showed growth from pre- and post-test and in 2008-09, approximately 84% showed growth (Kearney et al., 2010, p. 5). However, without a comparison group or control group, it is difficult to identify whether these results were due to the implementation of the GWHI principles and processes or if this was typical growth for students begin exposed to this curriculum for the first time. An historical thinking skills assessment was created in order to measure students’ ability to utilize the five processes that are part of the GWHI project. Students were required to use their background knowledge with a given primary resource to answer a set of questions. Middle school students’ performance increased by 86% from the pre- to post-test, however the high school scores did not increase. The evaluation team indicates that the instrument quality may have played a role in these
findings as well as the difficulty in finding or creating a measurement tool that is sensitive to interventions.

Between the Bringing History Home project and the Grant Wood History Institute, instruction in the participating history classrooms became more focused, interpretive and evidence-based. Participating elementary classrooms were teaching history as a mainstream subject in a more orderly fashion that provided opportunities to build knowledge and skills across time. Middle and high school participating teachers built learning experiences that incorporated historical thinking skills and provided students the opportunity to become active participants in an inquiry-based environment.

The BHH project conducted pre- and post-data collection to show impact of the BHH common units of study on student content knowledge and historical thinking skills at the elementary level. The GWHI collected data and discovered some preliminary findings in regards to content knowledge and historical thinking skills, however teacher participants did not use the same unit plans created by the researcher. They constructed lessons that incorporated the same theoretical principles and process, however they did not necessarily incorporate the same learning experiences. Therefore, while data show an increase in middle school students’ content knowledge and historical thinking skills, it is unclear whether that is due to a particular curriculum or type of learning experiences because participating teachers created their own with little collaboration. The learning experiences were not uniform in nature or content. In addition, with no control group or control-group in the GWHI project to compare student gains, it is possible that students of teachers that did not participate in the study could have made the same gains.

Therefore, researcher created curriculum for all participating teachers, implementation of
control groups, and data methodology that included pre- and post- data collection of content knowledge and historical thinking skills would provide richer data that could show impact on student achievement.

**Summary**

With the increasing demand for schools to succeed and the growing policy environment within education, heightened expectations for teaching and learning have been created. Therefore, the refining process for developing better curricular supports is of paramount importance. Elements of high quality social studies curriculum must be identified, and teachers need content as well as pedagogical training in order to build learning experiences that will allow students to develop the skills needed for the unexpected future. Therefore, this study seeks to determine the impact historical inquiry-based learning experiences have on middle school students’ understanding of the historical content, their interpretation of historical documents and events, as well as their perception of how their skills have improved as a result of the implementation of an inquiry-based social studies curriculum.
<table>
<thead>
<tr>
<th>Foundational Theories of Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Jerome Bruner</strong></td>
</tr>
<tr>
<td>Discovery learning allows students to construct meaning instead of repeating or reflecting external stimulus. Students are active participants through inquiry learning by asking questions, collecting resources, interpreting meaning and reporting findings.</td>
</tr>
<tr>
<td><strong>John Dewey</strong></td>
</tr>
<tr>
<td>Learning is a social and interactive process. Knowledge is created through authentic learning experiences using prior knowledge and interests. Student centered learning where the teacher is the guide, directing students towards discovery and understand with inquiry experiences. The teacher is not a knowledge guru, but partner in learning; facilitator.</td>
</tr>
<tr>
<td><strong>Constructivist</strong></td>
</tr>
<tr>
<td>Interactive, challenging, concept-based learning environment in which students learn by doing (Problem-Based Learning). Finding a balance between direct instruction and discovery learning.</td>
</tr>
<tr>
<td><strong>Pajares and Bandura</strong></td>
</tr>
<tr>
<td>Self-Efficacy--cognitive process in which students construct perceived ideas about their ability to perform at a certain level on individual tasks as well as overall academically. Self-efficacy has the largest impact on behavior and or academic performance.</td>
</tr>
<tr>
<td><strong>Lev Vygotsky</strong></td>
</tr>
<tr>
<td>Zone of Proximal Development. Instruction should push students just beyond their current level of independent cognitive ability. Stretch beyond what they can do independently. Uses prior knowledge to link new information.</td>
</tr>
<tr>
<td><strong>Sam Wineburg</strong></td>
</tr>
<tr>
<td>Historical Habits of Mind: Thinking process unique to Social Studies used to construct knowledge and build understanding using sourcing, contextualizing, and corroborating. Includes historical interpretation or the act of considering multiple perspectives to see how evidence can lead to multiple interpretations.</td>
</tr>
</tbody>
</table>
CHAPTER 3

Methodology

Using extant data from a quasi-experimental curriculum development study, the intentions of this secondary analysis are to further the understandings of the impact of an inquiry-based U.S. History curriculum on middle school students’ content knowledge, historical interpretation, and student self-efficacy for historical inquiry. This secondary analysis utilized existing data from a larger curriculum development study in order to examine these impacts. This chapter contains the methodology and procedures to conduct this research.

Study Context

Curriculum Development Study

The larger curriculum development study was focused on engaging underserved or underachieving middle-school students located in lower socioeconomic schools in urban areas. Through implementation of a systematically developed and supported curriculum, researchers sought to have students actively participating in exploration, evaluation, and interpretation of primary resources while learning about democratic citizenship. This inquiry-based curriculum was also intended to address teachers’ lack of access to high quality curriculum with challenging learning experiences for middle-school students (Stoddard, Tieso, & Robbins, 2015). Finally, researchers focused lessons on increasing civic awareness and what it means to be a citizen by engaging students in active participation and high-interest learning experiences.
Principal investigators at a university, in collaboration with gifted education and content experts, authorities from local historical sites and the history department at the university, created four U.S. History units to be implemented in fifth, sixth and seventh grade history classrooms across two states. During the creation of these units, learning experiences were developed with two underlying premises in mind. First, young adolescents have a heightened awareness of and interest in social activities, as well as themselves and their current environment (Robbins & Tieso, 2015). Second, history classrooms are often teacher-centered with historical information being conveyed verbally and students becoming unresponsive learners (Robbins & Tieso, 2015). Therefore, learning experiences were created to allow for peer interactions and personal discovery of historical events.

The inquiry-based curriculum designed in the larger curriculum development Study was aligned with the national, state, and local standards. Specifically, objectives and learning experiences were aligned with the fifth, sixth and seventh grade history standards. Prior to constructing individual lessons and learning experiences, an overall curriculum framework was constructed to insure concepts, processes, and skills were embedded within and between each unit. Two overarching concepts of democratic citizenship and conflict were woven into this curriculum framework as well as scaffolding questioning, historical inquiry, interpretation, historical debate and deliberation, and historical empathy (Tieso, 2013). Other instructional strategies embedded were critical reading, thinking and reasoning, discussion and deliberation, historical perspective recognition, and assessment. The four units created from this
framework focused on the time periods of the American Revolution, the Civil War, Post-Reconstruction, and Civil Rights Movement.

Participants for the curriculum development study were sought through initial contact between researchers and the gifted education coordinator within the school districts. The teachers and students of this convenience sample were from seven school districts in two Southeastern states. Participants came from intact core classrooms in which they were assigned by their school administration. The gifted coordinators solicited principals within the school district to gain access to teacher participants. Principals spoke with specific teachers within their buildings and asked them to participate in the study. Although these chosen teachers were able to volunteer to participate, participation was not open to all teachers within the school districts.

The participating classes were diverse learning environments comprised of students ranging in age from 11-14 and with various learning styles. Many of the student participants came from historically underrepresented groups or were English language learners. Some students also had been identified as gifted while others had some form of learning disability. These classrooms were fifth, sixth and seventh grade social studies classrooms that span the elementary and middle school setting. Sixth grade was often the highest grade located in the elementary school and seventh grade was the beginning of middle school. Finally, researchers randomly designated participating classrooms as either treatment groups or control groups. In both types of classroom, pre- and post-assessment data were collected for the U.S. History Assessment and the student self-efficacy survey. However, the treatment group received instruction using the inquiry-based curriculum and unit performance assessments created by researchers, while the
control group instruction came from an alternative curriculum source chosen by the teacher.

**Secondary Analysis**

Drawing from the data collected in the larger Curriculum Development Study, this secondary analysis focuses on students’ content knowledge, students’ historical interpretation skills, and students’ self-efficacy for historical inquiry.

**Table 4**

*Suburban School District in Southeast State for Secondary Analysis*

<table>
<thead>
<tr>
<th></th>
<th>Sample School District</th>
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</thead>
<tbody>
<tr>
<td><strong>Schools</strong></td>
<td>138 Elementary (Grades K-6)</td>
</tr>
<tr>
<td></td>
<td>22 Middle (Grades 7-8)</td>
</tr>
<tr>
<td><strong>Teachers</strong></td>
<td>22,779 Full-time staff</td>
</tr>
<tr>
<td><strong>Students</strong></td>
<td>178,000 Enrolled</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td>Caucasian: 42.3%</td>
</tr>
<tr>
<td></td>
<td>Hispanic/Latino: 22.8%</td>
</tr>
<tr>
<td></td>
<td>Black/African American: 10.3%</td>
</tr>
<tr>
<td></td>
<td>Asian: 19.4%</td>
</tr>
<tr>
<td><strong>English For Speakers</strong></td>
<td>16.70% of the student body</td>
</tr>
<tr>
<td>of Other Languages</td>
<td>(ESOL)</td>
</tr>
<tr>
<td>(ESOL)</td>
<td></td>
</tr>
<tr>
<td><strong>Special Education</strong></td>
<td>14.28% of the student body</td>
</tr>
<tr>
<td>Services (SPED)</td>
<td></td>
</tr>
<tr>
<td><strong>Project Civis</strong></td>
<td>7 middle and elementary schools provided teacher volunteers</td>
</tr>
<tr>
<td><strong>Participants</strong></td>
<td>All teachers taught either 6th or 7th grade U.S. history courses</td>
</tr>
</tbody>
</table>

This research seeks to determine whether or not historical thinking skills such as historical interpretation can be embedded in the learning environment while mastering the content information at the same time and increasing students’ knowledge and abilities. The findings from this study may assist in narrowing the gap between academic theory, research, and classroom practice by informing and modeling for teachers how
they can cover and control as well as challenge and make connections by embedding collaboration, evaluation and analysis in their instructional practices. The following research questions are the foundation for analysis of the impacts of this model curriculum.

**Research Questions**

1. To what extent does a U.S. history inquiry-based curriculum improve American history achievement for middle school students as measured by the U.S. History Assessment 1?

2. To what extent does a U.S. history inquiry-based curriculum improve historical interpretation skills for middle school students as measured by the Post-Reconstruction and Civil Rights model unit performance assessments?

3. To what extent does a U.S. history inquiry-based curriculum improve middle school students’ self-efficacy for historical inquiry as measured by the student self-efficacy survey?

**Participants**

This secondary analysis drew three subsamples from the larger curriculum development study based on available assessment data. The large suburban school district in which the three sub-samples were drawn, included a total of 196 high schools, middle schools, and elementary schools. Middle schools in this district make up 23 of the 196 schools and include Grades 6-8 or 7-8. The curriculum development study was provided with volunteer teacher participants from seven middle schools in this district. For this secondary analysis, samples were chosen from two of those seven participating middle schools.
Middle Schools for Sample 2. School A is a large, accredited, suburban middle school with a population of 1,527 in Grades 6-8. Their student body had increased by 100 students each year for the past two school years. The student body included approximately 787 males and 740 females, of which approximately 774 were eligible for free lunch and 170 were eligible for reduced-price lunch (U.S. Department of Education, 2014). This middle school is an International Baccalaureate (IB) World School. Therefore, their curriculum blends state and local learning objectives with the standards and practices for philosophy, organization and curriculum that have been identified by the IB organization as necessary to create global learning communities. School A serves an extremely diverse community in which students and their families come from over sixty countries, speaking more than two dozen languages. Students have identified themselves as either American Indian/Alaska Native, Asian, Hispanic, Black (non-Hispanic), White (non-Hispanic), or of being from two or more races (see Table 5).

Table 5

<table>
<thead>
<tr>
<th></th>
<th>School A</th>
<th>School B</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian/Alaska Native:</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Asian/Native Hawaiian/Pacific Islander:</td>
<td>225</td>
<td>317</td>
</tr>
<tr>
<td>Hispanic:</td>
<td>710</td>
<td>415</td>
</tr>
<tr>
<td>Black, non-Hispanic:</td>
<td>167</td>
<td>88</td>
</tr>
<tr>
<td>White, non-Hispanic:</td>
<td>375</td>
<td>371</td>
</tr>
<tr>
<td>Two or More Races:</td>
<td>49</td>
<td>65</td>
</tr>
</tbody>
</table>

School B is also a large accredited suburban middle school with a population of 1,262 in Grades 7-8. The student body includes approximately 644 males and 618 females, of which approximately 410 are eligible for free lunch and 100 are eligible for reduced-price lunch (U.S. Department of Education, 2014). School B also serves a diverse community in which students and their families represent sixty countries and forty-nine languages. Students at school B have identified themselves as being part of the ethnic groups reported in Table 5.

Sample 1

In order to explore the impact of a U.S. history inquiry-based curriculum on middle-school students’ content knowledge (Research Question One), all treatment group (N=2781) and all control group (N=653) participants from the curriculum development study were included in this sample. These participants were drawn from 52 classrooms within seven school districts located in two Southeastern states. As fifth, sixth and seventh grade students, they ranged in age from 11-14 and presented various learning styles and learning needs. Some students had been identified as being gifted, while other students had identified learning disabilities.

The treatment group contained 2,781 fifth, sixth, and seventh grade students, of which 1,053 were males and 1,113 were females. A total of 615 students did not report their gender. There were 653 middle-school students in the control group. Within this group, 142 were males and 189 were females, with 322 students not reporting their gender. The ethnic background of both groups is reported in Table 3.3.
Table 6

*Ethnicity of Sample 1*

<table>
<thead>
<tr>
<th>Ethnicity</th>
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<tbody>
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**Sample 2**

In order to explore the impacts of a U.S. History model curriculum on middle school students’ historical interpretation skills (Research Question Two), a sample was drawn only from the treatment group above. This decision was made because unit performance assessment data were not available from the control group. This sub-sample contains seventh-grade participants that returned both their pre- and post-unit performance assessments for both the Post Reconstruction and Civil Rights units (N=86). Pre-and post-assessments were given to measure change in content knowledge as well as historical interpretation skills. These performance assessments were in raw form and had not been scored during the Curriculum Development Study. A sample of the unit performance tasks was chosen instead of using all performance tasks for all students due
to the volume of raw data that would need to be processed. During this secondary study the performance data for this sample (N=86) was scored by the researcher and numeric scores for each section were entered into a master data base (see description under Data Analysis) for analysis. After careful consideration and examination of the pre- and post-data available, it was determined that a more complete set of assessments was available from one school district in one state.

Sample 2 includes 86 students ranging in age from 11-14, which is 3.1% of the total treatment group of 2,781. These students were selected from three classrooms across two middle schools (school A and school B above). Two classrooms were in school A and the third classroom was located in school B. This convenience sample consisted of 37 males and 47 females, with two students not reporting their gender. The ethnic background of sub-sample participants is reported in Table 3.4.

Table 7

*Ethnicity of Sample 2*

<table>
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Sample 3

In order to explore the impact of a U.S. history inquiry-based curriculum on middle-school students’ self-efficacy for historical inquiry (Research Question Two), all treatment group (N=2781) and all control group (N=653) participants were included in this sample. These participants were drawn from 52 classrooms within seven school districts located in two Southeastern states. As fifth, sixth and seventh grade students, they ranged in age from 11-14 and presented various learning styles and learning needs. Some students had been identified as being gifted, while other students had identified learning disabilities.

The treatment group contained 2,781 fifth, sixth and seventh grade students, of which 1,053 were males and 1,113 were females. A total of 615 students did not report their gender. There were 653 middle schools students in the control group. Within this group 142 were males and 189 were females, with 322 students not reporting their gender. The ethnic background of both groups is reported in Table 3.5.
Table 8

*Ethnicity of Sample 3*

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<td>Percent of Total</td>
<td>Frequency</td>
<td>Percent of Total</td>
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<td>.0</td>
<td>0</td>
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<td>.9</td>
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<td>Asian Pacific Islander</td>
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<td>100.0</td>
<td>653</td>
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</table>

**Data Sources**

Pre- and post-assessment data were collected to measure the impacts of the inquiry-based curriculum. Efforts and attention were given to creating measurement tools that are aligned to the constructed curriculum and interventions, creating a seamless connection between the curriculum, instruction and assessment. Three separate data collection instruments were utilized to measure students’ content knowledge, historical interpretation skills and student self-efficacy for historical interpretation. Content knowledge and student self-efficacy for historical interpretation were collected in September (the beginning of the school year), and June (end of the school year). During the eight months between these pre- and post-assessments, the inquiry-based curriculum was implemented during the Post-Reconstruction and Civil Rights units of study. Post
Reconstruction was taught during the first quarter of the school year and Civil Rights was taught during the last quarter of the school year. Researchers planned for both units to be approximately six weeks in length, however the school district allows 11 weeks for Post Reconstruction and one week for Civil Rights. The delivery of this inquiry-based curriculum was provided to students during 45-50 minute periods that met daily, five days a week. To measure the impact of the inquiry-based curriculum on historical interpretation skills, unit performance assessments were given at the beginning and end of the units.

**U.S. History Assessment I**

The first instrument is titled the U.S. History Assessment I and is composed entirely of select retired U.S. History items from the National Assessment of Education Progress (NAEP) U.S. History exam (2010). Retired items taken from the NAEP U.S. History exam (2010) included fourth, eighth, and twelfth grade items. All three grade level items were considered in an effort to eliminate a possible ceiling effect from occurring. The ceiling effect is the upper limit of the test, or the highest possible score a student can earn. If this highest level is reached, a student’s true intellectual abilities may not have been fully measured. In order to measure true ability and knowledge of students, all three grade level questions were included in this measure. These items are aligned with the national, state and local history standards as well as with the researcher-created curriculum that was taught as part of the curriculum development study. This test of content knowledge was intended to measure students’ knowledge of U.S. History at the beginning and end of the school year, or prior to intervention as well as post-
intervention. This assessment provides students with an objective measure with clear right and wrong answers.

A sample question includes:

A house divided against itself cannot stand. I believe this government cannot endure permanently half slave and half free. I do not expect the Union to be dissolved—I do not expect the house to fall—but I do expect it will cease to be divided.

--Abraham Lincoln, 1858

What did Abraham Lincoln mean in this speech?

A. The South should be allowed to separate from the United States.
B. The government should support slavery in the South.
C. Sometime in the future slavery would disappear from the United States.
D. Americans would not be willing to fight a war over slavery.

Post-Reconstruction and Civil Rights Unit Performance Assessments

The next two instruments are researcher-constructed unit performance assessments that focus on Post-Reconstruction and Civil Rights historical content as well as historical interpretation skills. These assessment tools incorporate items for which the student must interpret the historical passage, description, or statement and apply skills such as sourcing and contextualization. These assessment tools are aligned with the learning experiences provided during unit instruction as well as with the state standards in order to create a seamless connection between the curriculum, instruction and assessment.

Sample historical interpretation skill questions include:

Read each of the items below and think about how each reflects the time period in America, 1877-1900. Record what you know about each.

1. “We are born in a Pullman house. We are fed from a Pullman shop, taught in a Pullman school, catechized in the Pullman church and
when we die we shall be buried in a Pullman cemetery…” -Pullman employee on life in Pullman town, 1883

2. Percentage of Americans living in cities in 1860: 20 Percentage of American living in cities in 1900: 40

3. Separate but equal

4. Gilded means covered in a thin layer of gold. The period of time in America between 1877 and 1900 is often called the Gilded Age. Why?

**Student Self-Efficacy Survey**

The final instrument developed for this study was the Social Studies Student Self-Efficacy Survey (SSES). This student survey was given at the beginning of the school year and then again at the end to measure how students felt about their historical inquiry and historical interpretation abilities. Some of the questions were tailored to align with the units of study, while others were not altered and were used as written. Validity analysis was run on the survey to make sure it would be reliable for the curriculum development study. A Likert scale was used on this survey and included definitely can’t, probably can’t, maybe, probably can and definitely can. Sample questions from this survey are as follows:

How confident are you that you can….

1. Analyze different sides of a historical issue.
2. Interpret historical evidence such as journals, documents, or photos.
3. Compare two or more sources of information.
4. Ask questions that don’t have a right or wrong answer.
5. Present your ideas in a group discussion.
6. Develop a question that a historian might research related to this topic.
If you were asked to find out if immigrants were treated fairly in America in the 1800s, how well do you think you would be able to do each of the following?

1. Develop a question that a historian might research related to this topic.
2. Use both primary and secondary sources to gather historical evidence.
3. Select the most reliable evidence.
4. Research the perspectives of different groups who lived at the time.
5. Use evidence to support your position on the fair treatment of immigrants.
6. Prepare and present your findings on the topic.

**Data Analysis**

The U.S. History Assessment 1 content test was scored by graduate assistants in the curriculum development study, using an answer sheet and open-ended question rubric. Scores were then entered into a master database. During this secondary analysis, these assessment scores were subjected to a repeated measures ANOVA to compare pre- and post-assessment sample means within the treatment group and the pre- and post-assessment sample means in the control group. This was done to assess prior knowledge at the beginning of the study, prior to curriculum implementation, with knowledge after curriculum implementation within and between both groups. Missing data were excluded pairwise based on each analysis, thus cases were excluded only if they were missing the data piece(s) need for that specific analysis. Cases would still be included for the data that was present. Therefore, the sample sizes vary between analysis and not all 3,434 participants are included in all tests.

The unit performance assessments were scored during this secondary analysis using a general scoring rubric for each section of the assessment. Each unit assessment contained three sections that included questioning, historical content knowledge, and
historical interpretation. In the first section students were asked to consider the culture of the time period and create any questions that they had based on what they already knew about the time period. Questions were scored based on their historical accuracy as well as the level of relevance to the time period and topic. If no questions were recorded or questions were not relevant to the time period, a score of zero was earned. Basic recall questions received a score of one and more complex questions earned a score of two. Each question provided was awarded appropriate points and a total earned was calculated. There were an unlimited number of points that could be earned for this section.

The second section of the performance assessments provided students an open-ended opportunity to record their content knowledge about the people, events or inventions of the time period. One point was awarded for each piece of information that was provided based on historical accuracy and historical relevancy to the time period and topic. Again, there were an unlimited number of points that could be earned for this section.

The last section of the performance assessments incorporated items in which the student must interpret the historical passage, description, or statement. This section was created to analyze students’ historical interpretation skills. Responses were scored based on historical accuracy and level of relevancy to the time period and topic. If no interpretation or information was recorded, if information was not relevant to the time period, or if response only restated the stem without interpretation, a score of zero was earned. Basic or surface level interpretations of the statements or information provided received a score of one. More complex or advanced interpretations that provided
understanding of the information earned a score of two. Each interpretation provided was awarded a point value and a total was calculated. For the post-reconstruction interpretations there was a possible score of 10 and the civil rights unit had a possibility of 6.

Numerical scores for each section were then entered into the master database by student identification number. During this secondary analysis, these scores were used in a paired T-test to compare the pre- and post- sample means within the treatment group for each section of the unit performance assessment individually (questions, facts, and interpretation skills). Once individual section scores were entered, a pre- and post-unit performance assessment total was calculated for both the Post-Reconstruction and Civil Rights units. This gave a total score for each pre-assessment and a total score for each post-assessment in each of the units.

Finally, the self-efficacy surveys were scored by graduate assistants during the curriculum development study and scores were entered into the master database. During this secondary analysis, self-efficacy survey scores were analyzed using a repeat measures ANOVA to compare the pre- and post-sample means within the treatment group and pre- and post-sample means within the control group. Sample means were examined for change in how students felt about their ability to participate in historical inquiry and historical interpretation activities before curriculum implementation and after implementation. Missing data were excluded pairwise based on each analysis, thus cases were excluded only if they were missing the data piece(s) needed for that specific test. Cases were included for the data that was present. Therefore, the sample sizes vary between analyses and not all 3,434 participants are included in all analyses.
Ethical Considerations

A pertinent ethical consideration that must be acknowledged is the fact that I was one of the graduate assistants working with the curriculum development study. I worked with other assistants, the project manager and research professors to create curriculum components as well as communicate with teacher participants, organize and evaluate data collection tools, and enter various types of data.

In an effort to protect all participants in the curriculum development study, all teachers, students, and parents were told of the ethical safeguards that are in place to protect their privacy and were given the option to participate or not. For example, student and teacher work were coded with an identification number instead of name to protect privacy. The local college Internal Review Board (IRB) and the school districts approved the plans for handling student performance data and treatment of participants. The IRB at the local college, as well as all school districts, gave approval for researchers to continue with the study and felt that participants’ privacy would be protected with the safeguards that were in place. Finally, there was also opportunity for participants to drop out of the study at any time.

Summary

This chapter outlined the methodological decisions as well as study details used to carry out this study. This study investigated the impact of the implementation of theory-based social studies curriculum units on students’ U.S. history content knowledge, historical interpretation skills, and on student self-efficacy (how students feel about their interpretation skills). Through the implementation of the curriculum units, this study explored the impact historical inquiry-based learning experiences had on the students’
understanding of the historical content, their interpretation of historical documents and events, as well as their perception of how their skills have improved as a result of these instructional lessons. Analysis was conducted to measure growth in knowledge as well as skill. This analysis utilized repeat measures ANOVA as well as paired and independent T-tests to determine the differences in sample means between variables as well as within each variable group.
### Analysis of Research Questions

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Data Source</th>
<th>Data Analysis</th>
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<tbody>
<tr>
<td>1. To what extent does a U.S. History inquiry-based curriculum improve American history achievement for middle school students as measured by the U.S. History Assessment 1?</td>
<td>U.S. History Assessment 1 Pre- and Post-Assessment Scores</td>
<td>Repeated measures ANOVA: compare pre- and post-sample means within and between treatment group and control group.</td>
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<tr>
<td>2. To what extent does a U.S. History inquiry-based curriculum improve historical interpretation skills for middle school students as measured by the Post-Reconstruction and Civil Rights model unit performance assessments?</td>
<td>Post Reconstruction and Civil Rights Unit pre- and post- performance assessment scores: Final Section of Interpretation and Analysis questions</td>
<td>Paired t-test: compare pre- and post-sample mean within treatment group</td>
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CHAPTER 4

Participants in this secondary analysis were fifth, sixth and seventh grade students from 52 classrooms within seven school districts located in two Southeastern states. Established classes were divided into two groups; treatment groups (N=2781) and control groups (N=653). Pre-assessments were given to all students to measure their U.S. History content knowledge as well as their self-efficacy beliefs for historical inquiry. The treatment groups were provided with U.S. History instruction using an inquiry-based curriculum composed of self-discovery through exploration, evaluation and interpretation. Unit performance assessments were conducted before and after the implementation of two instructional units: Post-Reconstruction and Civil Rights. Control groups were provided instruction using an alternative instructional resource chosen by their teacher. Both groups participated in post-assessments to measure content knowledge and student self-efficacy for historical inquiry. Pre-assessments for content knowledge and student self-efficacy for historical inquiry were administered during the first quarter of the school year, prior to implementation of the model curriculum (treatment). Post-assessments for content and self-efficacy were taken during the fourth quarter of the school year, after implementation of the inquiry-based curriculum (treatment) for the Post Reconstruction and Civil Rights units.

To measure the impact of the inquiry-based curriculum on historical interpretation skills, unit performance assessments were administered to the treatment group at the
beginning and end of the units. The Post-Reconstruction unit performance assessments were given in the fall, during the first quarter of the school year. The Civil Rights unit performance assessment was given in the spring, during the fourth quarter of the school year. Researchers planned for both units to be approximately six weeks in length, however the school district allows 11 weeks for Post Reconstruction and one week for Civil Rights. The delivery of this inquiry-based curriculum was provided to students during 45-50 minute periods that met daily, five days a week. The independent variable was the inquiry-based U.S. History curriculum for the Post-Reconstruction and Civil Rights units of study (treatment group). The dependent variables were middle school students’ content knowledge, historical interpretation skills and student self-efficacy for historical inquiry. Table 10 displays descriptive statistics for the treatment group, control group and overall sample for each data source.

Table 10

Sample Descriptive Statistics

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**Research Question 1**

1. To what extent does a U.S. History inquiry-based curriculum improve American History achievement for middle school students as measured by the U.S. History Assessment 1?

A repeated measures ANOVA was conducted to evaluate the impact of an inquiry-based curriculum on students’ content knowledge as measured by the U.S. History 1 Assessment. This repeated measures analysis of variance was conducted to assess the impact of the inquiry-based curriculum on participants’ scores on the U.S. History 1 assessment, across two time periods (pre- and post-). Sample 1 was used for this analysis and was comprised of all treatment group (N=2781) and all control group (N=653) participants from the curriculum development study. These participants were drawn from 52 classrooms within seven school districts located in two Southeastern states. As fifth, sixth, and seventh grade students, they ranged in age from 11-14 and presented various learning styles and learning needs. Some students had been identified as being gifted, while other students had identified learning disabilities. Missing data were excluded pairwise based on each analysis. Cases were excluded only if they were missing the data piece(s) needed for that specific analysis. Therefore, the sample sizes vary between analyses and not all 3,434 treatment and control participants are included in all tests.
Table 11

Descriptive Statistics for Treatment and Control U.S. History Assessment Repeat

Table: Measures ANOVA

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<td>M</td>
</tr>
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<td>629</td>
<td>28.98</td>
</tr>
<tr>
<td>U.S. History Post</td>
<td>629</td>
<td>33.00</td>
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</table>

There was a statistically significant interaction between the treatment and time, Wilks Lambda = .97, $F(1, 705) = 22.61, p = .000$, partial eta squared = .031. There was a substantial main effect for time, Wilks Lambda = .88, $F(1, 705) = 93.62, p < .0005$, partial eta squared = .12, both groups showing a change in content knowledge from pre- to post-assessment. The main effect comparing the treatment and control groups was statistically significant, $F(1, 705) = 50.59, p = .000$, partial eta squared = .07.
Both groups showed a change in content knowledge between when the pre-assessment and post-assessment of the U.S. History Assessment 1 were administered. Although the treatment group began with a somewhat higher mean, between pre- and post-administrations of this assessment, the mean difference between the two groups increased with the treatment group obtaining the higher mean.

**Research Question 2**

2. To what extent does a U.S. history inquiry-based curriculum improve historical interpretation skills for middle school students as measured by the Post-Reconstruction and Civil Rights model unit performance assessments?

In this secondary study, Sample 2 was drawn from the treatment group in order to examine the impact of an inquiry-based curriculum on historical interpretation skills. Sample 2 participants were only drawn from the treatment group because unit performance assessment data were not available from the control group. The treatment
group contained 2,781 middle school students, of which 1,053 were males and 1,113 were female. This sample contains participants from the treatment group that returned both their pre- and post-assessments for both the Post Reconstruction and Civil Rights units (N=86). Therefore, this sample (N=86) represents 3% of the total treatment group (2,781). A paired-samples t-test was conducted to evaluate the impact of an inquiry-based curriculum on students’ historical interpretation skills as measured by the Post-Reconstruction and the Civil Rights performance assessments.

Table 12

*Descriptive Statistics for Pre- and Post-Test for Interpretation Skills on Unit Performance Assessments*

<table>
<thead>
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<tr>
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<td>2.29</td>
</tr>
</tbody>
</table>

There was a statistically significant increase in the Post-Reconstruction historical interpretation skill scores from the pre-assessment (M = 1.17, SD = 1.30) to the post-assessment (M = 2.29, SD = 1.84), t (85) = 5.24, p<.05; d = .86 (see Figure 4.2). The mean increase in Post-Reconstruction performance assessment scores was 1.11 with a 95% confidence interval ranging from .69 to 1.53. The effect size for this analysis (d = .86) was found to exceed Cohen’s convention for large effect (d = .80). A second paired samples t-test was conducted to evaluate the impact of a model curriculum on students’ historical interpretation skills as measured by the Civil Rights unit performance assessment. There was no statistically significant increase in the historical interpretation
skills scores from the pre-assessment (M = 1.24, SD = 1.21) to the post-assessment (M = 1.38, SD = 1.41).

![Graph showing pre-assessment and post-assessment scores for Post-Reconstruction and Civil Rights units.]

*Figure 2* Post-Reconstruction and Civil Rights Interpretation Skills Comparison from Unit Performance Assessment.

The mean differences between the pre- and post-assessments for Post-Reconstruction were found to be statistically significant indicating that students increased their historical interpretation skills. However, there was no statistically significant difference found in the means between the pre- and post-assessments for the Civil Rights unit. Students did not increase their historical interpretation skills for the Civil Rights unit.

**Research Question 3**

3. To what extent does a U.S. History inquiry-based curriculum improve middle school students’ self-efficacy for historical inquiry as measured by the student self-efficacy survey?

A repeated measures ANOVA was used for this analysis to compare sample means within groups as well as between groups. This mixed between-within subjects’
analysis of variance was conducted to assess the impact of an inquiry-based curriculum on participants’ scores on the student self-efficacy survey, across two time periods (pre- and post-). In order to be included in this sample, participants must have returned both pre- and post- self-efficacy survey data. Since they all did not, Sample 3 was created to include only treatment and control participants that did return both. This sub-sample included 869 treatment participants and 174 control participants.

Table 13

Descriptive Statistics for Treatment and Control Self-Efficacy Repeated Measures ANOVA

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Treatment Group</th>
<th></th>
<th></th>
<th>Control Group</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>M</td>
<td>SD</td>
<td>N</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Self-Efficacy Survey Pre</td>
<td>869</td>
<td>76.35</td>
<td>13.20</td>
<td>174</td>
<td>75.59</td>
<td>11.93</td>
</tr>
<tr>
<td>Self-Efficacy Survey Post</td>
<td>869</td>
<td>78.04</td>
<td>12.92</td>
<td>174</td>
<td>76.76</td>
<td>11.76</td>
</tr>
</tbody>
</table>

There was no statistically significant interaction between the treatment or control groups and time, Wilks Lambda = .1.0, $F(1, 1041) = .44$, $p = .51$, partial eta squared = .000. There was a small main effect for time, Wilks Lambda = .99, $F(1, 1041) = 13.42$, $p < .0005$, partial eta squared = .01, both groups showing little change in self-efficacy for historical inquiry from pre- to post-survey assessment. The main effect comparing between treatment and control groups was not statistically significant, $F(1, 1041) = 1.1$, $p = .31$, partial eta squared = .001.

Thus, the U.S. History inquiry-based curriculum seemed to have improved middle school students’ self-efficacy for historical inquiry as measured by the student self-
efficacy survey by a very small amount, while the self-efficacy scores for the control
group were unchanged.

**Auxiliary Findings**

While the historical interpretation section of the inquiry-based unit performance
assessments was analyzed for improvements in skill, the historical facts section was also
analyzed for improvements in content knowledge. The second section of the performance
assessments provided students an open-ended opportunity to record their content
knowledge about the people, events or inventions of the time period. In comparison, the
U.S. History Assessment 1 was a standardized measure of multiple choice questions that
had a right and wrong answer.

Table 14

*Descriptive Statistics for Pre- and Post-Historical Content Knowledge on Unit
Performance Assessments*

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Post-Reconstruction</th>
<th>Civil Rights</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>M</td>
</tr>
<tr>
<td>Pre-Assessment Facts</td>
<td>86</td>
<td>1.85</td>
</tr>
<tr>
<td>Post-Assessment Facts</td>
<td>86</td>
<td>4.60</td>
</tr>
</tbody>
</table>

There was a statistically significant increase in the Post-Reconstruction historical
content knowledge scores from the pre-assessment (M = 1.85, SD = 2.46) to the post-
assessment (M = 4.60, SD = 3.77), t (85) = 6.17, p < .05; d = 1.11 (see Figure 3). The
mean increase in Post-Reconstruction historical content knowledge scores was 2.75 with
a 95% confidence interval ranging from 1.86 to 3.64. The effect size for this analysis (d =
1.11) was found to exceed Cohen’s convention for large effect (d = .80). A second
paired samples t-test was conducted to evaluate the impact of a model curriculum on
students’ historical content knowledge as measured by the Civil Rights unit performance
assessment. There was no statistically significant increase in the historical content knowledge scores from the pre-assessment (M = 3.97, SD = 1.97) to the post-assessment (M = 4.06, SD = 1.79), t (85) = .431, p > .05 (two tailed) (see Figure 4.3).

![Figure 3 Post-Reconstruction and Civil Rights Historical Content Knowledge Comparison from Unit Performance Assessment.](image)

Thus, there was a statistically significant difference between the pre- and post-test for the Post-Reconstruction assessments to indicate that the U.S. history model curriculum improved students’ historical content knowledge significantly. However, there was no statistically significant difference between the pre- and post-Civil Rights assessments. The students did not improve their historical content knowledge significantly from the Civil Rights pre-assessment to the post-assessment.
CHAPTER 5

Summary of Findings

Using extant data from a quasi-experimental curriculum development study, the intentions of this secondary analysis were to further understanding of the impact of a theory-based U.S. History curriculum on middle school students’ content knowledge, historical interpretation skills and student self-efficacy for historical inquiry. The three participant samples of this secondary analysis were drawn from a previous curriculum development study. Not all participants were included in all analyses due to missing data. The U.S. History Assessment and student self-efficacy survey data for Samples 1 and 3 were analyzed for student content knowledge as well as students’ perceived ability to be successful with historical inquiry tasks (Research Questions 1 and 3). A repeated measures ANOVA was conducted to determine mean differences between pre- and post-data. Sample 2 (N=86) was drawn from the treatment group to analyze the impact an inquiry-based U.S. History curriculum had on students’ historical interpretation skills (research question two). These 86 participants were chosen because they returned both pre- and post-assessment data for two units of study (Post-Reconstruction and Civil Rights). For this sample, a paired samples and independent samples t-tests were conducted to determine mean differences between pre- and post-data.

Analyses of repeated measures ANOVA and t-test results revealed the following findings:
• The students in the treatment group made stronger gains in content knowledge than the control group, as measured by the U.S. History Assessment.

• With the implementation of historical thinking learning opportunities in the Post-Reconstruction inquiry-based curriculum, students were able to increase their interpretation skills from the pre-assessment of the Post-Reconstruction to the post-assessment.

• The U.S. history inquiry-based curriculum improved students’ historical content knowledge on the Post-Reconstruction unit performance assessments.

• Students did not show improvement in their historical thinking skill of interpretation on the Civil Rights unit performance assessments.

• The students did not improve their historical content knowledge significantly from the pre-assessment to the post-assessment on the Civil Rights unit performance assessment.

• Self-efficacy survey scores for the control group were not significantly different between the pre- and post-survey. Students in the control group did not change their feelings about how successful they could be with historical inquiry tasks.

• There was no statically significant difference in means between the treatment and control groups’ pre- and post-survey results for self-efficacy.

**Discussion and Implications**

This research assessed the impacts of an inquiry-based social studies curriculum on middle school students’ content knowledge, historical interpretation skills, and student
self-efficacy for historical inquiry. The findings from this analysis can assist in narrowing the gap between academic theory, research, and classroom practice.

**Gains in Content Knowledge**

There were significant improvements in historical content knowledge gained between the treatment and control groups as measured by the U.S. History Assessment 1 and the historical content knowledge section of the unit performance assessments. On both of these measures, the treatment group made stronger gains in content knowledge than the control group. The increase found in the difference of means for student content knowledge indicates that it is possible to cover content information, control the learning environment and challenge students in their learning, all at the same time. For teachers, curriculum specialists, and policy makers, these findings support the belief that it is possible to blend historical thinking skills of collaboration, evaluation, interpretation, and analysis with historical content information into learning experiences in which the students become active participants. A carefully scaffold curriculum with supporting lesson plans that intertwine historical thinking skills instruction within a concept-based structure could replace the more common methods of teaching-to-the-test or drill-and-kill environment, and thereby improve student content knowledge. More importantly, this increase in content knowledge after implementation of this particular inquiry-based curriculum indicates the importance of careful curriculum planning that specifically addresses the social, emotional and academic needs of the students at hand. Middle school students need active engagement among themselves and with the content information. Time is needed to explore the content for personal application and connection. With the active participation through exploration and discovery that is
incorporated into this particular inquiry-based curriculum, students gained more content knowledge.

Historical interpretation skills on the Post-Reconstruction performance assessment improved for Sample 3 students that were drawn from the treatment group. However, Sample 3 participants’ historical interpretation skills did not increase on the Civil Rights unit performance assessment. Both performance assessments were an open-ended format in which students were able to include as many historical facts and examples as possible to explain their interpretation of each statement. These interpretation statements did not have one right answer; therefore, students earned points based on the depth and complexity of each explanation provided. Differences between these two unit-performance assessments include timing and pacing. Within the sample school district, the Post-Reconstruction unit is taught at the beginning of the school year when students and teachers are fresh and eager to begin learning. Approximately 11 weeks are allotted in the curriculum pacing guide for coverage of this time period. Researchers wrote the Post-Reconstruction unit for this study with 6-8 weeks in mind for instruction. Therefore, this unit is presented at the best possible time of the school year and is given ample time for including many of the instructional suggestions provided in the inquiry-based curriculum. In addition, a sufficient amount of time elapsed between when the pre-assessment and the post-assessment were administered.

In contrast, the Civil Rights unit was taught during the fourth quarter of the school year and is one of the last time periods studied before review begins before the state standardized test is administered. This is a very stressful time of the school year for both students and teachers as they prepare for these high-stakes tests. This unit of study was
also written by researchers to be six to eight weeks in length. However, the school district pacing guide only allows one week for Civil Rights instruction. It is unknown which lessons each teacher chose to include, what was omitted, and how much time passed between when the pre and post-unit performance assessments were administered to students. When scoring the performance assessments for the Civil Rights unit, many student participants had provided the same exact responses for both the pre- and post-assessment. Their responses and generated questions were word for word the same on both measures. This leads to the possibility that students were given the pre and post-assessments within a very short time of each other. The short amount of Civil Rights instructional time between pre- and post-measures could account for similar means on the performance assessment as well as the lack of improvement in Civil Rights content knowledge and historical interpretation skills.

The purpose of any good curriculum is to produce gains in student content knowledge and skills. Curriculum is a means in which learners achieve intended learning outcomes. Social studies curriculum is intended to plot the course for learning in order to prepare students to thrive within our current and future society. The difference with this inquiry-based curriculum is that it challenges the middle school student’s thinking and abilities just beyond their academic level, while creating a learning environment that meets their unique social needs, and blends content with historical thinking skills. With the historical thinking skills of collaboration, evaluation, interpretation and analysis embedded with historical content knowledge, the treatment group showed greater improvement than the control group for both content knowledge and critical skills. Engagement of the middle school student in rigorous and challenging learning
experiences that focus on exploration, discovery, and interaction is possible. We must keep in mind though that the control group did show small gains in content knowledge when the control teachers selected their own instructional resources and methods. While the treatment group instruction and curriculum was monitored, we are not certain what methods and resources the control teachers used. They may have already been using methods to create understanding and make connections that challenged student’s historical thinking. Therefore, these instructional methods could have been similar in some ways to the structure, depth, and complexity of this inquiry-based curriculum. One school in which Sample 2 was drawn from was identified as an International Baccalaureate (IB) World School in which their curriculum blends state and local learning objectives with the standards and practices for philosophy, organization and curriculum that have been identified by the IB organization as necessary to create global learning communities. Therefore, the curriculum being taught in control classrooms within this school may already include instructional strategies that challenge students thinking through exploration, discovery, and interaction. Additional information about their methods is needed and future research should monitor the methods of instruction of the control classroom.

This shift in teaching methodology from coverage to understanding that challenges student’s historical thinking is desirable. For some teachers, this is a different instructional mode and will be a shift in thinking about teaching and learning. These shifts will have to be nurtured overtime with open discussion, training, and trial-and-error. In this case, teachers will need leeway from administrators to stray from the pacing
guide and the support needed to take risks by stepping out of their teach-to-the-test comfort zone and into areas of historical inquiry.

**Assessment of Historical Content Knowledge**

In this study teachers were also asked to implement two assessment measures that are completely different formats, with a purpose of measuring student content knowledge in different ways. The U.S. History assessment 1 is an objective multiple choice assessment in which each question has a right or wrong answer choice. This assessment also includes a wide variety of U.S. History topics. The inquiry-based curriculum unit performance assessments are open-ended prompts that ask students to describe all people or events that they know from a specific time period in U.S. History. Students have the opportunity to show the depth of their knowledge by providing examples and explanations for their answers on the performance assessments.

**Student Social Studies Self-Efficacy**

There was a small increase in the treatment group’s pre- and post-self-efficacy scores, while there was no increase found within the control group’s pre- and post-scores. Self-efficacy is a cognitive process in which students construct perceived ideas about their ability to perform at a certain level and succeed overall academically (Bandura, 1993). There is a difference between the perceived ability level and the actual ability level; however, the perceived ability has a larger impact on behavior and therefore students’ academic performance (Pajares, 1996). In this present study there is an indication that the treatment groups mean differences in student content knowledge and historical interpretation skills on the Post-Reconstruction performance assessment increased, while student self-efficacy for historical inquiry also increased slightly from
pre- to post-assessment. As this inquiry-based curriculum was implemented in the Post-Reconstruction and Civil Rights units, students became familiar with historical inquiry tasks and achieved some success in learning the content while improving historical thinking skills. With content and skill success, students began to feel better about their ability to be successful with historical inquiry tasks.

The control group did not increase their self-efficacy survey scores. According to Bandura (1994), self-efficacy is developed from four different sources of information: mastery experience, vicarious experience, social messages, and physiological states. The most powerful source of information for developing self-efficacy comes from the student’s own academic success or failure, or the mastery experience (Bandura, 1994; Pajares, 2000). Students interpret their own performance on various tasks and based on these results a judgment is made regarding ability. If the control group did not have any historical inquiry tasks during their instruction, they may not have been familiar with this method of instruction and were unprepared to answer the questions on the survey. Instructional practices in the control classroom may have been similar or the same format that students have experienced in the past and that have contributed to the current sense of ability. If a student has not been successful with that current method of instruction then their level of self-efficacy would remain stable as the student continued to experience the same level of success. If there were minimal historical inquiry tasks, the control group may not have had enough learning opportunities or mastery experiences, to increase their confidence. Finally, historical inquiry tasks could have been introduced to control students, but since they were so new and students had little practice with this instructional method, they were not confident in their abilities to be successful.
Bandura (1994) also proposes vicarious experiences as another source of information in shaping one's self-efficacy. Vicarious experiences refer to the influence that observing other students with similar capabilities can have on how we feel about our own abilities to handle a similar situation or accomplish a similar task. These comparison students would be peers or others that are similar to us in strength and ability and someone that we would identify with having similar capabilities to accomplish a task or be successful with a specific activity. The successes and failures then of this comparable student could influence a person’s perceptions of their own ability to accomplish similar tasks. If the comparable peer is successful then one might perceive that they would be successful as well. At the same time if this peer experiences failure an individual may shy away from attempting the task for fear that they may fail as well. This comparable student may also possess skills, abilities, knowledge, or learning strategies that people desire for themselves or aspire to obtain. For the treatment group in this study, vicarious experiences could have played a role by encouraging some students to step out of their comfort zone and try new learning opportunities once they saw their peers engaging in historical thinking and interacting with the history content. The peer’s willingness to try something new could have inspired others to do the same. At the same time, if the comparable peer showed levels of frustration and struggle with the new instructional method, a negative affect could have occurred where students were hesitant to try historical inquiry for fear of failure or may have felt like they did not have the ability to be successful.

Social messages are another sources of self-efficacy beliefs. Social messages refer to feedback that one receives about their capabilities with a certain task or activity.
This feedback may motivate the learner to attempt a new task, or to try harder and put forth a stronger effort. In the middle school classroom this could be feedback from a teacher regarding performance and/or encouragement from teachers or peers that a specific task can be accomplished with success. If the feedback is not realistic, however, it can cause disappointment, disbelief, and cause the student to give up quickly when facing challenging tasks.

Physiological and emotional states are Bandura’s (1994) final source of information for developing people’s beliefs about their own abilities to be successful with certain tasks or activities. Physiological states refers to how one feels physically and emotionally as they engage in the target task. This could include levels of stress and how an individual reacts in stressful situations, reactions to poor performance, or attitude towards a particular task or challenge. In the middle school setting stress, pressure to perform and attitudes are common elements in every classroom. How students react to these pressures and their beliefs about school and learning shape their perception of their own academic abilities. When focusing on the whole middle school student, the power of feedback and emotional reactions has an immense impact on learning. Educators must be aware of this developmental characteristic when delivering feedback and understand that mood impacts their personal self-efficacy.

In this study, student self-efficacy for historical inquiry in the treatment group could have been impacted by the procedural and thinking feedback from the teacher as well as from their peers. In the treatment classrooms, students were working collaboratively to explore and discover connections within the content evidence. Teacher feedback addressed procedural performance while working in small groups with multiple
pieces of evidence as well as guiding students’ historical thinking and questioning. Peer feedback would be focused more on how the quality of work and thinking impacts the group. Positive feedback would encourage students to continue to participate and take risks in their thinking as they worked through historical evidence to develop conclusions. A lack of feedback could increase frustration and stress levels, encouraging students to doubt their abilities to be successful and give up quickly. The control group could have received appropriate feedback for the instructional methods being used in their classroom and felt confident in their ability to be successful with the task at hand. However, that may not have involved historical inquiry activities.

Bandura’s (1977) self-efficacy theory also suggests that one’s perceived ability to accomplish certain tasks or perform certain behaviors remains constant unless there is a shocking event that forces a person to tackle the task or behavior they fear. Therefore, the learning experiences within this inquiry-based social studies curriculum were different enough to cause students to reassess their perceptions of their abilities and skills.

**Limitations of study**

Limitations are the influences or conditions on a study that the researcher cannot control. As a result of such limitations, the researcher could be restricted when generalizing findings to a larger population. For example, implementation fidelity is the degree to which the curriculum units will be delivered to students as intended. With multiple treatment teachers implementing the same curriculum units, there will be some variance in the manner as well as depth and breadth between each teacher during implementation. Even though the activities are detailed with specific steps within the curriculum development study, there was undoubtedly some variance between teachers as
to how long they spent on each activity, how much background history was included in the lessons, and how many connections were made to current and past events in history. The teacher’s level of enthusiasm and willingness to implement curriculum pieces could also impact the students’ level of participation and interest in the activities embedded in the units of study. Therefore, impacting what the students learn in class, how they felt about their progress, and how well they were able to implement historical thinking skills being taught.

Finally, treatment teachers also had the challenge of keeping in line with the school district pacing guide. For the Civil Rights unit, one school district’s pacing guide allowed one week of instructional time while the researcher’s unit was written for six to eight weeks. This created the challenge of narrowing the curriculum to meet the pacing requirement and not all teachers handled this situation in the same fashion. Each teacher made instructional decisions as to which lessons to include and which to omit. While administrators in these buildings agreed to provide more flexibility with the pacing guide and allow teachers to make instructional decisions with this inquiry-based curriculum, this did not happen and teachers had to make adjustments to implementation of this curriculum to meet packing guide expectations. Therefore, instructional pacing impacted lesson selection, the amount of interaction time students had with the content information, and shortened the time between when the pre- and post-unit performance assessments were administered.

In an effort to show that this inquiry-based curriculum was the reason for increases in student content knowledge, historical interpretation skills, and student self-efficacy for historical inquiry, a control group of participants was randomly identified in
the curriculum development study. However, not all of the control participants contributed by returning collected data. The control sample only participated in the U.S. History Assessment and student self-efficacy survey data collection. There were no unit performance assessments collected from the control group. At this point we can only show mean differences between the pre- and post-unit performance assessment for the treatment group. In addition, each control teacher selected instructional methods and these methods were not monitored or documented. We are uncertain as to the depth and complexity of instruction that students in the control group received. Therefore, we cannot say that the inquiry-based curriculum is the only reason for these mean differences.

There are also several unique limitations that occurred in the curriculum development study that have impacted this secondary analysis. First, federal funding for this research study was cut after the first year of implementation. Without the federal grant money many of the components that had been implemented could no longer be funded. After the first year of implementation the teacher stipends could no longer be funded and therefore data collection was incomplete. Teachers were not as motivated and diligent about collecting participant data and following through. This loss of funding also meant that there were less graduate assistants to grade or score unit performance assessments and therefore data did not get processed. For this study, the amount of missing data from all data sets posed the largest challenge in selecting a student sample. After examination of many unit performance assessments and matching participant numbers with U.S. History Assessment and student self-efficacy survey results, it was decided that three separate samples were needed to ensure appropriate analysis could be
conducted for all research questions. This resulted in a 3% response rate for Research Question 3. Data were missing for each assessment for a variety of reasons, which included teachers returning incomplete sets of assessments, students not taking all assessments, mislabeled assessments that could not be included, and the mobility of students that relocated during the school year. Finally, the unique methods of scoring assessments could have impacted the reliability of the result. For example, there were several graduate students grading assessments over time and they were not always able to discuss practices with each other. In addition, graduate assistants doing the scoring had various levels of background knowledge required for each unit of study. Therefore, when grading unit performance assessments with open-ended questions, some assistants did not have the depth of social studies knowledge to award points for answers.

**Directions for Future Research**

An increase in content knowledge, historical interpretation skills and student self-efficacy for historical inquiry are motivating factors towards improving the quality of social studies instruction. By focusing on exploration, discovery, and interaction, both content knowledge and interpretation skills that are unique to the social studies were intertwined into a concept-based curriculum, allowing the teacher control while creating understanding. However, other variables that impact teaching and learning within the social studies classroom need to be explored for impact as well as improvement.

This study focused on curriculum elements to improve participation by students as well as content understanding and unique social studies skill building. Additional study is needed to explore teacher elements, administrator influence on instruction, and methods of assessment in the social studies classroom. This study did not explore teacher
factors that influence curriculum choices and instructional decisions. Before historical inquiry tasks can be implemented in the classroom, teachers must feel comfortable with these instructional practices as well as their abilities to shift their instructional practices towards a student centered learning environment. This study focused on the students’ self-efficacy, or belief in their abilities for historical inquiry; however, the teachers’ self-efficacy could also be explored. Teacher self-efficacy is the “teacher’s judgments about their ability to promote students’ learning” (Hoy & Spero, 2005, p. 343). Teachers with a high level of efficacy believed that they could have a substantial impact on student achievement and motivation (Tschannen-Moran et al., 1998). In one study, “the stronger the general teacher efficacy of a teacher, the greater a student's interest in school, and the more students perceived that what they were learning was important” (Tschannen-Moran et al., 1998, p. 215). Teachers with high instructional self-efficacy devote more classroom time to teaching and learning, provide support to students that are having difficulties and provide students with positive feedback and encouragement (Bandura, 1993). In contrast, teachers with poor instructional self-efficacy spend less classroom time on teaching and learning, disregard students that do not master content quickly and provide negative feedback to students regarding their failures (Bandura, 1993). Teachers’ self-efficacy for implementing historical inquiry tasks needs to be explored for influences on instructional decisions. Additional research could focus on the correlation between the teacher’s self-efficacy for historical inquiry implementation and student’s self-efficacy for historical inquiry tasks.

Due to the high stakes testing environment that exists in many states and added pressures for students to be successful on statewide measures, many school districts and
administrators have increased their monitoring of classroom instruction. Pacing guides, detailed curriculum guides, and benchmark assessments are just a few tools that have been created to monitor what and when content information is being taught. In this study we saw the impacts of strict pacing guide enforcement in the Civil Rights unit of study where teachers were only permitted to spend one week of instruction on all Civil Rights topics. More research is needed to determine the impacts of administrators’ influence on the teachers’ instructional decisions.

Summary

Curriculum, instruction, and assessment must be aligned in order to provide learning experiences that invite middle school students to be active participants in creating historical understanding. Teaching and learning focus should be on historical skills such as investigation, sourcing, interpretation, corroboration, evaluation, contextualization, and collaboration provide an active learning environment, and allowing students to create historical understanding (Barton & Levstik, 2003; Martin & Wineburg, 2008; Wineburg, 2001). The intention of this study has been to examine the impact of an inquiry-based U.S. History curriculum on middle school students’ historical content knowledge, historical interpretation skills, and self-efficacy for historical inquiry. Implemented social studies curriculum was created with inquiry-based practices that incorporated learning experiences to allow middle school students to investigate, question, interact, and interpret historical content information. Findings suggest that students in the treatment group made stronger gains in content knowledge than the students in the control group. Content knowledge and historical interpretation thinking skills also increased from pre-assessment of the Post-Reconstruction to the post-
assessment. Finally, students in the treatment group made stronger gains in self-efficacy for historical inquiry than those in the control group. Although the findings for the treatment students indicate a gain in knowledge, skill, and self-efficacy, the control classroom was not closely monitored for instructional practices. The instruction provided to the students in the control group was planned and executed at the discretion of the control teacher, without monitoring by researchers. Therefore, this study should assist future research in understanding how elements of an inquiry-based curriculum impact students’ creation of content understanding.
References


http://www.education.uiowa.edu/centers/cea/tahtemp

http://www.education.uiowa.edu/centers/cea/tahtemp


doi:10.1111/j.14679752.2010.00737.x


Pajares, F. (2000, January). *Schooling in America: Myths, mixed messages, and good intentions*. Lecture delivered at the Great Teachers Lecture Series, Cannon Chapel, Emory University, Atlanta, GA.


