

Hidden in Plain Sight: Preservice Teachers' Orientations Toward Inquiry-Based Learning in History

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Abstract *In order to implement models of reform-based history education in the classroom there is a fundamental need to address preservice and practicing teachers' understanding of learning and teaching history, mindful of the role inquiry must play in the process. The project described in this paper employed a comparative case design to explore how prospective social studies educators perceived inquiry-based instruction and the extent to which it aligned with relevant history education for middle and secondary students. Results suggest that the process undertaken by the independent inquiry group may have an implicit impact on shaping how preservice teachers understand inquiry. Yet these preservice teachers included more inquiry-based activities in lesson plan products analyzed as part of this project. After the implementation of both means of learning about historical inquiry, many remained conflicted about what the ideal model of inquiry represents for student learning and at what ability level students are capable of engaging in inquiry in social studies.*

Keywords: *Preservice teacher education, Inquiry-based instruction, History education, Teacher education*

Over the last half century, social studies pedagogy has evolved to reflect ways of knowing and thinking in the disciplines (Farley, 2009; VanSledright, 2009), to support literacy skills that promote historical thinking (Wineburg, 2001; Wineburg, Martin & Monte-Sano, 2011), and as an opportunity to incorporate a process of inquiry that will sustain multidisciplinary learning beyond secondary school (Common Core State Standards Initiative, 2010; Council of Chief State School Officers, 2012 National Center for History in Schools, 1996; National Council for the Social Studies, 2013). Inquiry has, in fact, become the central theme anchoring The National Council for the Social Studies' (NCSS) C3 Framework (National Council for the Social Studies, 2013). An inquiry approach in social studies helps teachers to, as Freire notes, "provoke the discovering of need for knowing and never to impose the knowledge whose need was not yet perceived" (Bell, Gaventa, & Peters, Eds., 1990, p. 66). Of course, in the process of pedagogical evolution, however effective or necessary, a number of challenges manifest and must be negotiated to facilitate theory into practice.

In order to implement models of reform-based social studies education in the classroom there is a fundamental need to address preservice and practicing teachers' understanding of learning and teaching history, mindful of the role inquiry must play in the process (National Council for the Social Studies, 2013). In recent decades, research has provided rich qualitative descriptions of students' abilities to think historically (Lee & Ashby, 2000; Wineburg, 2001; VanSledright, 2000) and case studies offer evidence of successful implementations of inquiry-based projects (Ching Yang, 2009; Guccione, 2011; Hernandez-Ramos, 2009). Lacking however, is sufficient research on developing teacher candidate capacity for making informed instructional decisions in social studies (Adler, 2008), which are grounded in what we know about teaching and learning (Williamson McDiarmid & Clenvenger-Bright, 2008), and supportive of the NCSS Framework. The

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project described in this paper contributes to social studies teacher education scholarship by exploring how prospective social studies educators perceived inquiry-based history instruction and the extent to which it aligned with relevant history education for middle and secondary students.

Conceptual Framework and Review of Literature

Framing our study was the conceptual nature of inquiry and how teacher development in the area of inquiry facilitates exploration and utilization of inquiry as an instructional method. We looked to the National Research Council (2000) which, in their report titled *How People Learn*, emphasized that:

Teachers must come to teaching with the experience of in-depth study of the subject area themselves. Before a teacher can develop powerful pedagogical tools, he or she must be familiar with the progress of inquiry and the terms of discourse in the discipline, as well as understand the relationship between information and the concepts that help organize that information in the discipline. (p. 20)

The preservice teachers with whom we worked in this project were simultaneously engaging in the study of history content through inquiry while learning about instructional design models to incorporate in their teaching for middle and secondary social studies students. From this project we call attention to preservice teacher education in the transition from learner to instructor specific to inquiry-based instruction.

Theoretical Perspectives on Teachers' Conceptions of Inquiry Pedagogy

Preservice teacher education is often used as a setting to understand changes (or lack thereof) in teacher beliefs about good instruction (Gregoire-Gill, Ashton, & Algina, 2004; Holt-Reynolds, 1992; Salisbury-Glennon & Stevens, 1999). Holt-Reynolds (1992) investigated the interactive role of preservice teachers' pre-existing beliefs, referred to as lay theories about teaching and learning, which were firmly grounded in students' own experiences as students in K-12 classrooms. From in-depth interviews with these preservice teachers, she elaborated on the likelihood of students' personal experience to preempt research pedagogical based practices. Students' firmly believed that a single case analysis of their own experience was more generalizable to teaching practice than the empirically derived theories with which they were presented.

This finding provides a rationale from which to investigate preservice teachers' domain-specific beliefs regarding teaching practices in the social studies. In order to support teacher change in instructional practice, it is first necessary to recognize their initial and mis-conceptions to more effectively refute existing beliefs (Holt-Reynolds, 1992; Salisbury-Glennon & Stevens, 1999). Salisbury-Glennon and Stevens (1999) for example found that a historically progressive refutation of preservice teachers' conceptions of intrinsic motivation had a more long-term effect on their knowledge and practice. Yet still, much of the research on preservice teachers' conceptions stems from preservice teacher education in math (Gregoire-Gill, et al., 2004) or science (Windschitl & Thompson, 2006).

Wineburg (2001) was one of the first theorists from a cognitive psychology perspective to recognize the very process of historical inquiry as an *unnatural act*. In his qualitative investigations of teacher and student beliefs about history instruction, he found the strongly embedded belief that knowing and learning history fundamentally entails memorization of facts (Wineburg, 2001). Preservice teacher educators, particularly in the

social studies, may do well to refer to conceptual change research to examine the *pathway* by which teachers may attempt to reevaluate their understanding of history teaching.

In alignment with the Piagetian theory of assimilation and accommodation, Posner, Strike, Hewson, and Gertzog (1982) posited a four-component model for conceptual change, which they tested regarding college physics students' understanding of scientific theory. According to this model, one must first be dissatisfied or recognize some cognitive discord in his or her present beliefs. Once this is recognized, there must be an alternative that is comprehensible, reasonable, and have lasting potential benefits and opportunities for extension (Posner et al., 1982). Adding to this model of conceptual change, Pintrich, Marx, and Boyle (1993) proposed that one's cognitive conceptions are equally preceded by individual motivation and one's interaction with the classroom context (e.g. teacher and peers), which mediate his ability to accommodate new with existing ideas.

In this context, research in social studies teacher education must be attentive to these conditions when examining the perspectives of preservice teacher educators. Further, the conceptual framework detailing the state of research on historical inquiry sets the stage from which to compare preservice teachers' perspectives and motivations regarding inquiry instruction. Such an exploratory analysis with this juxtaposition may delineate conditions or barriers to preservice teachers' conceptual and practical inclinations toward inquiry pedagogy.

The Process of Inquiry in Pedagogy and Design

Pedagogically speaking, inquiry has modern curricular roots in learning theory from Dewey's (1910) reflections on systematic thinking and inductive reasoning to Bruner's (1961/2006) and Vygotsky's (1962) ideas about purposeful, self-directed discovery. Broadly, inquiry-based learning emerged from research which suggests that learning by seeking information through questioning heightens student interest and allows for creative investigations and deep analysis (Rone, 2008). Kuhn, Black, Keselman, and Kaplan (2000) defined inquiry as "an educational activity, in which students individually or collectively investigate a set of phenomena –virtual or real – and draw conclusions about it" (pp. 497-498). Inquiry-oriented curricula have been incorporated into the schools and classrooms for several decades, and much of the research that has come from these classrooms suggests greater student engagement and learning as a result of inquiry-based instruction (Foster & Padgett 1999; Fragnoli 2006). In his synthesis of meta-analyses of teaching approaches for example, Hattie (2008) found that inquiry-based teaching practices in science positively affect student learning of processes and skills.

Inquiry-based learning in history and social studies classrooms.

Situated within this context, the framework for inquiry in the social studies as recently outlined by the National Council for the Social Studies C3 Framework (2013) focuses on an "inquiry-arc" whereby teachers construct lessons and activities around "compelling questions." Acknowledged in the NCSS Framework are the connections this focus on inquiry in social studies makes to four specific dimensions that define the process of investigation. These include "(1) Developing questions and planning investigations, (2) applying disciplinary concepts and tools, (3) gathering and evaluating evidence, and (4) working collaboratively and communicating conclusions" (Council of Chief State School Officers, 2012, p. 5). Although these guidelines are associated with the recent NCSS C3 Framework and the Common Core standards, like other disciplines, history classrooms have known inquiry models for several decades (Fenton, 1991) and have employed

processes akin to these in an effort to engage students in learning social studies content in ways that are more relevant and consequently more meaningful in the minds of learners.

Beginning in the 1960s, federally funded social studies projects, which were grounded in inquiry, proliferated (Evans, 2011). Even while many of these programs were unable to demonstrate impact on student outcomes and were in part flawed in their adherence to inquiry-based learning, their legacy continues to affect research on student learning in social studies (Evans, 2011). One prominent example was the Nutfeld Foundation sponsored experimental inquiry-based social studies curricula, which allowed students opportunities to investigate historical evidence and practice inductive reasoning skills as they examined primary and secondary source evidence such as images and cultural artifacts to draw inferences and conclusions about the past. Students in these classrooms not only demonstrated more nuanced understanding of the past but also achieved higher scores on fact-based knowledge assessments (Fenton 1991; Rogers 1968). The pedagogy that grounded the Nutfeld Foundation's work aligns closely with elements of historical thinking which more recently has focused on students' development of habits of mind that propel them into issues-analysis and decision making, often stemming from student queries (Drake & Nelson, 2005). In current history education scholarship, inquiry is characterized in part as "doing" history where students develop and respond to queries about people, events and phenomena of the past through a cyclical process that engages primary and secondary sources to formulate evidence-based interpretations (Barton & Levstik, 2001; Doolittle, Hicks, & Ewing, 2004).

As a means to facilitate student learning, Husbands (1996), asserted that inquiry-based historical analysis ought to be central to any historical examination allowing students to discern from multiple perspectives the nature of historical events or eras. Bain (2005) further suggested that instead of eschewing inquiry-based approaches in history instruction, "placing inquiry in the heart of education" was the most appropriate way for students to learn about the past (p. 180) and encourage them to more expertly access and apply knowledge to novel situations (Bransford, Brown & Cocking 2005).

Although inquiry-based instruction offers compelling opportunities for students to learn history in ways that are more relevant and applicable to their lives and prior knowledge, it poses significant challenges to teachers and their students. Kirschner, Sweller and Clark (2006) lambasted inquiry related instructional practice as unfounded in terms of how students learn best. In their review of "human cognitive architecture" (p. 76), these researchers noted that minimal guidance exerted by a teacher may not have any desired learning effect for students whose prior knowledge and experience is limited. Specifically too, developing lessons where student inquiry is employed requires more adept and frequent assessment to monitor and measure student learning—a paradigm with which many teachers struggle (Lesh & Doerr, 2003). As well, students learning in a standards-based environment are often far more familiar with convergent thinking rather than interpreting and formulating responses to queries which have no "right" answer (Abrams, Southerland & Evans, 2008). Challenging students to put aside those expectations takes patience and practice. Likewise, since teachers are increasingly evaluated on their students' performance on standardized assessments, which to this point require little higher-order thinking skills, there might be less appetite to employ inquiry-based practice. And finally, since most teachers learned history through traditional teacher-centered instructional models, their familiarity with inquiry-based learning is likely minimal. To them, direct instruction is what they commonly saw as history students and is what they continue to see in their field experiences (Levine, 2006). As teacher educators consider the extent to which inquiry-based learning should be part of their methods

curricula, both the intriguing potential of inquiry-driven learning and the contextual challenges therein must be taken into account.

Inquiry and Teacher Development

Providing understanding of and experiences with inquiry-based practice is critical to teacher development particularly when beginning teachers are challenged to engage students in the content in which they specialize while ensuring that students, who are not likely disposed to enjoying history, are successful on standardized assessments. Teacher educators must be aware that most prospective teachers will begin their careers in those circumstances. They will have to navigate the challenges of balancing the theory and scholarship of social studies education that typically exalts a constructivist approach to learning with the political realities of a school system focused on student assessment data as a means to demonstrate student *and* teacher achievement. That tension is played out often in teacher preparation classrooms where teacher candidates note a persistent disunion of coursework and what they encounter in clinical practice (Levine, 2006).

Likewise, this discord is evident in researchers' attempts to provide rich descriptions of preservice teachers' transition to their first years teaching and to design interventions that support inquiry-based instruction. Kang, Bianchini, and Kelly (2013) recently explored this transition from a sociocultural perspective, which they referred to as "border crossing" (p. 428). Using this framework, they asserted that preservice teachers move between two cultures (student and teacher) with distinctly different ways of approaching and understanding their discipline. Further, they describe the complexity of this transition. Kang et al.'s (2013) case study, incorporating a 10-week science inquiry investigation in a methods course, followed the transition of eight preservice teachers. In their analysis, four themes emerged to categorize teachers involved in this transition, including: (1) traditional teachers, (2) teacher of inquiry in theory rather than practice, (3) teacher of inquiry but with questions, and (4) inquiry-oriented. All of the teachers from the intervention were placed in categories 3 and 4. The researchers discovered that specific aspects of inquiry did not strongly crossover from student to teacher of inquiry. That is, the peer review component was least mentioned in their ideas about teaching inquiry. These findings are specific to preservice teachers' understanding of inquiry in science. However, it is also important to recognize that, regardless of teaching domain, there may be differences in how preservice teachers "cross the border" between theory and practice.

Longitudinal studies likewise highlight the transitional role of teacher preparation coursework in developing preservice teachers' understanding and application of historical inquiry and social studies methods in their teaching. A program design that incorporates adolescent development, for example, has revealed significant long-term differences in teachers' beliefs about their students' ability to think critically (Conklin, 2010) – a belief that is fundamental to the teaching of inquiry. Yeager and Wilson (1997) found, however, that even when preservice teachers' are exposed to the nature of historical inquiry in methods courses, there is great variance in how they understand its application given students' maturity level and the perceived need for classroom control in clinical practice. These cases highlight the significance of teachers' pre-existing beliefs in their incorporation of theory to instruction.

Research Design

Attending to the stark contrasts in preservice teachers' experiences from learner to instructor, as well as the empirical theory-based practices that are encouraged throughout

their college education coursework, there is an immediate challenge for those involved in preparing social studies teachers. Preservice teacher educators must enjoin the scholarship of inquiry-based instruction with the practical possibilities of doing so in K-12 classrooms. Given the broadly defined scope and application of inquiry in learning and teaching, systematic research that explores how methodological means of instruction shapes teachers' understanding and approach to inquiry models in their teaching may serve to provide insight on how teachers form beliefs about the practice of inquiry instruction. Such comparative analysis is generally lacking in social studies education literature, though the transition period is documented across disciplines (Kang, et al., 2013; Yeager & Wilson, 1997).

In some cases, preservice teachers have not been exposed to a variety of inquiry models in their own learning, and their teacher education programs may be their first formal experience with instructional design that incorporates inquiry. It is, therefore, the responsibility of teacher preparation programs to expose teacher candidates to such models as part of teacher development in ways that address implementation in K-12 classrooms. In exposing these models, preservice teachers will accommodate new instructional strategies based on their current conceptions of inquiry pedagogy. If preservice teachers are not dissatisfied with how they have come to understand history, then an integration of these theories in practice is far less likely (Holt-Reynolds, 1992; Salisbury-Glennon & Stevens, 1999). To that end, the purpose of this research is to elucidate teachers' perceptions and inclinations toward inquiry-based learning in the middle and secondary history classroom given contrasting instructional methodologies to compare how preservice teachers make adaptations to their beliefs.

Specifically, we examine how two groups in a social studies teacher preparation course viewed inquiry-based instruction as effective for middle and secondary students. We chose two modes of inquiry by which to compare preservice teacher beliefs in order to be able to contrast the likelihood of activating cognitive discord regarding teacher beliefs. Preservice teachers' also were asked to align these approaches with their own goals for history instruction by elaborating on how these models have applications for their own teaching. Including comparative cases increased the likelihood of detecting how preservice teachers' calibrated contrasting ideas with their existing conceptions and goals. The division of the two groups is detailed in the following methods section. However, a core component to the study design was the inclusion of online modules designed to induce historical inquiry by presenting an unidentified object in U.S. history. The modules were selected from an online course, *Hidden in Plain Sight*. Although the course was designed at the researchers' university affiliation, it was created independently from the college of education. Rather, it was designed in collaboration among history professors, social studies education researchers, and with pilot test feedback from practicing teachers in the interest of making historical inquiry strategies more accessible to practicing K-12 educators. This overall conceptual frame and research design, including the process of inquiry incorporated in *Hidden in Plain Sight*, is outlined in Figure 1.

students registered for the course agreed to participate. In this sample, 36% were female and 64% were male. Forty-three percent of these students were between the ages of 26 and 35, while 38% were between 21 and 25 years old, and 21% between the ages of 36 and 45. Since the course was part of a licensure program, only one student had any full time teaching experience, while others had experience as substitute teachers or teaching assistants. All of the participants had undergraduate degrees in the social sciences. Eleven majored in history, four in government and one in international affairs.

In the project, one researcher also served as the course instructor. This researcher was responsible for the delivery of procedural instructions for assignments, obtaining consent, and leading direct instruction about inquiry methodological content to students in the comparison group. A second researcher, uninvolved with course instruction or administration, orchestrated student access to the online inquiry modules, collected student data from surveys, student responses in modules, and recorded observations in class discussions. This researcher also coded all of the identifying information so that the course instructor was not bias to student responses. Students did not know the research questions at the outset of the project, and the researchers took care to ensure all participants that responses would not affect course grades or status in any way. This was done verbally as the project was introduced and included on consent forms.

As we approached the project commencement, the class was randomly divided into two groups in order to investigate how methodological means of instruction elicited preservice teachers' ideas. The independent inquiry group (A) learned about inquiry instruction through their own research, participation in an online historical inquiry module, their own presentation on inquiry instruction to peers, and a concluding module with accompanying reflection on inquiry instruction. The directed inquiry group (B) learned about inquiry through direct instruction from the course instructor and from peers via class discussion. In the week following direct instruction, these students also completed the same online historical inquiry module with a final reflection on inquiry instruction. And as a comparative data source, we examined student lesson plan products produced by all students in both groups. The lesson plan assignment included no explicit direction of instructional strategies to employ. Rather teacher candidates were tasked to develop lessons that addressed state and local standards and themes, and were grade-level appropriate in terms of content and complexity. The lesson plans were submitted near the end of the semester and were content analyzed— after final course grades were submitted—for inclusion of inquiry-based strategies.

Instructional Procedures

Inquiry instruction was introduced in the second half of the semester. Therefore, students had equal grounding in social studies teaching methods, the ideas of historical thinking, and the general tenets of historical cognition based on course readings of Barton (2011), Wineburg (2001), Stearns (1998), VanSledright, and others. Furthermore, students had some (<15 hours) practicum experience in secondary social studies classrooms by this time. However, each group of students learned about inquiry as an instructional approach in a fundamentally different way. The following is a description of the instructional methodologies implemented with the two groups of preservice teachers.

Independent Inquiry (A): Hidden in Plain Sight. Group A consisted of seven preservice teachers who researched inquiry instruction and who participated in two online modules from a course designed for social studies teachers called *Hidden in Plain Sight*. This course was chosen specifically for its inquiry-based design and content aligned with state standards and the NCSS Framework—both of which are familiar and important to

these preservice teachers. The focus of the intervention was on preservice teachers' practice of historical inquiry through this online experiential model. Although students also conducted independent research on inquiry instruction, this was part of a separate project that was regularly incorporated in the social studies methods course. Members of this group were tasked with developing a presentation to the class on inquiry-based instruction. This presentation was assessed on content presented and presentation effectiveness. For their part in this assessment, the remaining members of the class researched instructional strategies including cooperative learning and direct instruction and were similarly assessed.

Central to Group A's participation in the project was their exposure to the *Hidden in Plain Sight* course, which currently includes 13-modules that span different periods in U.S. history beginning in the 17th century and continuing through the 20th century. Each module centers on an everyday object that is "Hidden in Plain Sight" and requires that users hypothesize and investigate how this object is significant to U.S. history. On closer examination, connections between these objects with broader themes in American history become evident. For this project, we selected two modules, chosen for their attention to a wide range of U.S. history topics and time periods. Preservice teachers in this group first completed a module on the invention of the dishwasher and its role in contemporary U.S. history. Following group presentations, in a later class session, these preservice teachers completed an additional module on the significance of the manufactured nail to U.S. history, which emphasized early U.S. expansion.

Each module in the *Hidden in Plain Sight* course is built with the same structural design and follows a model of inquiry consistent with social studies and Common Core standards and the scientific method of generating a hypothesis and accumulating data to "test" that hypothesis before reaching an evidence-based conclusion. At each module, students are first presented with an image of an object and asked to craft a short hypothesis that notes observations and predicts the broader contributions of the object to history (see Figure 2). Next, students proceed to a resources page containing twelve supplementary items, which they are able to explore to the extent that serves their interest. These include primary and secondary source documents, images and multimedia enrichments. These resources help to place the object in historical context. To review background knowledge, students are asked to complete a five-question quiz before proceeding to a "rethink" page. On this page, students are given the opportunity to review their initial hypotheses and reflect on how their ideas about the object may have changed. Students are also asked to write a revised hypothesis that incorporates the knowledge they have gained from the supplemental resources before reading the conclusions about the object's role in history. Finally, students write about how they will apply what they have learned from the process or content in their teaching. On the wrap-up page, students have the option to read one another's revised hypotheses and ideas about classroom applications that were drawn from the content of the module and the model of historical inquiry.

Teacher-Directed Inquiry (B): Eight preservice teachers were assigned to Group B and learned about inquiry largely through direct instruction. The teacher-directed instruction was incorporated into a class session that lasted approximately thirty minutes. The idea of inquiry learning was introduced through an initial presentation of a well-known painting from the period of Westward expansion – "American Progress," (Croft, 1872). Through a teacher-led lecture, inquiry learning was described as a constructivist approach based around a question, artifact or source in which learning is built on a process similar to the scientific method. Preservice teachers in this group learned that the expectations for students in this model are to form hypotheses, collect data, analyze and interpret data, and draw conclusions, while the role of the teacher is as coach and

facilitator. The final segment of this instruction included focus on historical analysis and connections to tenets of historical thinking. During this initial class session, preservice teachers described what they saw in the painting and were occasionally prompted to reflect on what is needed for teachers to employ inquiry-based learning and what examples support student inquiry. The questions presented were largely convergent in nature, but often prompted students to reflect on their experiences in history classrooms. The responses revealed some of these preservice teachers' perceptions regarding inquiry instruction that had been formed through prior experience and in direct instruction.

Figure 2: Hypothesis page from the historical inquiry module

What story is hidden in this object?

Instructions

How has this object contributed to American history?

Write your hypothesis below; don't forget to save before continuing.

4000 character limit.

Save Draft Submit

Click for more

Edit (ID to)

In a subsequent class session, preservice teachers' peers from the Independent Inquiry Group (A) presented their ideas about inquiry in a similar direct instruction format. This presentation included various inquiry models, information about the spectrum of inquiry from open-ended to teacher-guided and the centrality of investigation and research to the inquiry process. There were no opportunities for preservice teachers in the Teacher-Directed Inquiry Group (B) to *participate* in an inquiry model prior to completing the post surveys. In the final class session, all preservice teachers completed a *Hidden in Plain Sight* module on the role of the manufactured nail in history before writing reflections on inquiry instruction and their inclinations to incorporate this method of instruction in their own teaching.

Data Collection

Data were collected in the fall 2012 semester. First, all students completed a pre-survey to obtain demographic information, quantitative ratings, and qualitative descriptions of teachers' ideas about the utility and challenges of inquiry learning. Near the end of the next class session, students assigned to the Independent Inquiry Group (A) were dismissed to complete an online module from *Hidden in Plain Sight*, while those in the Teacher-Directed Inquiry Group (B) remained for the aforementioned period of direct instruction on historical inquiry. Following this introduction, and in the following week, preservice

teachers in Group A presented their research on inquiry instruction to those in Group B. The co-researcher recorded qualitative field notes from each of these class sessions, totaling approximately 120 minutes. The field notes were used to record preservice teachers' statements regarding inquiry instruction, as well as describe reactions and interactions between students discussing the utility and challenges of instructional methodologies for teaching social studies. Observer comments also reflected on individual variations in preservice teachers' ideas about inquiry instruction. All preservice teachers then completed an identical concluding survey as a post-assessment that was administered prior to Group B completing an online module from *Hidden in Plain Sight*. The preservice teachers composed reflective journal entries following these experiences. The lesson plans were submitted during the penultimate week of the course and subsequently analyzed attentive to learning objectives, instructional activities and assessment frameworks.

Quantitative measures. The pre- and post-survey contained items that were divided into three sections to assess preservice teachers' ratings on the frequency they would plan inquiry lessons, the utility of inquiry lessons, and how challenging they perceive inquiry instruction to be (see Appendix). Questions in each section asked teachers to provide ratings for each of the following categories: for middle school students, for high school students, for student engagement, for student learning, for their own learning, and for developing historical thinking. All quantitative ratings were assessed on a 4-point scale to encourage participants to take a less neutral stance (Creswell, 2008) and because preservice teachers are less likely to have fully developed ideas about instructional practice. In rating the frequency of incorporating inquiry into instruction, preservice teachers selected between 1 (Never) and 4 (Often), while utility was measured in a similar direction, between 1 (Not at all) and 4 (Very). When rating challenges however, a lower score indicated a more positive response with 1 anchored at "Not challenging" and 4 anchored at "Very challenging."

Qualitative analysis. The qualitative data were derived from preservice teachers' responses to open-ended items on the pre- and post-survey, field notes from observations of class sessions, student work in the online modules, reflective journal entries and lesson plan content. The data were approached inductively; with the purpose of the study to capture preservice teachers' ideas about instructional practice based on their own learning experiences. Therefore, organization codes for all data excluding the lesson plans were generated from the data to categorize various influences on teachers' instructional practice related to inquiry learning (Maxwell, 2005). In doing so, the data were spliced into a total of 251 "data bits" (Dey, 1993) and emic codes were identified in the subsequent content analysis (Creswell, 2008; Maxwell, 2005). Analytic memos were used throughout the process to explore patterns as well as areas of divergence between the preservice teachers' ideas in the independent and teacher-directed inquiry groups. This opportunity for comparison helps to highlight discrepant cases to draw out the interpretation of preservice teachers' perceptions both related and unrelated to the instructional methods. Finally, quasi-statistics from these coding procedures accentuated areas to enrich with details from the participants' perspectives (Maxwell, 2005).

Content analysis (Patton, 2002) was employed in the examination of lesson plans to describe and make inferences about the characteristics of the language used in the lesson objectives, instructional activities and assessment frameworks. Since this assignment was common to all students in the course, data examining the instructional strategies, objectives and assessments served as an important comparison for both groups in terms of their perceptions of inquiry as effective practice. In addition to looking for certain terms associated with inquiry found in the lesson plans, we also looked more holistically at each lesson plan and its components for evidence of inquiry. This process was employed to

better capture student intentions in their planning strategies. Taken together, these data sources allowed us to compare how these preservice teachers perceived inquiry-based instructional practice for social studies and sought to include inquiry-oriented activities in their instructional planning.

Limitations

The limitations of this research derive from the research design. Patterns found among preservice teachers' in the Independent Inquiry Group A cannot be attributed to any specific component of the instruction, but rather the overall process of independent research, participation in an historical inquiry model, and presentation to the group. Some differences in ideas may have been associated with different components of the instruction. For example, preservice teachers' group presentation may have included research as an explicit example because that is how they gathered data about inquiry instruction. Meanwhile statements in the post-reflections may have been more immediately prompted by their work in the historical inquiry modules, rather than their overall understanding of inquiry learning. There is less information about how these ideas merge to be adapted in different contexts. Likewise, the relationship between one of the researchers and the teacher candidates should not be overlooked. Although it was made clear participation in this study would not affect assessment in the course, there are risks associated with such a relationships. Students may seek to present perspectives aligned with the instructor to gain academic advantage in the course or teacher preparation program. Furthermore, the intervention and data collection took place over a relatively short period of time. We relied on preservice teachers' survey responses, class discussions, work in the inquiry module, and final reflections that may have been more limiting in providing more rich individual details.

With data collected for this project it is not possible to make generalizations about preservice teachers' practice writ large. After the implementation of both means of learning about historical inquiry, many remained conflicted about what the ideal model of inquiry represents for their students' learning and at what cognitive level students are capable of inquiring. And although lesson plans included instances of inquiry-oriented activities and ideas, which helped us see the extent to which these preservice teachers are willing to use inquiry-oriented activities in lessons, these products were not employed with secondary students and as such cannot be seen as evidence of inquiry-based instruction finding its way into social studies classrooms.

Findings

The quantitative results from this project can be used to address the first research question regarding the differences in preservice teachers' ideas about inquiry instruction between groups. The means for preservice teachers' ratings at pre- and post- survey are presented in Table 1, as well as differences in preservice teachers' ratings between groups. The differences in preservice teachers' ratings at pre-test indicate that there is some variance, regardless of the intervention. However, eleven out of eighteen of these ratings are closer to zero at pre-survey than at post-survey, suggesting that differences between groups becomes slightly more pronounced and therefore trends can be interpreted relative to post-survey findings. Of the seven that do not follow this pattern, many are categorized as challenges of employing inquiry in instruction or are related to historical inquiry for one's own learning or developing historical thinking skills. For preservice teachers in both groups, their ratings on the challenges of inquiry instruction suggest that they are becoming

more confident as they learn more about how to incorporate inquiry in their teaching. Yet still, the concentration of negative numbers describing the differences between groups shows that teaching inquiry appears to be somewhat less challenging for preservice teachers more fully exposed to the online model of historical inquiry.

Table 1: Pre- and post- survey means for pre-service teachers' responses, including differences calculated between groups

Frequency		Independent Inquiry (A)		Teacher-Directed (B)		Difference ¹	
		Pre-	Post-	Pre-	Post-	Pre-	Post-
Middle school students		3.00	2.67	3.38	3.00	-.38	-.33
High school students		3.67	3.50	3.75	3.29	-.08	.21
Student engagement		3.67	3.83	3.62	3.29	.04	.55
Student learning		3.33	3.50	3.38	3.00	-.04	.50
Own learning		3.33	3.67	3.50	3.86	-.17	-.19
Developing historical thinking		3.17	3.67	3.88	3.43	-.71	.24
Utility							
Middle school students		3.50	3.33	3.50	3.14	0.0	.19
High school students		3.83	4.00	3.62	3.43	.21	.57
Student engagement		4.00	3.83	3.88	3.57	.12	.26
Student learning		3.50	3.83	3.62	3.57	-.12	.26
Own learning		3.67	3.83	3.88	3.86	-.21	-.02
Developing historical thinking		3.67	3.60	3.88	3.71	-.21	-.11
Challenging							
Middle school students		3.17	3.33	3.38	3.57	-.21	-.24
High school students		3.17	3.00	3.00	3.00	.17	0.0
Student engagement		2.83	2.67	2.88	2.71	-.04	-.05
Student learning		2.83	2.67	3.00	2.71	-.17	-.05
Own learning		2.33	2.17	2.38	2.43	-.04	-.26
Developing historical thinking		3.00	2.50	2.75	3.00	.25	-.5

¹ Note: Negative numbers indicate that students in Group A (intervention group) reported ratings lower than those in Group B (comparison group)

Results from the post-survey provide additional descriptive information about preservice teachers' ideas about inquiry instruction. Noting the brevity of the intervention, these patterns are important given the relative stability in ratings. The means at post-test (see Table 1) indicate that preservice teachers in Group B would more frequently use this approach with middle school students than those in Group A. When assessing how useful inquiry-based learning is, the ratings indicate that preservice teachers believed that it was more useful for high school students than middle school students. These ideas are

supported in the qualitative data, where preservice teachers frequently mentioned age and maturity-level of students to be an important prerequisite for inquiry-based instruction. One preservice teacher in Group A mentioned that “It is not useful in age groups where they [students] have a hard time focusing and listening to others,” (A7). Another from Group A suggested, “Students must have enough background knowledge for new information to be pertinent” (A1).

Table 2: Chi-square analysis for independent samples, representing frequency counts for changes in survey ratings.

Category	χ^2	P
Frequency		
Increased ratings	1.72	.189
Decreased ratings	10.5	.001
Utility		
Increased ratings	1.98	.160
Decreased ratings	2.55	.110
Challenging		
Increased ratings	2.55	.110
Decreased ratings	.476	.490

Patterns suggest that preservice teachers in the Group A generally would use inquiry instruction more often than those in the Group B. Furthermore, these preservice teachers reported that inquiry instruction is more useful for student learning and engagement, regardless of grade-level. One important distinction to note between groups is that preservice teachers in Group B rated inquiry to be more often incorporated in their own learning and to be more useful for their own learning and development of historical thinking. This finding suggests that the preservice teachers who did not participate in the inquiry module could have a harder time envisioning how to facilitate inquiry, but perceive it to be an important component to their own learning; a challenge found in research focused on the transition from learner to teacher (Kennedy, 1997).

In order to capture differences in ratings between groups from pre-/post-tests, frequencies were calculated to explore significant proportionate changes in ratings between groups. Items assessing frequency, utility, and level of challenge were collapsed into one category where the number of instances for preservice teachers to report increases or decreases in ratings was equal to the number items ($n = 6$) multiplied by the number of people who submitted both surveys ($n = 13$). Therefore, the proportional differences were calculated based on $n = 78$, because one post-survey was not returned. The chi-square statistics for independent samples are reported in Table 2.

Results in Table 1 indicate that the only significant difference was found in the number of preservice teachers who decreased their ratings on how frequently they would use inquiry instruction from pre- to post-survey. A higher percentage of ratings declined among students in the Group B than would be expected by chance, $\chi^2(1, N = 78) = 10.50, p = .001$. More closely examining the means, it is clear that preservice teachers in Group A started with much lower ratings on how frequently they would incorporate inquiry instruction. Therefore, preservice teachers in the Group B may

have had a less clear understanding about inquiry instruction prior to coursework and reported ratings overconfidently. Although these differences were present from the start, as preservice teachers developed their understanding, direct instruction more significantly impacted ratings in the negative direction than the historical inquiry modules supported preservice teachers' inclinations positively. The non-significant differences in the remainder of the categories indicate that responses remained relatively stable between groups at each survey administration. The most visible patterns however can be elaborated on based on preservice teachers' verbal discussions, written reflections about inquiry and in the lesson plans they submitted. Central to this study, these qualitative elaborations provide for further speculations regarding how these differences emerged.

The Idea of Inquiry

Broad categories emerged to group the kinds of ideas that preservice teachers' talked about when referring to learning and teaching social studies from an inquiry model. These categories served as organizational codes (Maxwell, 2005), which are summarized in Table 3. Within these categories, a number of content codes were assigned to the data using language that was common among preservice teacher responses. For example, when discussing the prerequisites that preservice teachers perceived to be necessary in order for inquiry to be successful, many often cited a strong "foundation" of knowledge, "maturity", or "motivation." When referring to the effects of inquiry, preservice teachers most often mentioned student "ownership" and "interest." The process of assigning such content codes brought attention to key ideas within and between groups.

Table 3: Organizational categories, perceived influences on the implementation of inquiry instruction

Category	Definition	Sample data	Code Freq.	
			A	B
Student prerequisites	Describes the prerequisites, traits, or behaviors that are needed for the student to engage and learn from inquiry instruction.	"It is not useful...when the student does not know enough to ask a question that necessitates inquiry."	2 1	18
Teacher prerequisites	Describes the prerequisites, traits, or behaviors that teachers need to exhibit or practice in order to use inquiry in their teaching.	The teacher needs to trust the students and be confident that students are able to process this idea (B5)	1	11
Students do (roles/actions)	Describes what students do when engaging in inquiry learning. This could be a specific learning task, characteristic that describes the process, or products that may result.	"...Engaging with primary source material. It requires students to search for answers on their own, and truly wrestle with a text or item." (A3)	1 2	23
Teachers do (roles/actions)	Describes what teachers do when utilizing inquiry-based instruction. This could be regarding the teacher's general role in the process or characteristics that describe the process.	"To probe" and "to get middle school students to think 'outside' the box." (A4)	1 7	6
Effects	Addresses the outcome, effectiveness, or importance of	"Allows students to take charge of his/her own learning." (A2)	9	19

	inquiry-based learning.		
Classroom context	Locus of control, elements of the classroom environment or teacher-student relationships that effect inquiry learning.	“Inquiry based learning is sometimes hard because you may not have a class that likes to engage and speak in front of one another.” (A7)	1 2 21
Academic knowledge	Addresses the relation between inquiry instruction and academic knowledge.	“Inquiry based learning could also result in students missing out on some information that might be acquired through a lecture or other teaching method.” (A5)	1 3 9
Sources of perceptions	Statements when teachers attribute their beliefs to various aspects of their educational experience.	“I’ve also noticed that in my own educational experience growing up that whenever I had more involvement in the content, I was much more eager to learn.” (B5)	4 15
Classroom applications	Includes teachers’ descriptions of how they would apply what they’ve learned in their teaching.	“A nail is such a simple object and something that we have many of lying around at home, so to see it in a historical sense makes a connection between us and the people of the past.” (B2)	1 6 11
Affect	General sentiments about incorporating inquiry into social studies instruction.	“I love the idea, but I’m not sure how much you use it.” (B7)	4 9

Although the intervention was relatively short, the form of instruction experienced by preservice teachers in each group revealed some qualitatively different patterns in how preservice teachers focused their attention on the implementation of inquiry instruction in the social studies. Differences may be due, in part, to their experience in course instruction over this time. Those in Group A developed their own understanding of inquiry instruction through research, group collaboration, and experience with the *Hidden in Plain Sight* modules. Meanwhile, preservice teachers in Group B were told about inquiry instruction both by the instructor and by their peers. This difference may have led Group B to develop a more reactionary stance toward inquiry while the Group A may have had more opportunities to assimilate the new information and thus share more classroom application language. At the same time, most preservice teachers tended to have similar descriptions of the challenges and utility of this form of instruction in the secondary classroom, as found in the content codes within the organizational categories.

Analysis of the lesson plans produced as part of the course echoed suggestions from quantitative data analysis that the preservice teachers with whom we worked on this project were confident as they learn more about how to incorporate inquiry in their teaching. Eight of the 15 participants included specific inquiry-based elements in their lesson plans. Activating strategies were most the common places where participants employed inquiry. Activities such as image or music analysis were employed by four of the participants as part of the activating strategy. Four of the seven participants in Group A also included inquiry as part of instructional activities or assessment framework, while two from Group B did likewise. One Group A student, for example, included U.S. Census data sets from the mid-twentieth century to guide students toward discovering how the growth of the automobile market paralleled growth in suburban living. Another from that same

group asked students to examine maps, agricultural output data and climate data to infer economic strengths of regions in Colonial America.

Independent Thinking vs. Independent Work.

Overall, preservice teachers' responded positively to the idea of inquiry learning. However, their descriptions of inquiry instruction and their discussion of what students do when learning through their own inquiry offers some insight to subtle distinctions about inquiry in practice. For example, preservice teachers in Group B described inquiry learning as "self-directed," "independent," "student-based," and as a student selection of "own topics." Meanwhile, preservice teachers in Group A described inquiry as "Student-oriented," allowing students to "draw connections," and teachers to include students' "own conclusions." Though the differences are subtle, the first set of descriptions seems to associate inquiry learning more with a self-contained method of teaching where students are working independently, an inclination aligned most closely with self-regulatory behavior. These descriptions offer only a small portion of preservice teachers' thinking, but these are elaborated on further through qualitative survey responses and in the presentation of inquiry instruction to the comparison group.

First, it is important to note that the analytical nature of inquiry learning is evident through each lens – independent work and thinking. Preservice teachers mentioned the opportunity for classroom discussion about primary and secondary sources to be an important component for this approach to instruction. One student explained that "...engaging with primary sources and material – It requires students to search for answers on their own, and truly wrestle with a text or item" (A3). However, teachers in Group B tended to also emphasize choice and independence in their ideas about what students do. For example, inquiry instruction is useful in practice because "...the students got to choose what they are studying" (B5) and not challenging because "students are eager for the chance, many times, to work more independently." They also mentioned the challenging nature of inquiry learning projects, especially in middle school, because they may not be ready to work independently or think critically. As one student explained, "It might be harder for younger students to understand" and "It can be more challenging for some middle school students because some may still be moving into higher order thinking more slowly than some of their peers" (B4).

These details help to explicate some of the quantitative findings where teachers in Group B rated inquiry instruction to be less useful and more challenging for middle school students. The idea of inquiry being an opportunity for independent work may also be partly explained by the research design for Group B – that these teachers were told from multiple sources (teacher and peers) about "what is" inquiry learning. The peer presentation on inquiry instruction presented this methodology as very research-oriented, that it involves "research obviously, primary sources – they're using their own tools to find the answers to their questions..." (A7) yet "...in high school, students aren't required to do real research" (A3). These preservice teachers Group A had the opportunity to draw their own conclusions about inquiry instruction based on their research and their participation in an online historical inquiry model. This fact seems to have implicitly impacted their inclinations about inquiry as an opportunity to draw conclusions and make connections, although their explicit descriptions emphasized independence. Analysis of lesson plans likewise illustrated a pattern that while a majority of students explicitly included inquiry in activities and as part of assessments, these instances largely adhered to teacher-guided inquiry. These patterns suggest that it may be important to distinguish between

independent work and opportunities for independent thinking in how teachers incorporate inquiry in practice at different grade-levels.

Learner and Teacher Orientations. Next, the frequency counts derived from the coding of preservice teachers' statements reveal some differences in how they focused their attention in their comments about inquiry learning and instruction. One category that emerged was in the pre-requisite skills and traits that teachers need to have in order to be able to facilitate inquiry. Some of these included time management, planning, practice, training, flexibility, and trust. One preservice teacher explained the challenge of "making good use of time when adapting this method, not letting discussion drag on at times..." (B8) and that it "requires a great deal of preparation and explanation to the students and requires effective classroom management..." (B3). These statements were generally written as conditional, reflecting requirements of the teacher. Although preservice teachers in this group talked about the challenges for the teacher, they associated these challenges with specific teacher behaviors. For example, the provision of models or use of probing questions for students may be challenging, but "teachers could gradually build up students' investigative and analytical abilities so that eventually they can complete an inquiry task on their own" (A5) and that inquiry can require "spending a lot of time with each student in order to push them to get involved and follow questions through properly" (A6). While teachers in Group A more frequently addressed the role of the teacher in facilitating an inquiry activity, students in Group B more frequently referred to overall effects of inquiry instruction on student learning and development, as well as the teacher pre-requisites in order for instruction to be successful.

These orientations are also reflected in the language of preservice teachers' post reflections. Although preservice teachers in both groups may have expressed interest (or disinterest) in using an inquiry approach, there were some subtle differences in how they framed their comments. For example, Student B7 expressed interest, but indicated "I am excited about the potential of using it for my own purposes right now," suggesting that it is more practical for her own learning than teaching, given her level of comfort with such thinking processes. Other teachers in Group B focused on the general benefits or overall value of the idea: "I believe, if effectively utilized, teachers can accurately assess a student's knowledge and understanding" (B6). Furthermore, they primarily discussed their own experience as learners participating in college-level inquiry. In contrast, students in Group A offered slight adaptations for inquiry in teaching, sometimes in comparison to the online model. One preservice teacher suggested, "I think I would make it more interactive and discussion based" (A7) and another commented "I would want to be sure to guide my students into realization of the larger themes and movements going on in the nation that made these things possible" (A5). The opportunity for independent research and experience seems to have encouraged preservice teachers to reflect more on the transition from learner to teacher.

Clearly, there are trends in what preservice teachers talk about when discussing the incorporation of inquiry into their teaching. However, these should be interpreted most accurately as general descriptors. Preservice teachers' intended instructional practices in association with the intervention would need to be further investigated through longitudinal studies which followed teacher candidates through to clinical practices and beyond. With no students or actual classroom context to guide preservice teachers' implementation intentions, it is difficult to go beyond an expectancy model of general effects and applications. When teaching preservice teachers about this form of instruction, it could be helpful to address their ideas about the traits and contexts with which they associate inquiry instruction. Preservice teachers may be more adaptive if they can find

ways to attribute student learning in an inquiry model to their role as facilitator rather than an outcome of instructional methodology.

Discussion

With national standards and social studies curricular frameworks moving toward disciplinary reading and critical inquiry, it is important to understand how teachers' learning about inquiry instruction influences their perceptions and inclination to support student-centered inquiry in their classrooms. The National Research Council's (2000) *How People Learn* report brought these ideas to the fore by asserting that teachers best develop knowledge of the inquiry process through "in-depth study of the subject area themselves" coupled with understanding of how learning occurs within disciplines (p. 20). The results from this comparative case design informs social studies teacher educators about the need to address the means of instruction and the nature of learning in teacher preparation programs as important factors to impact instruction with K-12 students (Adler, 2008; Williamson McDiarmid & Clenvenger-Bright, 2008). Results of this research suggest that an experiential process may have an implicit impact on how preservice teachers talk about implementing inquiry with middle and secondary education students. Participating in a model that could be adapted for these students prompted preservice teachers to discuss what they would change if they were to use a similar approach – namely that they would rely more on teacher-led interaction and discussion. These teachers engaged in more discussion about plausible alternatives when considering how they approach inquiry instruction, suggesting that they experienced some dissonance around which to react. This process is key when identifying the likelihood of incorporating similar modes of inquiry in instruction (Posner et al., 1982).

Following the recommendation of Pintrich, et al. (1993) the learning context plays a crucial role in understanding individual's conceptual change. The data that were collected focused particularly on preservice teachers' ideas about external expectancies regarding inquiry instruction as they emerged from contrasting instructional approaches, though and there is little information beyond the lesson plans about how these ideas would be implemented. Overall, however, when discussing the utility, challenges, and their own inclinations to use inquiry instruction, similar factors were identified among preservice teachers. These factors included time and curriculum constraints, as well as the necessity to transfer information. These factors are often cited, even in content methods courses that focus on the epistemic nature of the discipline with opportunities for preservice teachers to participate in classroom inquiry investigations (Yeager & Wilson, 1997). These patterns indicate that preservice teachers' overarching goals for social studies teaching remain relatively independent to their exposure to varying instructional approaches, including historical inquiry.

The pre-requisite traits that preservice teachers identified for their students to be able learn through inquiry seemed to inform their ideas about when and how it should be used. Students' level of knowledge, maturity, and motivation, for example, were related to tendencies toward implementing inquiry at the high school level. This association of inquiry with adolescent cognitive development has been found in other cases examining preservice social studies teacher education. Conklin (2010) described the differences in preservice teachers' inclinations comparing a middle years-focused program with a secondary teacher preparation program. In this case, preservice teachers in the middle school program more often expressed positive beliefs about middle school students' abilities to think critically – at 77% compared to only 23% in the secondary (6-12) preparation program. Therefore, addressing preservice teachers' beliefs about students and

the idea of inquiry as practice in different contexts may help them reframe the utility and value of inquiry instruction as they weigh the costs and benefits of the model for their own instruction.

Regardless of the limitations that come from this research design, there do seem to be patterns in how and what preservice teachers talk about regarding inquiry learning and instruction. While these findings are informed by researchers' prior knowledge in teacher education, motivation, teacher self-efficacy, and historical cognition, there were no pre-set ideas about what to expect. The pre-/post- design was incorporated with intent to investigate growth as a product of the methods of course instruction, but data instead supported a relatively stable comparison between groups. Furthermore, the data were not coded using names of individual students to minimize bias regarding the researcher's relationship with individual students as instructor. One data source in particular may have contributed to more reactive responses from preservice teachers in Group B – those from student responses led by the course instructor. In these sessions student responses were not necessarily candid. However, all preservice teachers had the same opportunity for more reflective responses in journal entries and in providing classroom applications of their learning at the end of the second historical inquiry module. Given some differences in data sources, attention was directed in analytic memos not to overemphasize language elicited from specific data sources that may have been absent in one group. Recognizing these threats, among other limitations, helped support the validity of the emerging patterns we discerned from these data.

Significance and Future Research

Unique in this study was the opportunity to map out preservice teachers' responses based on different instructional processes experienced. Although preservice teachers' were not explicitly categorized based on how they made the transition from learner to instructor, there were patterns that indicated some differences from this perspective, and these patterns were mirrored in lesson plans. Preservice teachers' in the Independent Inquiry Group (A) more often reflected on their role as instructor, although most preservice teachers' seemed to have questions about its implementation in practice. There were statements to suggest that inquiry is more practical in their own learning than teaching and one student in Group B was "nonplussed" despite exposure to the historical inquiry module in the latter part of course instruction. The teacher-directed inquiry in this case did not seem to prompt preservice teachers' reevaluation of history teaching. As Holt-Reynolds (1992) found, preservice teachers commented on how their own beliefs about history education challenged research-based practices – rather than attuning to research as a challenge to their own beliefs.

The findings from this study are significant given the limited attempts in social studies teacher education research to explore how learning context interacts with preservice teachers' instructional beliefs. The comparative cases reveal differences in preservice teachers accommodation of methods of historical inquiry evidenced in their ratings on how frequently they would use inquiry instruction and in their reflections that focused on contrasting perspectives about inquiry from the perspective of learner and teacher. Interventions that have sought to encourage historical inquiry as regular practice have relied on large problem-based units that are met with challenge against preservice teacher conceptions, which express genuine interest in these ideas but largely deem them impractical in K-12 instruction (McDiarmid & Vinten-Johansen, 2000). The contrasting instructional methods explored here, however, employ an independent inquiry component in which preservice teachers reflected on their own beliefs independently from their peers

(e.g. during class discussion) and were presented with a unique model of inquiry that emphasized the induction of an historical thinking process rather than the instructional design of a complex unit.

Researchers have long lamented that instruction designed to stoke curiosity and challenge them to think creatively and critically is less emphasized as students progress through the school system (Mitra & Negroponte, 2012; Robinson, 2011). As students move toward secondary school they are more often required to memorize names and dates rather than to inquire and discover interpretations of the past through historical evidence (Bain, 2005). Preservice teachers' conceptions are firmly grounded in this approach, which they have experienced over the course of their educational careers. This phenomenon becomes more significant as curriculum developers and policymakers begin to include inquiry as part of standards and frameworks (e.g. Common Core State Standards and NCSS C3 Framework). To breach this divide, this research purports that teacher education programs must present more practical possibilities for incorporating historical inquiry in instruction that is attentive to teacher beliefs about students' capabilities, effective history instruction, and their role as educator in the standards driven environment. A key component to Posner et al.'s (1982) theory of conceptual change is that the alternatives presented must be perceived to be *plausible*. Therefore, this research provides unique details regarding preservice teacher beliefs as they pertain to two different means of presenting inquiry as an effective and useful approach to history education.

To elaborate on these findings, future research could draw out this interaction between teachers' preconceptions and the learning context during the transition period in more detail using comparative cases. Kang et al. (2013) examined preservice science teachers' transition from learner to instructor and was able to map out preservice teachers in only two of four categories: teacher of inquiry with questions and inquiry-oriented. In this case, preservice teachers who had questions about inquiry focused on the long-term and research aspects of scientific inquiry – a focus that we also found among preservice teachers, particularly those in the Independent Inquiry Group (A) who presented inquiry to their peers as an analytic research model. Therefore, an emphasis on how preservice teachers form their ideas about inquiry instruction through an experiential learning process may provide more useful information regarding instructional design for secondary methods teachers. An extension of this investigation could draw on interviews about how research informs preservice teachers' ideas, in addition to prompted comparisons for preservice teachers to reflect on inquiry more explicitly, both as learner and as instructor. This approach could facilitate more explicit distinctions between these two roles during preservice teachers' transitional period. Overall, the methods course provides a unique opportunity to explore the development of ideas and expectancies regarding approaches to instruction in the social studies.

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Appendix

Pre- / Post- Teacher Survey

Provide three words or phrases that you would use to describe inquiry-based learning.
In response to each of the following items, how frequently would you plan to use inquiry-based learning?

For middle school students?	Never	Seldom	Sometimes	Often
For high school students?				
For student engagement?				
For student learning?				
For your own learning?				
For developing historical thinking?				

In response to each of the following items, how useful is inquiry-based learning?

For middle school students?	Not at all	Not very	Somewhat	Very
For high school students?				
For student engagement?				
For student learning?				
For your own learning?				
For developing historical thinking?				

Considering your ratings, address some of the ways you believe inquiry-based learning is:
(a) useful; (b) not useful

In response to each of the following items, how challenging is inquiry-based learning?

For middle school students?	Not at all	Not very	Somewhat	Very
For high school students?				
For student engagement?				
For student learning?				
For your own learning?				
For developing historical thinking?				

Considering your ratings, address some of the ways you believe inquiry-based learning is:
(a) challenging; (b) not challenging