THIRD-GRADE STUDENTS' HISTORICAL THINKING AND THE BIG HISTORY LESSON

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ABSTRACT

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History (and social studies) instruction is increasingly marginalized in elementary classrooms. Educational mandates and other pressures make it difficult for elementary teachers to find the time to teach history, and often the pedagogy reflects teacher-centered, textbook-based, linear approaches to transmitting information in the most efficient ways possible. As a result, many elementary students miss out on the thrill of "doing history" or being involved in discovering and telling the stories of the past themselves (rather than listening to somebody else's version). Not dissimilar are the types of learning experiences that students have on field trips to history (or other) museums. These short field trips often reflect a "roller skate" tour through the galleries, last less than one hour, and are not intimately tied to big curricular ideas or to students' knowledge and experiences. What, then, is the potential for elementary students in using historical thinking skills to "do history" in the ways that historians might? And how might these students engage in a history museum setting that lasts longer than one day?

In this dissertation I consider these two issues as I followed 14 third-grade students and their teacher to the Michigan Historical Museum where they participated in The BIG History Lesson. For five consecutive school days, I observed these third-grade students participating in hands-on activities, docent- and historian-led presentations, and free-choice explorations in the galleries. I also studied the students' use of historical thinking skills—sourcing, contextualizing, inferring, and corroborating—throughout the museum week. Additionally, I conducted pre- and

post-interviews with five focal students of varying academic abilities, and engaged them in pre- and post-historical thinking activities. I designed these activities to carefully scaffold the students' use of each historical thinking skill, and therefore better understand if, when, and how they used each skill. The results of these observations, interviews, and historical thinking activities suggest that these third-grade students could, indeed, utilize historical thinking skills. Students' skill usage in both contexts—museum and historical thinking activities—was similar, although their skills during the historical thinking activities were more frequently applied and more finely-tuned. In fact, the students' post-activity scores were almost universally higher than their pre-activity scores. My findings also highlight the importance of scaffolding and modeling to foster young students' development of historical thinking skills (and helping them know when to employ the skills). The BIG History Lesson provided students with numerous opportunities to interact with historical content, undoubtedly distinct from their average classroom experiences with history, however, it was clear that students were not prepared to know how to engage within the museum space. Students' sporadic use of historical thinking skills at the museum suggested that although they were in a more "authentic" learning environment, they needed scaffolding and guidance for how and when to use these skills in generative ways. This finding is also supported by students' prolific use of these skills during the historical thinking activities that were specifically structured to foster their skill development. This study has significance in understanding what third-grade students are capable of learning and doing in history. These students could use historical thinking skills when the context and instructional scaffolding were in place, and the BIG History Lesson provided time, content exposure, and opportunity to explore historical content.

To Mom and Dad

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Chapter 1

Introduction

Social studies at the elementary school level faces several challenges including marginalization and (often) superficial pedagogy. Indeed, the current educational climate in the United States—deeply immersed in high-stakes testing—emphasizes language arts and math (and recently science) subject areas despite countless scholars making the case for social studies in the curriculum and illustrating the potentially detrimental effects of its exclusion (e.g., Burroughs, Groce, & Webeck, 2005; Furin, 2003; Fitchett & Heafner, 2010; McGuire, 2007; Pace, 2011; VanFossen, 2005; Vogler et al., 2007). Social studies remains part of elementary core curriculum, yet teachers often struggle to find instructional time for this increasingly underemphasized content (Bailey, Shaw, & Hollifield, 2006; Leming, Ellington, & Schug, 2006; O'Connor, Heafner, Groce, 2007). Social studies is on the fringe of the elementary classroom curriculum, which is a precarious position for the subject most responsible for teaching citizenship and civic participation.

Research has shown that since the 1970s social studies instruction in schools has been a consistently tangential focus of the classroom and (along with science) at the bottom of the hierarchy of school subjects (L. Anderson, 2009). Numerous studies have illustrated just how little time is spent on social studies at the elementary level in particular. In one longitudinal study researchers found that social studies was taught only two or three days per week in elementary schools (Rock et al., 2006), another study found that K-3 teachers spend less than 25 minutes per day teaching social studies (Leming et al., 2006; VanFossen, 2005), and still another

showed that many elementary teachers in North Carolina only spend 30 minutes *per week* teaching social studies (Burroughs et al., 2005). The lack of emphasis on, or time devoted to, social studies in elementary schools is not new and is deeply entrenched in school culture (L. Anderson, 2009). Indeed, many elementary teachers admit to thinking social studies is less important than language arts or math (Leming et al., 2006; Rock et al., 2006). Some elementary teachers' perceptions that social studies is not as important as other school subjects contributes to the problem (Barton & Levstik, 2004; Brophy, Alleman, & Knighton, 2009).

Although this marginalization of social studies in the classroom has been pervasive for several decades, the increased emphasis on standardized and high-stakes testing (particularly for language arts and math) has accelerated the decline (Fitchett & Heafner, 2010). Federal mandates like *Goals 2000* enacted in 1993, and *No Child Left Behind* enacted in 2002, put greater emphasis on standardized testing in schools, particularly for language arts and math. As a result of these policies and assessment pressures, many elementary teachers began sacrificing social studies instructional time for test preparation (Heafner et al., 2007; Wills, 2007). Further, in the wake of these policies, the number of states that require social studies testing has dropped to 12 (Fitchett & Heafner, 2010). Thus, social studies is being marginalized in the classroom due in part to federal policies.

One way social studies seems to remain within the elementary curriculum is through subject integration. In fact, studies have uncovered that more than half of all social studies instruction occurs through integration with other subjects (Leming et al., 2006; Rock et al., 2006). Social studies is particularly integrated into language arts instruction (Boyle-Baise et al., 2008; McGuire, 2007). This integration is often problematic, however. Subject integration is

only truly successful when the content and skills of both integrated subjects are taught (Brophy et al., 2009). Many scholars have argued that when social studies is integrated with other subjects it is devalued, and the big ideas of social studies remain unrealized (Alleman & Brophy, 2010; Barton & Levstik, 2004; Brophy et al., 2009; McGuire, 2007). While integration is at least an attempt to include social studies into the curriculum, it is not an antidote to the underlying problems of time in the school day and perceived insignificance.

Social studies is not entirely ignored in elementary classrooms (even beyond integration), and many elementary teachers do strive to make the subject engaging for students. Indeed, reform efforts in the past two decades emphasize student-centered pedagogy and curriculum that reflects the nuance and intrigue of social studies disciplines. Many educators also continue to advocate for social studies within their individual schools and states (O'Connor et al., 2007). Both in schools and other educational institutions, various pedagogical approaches and programs have been developed and implemented to engage students more deeply and authentically in learning social studies. Despite these efforts, the state of social studies education in elementary schools is undoubtedly worrisome, but most pertinent to this study is the state of history education more specifically.[1]

By requiring students to learn history, we hope they will develop the skills, habits of mind, and understanding of the past that will benefit not only the present, but also the future. As students engage with history, they have the opportunity to critically analyze sources, compare and corroborate historical perspectives, develop historical empathy, and build an understanding

[1] A discussion of the tension between social studies advocates and disciplinary history advocates is beyond the scope of this study. This study focuses on history education specifically because the setting is a history museum and the research questions are about history education.

of how the past influences the present. Unfortunately, the type of instruction that continues to dominate the landscape of history classrooms situates students as passive receptors of a fine-tuned, linear, and "objective" history curriculum, rather than as active investigators (and producers) of the past (Brophy & VanSledright, 1997; Levstik, 2008; Levstik & Barton, 2011; Segall, 1999; VanSledright, 2011). Thus, countless numbers of students rarely have the opportunity to engage with history using the skills and habits of mind that are inherent to the discipline, and they may never experience the excitement of "doing history." Unfortunately, memorization-based, factually-driven, and teacher-centered history instruction is often at the root of why students think history is boring and irrelevant (Barton & Levstik, 2004). Although history instruction in schools is suffering from often banal pedagogy in general, its position in elementary schools is particularly dire.

Why does the inclusion of history into elementary curriculum matter? The short answer is because the past matters. History (as a discursive mode of engaging the past) helps us understand and act in the present, it helps people understand where they came from—or at least identify a past they choose to identify with (Segall, 1999), and ideally it helps societies understand how to move into the future (Dewey, 1980, 1997). Despite an often tenuous position in elementary schools, history has always been a core discipline, and by focusing on history I am not suggesting that it is any more important than other social studies disciplines (e.g., economics, geography, civics). Rather, I am suggesting there are unique skills associated with engaging the past that are valuable to students' learning and educational (and social) development more broadly.

There are several challenges facing history education in elementary schools. Due to the deeply entrenched "expanding communities" approach to social studies curriculum (Brophy & Alleman, 2006; Halvorsen, 2006, 2009; Levstik, 2008), history is generally not taught until fourth-grade when students are introduced to a formal history curriculum through state history. In Michigan, as of 2007, state history is introduced in third-grade, thus students are receiving history curriculum—aside from national holidays and famous people—a year sooner in elementary school. While this is promising, history is faced with the same challenge as social studies more generally; it is being squeezed out of the school day.

Another challenge facing history curriculum, however, is the very nature and difficulty of learning about a distant (or even recent) past that students feel disconnected from. As Lowenthal (1999) aptly concluded, "the past is a foreign country." Students struggle to understand (or care about) historical people, events, or places with which they have no connection. Indeed, the general populace has the greatest interest in the kind of history they are intimately connected to (Barton & Levstik, 2004). That is, personal and family histories, and personal experiences of people are more "interesting" than public events, "famous" people, or national narratives (often the core of history curriculum) (Barton & Levstik, 2004). Further, students retain more of what they learn (or are exposed to) when content is connected to their prior knowledge (Brophy & VanSledright, 1997). Barton and Levstik (2004) further concluded that "People feel most connected to history when they [are] directly engaged in activities like visiting museums or talking to grandparents" (p. 13). These types of activities engender a level of personal connection that, for example, reading textbook passages might not.

The last challenge is how to help students build the skills and habits of mind that encourage more authentic (to the discipline) history learning (and subsequently build personal connections to the past). Scholars have studied different methods of history instruction (e.g., VanSledright & Brophy, 1992), however, the most pervasive and emphasized approach (although often unrealized in schools) in the last century has been historical inquiry (e.g., Booth, 1983; Committee of Ten on Secondary Schools, 1893; Levstik & Barton, 2011; VanSledright, 2002; Wineburg, 2001). The idea of "doing history" encompasses the skills and knowledge that are inherent to the discipline: exploring historical sources, understanding historical causation, analyzing diverse and often competing perspectives, distinguishing reliability, facing uncertainties, and employing historical reasoning. These skills position students as critical thinkers, and they are also important for democratic citizenship and for everyday life.

History instruction grounded in historical inquiry is particularly elusive in elementary schools. There are several possible reasons for this. One possible reason is the general lack of time for social studies and the fact that teachers function within structures unlike those of historians (Bain, 2005; VanSledright & Frankes, 2000). Historical inquiry entails a more lengthy process for teaching and learning history (as compared to, for example, memorizing dates or reading textbooks). Another possible reason is a perpetual and culturally embedded belief that young students are not capable of thinking critically (Booth, 1983; Cuban, 1991; Lieberman, 1996; Tyack & Tobin, 1994). And a third possible reason is elementary teachers' lack of disciplinary preparation and/or professional development around historical inquiry as an instructional method (Barton, 2005; Lee & Ashby, 2000; Levstik, 2008; Seixas,1993). Despite these (and arguably other) barriers, historical inquiry has been proven to be a valid, valuable, and

compelling approach to engage elementary students in learning history (Barton, McCully, & Marks, 2004; Brophy, Alleman, & Halvorsen, 2012; Levstik & Barton, 2011; Seixas, 1993; VanSledright, 2002; VanSledright & Frankes, 2000). Additionally, the emphasis on doing history through historical thinking and inquiry is manifest in the National Standards for History (1996) and subsequently many state curriculum standards, including the Michigan Grade Level Content Expectations (Michigan Department of Education, 2007).

For this study I used a particular historical inquiry approach: historical thinking. As a framework of historical inquiry, historical thinking generally encompasses four skills (there is no agreed upon framework within the field): sourcing, contextualizing, inferring, and corroborating (to be discussed further in Chapter 2) (Drake & Brown, 2003; Hicks, Doolittle, Ewing, 2004; Wineburg, 2001). Historical thinking is a reflection of disciplinary-based practices and an instructional method that places students at the center of knowledge creation. When students use the skills of historical thinking they begin to understand the complexities of learning about the past, and they also build skills that are valuable in the present and to their democratic engagement (Barton & Levstik, 2009). Certainly the ability to recognize multiple perspectives, for example, has value beyond an exploration of artifacts, primary sources, or historical events. Over the past two decades there has been significant research that explores a variety of methods for engaging students in some type of historical thinking (e.g., Barton & Levstik, 2004; Drake & Brown, 2003; Seixas, 2006; VanSledright & Brophy, 1997; Wineburg, 2001). Less is known, however, about how history museums might also foster this development among students.

Museums are situated to provide students with resources and opportunities to develop the critical perspectives involved with historical thinking, as well as deeper understandings of the

past. Museum visits have the potential to foster students' content knowledge, encourage students to learn in a unique (often multi-sensory) environment, and promote their development of historical understanding (Marcus, Levine, & Grenier, 2012). Further, museums have physical and human resources to support student learning in ways that classrooms might not be able to. For example, not only do museums have thousands of artifacts with which students can explore, there are docents and historians with whom they can interact. Particularly considering the lack of time and emphasis on history/social studies in elementary schools, museums may expose students to narratives, perspective, and themes within history that students might not otherwise have the opportunity to interact with. The artifacts, ambience, narratives, and re-creations have powerful potential for helping students view history less like a "foreign country" (Lowenthal, 1999).

Museums are alive with interactive exhibits and visitor-centered experiences (Falk & Dierking, 2000). Although educational policy and public school culture often ignore (or at least under-emphasize) the importance of social studies, many teachers strive to identify ways to teach it, often reaching beyond the classroom walls to do so. There is, then, a compelling intersection of where and how social studies (history) is taught. Teachers have long used field trips to museums to (ideally) enhance student learning. However, research suggests that students' learning (of content knowledge) in museums is largely dependent on the teacher's pedagogy, how tied it is to curriculum, and the nature of the museum programs they participate in (Griffin & Symington, 1997; Marcus et al., 2012). Specifically, whether students can relate their prior knowledge (Griffin, 2004), have connected pre- during- and post-visit activities (D. Anderson et al., 2002; Falk & Dierking, 2000; Griffin & Symington, 1997), and experience some choice and

autonomy during the visit (Falk & Dierking, 2000) all factor into student learning. Although the potential for student learning (and engagement[2]) in museums is vast, students will not necessarily build their historical content knowledge or engage with historical thinking skills just by being within the space. This suggests a need for specific pedagogy or museum programs that foster student interactions with and within the space in ways that will enhance their learning and development of critical thinking skills.

According to the American Association of Museums (1969) one of the fundamental purposes for museums is "the advancement and diffusion of knowledge" (p. 1). Museums, however, face the challenge of integrating education in each aspect of their institutions, and the connections between museums and schools have strengthened, in part, by an increase in museum-based learning programs that are tied to school curriculum (King, 1998). The BIG History Lesson (BHL) at the Michigan Historical Museum (MHM) is one such museum program that has strengthened ties with local elementary schools and curriculum. The BHL provides elementary students with the opportunity to be immersed in learning history through, for example, free-choice exploration, artifact studies, interactive presentations, and hands-on simulations (Michigan Historical Museum, 2011). These types of learning experiences and content, connected to school curriculum, foster teacher motivation to take their students to a museum (D. Anderson, Kisiel, & Storksdieck, 2006). As much as museums may share in the

[2] Many scholars write about student engagement (e.g., Brophy, 2010; Newmann, Whelage, & Lamborn, 1992; Skinner & Belmont, 1993), and throughout this study I use the term broadly to describe when students show interest in content and/or tasks, motivation, or are not otherwise distracted.

opportunity to educate and enhance school curriculum, they also have the opportunity to go beyond what teachers can do in the classroom. .

The incorporation of museum programs and historical thinking skills into elementary social studies—specifically history—pedagogy and curriculum provides teachers with a way to engage students in underrepresented content and overcome a traditionally banal pedagogy. Students' lack of extended exposure to social studies (and history) in the classroom limits their ability to develop deep understandings of and connections to the past, making the type of pedagogy enacted that much more salient to their learning experiences (O'Connor et al., 2007).

For this study, I have identified a two-fold research problem: 1) whereas scholars agree that teaching historical thinking skills is a critical component of social studies education, elementary teachers struggle with teaching historical thinking skills, particularly because of other curricular demands and lack of specific training; and 2) there is scant empirical evidence noting the strengths (or weaknesses) of immersion museum programs, let alone possible connections to student learning and fostering of historical thinking skills.

This study has three purposes. First, to describe the nature of an immersion museum program. Second, to explore third-grade students' historical thinking skills. Finally, to examine the relationship between an immersion museum program and students' use of historical thinking skills. To address these goals, I ask the following research questions:

1. What happens when a third-grade class participates in The BIG History Lesson?
2. How do third-grade students use historical thinking skills during The BIG History Lesson, and do their historical thinking skills change following their participation in the program?

As explained, social studies, and by extension history, is unquestionably marginalized in elementary schools and often suffers from pedagogy that lacks in-depth engagement of history. Elementary teachers typically spend very little time teaching history, and the methods often used often reflect a fact-based, "objectivist" viewpoint that distorts students' perspectives on what history is, or how it affects them. This type of instruction generally prevents students from engaging critically with history and building the skills and habits of mind that lead to deeper understandings about and more connections to the past. Historical thinking is a framework for engaging students in this type of inquiry, but there is still more to discover about how elementary students use these skills: specifically if and how third-grade students engage in historical thinking.

Museums are educational institutions that are not subject to the same policy mandates as schools, therefore they are free to design programs that engage students with history in ways often distinct from the classroom. Although teachers often use museums and field trips to enhance students' learning, the typical field trip rarely provides more than just one day away from school. The most powerful museum experiences for students are those that connect to the classroom curriculum and to students' prior knowledge. There is little research on museum programs that last for longer than one day (in part because of how few exist) and the BHL potentially provides students with an integrated and connected immersion museum experience.

Scholarship on both historical thinking and museum education is prolific. Chapter 2 reviews the scholarship of both of these fields, with the goal of understanding how young students use historical thinking skills, and how different types of museum programs situate students to learn. In Chapter 3 I discuss the design of an empirical study of one third-grade class

and their teacher as they participate in the BHL, and five focal students from the class as they participate in historical thinking activities. In Chapter 4 I report my findings about the BHL experience. Specifically, I illustrate a sampling of activities from the week, discuss the teacher's role in the experience, and analyze how students engage with history throughout the week. In Chapter 5 I report my findings regarding the students' use of historical thinking skills during both the BHL and the pre- and post-historical thinking activities. Finally, in Chapter 6 I discuss my findings more holistically as well as possible implications for the future work of elementary teachers, teacher educators, and museum educators.

Chapter 2

Historical Thinking and Museum Education: A Review of the Literature

History (and social studies more broadly) instruction in elementary schools has been marginalized in the wake of decades-long standards movements and policy discussions that decide what students "really" need to know. This steady descent from prominence in the school day is present in how much time is devoted to history (and social studies) curriculum, but also in the types of instructional methods that elementary teachers employ. These two factors seem to be intimately related. Instruction that is authentic to the discipline, i.e., historical inquiry, is time consuming, sophisticated, and iterative. Elementary teachers often lack the time needed to incorporate more involved pedagogical approaches like inquiry (and the modeling and practice students need), or elect not to because they lack the training to incorporate it or may not see the value. As a result elementary students are often faced with "learning" history through rote memorization and a linear march through historical "facts" and events (Cuban, 1991; Seixas, 1999).

The lack of time is not the only barrier to incorporating more authentic instructional models at the elementary level. Indeed, elementary teachers often lack specific professional development around historical inquiry and related skills (Barton, 2005; Lee & Ashby, 2000; Levstik, 2008; Seixas, 1993) they, themselves, are not comfortable with (or knowledgeable about) this instructional approach. The combination of these two factors—the lack of time and professional development—is discouraging. However, as a field we could do more to understand

the educational benefits of this type of instruction for young students, and the degree to which young learners are capable of learning and employing the skills of historical inquiry.

Museums, on the other hand, have the time, space, and opportunity to provide students with authentic learning experiences. Museums are educational institutions, but they function outside of the structures and mandates that often constrain schools. Indeed, museums often intentionally provide programs and experiences that will augment school learning and curriculum (King, 2998), but they can be simultaneously authentic to the discipline they represent (e.g., history, science). Teachers have long incorporated museums into the experiences they provide their students, however, these "field trips" often reflect a day (or a few hours) away from schools when students are not expected to learn or the goals of the "field trip" are not intimately related to the curriculum (Griffin & Symington, 1997). Particularly where history is concerned, the justification for participating in field trips is becoming increasingly difficult because of the lack of clear instructional goals (or the underlying tension that history is not worth the time away). Additionally, little is known about the educational benefits of history museum programs that guide students beyond the "roller skate" tour to deeper levels of engagement.

One purpose of this chapter is to review the scholarship on historical thinking as an instructional model. Specifically, I explore the degree to which historical thinking skills are incorporated into elementary history instruction. The second purpose of this chapter is to highlight the educational possibilities within museums, not only as a juxtaposition to learning in schools, but as a valuable extension of school learning.

This chapter is divided into three major sections: historical thinking, museum education, and a cross-discussion of these fields. In the historical thinking section I explore historical

thinking as a disciplinary model more generally, and the scholarship that explores the inclusion of historical thinking skills into school-based instruction, specifically at the elementary level. In the museum education section of this chapter I discuss the scholarship of learning in museums and the integration of museum and school learning. I also explore research that has been conducted on various museum programs. In the final section of this chapter I talk across these fields of scholarship to better understand how they both situate students to learn history.

Historical Thinking

Lowenthal (1999) concluded in his seminal work, *The Past is a Foreign Country*, that individuals, and society as a whole, continue to reinterpret the past even though the past cannot be fully known. This sense of history's foreignness, and the tension between wanting to comprehend the past but only being able to do so in pieces, often prompts people to try to make sense out of, and make connections to the past in a variety of ways. Rosenzweig and Thelen (1998) surveyed 1,500 Americans and discovered a myriad of ways people engaged with the past and integrated the past into their own experiences. For example, people continue family traditions, collect antiques, and keep diaries as ways to harness some type of connection to the past that may influence their present and future (Rosenzweig & Thelen, 1998). Interacting with the past, then, is a seemingly natural instinct, particularly when there is a personal connection, but is not necessarily systematic for the average person.

History as experienced in schools, however, is often much more systematic by, for example, integrating certain skills into history instruction. Integrating historical thinking skills into history teaching and learning has been at the forefront of the field for the past several

decades.[3] Historical thinking (i.e., historical inquiry) has deep roots as an approach to teaching and learning history, and its integration into classrooms has been complicated. This section will first discuss a general definition of historical thinking, then it will examine the application of historical thinking in schools, and finally it will explore the relationship between young learners (i.e., elementary students) and historical thinking.

Scholarship about "doing history" in the classroom is robust. Doing history entails engaging in the discourse of history, including the thinking and metacognitive skills unique to the field. Historical thinking reflects a complex set of cognitive processes and disciplinary tools that can be used as an instructional model for history teaching (Levstik & Barton, 2011; Segall, 1999; Wineburg, 1991; Wineburg & Wilson, 1988). Historical thinking engages disciplinary skills as well as various discursive issues like bias and interpretation (Jenkins, 1991). The National Center for History in the Schools [NCHS] (1996) identifies five dimensions of historical thinking: chronological thinking; historical comprehension; historical analysis and interpretation; historical research capabilities; and historical issues-analysis and decision-making. Hicks, Doolittle, and Ewing (2004) frame historical thinking around the question, "How do we know what we know?" The five components of historical thinking as identified by the NCHS position students to answer that question, but there are also various frameworks for historical thinking that aid their integration into history instruction (e.g., Hicks et al., 2004; Historical Thinking Matters, n.d.; Seixas & Peck, 1994; The Historical Thinking Project, n.d.;

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[3] Teaching and learning history has long been faced with overcoming teacher-centered textbook-recitation pedagogy. The 1893 the Committee of Ten (and subsequent committees) argued for engaging history pedagogy in schools that would include critical thinking, primary documents/ multiple sources, questioning, critical discussion, student-centered lessons, historical novels, and maps (Committee of Ten on Secondary School Studies, 1893).

Wineburg, 2001). Regardless of the framework—which build on the same concepts—these skills, when learned and applied, have the potential to transform history learning from rote memorization, for example, to critical exploration.

Although historical thinking has disciplinary value as it reflects the work of historians, its inclusion in the curriculum also potentially contributes to students' development as citizens. Historical thinking shares the characteristics needed to participate in a pluralistic democracy, namely analyzing and interpreting information, reasoning through multiple perspectives, and drawing conclusions from multiple and often competing or incomplete information (Barton & Levstik, 2009). When students engage in historical thinking, it is not guaranteed they will become active citizens, but it is guaranteed they have at least taken part in some of the central activities required for active citizenship (Barton & Levstik, 2009).

The merit of historical thinking in schools has significance beyond simply encouraging teachers and students away from textbook-recitation methods of teaching and learning history. Rote memorization and recitation do not necessarily foster deep learning for students (Leinhardt, 1994; Newmann, 1996; VanSledright, 2011), whereas historical thinking has the potential to deeply immerse students in the complicated and valuable endeavor of understanding the past (Bain, 2000; VanSledright, 2002; Wineburg, 1991a, 2001; Wilson, 1991). Historical thinking in practice is widely researched and illustrates compelling evidence of student engagement with historical content.

Historical thinking in schools. The incorporation of historical thinking as an instructional model in school settings is widely researched. Some of this research focuses on one

specific aspect of historical thinking, like contextualizing, but much of the research examines historical thinking more comprehensively.

The foundation of incorporating historical thinking (and inquiry) in schools is the integration of primary sources into history curriculum (Barton, 2005; Drake & Brown, 2003). Although the incorporation and analysis of primary sources into curricula is immensely valuable, teachers cannot overlook the other vital components of historical thinking including contextualization and corroboration with secondary (or other primary) sources (Lee, 1978; Wineburg, 1991a). Regardless of the type of source, students need to develop an understanding of how to question the source/author, examine its historical context, and understand how to use and corroborate evidence (Bain, 2006; Barton, 2005). Primary sources are inextricable to historical thinking, yet their incorporation must be purposeful.

In addition to sourcing, contextualizing, inferring, and corroborating are integral components of historical thinking (Britt & Aglinskas, 2002; Hicks et al., 2004; Wineburg, 2001). Various scholars provide empirical evidence that these skills, when employed by students, contribute to developing deeper understandings of the past, recognizing the interconnectedness of past and present (while appreciating historical events within context), and increasing evidence use when discussing the past (Bain, 2005; Britt & Aglinskas, 2002; Drake & Brown, 2003; Kohlmeier, 2005; Wineburg, 2001). It is promising to note the advantages historical thinking (and inquiry) has over more traditional methods of teaching and learning history.

Despite the growing evidence that engaging students in doing history fosters rich capacities for understanding the past, it is important to note the challenges, for teachers and students, in doing such complex work in a classroom. One challenge for teachers is finding the

balance between providing students latitude to participate in historical inquiry and interpretation and avoiding too much interpretive freedom such that students' inquiry results are unsustainable (Seixas, 1993). Both teachers and students also face the challenge of history curriculum largely grounded in nationalistic progress and canonical individuals (Barton, 1997; Lowenthal, 1998; Tyack & Tobin, 1994). Von Borries (2000) reinforced this concept in a cross-national study that determined teaching history is most commonly used to reinforce national tradition, which Lowenthal (1998) calls "heritage history." This type of "heritage history," and often the pedagogy that goes along with it, positions students as consumers of the past rather than active agents in investigating the past (Barton, 1996; Kohlmeier, 2005; Levstik & Barton, 2011; Segall, 1999; VanSledright, 2011).

Perhaps one of the biggest challenges facing history teachers is their lack of disciplinary training and professional development around history instruction (Barton, 2005; Levstik, 2008; Seixas, 1993). Teachers are responsible for facilitating historical thinking among students of varying needs and abilities, yet most do not have the disciplinary training to ensure such facilitation is done well (Lee & Ashby, 2000). Additionally, teachers function within structures unlike those faced by historians, which complicates the degree to which teachers can fully incorporate historical thinking into their curriculum (Bain, 2005; VanSledright & Frankes, 2000).

There are also challenges for students engaged with historical thinking. One challenge is reconciling a "textbook as fact" approach to learning history with one that relies on questioning author and source (Barton, 1997; Seixas & Peck, 2004). Similarly, there is a challenge in helping students understand that sources cannot be treated equally or given equal credibility, nor can they be decontextualized from their historical context, authorship, or intention (Bain, 2006; Barton,

1997; Wineburg, 1991). Another challenge is overcoming presentism (interpreting past events through modern constructs) and being able to elicit historical empathy (Brophy et al., 2012; Levstik & Barton, 2005; Lowenthal, 2000; Seixas & Peck, 2004; Wineburg, 2001; Yeager, Foster, Maley, Anderson, & Morris, 1998). Perhaps the biggest challenge facing students is that historical thinking is an "unnatural" act that requires thinking outside of familiar assumptions and constructs (Bain, 2005; Wineburg, 2001a). Additionally, students cannot be expected to think in such critical ways if they are not taught how and given numerous opportunities to do so (Levstik, 2000; VanSledright, 2002).

Research demonstrates the potential for engaging students in historical thinking, yet the challenges of doing such complex work are numerous. Many researchers have demonstrated "success" employing these methods with students, but we cannot overlook the overt modeling, instructional scaffolding[4], latitude, and encouragement students need to participate in such a vibrant approach to learning history.

Historical thinking and young learners. There are numerous studies that examine historical thinking in K-12 classrooms. Several of these studies focus on interpreting and analyzing documents and making the process overt for students: Bain (2005) used a historical problem-based approach with high school students; Foster (1999) examined the relationship between historical empathy and affect for history; Ashby and Lee (1987) and Yeager et al. (1998)

[4] Instructional scaffolding (or scaffolding) is a strategy by which teachers structure students' learning of new material by providing cognitive, academic and/or linguistic supports, relevant to the topic of skill, that promote students' autonomous learning and/or skill use. Scaffolding Theory was introduced by Jerome Bruner (1960), and although Lev Vygotsky (1978) did not use the term 'scaffolding', he similarly conceptualized the concept of an expert (e.g., teacher) providing support and interaction to promote a novice's (e.g., student's) learning.

both gave students the opportunity to explore historical empathy; Levstik and Barton (2011) provide numerous examples of historical thinking for elementary students; VanSledright (2002) taught historical thinking to fifth-grade students; and Wineburg (1991a) compared high school students and historians as they analyzed documents using a Think Aloud strategy. Most pertinent to this study, however, is the scholarship focused on historical thinking skills and young learners/ elementary students.

One principle reason why historical thinking has been disengaged from the primary grades has been the persistent misconception about what young learners know and are capable of doing (Booth, 1983; Brophy & Alleman, 2005; Cuban, 1991; Lieberman, 1996; Tyack & Tobin, 1994). For example, the (mis)application of Jean Piaget's theory of cognitive development to history (and social studies) suggested that children aged seven to eleven (in the concrete operational stage) could only think logically rather than abstractly; young children were cognitively incapable of engaging complex thought processes or concepts that are inherent to learning history. Although other theorists (e.g., Lev Vygotsky and Jerome Bruner), coupled with vast amounts of research, have challenged the notion of the incapability among young learners, methods such as historical inquiry still typically tend to be reserved for upper grades.

Although there is still (and will always be) a need for age-appropriate instruction, research now illustrates that elementary students are capable of thinking critically (Barton et al., 2004; Brophy et al., 2012; Levstik & Barton, 2011; Seixas, 1993; VanSledright, 2002). As a result, teachers need to see students as "capable of thinking and reasoning, and less as blank slates who lack knowledge" (Ball & Cohen, 1999, 8). Indeed, students have vast experiences and prior knowledge to call upon when learning new content, but they need to be provided with

the opportunities to do so (Ball & Cohen, 1999; Barton, 2005). It is no longer appropriate to assume that students lack the ability to engage with historical content in sophisticated ways.

Various studies explore elementary students engaging different aspects of historical thinking. For example, in one study of elementary students' chronological thinking, Barton (2002) found most students were adept at sequencing, grouping, and measuring historical pictures. In a separate study Barton and Levstik (1996) illustrated how elementary students engaged chronological thinking through unique, but appropriate ways, suggesting that instruction in this realm needs to refine and extend the knowledge children already exhibit. Chronological thinking is not a historical thinking skill, per se, but it does foster contextualization as it enhances students' understanding of specific and broader historical contexts.

In one study of fourth and fifth grade students Barton (1997) determined that students were able to evaluate the reliability of sources (i.e., sourcing), but struggled forming conclusions based on evidence (i.e., inferring and corroborating). VanSledright and Kelly (1998) studied how sixth-graders learned history through multiple sources like textbooks, biographies, and historical fiction. They noted that students generally preferred the non-textbook sources, but lacked the tools and modeling to thoughtfully source or corroborate these texts. In comparison, VanSledright (2002) illustrated that fifth-grade students' engaged complex sourcing and corroboration skills when he (as a participant-researcher) systematically engaged them in learning and practicing these skills. Beck and McKeown (2002) reiterated the importance of explicitly modeling and coaching students in the skill of sourcing, specifically questioning authorship and purpose to foster greater comprehension of historical texts.

Levstik and Smith (1996) studied historical inquiry among third-grade students in a "gifted and talented" class, and determined that these students could use inquiry skills when they were in an environment that scaffolded their emerging understandings and skills. Students in this study were engaged in activities that fostered data collection, hypothesizing, and analysis, but they struggled to overcome methods of "classroom research" they had learned such as "finding facts" or "filling in the blanks" (Levstik & Smith, 1996, 110). Their study clearly demonstrated that students at this early grade level were capable of participating in historical inquiry, and the role of the teacher was vital in scaffolding appropriate practices for the students and helping them avoid their misaligned habits and misconceptions about what it means to learn history. However, this study was conducted in a "gifted and talented" class, which leaves room for examining historical inquiry with third-grade students of broader academic ability.

These and other studies suggest the role of the teacher is critical to engaging students with historical thinking skills. VanSledright and Brophy (1992) interviewed fourth graders to determine the degree to which they could construct historical narratives. While students demonstrated high levels of interest in the past, the researchers noted that students lacked framework for their historical thinking, something they argued a teacher needs to establish. VanSledright and Frankes (2000) compared two fourth-grade classrooms, one in which historical inquiry was used but not made explicit, and the other where historical thinking skills were more strategic and overt. They identified only subtle differences in student knowledge development and suggested that the disciplinary demands on elementary teachers prevent many from being prepared to engage these skills with students. Levstik and Barton (2011) reiterated the

importance of building communities of inquiry wherein students are repeatedly engaged in historical thinking.

Summary. Historical thinking as an instructional model holds promise for engaging students with history in ways that can foster historical empathy and critical thinking, as well as deeper levels of understanding about the past. However, the use of historical thinking skills in classrooms has vast and varied results, particularly for elementary students. The nature of historical thinking, and results from empirical research on historical thinking in schools, illustrates the importance of deliberate incorporation and extended modeling of these skills. Further, these thinking skills (to say nothing of history instruction more broadly) are often absent from history teaching at the elementary level. Although elementary students, particularly in upper grades, are quite capable of critical thinking, without deliberate, explicit, and extended modeling and incorporation of these skills in the classroom they will likely struggle to demonstrate thoughtful understandings about historical people, places, and events.

Museum Education

Museum education scholarship is extensive and robust. The most pertinent aspects of museum education scholarship for this study is research that 1) discusses the dynamics of learning in informal (museum) settings, 2) provides theoretical and/or pragmatic information for integrating school and museum learning, and 3) explores museum programs designed for school groups.[5] This scholarship provides the foundation for understanding the potential of immersion museum programs for young learners. This section will first define salient terms, then address each of the aforementioned research areas.

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[5] A discussion of Visitor Studies is beyond the scope of this paper.

For the purpose of this study, the term "museum" refers to any institution that collects and/or displays objects and information such as: art, science, natural history, cultural and history museums; science centers; aquariums; and botanical gardens (Griffin & Priest, 1997). Museums also fall under the distinction as an Informal Learning Environment wherein learning occurs outside of the school classroom, with and through objects and experiences, and not exclusively through written texts, e.g., historic sites, zoos, gardens, monuments, and so forth (Paris & Hapgood, 2002). In this study I will use the term museum in line with the above definition and will refer to other informal learning environments by name where necessary.

Additionally, I use the term "immersion museum program" throughout this study, primarily to distinguish the BHL from other, shorter (less than one day) museum programs. This term is not clearly defined within the field of museum education; however, I have deduced this definition after researching examples of various types of museum programs. An immersion museum program is one designed to facilitate the visitor, casual or otherwise, spending extended time—generally multiple days—in a particular gallery or with particular exhibits. The immersive component fosters an in-depth experience with the designated content that differs from the average museum visitor's interaction with the content.

Learning in a museum. The discussion and exploration of museums' educative value by museum education scholars is complex and relies heavily on education and learning theory. To understand what makes a particular context or experience educative, scholars focus on the representation of learning and education within these contexts. This section explores these factors.

As institutions with educational mandates, it is important to consider what learning "looks" like in a museum setting. Donald (1991) evaluated various measures of learning and asserted that critical thinking and problem-solving are most notable for their ability to engage students with museum content on a deeper level. Although this is consistent with countless studies that situate inquiry-based activities at the forefront of student learning in museums (e.g., D. Anderson, 1999; Connolly, Groome, Sheppard & Stroud, 2006; Gregg & Leinhardt, 2002; Wunder, 2002), the contextual factors that influence and indicate learning cannot be overlooked (D. Anderson, Piscitelli, Weier, Everett, & Tayler, 2002; Falk & Dierking, 2000; Lave & Wenger, 1991). Learning in museums, as in schools, is highly individualized and affected by prior knowledge, interests, skills, beliefs, attitudes and experiences (Falk & Dierking, 2000). These factors combine in complex ways for each individual and determine the interaction, experience and meaning (if any) of that individual.

Despite the complicated nature of measurement, museum experiences leave lasting impressions on visitors. Falk and Dierking (1997) assessed the long-term impact of school field trips on individuals and found that after many years, nearly 100 percent of those surveyed recalled a field trip experience and many of the content-related details from their elementary years. This study did not explore carry-over to classroom learning or account for the variability of memory, rather it highlighted the potential for learning in museums. Bielick & Karns (1998) similarly demonstrated long-term retention of experiences in informal learning environments by surveying zoo visitors immediately and 13 months after a visit to a particular zoo exhibit. As with Falk and Dierking, these visitors demonstrated retained knowledge and vivid recollections of the experience.

What is it about a museum field experience that results in long-term recall, at worst, and learning, at best? Many museums (and museum programs) are constructivist in nature, such that they situate students (and visitors) as active participants in the learning process. They provide opportunities for social interaction and collaboration, scaffolded learning, active engagement, individual choice, and connections to individual experience, all of which provides fertile ground for powerful and individualized experiences (D. Anderson, Piscitelli, & Everett, 2008; Falk & Dierking, 2000; Hein, 1998; Hein, 2004). These types of learning experiences also occur in schools; however, museum education research suggests that museums and other informal learning environments are not only free from the constraints of traditional schooling, but are generally able to capitalize on constructivist environments to foster learning (Hein, 1998, 1999, 2004; Hooper-Greenhill, 1987, 1999).

Integrating museum and school learning. The relationship between museums and schools is increasingly important for museums to justify their educational programs and thrive as educational institutions. This connection may be developed more formally, for example programs deliberately aligned with curriculum standards, or informally as teachers and students interact with museum content in less structured ways. Both circumstances are worth exploring and this section discusses literature focused on fostering the connection between museums and schools.

Museums are the contexts most commonly utilized by teachers for learning opportunities outside of the classroom (Institute of Museum and Library Services [IMLS], 2002). There is a desirable and mutually beneficial connection between school and museum learning (Hooper-Greenhill, 1987; Resnick, 1987). Indeed, both formal (i.e., school) and informal (i.e., museum)

learning has significance for the student, but informal environments have unique potential (compared to schools) for authentic experiences and engagement (Resnick, 1987). Learning is not isolated to any one context and the interplay of schools and informal learning environments has great potential for students—particularly considering the amount of time students spend outside of schools in general (Ellenbogen & Stevens, 2005). This sense that museum learning should not be isolated from other settings is a consistent theme within this scholarship and helpful to frame the link between schools and museums.

How teachers prepare students to learn in a museum environment has significance for the level and type of learning that takes place, and the degree to which this connection (between school and museum) is fostered. It is imperative that teachers prepare their students for a museum experience beforehand (logistically and academically), incorporate hands-on activities, and design post-visit activities (D. Anderson, 1999; Connolly et al., 2006; Cox-Petersen & Pfaffinger, 1998; Falk & Dierking, 2000; Finson & Enochs, 1987; Griffin & Priest, 1997). Otherwise students rarely display deep levels of cognitive engagement and attentiveness or initiate connections to museum experiences back in the classroom (Connolly et al., 2006; Finson & Enochs, 1987; Griffin & Priest, 1997). Numerous scholars iterate the importance of providing cognitive structures for students during a museum visit, lest it become simply a day out of school rather than a salient learning experience for students.

There is a delicate balance, however, between implementing structure for students and bringing the classroom norms and expectations into the museum environment (Zeller, 1985). Some classroom structures or methods are appropriate, whereas others tend to stifle the distinctiveness of a museum environment (Zeller, 1985). Scaffolding students' knowledge and

experience, for example, before, during, and after a museum visit has a positive relationship to learning and affect (D. Anderson, 1999; Bain & Ellenbogen, 2002; Bielick & Karns, 1998). Accessing and building on student prior knowledge and connecting content and experiences to students' lives similarly have great potential to enhance learning and student interaction with museum content (Abrams, Jones & Falk, 1997; Bain & Ellenbogen, 2002; Floyd, 2004; Gottfried, 1980; Jeffery-Clay, 1998). Inappropriate structures or methods are those that ignore the unique benefits of learning in a museum (Zeller, 1985).

The types of learning experiences that students have in museums can similarly foster substantive connections (either to school curriculum or persona experiences) for students. Implementing both inquiry activities and free-choice learning opportunities—regardless of use in the classroom—are both particularly generative of student engagement and learning (D. Anderson, 1999; Connolly et al., 2006; Falk & Dierking, 2000; Gregg & Leinhardt, 2002; Wunder, 2002). Similarly, the role of the teacher in facilitating learning-oriented (rather than task-oriented) experiences for students is crucial to making the connection between school and museum content (Griffin & Symington, 1997). Indeed, within the museum space students can explore objects/artifacts, interact with exhibits, hear expert presentations, participate in simulations, and experience visual stimuli. Teachers must be cognizant and reflective of how best to incorporate a museum experience into their teaching by recognizing and capitalizing on the benefits of a museum space.

The integration of museum and school learning should be reciprocal. Teachers should incorporate some aspects of school learning into the museum experience, but also recognize and embrace the unique structures and possibilities of museums and how they connect in the

classroom. Museums, on the other hand, must recognize the need to integrate school curriculum into their programs to ensure a mutually beneficial relationship, and help teachers further legitimize the experience for students (D. Anderson et al., 2006).

Museum programs. Scholarship exploring museum programs (or those at other informal learning environments like zoos) is extensive, and much of it examines student (or visitor) experiences at science centers/museums or art museums. Very little research specifically addresses school groups in history museums. Nevertheless, noting the characteristics of some of these programs provides a valuable lens for considering the potential for student participation in museum programs in general.

The IMLS (2002) report included several museums and programs that illustrate the range of possibilities for fostering learning in informal environments. For example the Oakland Museum of California has after school, summer and year-long internships for youth to be "junior historians" collecting, archiving, analyzing and preserving community history. The Discovery Center of Southern Tier (New York) has a science lab on wheels where elementary and middle school students take advantage of experiment stations for chemistry, biology, earth science, engineering and other science-related fields. The Pittsburgh Center for the Arts has various programs including teacher workshops and individual art projects, but also vocational training program for individuals with mental and physical disabilities. The Rancho Santa Ana Botanic Garden designed a multimedia program/curriculum to supplement local school curriculum and benefit teachers and students without the resources to visit the gardens in person. Not included in the IMLS report, but in a similar realm the Brooklyn Children's Museum provides an after

school program for students of varying ages, and is designed to foster long-term involvement (and interest) in the museum (Shelnut, 1994).

Each of the above programs suggest creative and effective ways informal learning institutions (of all discipline areas) are building partnerships with area schools to enhance student learning. In general, these institutions reported an increase in technology use, an increase in school group visits, greater connections to state and local curriculum standards, and more program variety and ability to serve students and schools from all socioeconomic backgrounds and communities (IMLS, 2002).

The ability of museum programs and experiences to be accessible to a diversity of learners is notable in a variety of museum programs. Museum programs (and exhibits) that are successful in fostering student learning, skill development and engagement share this and other characteristics. For example, these programs: build on individual prior knowledge; connect to individual experiences (through content and structure); allow for idiosyncratic responses to the environment and content; provide myriad ways to interact (multimedia, demonstrations, artifacts, text labels, photographic or other images, re-creations, etc.); are designed to be responsive to a diversity of individual needs and abilities; foster choice and hands-on interactions; and scaffold knowledge building and the experiences themselves (Abrams et al., 1997; D. Anderson, 1999; Anderson et al., 2002; Bielick & Karns, 1998; Candler, 1976; Campus Calgary/Open Minds Program, 2008; Griffin & Symington, 1997; Griffin, 1998; Pierpont, 2005). This research suggests a deliberateness on the part of museums to create programs that cater to the growing and diverse needs of its students and visitors. Additionally, these programs span across

disciplines (although most are science and natural history) illustrating potentially universal characteristics of successful programs.

Among the copious amounts of research on museum programs, very few studies programs that last longer than one day. Three stand out as examples of multi-day museum programs for students geared toward fostering deep levels of engagement and learning. "Art Around the Corner" at the National Gallery of Art involved students for six visits over the course of the year (Abrams & Falk, 1995, 1996, 1997). At the end of the year students completed a "Docent for a Day" project wherein they presented a particular piece of art to their families and friends. Participating students—from each of the three years studied—were better able to use descriptive and technical vocabulary, support their interpretations using evidence, and expressed increased appreciation art (Abrams & Falk, 1995, 1996, 1997). The researchers attribute these gains to the preparation of students beforehand, activity variety, personal and interdisciplinary connections, and sustained sequence, not unlike the characteristics of one-day programs.

The second example was a multi-visit program for young students (four to seven years old) wherein students went to either a natural and social history museum, an art gallery, a science center, or an art-social history museum (D. Anderson et al., 2002). These students went to one of the aforementioned museums three times, and spent two hours at the museum during each visit. The results of this study suggested that museum experiences were most generative for students when they were situated within familiar sociocultural contexts (e.g., play, narrative) and/or objects. Additionally, the exhibits and experiences that were decontextualized from students' prior knowledge or experiences had less impact. Anderson et al., (2002) also found evidence to suggest that children may compartmentalize their experiences and learning within museums as

only applicable to the museum setting; they rarely connected these museum experiences with their classroom-based activities.

Finally, the Glenbow Museum School in Calgary, Canada is a week-long, student-centered immersion program (much like the BHL) for students in grades one through twelve. During this program teachers collaborate with the museum staff and experts to develop a week-long integrative program for students that ties into a previously determined long-term classroom project (Gallant & Kydd, 2005). Students are immersed in real-world and collaborative learning throughout the week, and practice skills like journal writing and artifact analysis. Scholarship on this program is limited to an anecdotal description of the program and perceived student and teacher benefits (Gallant & Kydd, 2005), an examination of students' writing skills (Cochrane, 2000), and an analysis of how students critically approach the pedagogy and curriculum of the museum (Trofanenko, 2006). Specifically, Gallant and Kydd (2005) reported that students who participated in the program engaged in critical thinking and had multi-sensory learning experiences, and the teachers taught in ways they could not in the regular classroom. Trofanenko (2006) determined in an ethnographic study that (fifth-grade) students who participated in the program questioned the authority of the museum and placement/display of indigenous objects, and their teacher fostered this critical approach among students within the museum.

Summary. Museum education scholarship is extensive and the examination of learning in museums and other informal learning environments is promising. Indeed, museums undoubtedly have unique environmental and structural qualities that foster student engagement in a variety of ways. This research focuses largely on programs and experiences that last less than one day, primarily because so few multi-day programs for students exist (or at least the

research is scant). Nonetheless, there is great potential to further develop the connections between museum and schools to provide deeper levels of learning for students, particularly where history museums are concerned as they are vastly underrepresented in this scholarship.

Summary

Historical thinking and museum education are both robust fields of scholarship. However, they are also gaps in each of these fields. Specifically, more work needs to be done that explores historical thinking skills and elementary students. Within museum education, more research that explores history museum programs, particularly immersion programs and those designed for school groups is needed. There is a common thread between these gaps: there is still a need for understanding how to engage (young) students with history in both formal and informal learning environments, and in ways that foster deeper engagement and understanding of the past.

Historical thinking and museum education are two seemingly disparate areas of scholarship, however, there are ways in which these fields overlap that inform the basis for this study. Museum programs are generally constructivist in nature, and historical thinking (as an instructional model/method) is similarly constructivist. As such, both position students as active participants in the learning process, rather than passive consumers of information. Additionally, the unique (when compared to schools) environment of museums and the features of historical thinking provide fertile ground for engaging students with the past that is not often seen in elementary schools.

It is also important to consider the juxtaposition of history teaching and learning in elementary schools where it is often marginalized, and the potential for history teaching and

learning in history museums, which are not subject to the same constraints and structures as schools. We do not know enough about how students' history learning may benefit generally, and specifically in schools, by participating in museum programs where they are immersed in artifacts, and can be active agents in knowledge creation. We also need to understand how historical thinking as an instructional model speaks across these two contexts. Specifically, if participation in a museum program enhances elementary students' use of historical thinking skills, or if there is any transfer between the two contexts.

We know that historical thinking is a powerful learning tool for students, and we know that museum programs (and field trips) have long-lasting impressions on participants. This speaks to my primary interests as I started this study: studying the degree to which elementary students (third-graders) engage historical thinking skills during the BHL, exploring whether students' historical thinking skills changed before and after the BHL, and how an immersion museum program might position them to engage these skills. My hypothesis, based upon anecdotal evidence provided by museum staff, is that an immersion program might provide students with unique and extended opportunities to engage with history, that students' historical thinking skills would be more developed following the BHL, and that third-grade students would engage historical thinking during the BHL.

Chapter 3

Method

For this study, I used case study research design (Merriam, 1998; Yin, 2009) to examine elementary students' learning and use of historical thinking skills in relation to their experiences during a week-long immersion museum program. As Yin (2009) states, case study is designed to foster a researcher's knowledge of "individual, group, organizational, social, political and related phenomena" (p. 4). Additionally, case study is applicable when research dictates the need to understand complex social phenomena (Yin, 2009). Case study is appropriate for this study because it focuses on one classroom of students to examine both the big picture and meaningful characteristics of BIG History Lesson participation, as well as organizational, environmental, social and other factors contributing to students' skills and motivations. Case study provides the opportunity to consider both holistic and specific characteristics events.

The BIG History Lesson is an uncommon type of museum program for students with many factors involved, thus it requires the type of in-depth exploration case study research can provide. The two research questions guiding this study are: 1) What happens when a third-grade class participates in The BIG History Lesson? and 2) How do third-grade students use historical thinking skills during The BIG History Lesson, and do their historical thinking skills change following their participation in the program? In this section, I first describe the context of the Michigan Historical Museum including the participating class's BIG History Lesson, and the elementary school. Then I identify the participants, describe the data sources, and explain the methods of coding and analysis.

Context

My study took place in an elementary school classroom and a state history museum. Both are located in the greater Lansing, Michigan area and are discussed in turn.

Michigan Historical Museum. The Michigan Historical Museum is a state history museum located in the city-center of Lansing, Michigan. The large building is connected to the State Library by an atrium, and is situated between the State Capitol and the State Hall of Justice. It houses the largest collection of Michigan historical artifacts in the state, and is the flagship of the Michigan Historical Museum System. The Michigan Historical Museum houses an expansive Civil War battle flag collection among its tens of thousands of artifacts (only a fraction of which are on display). The museum also has an online presence including tools and resources for teachers, online exhibits, and access to the Archives of Michigan.

The museum itself is organized chronologically. The first floor houses classrooms and meeting spaces, a cafeteria, the museum gift shop, and special exhibits. At the time of this study the special exhibit was titled Plowshares to Swords, an exhibit that recognized the 150th anniversary of the American Civil War and focused on how the war changed Michiganians' lives. The participating class utilized one of the first-floor classrooms as their "home base" where they started and ended each day. Throughout the week the classroom was also used for completing some of their activities, listening to three of their seven presenters, and eating lunch.

The second floor is dedicated to Michigan history through the nineteen century. Second floor galleries include: Prehistoric People; First Europeans; Statehood; Settlement; Civil War; Copper Mine; Iron Mining; Lumbering Era; Rural Michigan; and Growth of Manufacturing. There is a mezzanine located between the Lumbering Era and Rural Michigan galleries that

houses the One-Room Schoolhouse and Victorian home (parlor, dining room, bedroom, kitchen) galleries. The second floor also has a special exhibit—"Follow the Girls: 100 Years of Girl Scouting" at the time of this study. The floor plan follows a circular (clockwise) and chronological layout starting and ending at the same spot.

The third floor of the museum is dedicated to the twentieth century. It has a similar chronological layout (like the second floor), but guides the visitor counter-clockwise through the galleries. The first gallery is Farm and Factory, followed by: Auto Dealership; 1920s Theater and Street Scene; The Arsenal of Democracy; Upper Peninsula; At Home in the 1950s; 1957 Detroit Auto Show; The 1960s; Lakes and Land. Like the second floor the third floor has a mezzanine dedicated to the 1930s: City Growth Hallway; Labor Struggle; The Great Depression; Civilian Conservation Corps; and 1930s Bungalow.

BIG History Lesson. The BIG History Lesson (BHL) is a five-day (all day) program for elementary students at the Michigan Historical Museum. During the program students participate in hands-on activities, explore galleries, listen to presenters, and participate in student-centered, in-depth explorations of Michigan history. The participating class experienced the BHL during the fourth week of the school year (in late September). Each day of their BHL week, the participating class arrived by school bus around 9:00 a.m. and finished by 3:00 p.m. They were always greeted by the BHL program director and had at least three chaperones with them each day. After getting settled in the classroom—putting away lunches, bags, coats and finding seats—the participating teacher reviewed the students' "Rights and Responsibilities" of participating in the BHL by having the students recite them along with her. These rights and responsibilities included, for example, having the right to listen, the responsibility to walk and

not run, and the right to learn. The participating teacher also posted and reviewed the daily agenda for the students. There were consistent elements each day of the week (i.e., presentations, gallery explorations, hands-on activities) but no two days were the same. Various activities from the participating class's BHL are discussed in detail in Chapter 4.

Elementary classroom. I studied a third-grade class from a school located in a suburban community outside of Lansing, Michigan. The school serves students in kindergarten through fourth grade in a neighborhood with a mix of single-family homes and apartments. On the state standardized achievement test from 2010, the Michigan Educational Assessment Program, 87% of third-grade students at this school were proficient in reading and 95% were proficient in math (both scores match the state averages) (Michigan Department of Education, 2010). Thirty-two percent of the school's students are eligible for free or reduced-price lunch (compared to the 42% state average) and 86% are of white/non-Hispanic ethnicity (Center for Educational Performance and Information, 2011).

The classroom was located in the third- and fourth-grade hall of the building and was one of three third-grade classes in the school. The classroom itself was decorated with a nautical theme and, for example, all of the students' weekly jobs were identified using nautical terms like first mate, captain, and deck hands. The desks were arranged in a 'U' shape with a large carpeted area in the center and two-shelf bookshelves dividing the desks and the carpet. Story time and some whole-group instruction occurred on the carpeted area, whereas students completed small group work or individual assignments at their desks. There was a small circular table in one corner of the room where the teacher (or other classroom volunteers) worked with individuals or small groups.

One wall of the classroom was lined with closets where textbooks and other class materials, as well as students' backpacks and jackets, were stored during the day. The teacher always had the daily agenda posted on the whiteboard at the front of the room, just to the left of the SMART Board. The classroom also had a drinking fountain and two computers in the back corner, and windows that looked toward the playground. Wall coverings included things like pictures of the students, a "Word Wall," writing tips/reminders, posters depicting school & class rules, inspirational posters, and the school motto, "Be kind. Be responsible. Be the best I can be."

Social studies and science were taught during a "Power Hour" at the end of each day. For this "Power Hour" the students from all three third-grade classes were divided into heterogeneous groups and spent the hour in one of two classrooms. The participating teacher always taught science and another third-grade teacher always taught social studies. Students rotated between science and social studies throughout the week, excluding Wednesdays which were short days. Students had science and social studies lessons twice each week. When I started conducting data the students had only had two social studies lessons, both of which focused on preparations for the BIG History Lesson.

Participants

I recruited a third-grade teacher and her students as participants in this study. I chose this grade level because the BIG History Lesson is geared toward third and fourth grades, in congruence with state curriculum standards wherein third-grade covers Michigan history and fourth-grade covers integrated state and national history.

Before choosing student participants, I selected a teacher from among those who would participate in the BIG History Lesson during the 2011-2012 school year. Initially I planned to

select a teacher who had participated in the BHL at least once before in an effort to minimize "first time jitters" and (potentially) maximize the potential for a refined integration of museum and classroom. However, because of the time frame in which I needed to collect data and identify participants in my target location, I ended up studying a teacher going to the BHL for the first time in her teaching career. I contacted this teacher, Jennifer Barnes (a pseudonym), at the beginning of the school year in September and received her consent to participate quickly thereafter.

Ms. Barnes had been teaching at the elementary school for eight years, but spent the year prior to this study out of the classroom while she served as a district curriculum supervisor. This was her first year teaching third-grade; she previously taught second-grade. Additionally, teaching was a second career for Ms. Barnes. As a participant in my study Ms. Barnes met some of my selection criteria (i.e., responsiveness, interest in participating, timing of BHL participation), but did not meet other criteria (i.e., veteran BHL teacher, social studies teacher). As I discuss later, the fact that she did not meet these criteria took the study in a new direction, particularly because she had limited experience teaching history, especially in an informal learning environment.

Upon identifying and receiving consent from Mrs. Barnes, I pursued obtaining consent from the students (and their parents) in her classroom. Out of 25 students, I received consent to observe and interview 11 students. From the 11 consented students, I selected five focal students, three boys and two girls, who participated in my pre- and post-interviews and historical thinking activities. These five students—Krista, Hailey, James, Ben and Evan (pseudonyms)—were selected randomly from the available participants. They ranged both in academic ability

and background experience (e.g., family structures, personal, and school-related experiences). Although studying students who vary academically invites additional variables, it also potentially minimizes the tendency to associate learning/achievement or experiences specifically with high or low academic ability. It also fosters the opportunity for comparison. Because of the unique nature of the BHL, it was important to explore the potential of the BHL experience for students from a range of academic abilities and background experiences.

Krista was, according to Ms. Barnes, on the high-end of the academic spectrum. Krista identified art as her favorite school subject because she liked to color, paint, and do art projects. Krista also told me she liked taking math tests because she liked to figure out the problems, and reading tests because reading was her "favorite." Krista was generally reserved, but she was expressive when she discussed topics that held her interest like art or (after the museum) the Civil War.

Hailey was on the high-middle of the academic spectrum, according to Ms. Barnes. Hailey was very talkative and social, and she expressed her excitement to learn about her country and state during third-grade (and at the MHM); she stated that social studies was one of her favorite subjects. She also mentioned that she liked doing projects as well as school work where she had to solve "tricky problems" because when she solved the problems she knew she was "getting smarter."

Like Hailey, James was on the high-middle of the academic spectrum, according to Ms. Barnes. James' favorite school subject was social studies because he liked "all of it," but particularly loved to learn about different wars (especially World War II). He also loved reading

books and playing video games about war, and told stories about his grandfather serving in the military.

Ms. Barnes identified Ben on the high-middle of the academic spectrum. He stated that he was excited to learn about Michigan at the MHM because he was not born in Michigan and was less familiar with the state than some of his classmates. Ben demonstrated enthusiasm for learning in school and at the museum. He interacted with (all of) his peers frequently, but he also followed his own interests (at the MHM and in school) even when none of his peers held the same interest.

Evan, according to Ms. Barnes, was at the lower end of the academic spectrum. He was interested in learning social studies and enjoyed hands-on projects like making maps. Evan also had a learning disability that sometimes sidetracked his engagement with a topic or task. He enjoyed playing video games and, after going to the MHM, was excited to talk about the cars and the war artifacts from World War II and the Civil War.

Data Sources

As Yin (2009) states, case study method is best suited to studying a complex phenomenon in real-life context, particularly when the boundaries between phenomena and context are not clearly defined. He further contends that case study is an appropriate method when the researcher has little or no possibility to control the event(s) being examined (Yin, 2009). Finally, Yin describes the procedural characteristics of case study that include multiple sources of evidence and many variables of interest. Student learning, in school or out of school, is undoubtedly complex; the vastness of social, emotional, academic, and other variables involved are difficult to quantify or qualify. Thus, case study allowed me to explore the complexities of

learning, skill usage, and experience more closely. To do so, I employed three data sources for this qualitative study: field observations; semi-structured interviews; and pre- and post-historical thinking activities.

Field observations. During this study I conducted field observations in the classroom before and after the class's BHL week. By conducting field observations in the classroom before the museum week I hoped to engender a level of trust with the students and teacher, or at least a level of comfort with my presence (Emerson, Fretz, & Shaw, 1995). I designed an observation protocol that addressed characteristics of historical thinking skills (Appendix A). I looked for characteristics of historical thinking such as when students made interpretations about objects or events, when they compared objects, and when they asked questions about an object or event. In addition to watching for these characteristics, I employed an ethnographic approach to my observations by observing and recording as much as I could about the class and museum experience (Emerson et al., 1995) (my study is not an ethnography, but I drew upon ethnographic methods in my field observations). Initially I planned to conduct at least five classroom observations before the class's BHL week, however, due to scheduling logistics, I was only able to observe in the classroom three times before the museum. The number of observations I conducted was due primarily to the timing of the BHL week, the fourth week of the school year, combined with time constraints from the teacher and school, and the timing of when I received consent from the students to observe. These initial classroom observations occurred during the third week of school, which was the week before the class went to the museum. I conducted my observations on the same days I conducted the interviews and historical thinking activities (described below).

Interviews. Unlike the observations in which I observed all consenting students, I identified a subset of students to interview before and after the BHL week. I chose six students initially, but one student moved during the BHL week so I ended up having before and after interviews (and activities) with five students. The semi-structured interviews (Miles & Huberman, 1994; Weiss, 1994) were conducted individually at the school, either in the multi-purpose room, the materials room, or the Literacy Specialist's room. I took students out of class one at a time to conduct the interview and a portion of the historical thinking activities. All of the interviews were audio-recorded and lasted between 10 and 15 minutes.

During the pre-museum interviews I focused on asking the students about their experiences learning social studies and their motivation to learn in school. I also asked about their experiences, if any, with museums or other types of field trips (Appendix B). After the BHL week, my interview questions asked students to compare the BHL with classroom learning, recall their experiences from the museum, and gauge their overall affect toward the BHL (Appendix C). Although I used the same interview protocols with each student, the semi-structured interview approach allowed me to probe students' responses and ask follow-up questions when necessary (Weiss, 1994). For example, the following is an excerpt of my pre-museum interview with Krista as we discussed what types of learning activities she liked or did not like.

Alisa: What about doing projects?

Krista: I like art projects.

Alisa: What do you like about doing art projects?

Krista: It's kind of fun because sometimes my mom and dad help me pick out magazines and things I want to do on my project.

Alisa: Is it fun doing it because you're working with your mom and dad? Or because you're doing whatever you want?

Krista: I like doing whatever I want.

The limitation of this approach is the possibility that, by asking unscripted questions, I may not ask students the same questions and then cannot laterally compare their responses. However, I took steps to ensure that I asked the same kinds of follow up questions for students, when appropriate. Aside from these formal interviews, I also asked students impromptu questions during both my classroom and museum observations. These interactions were more organic and unstructured, but by no means less important (Emerson et al., 1995).

In addition to interviewing five focal students I also interviewed the participating teacher before and after the BHL week. Again I employed a semi-structured interview approach (Miles & Huberman, 1994; Weiss, 1994) for both interviews. The pre-museum interview focused on the teacher's motivation to participate in the BHL, how she planned to integrate the classroom curriculum into the BHL, and how she thought she and her students might benefit from participating in the BHL (Appendix I). The post-museum interview focused primarily on how the teacher viewed student learning and engagement during and after the BHL (Appendix J). During the post-museum interview we also discussed what she thought were highlights and low-lights of the experience. As with the students, I talked informally with the participating teacher throughout the BHL week. Those interactions were spontaneous and captured in my field notes.

Historical thinking activities. As described in the literature review, museums provide countless opportunities for engagement with content, and the BHL is particularly focused on getting students to interact with history. Historical thinking skills provide a method for doing history, or interacting with content in ways that reflect the types of thinking skills professional historians enact when engaged in historical investigation. Doing history is a student-centered instructional approach that accounts for the complex dynamics of learning about the past (Levstik & Barton, 2011). The opportunity for students to use and practice historical thinking skills during the BHL is central to this study; however, it is also important to understand an individual student's ability to think historically.

I created two historical thinking activities (labeled 1 and 2) for each of the five focal students to complete. These activities were conducted before and after the BHL week. I had each student complete both activities to ensure a more equitable experience if one were more difficult than the other. The bulk of each activity was conducted with students individually, but there was one portion—reading historical narrative—I conducted in small groups. I randomly assigned the focal students into two groups (labeled A and B) for implementation of the activities (Table 1). They were split into two groups to aid the logistics of implementing the group portion of the activities, and to get a heterogeneous mix of pre- and post-activity implementation. The first activity explored the building of the Mackinac Bridge (Appendix D), and the second activity examined the sinking of the Edmund Fitzgerald (Appendix E). Both of these topics were chosen independent of the curriculum for the BHL week, but both fit within the context of Michigan history and corresponded to relevant third- and fourth-grade state curriculum standards as well as National History Standards (Appendices F & G).

Table 1

Historical Thinking Activity Implementation

Group	Pre-Museum	Post-Museum
A (Hailey, Ben, Evan)	HT Activity 1 Mackinac Bridge	HT Activity 2 Edmund Fitzgerald
B (James, Krista)	HT Activity 2 Edmund Fitzgerald	HT Activity 1 Mackinac Bridge

I designed the activities using a Layering approach (Weintraub, 2000). For this type of activity, students are given an artifact or image (the first layer), and prompted to hypothesize about its purposes, uses, and creator/author. In each subsequent layer students receive additional information through visual evidence, a primary account, a secondary source, and/or historical fiction. With each layer students should consider—in addition to the original questions—how the new piece of evidence contributes to or contradicts what they already speculated about the artifact or image. Throughout the process the student should be continually revise and refine his or her understanding. I conducted these activities with a "think aloud" approach (Wineburg, 1991; Wineburg, 2001), wherein I asked students a series of questions upon showing them each layer. Students responded aloud and our conversations were audio-recorded. Throughout the process I prompted students for more information or posed clarifying questions when appropriate.

The first layer of the Mackinac Bridge activity started with a black and white photograph depicting the opening day of the bridge in 1957. The second layer was a commemorative postage stamp. The third layer was a newspaper article about the opening day of the bridge. Finally, the fourth layer was a historical narrative titled *Mackinac Bridge: Story of the Five-Mile*

Poem by Gloria Whelan. For the second activity about the sinking of the Edmund Fitzgerald, the first layer was a photograph of the Edmund Fitzgerald. The second layer was a picture of the rusted bell from the ship after being removed from the ship wreckage. The third layer was a newspaper article about the shipwreck and the fourth layer was a historical narrative titled *The Edmund Fitzgerald: Song of the Bell* by Kathy-Jo Wargin. All but the fourth layer (of both activities) were conducted individually. At the request of the participating teacher I conducted the fourth layer, reading historical narrative, with small groups.

I chose this layering method because it provides students with a variety of sources and can be tailored to various grade levels and time allotments (Weintraub, 2000). The layering of sources coupled with guiding questions written in the frame of historical thinking encourages students to consider history on a deeper level (Drake & Brown, 2003). Although a document-based activity does not fully resemble authentic historian work, i.e., the sources are already chosen for the students (Barton, 2005), it does foster critical engagement of content.

The possible limitation of this method, if any, comes from asking the questions. Although I had preset questions for each layer, by also asking follow-up or clarifying questions to the students as needed, I did not implement each activity with each student in exactly the same way. The designed questions were open-ended, for example, "Tell me what you see in this picture," but the follow-up questions tended to be more specific in content and context. I moved students through the activities in a similar fashion, but there is also the potential that some of the impromptu questions could lead the students in particular ways or to particular conclusions.

My Role as a Researcher

For this study I played the role of participant observer (Geertz, 2003; McCall & Simmons, 1969). As McCall and Simmons (1969) posit, there are a variety of methods involved in the participant observer role. They state "....participant observation is not a single method but rather a characteristic style of research which makes use of a number of methods and techniques—observation, informant interviewing, document analysis, respondent interviewing and participation with self-analysis" (p. 26). Throughout my data collection I interacted with my participating teacher and students. I asked questions, had conversations, and participated in all of their activities. During the BHL week I spent all day, every day, with the class and became a part of the environment. Students came to me with questions, sought my attention, responded to my questions and presence, and seemingly considered me another reliable adult—albeit slightly enigmatic as a non-teacher and non-parent of the class. I had a role in the social structure of the class and participated as a member of the group.[6]

Analysis

To analyze my data, I employed both descriptive and interpretive coding approaches, and organized data into categories (Miles & Huberman, 1994). After coding all of my data I looked for patterns within and across categories. To do this, I compared each participant's responses and identified differences and similarities with other participants' responses. During data collection and analysis I kept memos as a way to capture connections across the data (Miles & Huberman, 1994) and highlight any potential findings or limitations. I analyzed the teacher interviews

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[6] Students began to treat me just like another adult in the room, asking procedural or content-related questions, sharing stories with me, or seemingly forgetting I was there. Most students did not seem startled when I interacted with them or asked them questions, and on many occasions sought my attention.

primarily to provide triangulation for student data. The teacher interviews were also coded with both descriptive and interpretive codes. In addition to coding, I also used rubrics to score the historical thinking activities.

Observations. Initially I coded the museum observations, and historical thinking activity transcripts using a set of pre-determined codes. These codes were based on the principles of historical thinking. For example, some of the historical thinking codes were: compares objects (HT-COMP); makes interpretations (HT-INTERP); asks questions about the object (HT-QO); and examines the context of an object (HT-CTX). Because of the specificity of my research questions to determine when historical thinking skills were employed, I found it necessary to start with these specific codes.

Once I coded each of these data sources initially, I looked at all of my data holistically. I wanted to take a step back to see the big picture of what was happening with this class throughout my data collection. At this point I added more codes based on the patterns I was seeing. For example, I included codes to identify more general learning skills among students like visual observation (SK-OBS), collaboration (SK-COLL), and note-taking (SK-NT). Additionally, I added content-related codes that addressed student interest (CT-SDINT), prior knowledge (CT-PK), recall (CT-REC) and misconceptions (CT-MIS) as well as codes that depicted teacher modeling of behavior (MOD-BEH) or skills (MOD-SK). These codes and corresponding data provided additional context and understanding of what was happening as the class participated in the BHL. This approach also fostered my ability to see more of the organic interactions between and among students, and between the teacher and students.

After the initial rounds of coding it became apparent there were some aspects of historical thinking that were abundant and others that were scant or non-existent. For example, students' use of interpretations and ability to ask historically relevant questions were readily apparent throughout the data. In contrast, students rarely considered perspective. As part of my analysis I examined the presence and absence of these and other characteristics in context of: 1) what I knew about the students and teacher; 2) what the curriculum of the BHL week covered; 3) what skills had been intentionally modeled or included; and 4) what structures or procedures may have limited students' opportunities to employ these skills or behaviors.

Interviews. After examining all of the student data and observations, I then analyzed the teacher's interviews. Initially I did not code these interviews, rather, I was looking for her perspective on the BHL and whether that related to the coded student data. These data from the teacher were used primarily to triangulate the student interviews and museum observations. For example, after coding and scoring the students' historical thinking activities, I looked for times when the teacher may have explicitly taught or modeled specific skills. Then I reread the teacher's interviews to examine her perspective on if or how she taught these skills, and if or how she saw students employing them in the museum and classroom.

I coded the student interview transcripts differently than the observations or activity transcripts. Initially I conducted an open coding of the interviews (Glaser & Strauss, 1999). Although one primary purpose of the student interviews was to better understand how they conceptualized their classroom and museum learning experiences, I also wanted to see what else might emerge about the students during this process. A few themes emerged as I compared my analysis of these interviews: 1) there was a general sense of enthusiasm toward the museum

experience; 2) after the BHL every student could remember very specific and detailed experiences from their BHL week, which differed from before the BHL and how little they remembered about the social studies instruction they had; and 3) each student had idiosyncratic "favorite experiences" largely based on individual interest.

Historical thinking activities. After coding the historical thinking activity transcripts with the aforementioned codes, I also scored each of the students' activities using a rubric (Appendix H). The activities were scored on a scale of "Beginning," "Emerging," "Developing," and "Proficient." I scored all of the pre-museum activities first and the post-museum activities second. Each student had two rubrics I then compared to each other, but I also compared the rubrics among all five students to recognize any patterns among the group. I designed the rubric around four historical thinking skills: sourcing, inferring, contextualizing, and corroborating (Hicks et al., 2004; Wineburg, 2001). These four skills were also the basis for developing the questions for the historical thinking activities; each activity contained questions to encompass one of the heuristics or historical thinking principles. For example, questions included "What do you see in this photograph?" "What do you think this [object] is?" "What type of document do you think this [article] is?" "Do you think we can trust this information? Why or why not?" "Do you think this image/object/article is old or new? Why?"

The scoring of the rubrics was not a blind scoring (that is, I was not blind to pre/post when assessing the responses). Because of the small sample size, it was impossible for me to not know which assessment belonged to whom. Additionally, I knew which assessments were from the pre-museum activities and which assessments were from the post-museum activities. As such, there is potential for bias in scoring the assessments by looking specifically for the students

to have improved with their skills after the museum. However, the focus of my study is more complex than looking for growth over time. I am also concerned with the degree to which students can engage these skills at all, combined with whether they learned and/or practiced the skills during the BHL and back in the classroom. A rubric does not eliminate the potential for objectivity, but it did foster my ability to detect patterns of historical understanding.

Each of these data sources will help me answer my research questions in different ways. The purpose of this study is to examine the experiences a third-grade class has during the BHL, but also to explore the students' use of historical thinking skills during the BHL and researcher-designed activities. Observations during the museum are vital in understanding the types of learning (and other) experiences these students have as they spend five school days in the museum. The observations also allow me to see if, when, and how students use historical thinking skills during the museum experience. The historical thinking activities are specifically structured to foster students' historical thinking skills. Therefore, these activities provide more understanding about the degree to which students are capable of using these skills when exploring historical sources. I can also compare students' use of historical thinking skills in these two contexts to determine any similarities or differences in if and how students used these skills. Finally, the student interviews help me understand the types of history (and social studies) learning experiences the focal students have had before the BHL, and gain an understanding of how the students viewed the experience. These interviews will further help me corroborate my museum observations and understand the influence the BHL might have on students.

Chapter 4

The BIG History Lesson

At approximately 9:15 a.m. on a Monday morning in September, a school bus pulled around the circle driveway and stopped at the entrance of the Michigan Historical Museum. Soon thereafter twenty-five third-graders wearing matching neon green shirts (with their school's name on it) filed off the bus with backpacks and lunch bags in hand. They stood in a single-file line, shifting around and a bit squirmy with anticipation, waiting for their teacher to lead them (and the five chaperones) into the huge building looming in front of them. As the students walked into the building and past the information desk, several students stole a glance at the gift shop, and another at the large pine tree in the middle of the atrium. They were all smiles as they walked closer to their "new" classroom (at least for the next five days), passing a special exhibit about the Civil War on the way.

The classroom was instantly filled with chatter as the students put down their backpacks and passed their lunch bags to a chaperone to organize. Their teacher hurriedly tried to get organized—they were running a little late after all—before the first presenter arrived. Chaperones situated themselves in the corners of the somewhat small, but adequate space. A quick and warm welcome from the museum education coordinator was followed by a recitation of the students' rights and responsibilities while at the museum. "I have the right to learn. I have the right to listen. I have the responsibility to walk and not run...." The third-graders sat in anticipation, with their notebooks and pencils in front of them, as they turned toward the door and a woman wearing a bonnet and nineteenth century style clothes walked in. The students

were wide-eyed as they tried to see what she was carrying and get a glimpse at what they would be learning. This was their first day of the BIG History Lesson.

The BIG History Lesson (BHL) at the Michigan Historical Museum (MHM) is a unique learning experience for elementary students. This type of immersion program at a history museum is an opportunity for young students to learn and experience history (and social studies), which is often marginalized in their schooling experience. The students who participated in this study had just begun their third-grade year of elementary school, and with that their first formal introduction to state history curriculum. Prior to participating in the BHL, these students had only a few days (and hours) of social studies instruction; their weekly schedule included two hours per week of social studies.

Jennifer Barnes, the participating teacher in the study, expressed that her primary goal for the BHL was to encourage her students to be "better questioners and better wonderers" and to "be better observers and thinkers." Because the BHL was at the beginning of the school year, Ms. Barnes also thought it would be a "common experience" for her class that they could draw from for the rest of the year. By participating in the BHL Ms. Barnes wanted her students to be introduced to Michigan history and build an "awareness that there were people that came before us, and they had journeys and experiences." She continued, "The big idea would be that we are part of something much bigger than ourselves." Ms. Barnes also indicated that she (and the other third-grade teachers from her school who also participated in the BHL that week) chose presenters and activities she thought students would enjoy and connect with. Their BHL

curriculum was designed as a foundational piece to provide students with a broad introduction to Michigan history (the focus for the rest of the school year).

In this chapter I illustrate findings that address the question: What happens when a third-grade class participates in the BIG History Lesson? I address this question by describing elements from each day during the BHL (Monday through Friday), based upon my observations of the teacher and students. For each day I include a sampling of activities that ultimately paint the larger picture of the BHL. I describe the unique features of the BHL as a museum learning program and the many ways in which students engaged with history throughout the week. I also illustrate the ways in which the participating teacher's instructional goals were met during the BHL. Providing a descriptive overview of this highly unique and engaging museum program is imperative to understanding the ways elementary students can engage with history within a museum (the focus of the Chapter 5). I provide analysis throughout this chapter, and explore these analyses in more depth in Chapter 6. Additionally, I have provided a map of the MHM to orient the reader within the space (Appendix K).

Ms. Barnes' Expectations for the BHL

The week before the BHL I interviewed Ms. Barnes to discuss why she was participating with her class in the BHL, how she planned to integrate third-grade the BHL with the social studies curriculum, and what types of skills and experiences she wanted students to have (or refine) after participating. Ms. Barnes (along with the other third-grade teachers in the school) took her class to the BHL during the fourth week of the school year. By situating it so early in the year, she (and the other teachers) hoped it would be a foundational experience for their students in learning social studies, fostering a classroom community, and building into other

third-grade learning. Ms. Barnes stated, "It just seems like a wonderful idea. Just the schemata the kids can build and I don't mind doing it this early in the year, week four in our school year. Now we're going to have this context for discussions throughout the entire year." She also shared a few perceived benefits of participating in a museum program over multiple days. Ms. Barnes continued, "I think the continuation of going day to day to day you can build something so much bigger. You can get some momentum going and you're not, it's just not piecemealing it together. The concentration of the activities for a week will certainly leave a bigger impact." The hopes Ms. Barnes expressed reflect many of the benefits other teachers have anecdotally noted about participating in the BHL.

We also specifically discussed her goals for participating in the BHL with her students. She hoped that students would not only be exposed to content they could build on for the remainder of the year, but she also stated that if students "would come out as better questioners and better wonderers, that would meet my goals. If they would wonder why, if they would be better observers and thinkers. It's not specifically, for me, that they come away with a certain content knowledge, but process." By focusing on the skill questioning, Ms. Barnes indirectly referred to what is required in the use of some of the historical thinking skills. Ms. Barnes was also cognizant of the diversity of experiences (and exposure) students had to not only Michigan history, but to community resources, and thought the BHL was a great introduction to both:

> I think [the BHL] will open their world up. In any group of kids there's a vast array of experiences that they come to you with. Their schemas are so different ... And offering them the opportunity to see that there are museums and there are things you can go do at museums. That this is a resource that we have in our community, relatively easy, not hard

to access ... There are all of those benefits besides they're just going to learn about the content, too.

I talked with Ms. Barnes about how she designed the curriculum for the week and how she saw the BHL fitting with the social studies curriculum and what she wanted students to learn. Ms. Barnes and the other two teachers had the same curriculum planned for the BHL (although their schedules for each day differed) and she said they "picked units that sounded interesting" and chose activities they thought students "could relate to and enjoy." They did not take a thematic approach to choosing their presentations and activities, but Ms. Barnes was specific in stating that she wanted her students to understand that Michigan *had* a history. She wanted her students to build "the awareness that there are people that came before us and they've had journeys and experiences ... The big idea would be that we are part of something much bigger than ourselves." It was evident that Ms. Barnes thought her students started third-grade with some prior knowledge, but not a deeper understanding of how Michigan history affects/relates to them.

Ms. Barnes did not teach social studies to her students because it was taught by another third-grade teacher to all the third-grade students. Despite this, we discussed how the BHL experiences might be integrated into the social studies curriculum. Ms. Barnes again shared the importance of having this experience and exposure to Michigan history topics that they could build on all year. "I think there will be a lot of social studies curriculum, certainly. They'll be able to refer back to things they've seen all year long as they discuss social studies." She expanded on this to share how she thought the BHL would also be an instrument for the students to understand the integration of subject areas:

> Just letting them know you can integrate all of these study areas into one big area of interest. So even though you might be interested in lighthouses, there's still mathematics involved, there's still science involved. Just this whole big idea of, it's not really separate areas of study. It's all integrated and woven together and I would hope that's something the kids come out of with.

Clearly Ms. Barnes recognized the problems of a fragmented curriculum when hoping students would develop interconnected understandings of concepts. I also talked with her about the integration of various skills into the BHL week, and Ms. Barnes said she had been working with her students on "metacognition" by asking them to describe their thinking and their observations with detail. And because the BHL was so early in the school year when her focus was on building the classroom community and getting the other subject areas started, Ms. Barnes stated that skills like "Quick Notes" or "Mums the Word" would be taught at the museum. There are undoubtedly strengths of participating in the BHL so early in the school year, but this highlights one of the weaknesses of doing so (that is, not being able to practice the skills beforehand).

Last, Ms. Barnes and I discussed what she thought she would get out of the BHL experience, how she thought it might influence her practice. She was quick to point out that it had already influenced her thinking about how to teach social studies by integrating the discourses of the various disciplines (e.g., history and economics). "I never thought about thinking of things with a historical perspective, or like an economist. I'm pretty excited to think about history and social studies in that way ... from different viewpoints and certain lenses." This potentially indicates that Ms. Barnes had not previously received professional development around historical thinking/inquiry as an instructional method, or at least was less familiar with

this approach. Ms. Barnes also addressed the pressure she felt to "get through" the curriculum, but how she thought the BHL would help her slow down:

> I think the experience will help us slow down a little bit. And the idea of sitting in front of a big picture and just taking away what we can from a piece of art, and talking about that. Or looking at the background information of a photograph. Just slowing down. I think it will help me slow down and let the process be a little more organic than trying to always force-feed.

In light of this desire to slow down, I asked Ms. Barnes to expand on the pressure she felt in the classroom:

> Oh, I feel rushed. It's really hard to not feel a little sense of panic all day long every day. When the kids aren't on task as quickly as I want it's like "Oh my gosh, I've got daylight burning up and if I don't stay on pace then I won't get this" and the pressures are huge. So one of the good things about going there for a week is giving yourself permission to savor the moment a little more. I try to remember that every day, but I know that I get a little pressured.

This sense of panic and the feeling to rush through the curriculum undoubtedly reflects larger trends in elementary education that are embedded in high-stakes accountability.

Despite being the first year that Ms. Barnes participated in the BHL, before the BHL week she had particular ideas about how the week might influence her teaching and her students. Ms. Barnes hoped students would build an awareness of Michigan history through the exposure to content at the museum. She also hoped students would be better "questioners" and "wonderers" after participating in the BHL. Ms. Barnes felt the BHL would be a community-

building and foundational learning experience for students that they could refer back to, and build on, for the rest of the year. The central emphasis appeared to be on learning about resources in the community, viewing history through different social science lenses, recognizing the connectedness of various school disciplines, and enjoying history rather than studying it as a parade of disconnected facts. Yet, what was less clear was the particular sets of skills, the particular knowledge, or the particular values Ms. Barnes hoped students would learn.

Monday

After arriving at the MHM each day during the BHL the students (and Ms. Barnes) spent time settling into the classroom, going through the daily agenda, and reciting their "Rights and Responsibilities." They were also greeted by the BHL program director who reminded them to be role models for other student groups visiting the museum, and encouraged them to enjoy the experience. The agenda for each day of the BHL varied slightly, but every day the students had a presentation, a "Mums the Word" tour, at least one hands-on activity, and an individual exploration in the galleries. Thus, there was some consistency during the experience. On Monday, Ms. Barnes was somewhat anxious during this arrival/getting situated process as she (and the other third-grade teachers) searched for some materials that, as it turned out, had been left behind at school. The bus also arrived late, so the Monday routine was more rushed than it would be later in the week. Ms. Barnes seemed nervous—it was also her first BHL—but like all of the students, she also appeared to be excited to be at the museum.

What's for Dinner? Around 9:30 a.m., a museum docent entered the classroom while students anticipated their first BHL presentation. As the "What's for Dinner–Spicing it Up" presentation began, the presenter situated various bowls filled with different spices on the table

in front of her. She wore a heavy cotton skirt, an apron around her waist, a white blouse, and a bonnet hanging around her neck. Her clothing reflected a prior time, which was the perfect segue into the presentation about how exotic spices made their way to Michigan during the nineteenth century. Ms. Barnes instructed students to get their notebooks ready to take "Quick Notes" (writing down one or two words to help them remember the main idea(s) of the presentation). Although Ms. Barnes instructed students to take "Quick Notes" she did not model this for students and they had not practiced this skill before the BHL. The students got out their notebooks, but only a few wrote anything down during the presentation suggesting that they were not sure what to write or how to take these types of notes.

The docent pointed to a map of the world behind her and asked students to identify the United States. Once they did, she began their journey along the spice trade, discussing how exotic spices ended up in the "New World" and subsequently Michigan. As a group they identified the Eerie Canal and Michigan, and discussed how people migrated to Michigan. "Why would people want to come to Michigan?" the docent asked. "Because they wanted a new place to live," responded Anna. Anna was the only student to respond and her response demonstrated that she had some prior knowledge about migration, or at least what motivates people to move from place to place. She may have also been building on her own experience having moved to Michigan to live with her grandmother.

After this brief migration discussion, the docent passed around bowls filled with different spices. The docent walked around the room and ground a little nutmeg into each student's hand. "It's seasoning!" exclaimed one student. Next they examined a bowl of cloves, and the docent let the students smell and observe each new spice. "Oh man that smells good," Ben stated about

the cinnamon. The spices became increasingly familiar: molasses, cacao beans, vanilla bean, brown sugar, white sugar, honey, lemon, salt, and vinegar. With each spice the docent used the world map to point to where each came from during the nineteenth century, and had students imagine what it took for vanilla beans, for example, to travel across the world. The logistics of and reasons why food is transported around the world seemed like new concepts to many of the students, which is not particularly surprising given, among other reasons, the curriculum structure (i.e., expanding communities, which focuses on the local and immediate rather than the far away).

The very last bowl contained mustard seed, which the presenter poured into a mortar. As the presenter discussed how mustard was made and that it was a common condiment for European immigrants, students took turns grinding the mustard seed with a pestle. Once the seeds were sufficiently ground, the students told the presenter how much of the necessary ingredients (e.g., salt, vinegar, sugar, honey) she should add to make mustard. "It's like a science experiment!" Hailey exclaimed. They smelled their final product before the presenter tasted it; her wince suggested the concoction needed tweaking. "Maybe we'll try to make it when we get back to school and get the ingredients just right," suggested Ms. Barnes. The presenter concluded by staying, "Look at what we went through just to get that mustard ... All the countries where the spices came from, the effort for the salt and mustard ... It wasn't until later they discovered there were millions of tons of salt right under the city of Detroit!"

With that ended the class's first BHL presentation. It was clear the students were excited about smelling and recognizing the various spices, and they enjoyed participating in the "doing"

portion of the activity. However, it was not clear if students took away a deep connection between the content, activity, and Michigan history.

Mums the word. Immediately following the presentation, around 10:45 a.m., students gathered at the classroom door to head to the second floor galleries for their first "Mums the Word" tour (walking quietly through the gallery to hone observation skills and preview the galleries). Ms. Barnes admitted that she had not practiced this skill with her students prior to the BHL, and was not sure how it would go. Students were introduced to a new skill and new content simultaneously, which potentially limited their understanding of either (Alleman & Brophy, 1993). They filed out of the classroom and into the oversized elevator, large enough to hold at least 30 people or a car. The excitement for heading to the galleries was palpable as the students waited for the doors to open on the second floor. It was not yet clear if the students were excited to learn history, although the focal students implied as much during their pre-BHL interviews, but it was clear they were excited to be on a field trip and see what was inside the museum.

As they exited the elevator Ms. Barnes reminded them to be quiet "like monks," referring to their classroom policy to move slowly and without speaking. Practicing this skill before the BHL would have helped reinforce the goals of the "Mums the Word" tour, as students struggled to be quiet observers of the galleries. They walked through The First People gallery, skipped the Settling a State gallery, and stopped at the Civil War gallery where Ms. Barnes asked, "What war is this?" Although the title of the war and gallery was prominently displayed above the entrance, and the students watched a video about the Civil War before the BHL, only a few students

responded (perhaps because they had not made the connection between the Civil War and Michigan).

After walking under the mine headframe in the Mining gallery it was difficult for students to remain quiet in the "underground" copper mine. Surely this is an example of how the ambience and re-creations within the museum excited and interested students. Entering the Lumbering gallery students were surprised by the ten foot high "big wheels" (for hauling large logs). They got excited as they compared each other's heights to the wheels. Students continued to talk among themselves and Ms. Barnes frequently stopped to ask them to quiet down. However, the excitement of being in the galleries seemed to affect Ms. Barnes, too, since she periodically made comments and asked questions of the students. By 11:30 a.m. the group congregated back near the elevator to go downstairs.

After lunch Ms. Barnes had a "circle share" for students to share their favorite thing about the museum so far. Each student quickly and enthusiastically identified what they were excited about. "The mine!" "The cave!" "The lumber cart!" "The canoe!" "The slates!" "The schoolhouse!" Each response was offered with elation, as students were clearly excited about the objects they saw in the galleries. Their enthusiasm, however, seemed directed toward viewing the objects. Students did not yet seem curious about the history of those objects or their connection to Michigan. Additionally, it was not yet evident what students wanted to learn from the galleries or objects, or if they anticipated particular historical topics.

Individual explorations. By 1:15 p.m. students prepared for their final activity of the day by copying "Person, Place, Thing" onto a page in their notebooks. This was their first opportunity to independently explore the second-floor galleries. That is, students were given a

task and/or question (depending on the day) to focus on in the galleries. These explorations were always centered on the artifacts, and students chose which artifact(s) they wanted to study. Ms. Barnes decided the goal for Monday's exploration on the spot (students were to draw and label a person, a place, and a thing) because her lesson plan was among the materials accidentally left at school. Students chose their galleries based on personal interest, however, for logistical reasons (e.g., chaperoning), Ms. Barnes limited the number of students in any one gallery to five or six. This meant that some students did not get their first-choice gallery. Nobody expressed disappointment in not getting their "first choice," which likely illustrated their general enthusiasm for wanting to get back into the galleries.

The students spread throughout the second floor of the MHM. Cora and Ellie were the only two students who chose The First People gallery. James, Ben, Matthew, Krista, and two other boys ended up in the Civil War gallery. Evan went to the Lumbering gallery, and Hailey and Anna went to the Mining gallery. When students picked their galleries (and talked about where they wanted to return) the Civil War and Mining galleries were the most popular. This was likely because the students watched a video about the Civil War (and Abel Peck) before the BHL so they had some context for that gallery, and the mine provided a unique (physical) space to explore.

Although the task was meant to be individual, students could not help but talk to each other about what they were seeing in the galleries. They also seemed more interested in generally exploring the galleries than completing the "Person, Place, and Thing" task. For example, the students in the Civil War gallery hovered around a diorama of the Siege of St. Petersburg hypothesizing battle scenarios and making up stories about the soldiers, but they did

little more toward their task than draw the battle in their notebooks. Unlike their group members, James and Ben ventured into the gallery (the diorama was right at the entrance) to choose objects; Ben chose a revolver and James chose a sword. James likely chose the sword (and gallery) because he liked war and playing video games about war. Ben asked me, "Who invented the revolver?" which illustrated a skill associated with sourcing. Identifying the author of a source is key to understanding the source more deeply, even if Ben asked out of curiosity.

During the 45 minutes of individual exploration time, students were "on task" at varied times. As their first foray into the galleries as "researchers," it was clear that students needed time to take it all in; their minds and bodies were buzzing around the galleries. They had likely not yet developed a particular appreciation for where they were, what they were looking at, or what was possible in this museum space. The time students spent in one gallery was unlike a typical field trip wherein they may have spent 45 minutes to one hour total in the whole museum. However, there seemed to be a disconnect between the time allotment and the task expectations, which may have contributed to their apparent lack of focus. The novelty of the space also seemed to overshadow students' role as "researchers," which was not particularly surprising given the known "novelty effect" of museums.

After the explorations Ms. Barnes gathered the students below the three-story topographical map of Michigan. Ms. Barnes used the rocks and minerals on display to briefly model how to see the details of an object. "Zoom in," she told them. "This rock is what Michigan is made of. How does it look? How does it feel? What shape is it? What color is it?" Ms. Barnes then led students in an impromptu exploration by asking them to choose two rocks/ minerals to compare and contrast. "Pay attention to the little details," she continued, "you don't

want to miss out on Michigan's history." The students spent less than five minutes looking at the rocks and drawing them in their notebooks. Although Ms. Barnes modeled an important skill, it was not clear if the students internalized the importance of this skill or how it might transfer to looking at other artifacts in the museum.

Tuesday

The class's arrival to the MHM on Tuesday was again behind schedule; they arrived around 9:20 a.m. Like Monday, the students wore their matching t-shirts and walked in a single file line, with the chaperones at the back, past the pine tree in the atrium and down the hall until they reached their classroom. Unlike Monday when they arrived, the students seemed to walk with more of a sense of purpose. They were more familiar with their surroundings and they knew more about what to expect from this BIG History Lesson.

Beacons and Bravery. After arriving and getting situated the class moved to a different room where they experienced the "Beacons and Bravery" presentation. The goal of this presentation was to explore Michigan's maritime heritage. As they walked into the room at 9:30 a.m., the students looked around at the various nautical maps of the Great Lakes hung on the walls, the television situated in one corner, and the docent/historian who stood at the front with different sized ropes and gadgets on a table beside him. This presentation introduced students to the purpose of the many lighthouses along Michigan's coastline, the various challenges of navigating the waters of the Great Lakes, and the methods of water rescues.

During a discussion about the hazards of sailing on the Great Lakes several students referenced the Titanic. For example, Evan asked, "Where in the Great Lakes did the Titanic sink?" James jumped in to say that "the Titanic sank in the Atlantic, not the Great Lakes."

Several students had some knowledge about the Titanic and they clearly tried to make connections between their prior knowledge and this "new" information about shipwrecks. The presenter also discussed the prominence of storms on the lakes, and the danger posed to ships. Most of the students seemed interested (e.g., not holding side conversations or visibly tuning out) in the occurrence of huge freighters crashing or sinking in the Great Lakes. At one point James looked at me with raised eyebrows and gave me a thumbs up when the presenter briefly mentioned the Edmund Fitzgerald (the topic of James' pre-historical thinking activity). This conversation was the foundation to help students understand the form and function of lighthouses (the next topic of the presentation).

"How long does it take to build a lighthouse?" Ellie asked the presenter while they discussed the form and function of lighthouses. This was followed by several similar questions including, "Who invented the lighthouse?" from Ben, and "Wouldn't it take a long time to get to the top of a lighthouse?" from Hailey. Ben's question resembled a sourcing-type question, while Hailey's question seemed oriented toward understanding the intricacies of a lighthouse. Questions like these illustrated the students' interests in the topic, and students had the time and opportunity to ask and receive answers to their many questions.

The presentation next explored the role of the Coast Guard when shipwrecks did occur. "How did they get the [rescue] boats in the water?" Evan asked after the presenter discussed the use of row boats in the early days of the Coast Guard on the Great Lakes. The Coast Guard also conducted beach apparatus drills to rescue stranded sailors, and as the presenter described this rescue operation Ben added, "This would be a better way to get to the boats. Use your PGS [GPS] to look at the water and see where they are." Ben obviously demonstrated presentism by

asking this question, and clearly did not make a distinction between the present and the past when GPS was not available. However, it was clear that he was trying to make a connection.

At this point the presenter split the class in half to participate in a simulation of the beach apparatus drill. While one-half of the class rubbed pieces of paper on the tables to simulate the sound of waves, the other half prepared to rescue a sailor (a doll) from the lake (a garbage can) using the beach apparatus gear. First, the presenter modeled how to conduct the rescue, then he assigned students different tasks like pulling or anchoring the rope, or giving orders. Ben was the first "beach observer" to call the "crew" to action, at which point the rest of the group assembled the pulley and ropes to send the rescue basket to the other side of the room where the doll (and student helper) was waiting to be "rescued." Unsurprisingly students started to act a little silly when they "rescued" a Ken Barbie doll from a garbage can, but when the time came to switch, the group previously making the waves jumped right up for their turn at operating the gear.

The students enjoyed the simulation portion of the activity as it was a unique, and arguably fun, learning experience. Immediately after this presentation it was not clear what students learned, however, several students recalled this presentation later during the BHL (and during the focal students' post-activities). Prior to the BHL the students were working on a "Light" unit in science, and there were obvious connections between the lighthouse portion of the presentation and their science unit. Ms. Barnes did not make these connections explicit during the presentation, which was potentially a missed opportunity to foster student understanding, but she did reference the science unit later in the day.

Mums the word. Tuesday's "Mums the Word" tour was on the third floor, including the mezzanine where they would see a reproduction lighthouse. The group walked off the oversized elevator onto the third floor around 10:20 a.m. Unlike Monday, the students walked almost silently through the extent of the galleries, likely because they now knew what was expected of them during this tour and some of the novelty may have worn off. Most of the students remained quiet as they walked through the Farm and Factory gallery, the 1920s Street Scene gallery, and up the stairs through the Great Depression and 1930s galleries.

Ms. Barnes stopped the group by the lighthouse and maritime display. "What are you wondering? What are you surprised about?" Ms. Barnes asked. Krista pointed to an image of a large, sinking ship and asked, "Is that a picture of the Titanic?" Ms. Barnes briefly asked students to discuss what they knew about the Titanic to help them understand why they might not expect to see anything about the Titanic in a Michigan history museum. After this brief discussion, and as the group continued through the 1930s gallery, Ben stopped to ask me, "What's a Titanic?" I took a moment to explain that the Titanic was a large cruise ship that sank in the Atlantic Ocean about 100 years ago. As Ben and I started walking away from the lighthouse I overheard Hailey ask Anna if she thought the canoe, viewable in the Land and Lakes gallery below the mezzanine, was a rescue boat. Anna simply shrugged and countered with, "I wonder what they did with the big ores." This brief pause near the lighthouse, certainly an intentional one, caused many students to start making more substantive (or at least thematic) connections with what they were seeing. The objects were, perhaps, no longer decontextualized objects, but objects with a story and a purpose.

The discussion near the lighthouse may have put the group behind schedule. After leaving the 1930s gallery Ms. Barnes rushed the students a little more quickly through the Arsenal of Democracy, 1950s, 1960s, and Lakes and Land galleries, which would prove to be a pattern for the rest of the week (i.e., rushing from one activity to the next). One section of the 1950s exhibit showcased the building of the Mackinac Bridge. Despite the rush, Ben and Hailey individually sought me out to show me different pictures of the bridge. They both made clear connections between these images and their pre-historical thinking activities about the Mackinac Bridge.

Building and writing about lighthouses. Back in the classroom, around 11:00 a.m., Ms. Barnes explained the next two activities to students. First, they would build "working" lighthouses (using paper and flashlights), and second, they would write a letter to someone living on the planet Mars from the perspective of a lighthouse keeper. Coloring and constructing the lighthouses consumed the bulk of this remaining time, leaving less than ten minutes for students to write their letters. Although students seemed to enjoy building the lighthouses, I noticed that Ms. Barnes missed the opportunity to explicitly connect this activity to either the "Beacons and Bravery" presentation or to their science unit. Doing so would have refined this "fun" activity into one that was both engaging *and* grounded in content. I raise this point not to offer criticism but to highlight a possible area of emphasis in the professional development for the BHL. I return to this idea in Chapter 6.

Additionally, writing the letters would have provided an opportunity for the students to reflect on, and make sense out of, the content they had experienced so far that day. Ms. Barnes asked the students to write letters that were descriptive enough so that someone who had never

seen a lighthouse would understand their purpose. The writing activity was meant to build on that morning's presentation and the book they read after their "Mums the Word" tour about a lighthouse keeper and had good intentions. However, only a few of the students started writing their letters. Even Ben who typically started his writing tasks quickly stalled because he "[didn't] know what to write." The students likely needed additional modeling, instruction, and/or time to brainstorm before starting their letters, but the time crunch frustrated that possibility.

Individual Explorations. When the group finished lunch around 12:30 p.m., they had a special treat before preparing for their explorations: eating a piece of apple pie they made together on Monday (the chaperones took them home to bake). Ms. Barnes then randomly drew students' names out of a jar to choose galleries, and again controlled the number of students returning to any one gallery. The students did not necessarily get their first choice, and like Monday, nobody expressed disappointment by this outcome. They had two goals for their individual explorations: draw and label one object from their chosen gallery; and identify sources of light within the gallery. The sources of light task tied into the science unit they were working on in school the week before the BHL. The whole day seemed to have a general theme, and students could have been making substantive connections throughout the day. However, this content theme was never made explicit for students, and only a few seemed to start making these connections on their own.

By 1:00 p.m., the group was back upstairs spreading out in their chosen galleries. Like Monday, the students were supposed to work individually, and this was more successful than it had been on Monday. Although the galleries were new that day, having participated in a similar activity the day before left students better prepared to engage in the task(s). A few students

identified an artifact quickly, while others wandered a bit before identifying their object or recording different sources of light. For example, in the Arsenal of Democracy gallery James immediately chose the grenade launcher. He sat on the floor drawing the object in his notebook, and when I approached him he excitedly told me about the object he chose: how far it could shoot, how heavy he thought it was, and why he chose it. Cora also chose her object quickly, and stood in the 1950s gallery drawing the television, arguably a familiar artifact.

Molly, on the other hand, wandered somewhat aimlessly around the 1960s gallery. When I asked her what she found interesting, or if there was anything that stood out to her, she was unsure. Molly seemed confused about *what* objects she could choose from, or if there were specific objects she was supposed to look for. We walked around the gallery and I pointed out various objects, thinking she may have needed a little more support to choose one object when faced with so many options, or she may have muddled the two different tasks together.

After about 45 minutes of exploration time, Ms. Barnes gathered the students in the Farm and Factory gallery to briefly discuss how to look at galleries—modeling that would have been better situated before the exploration activity. She told students that she was always asking herself, "What are they trying to teach me in this exhibit?" as she explored different galleries. She also encouraged her students to avoid being like "popcorn bouncing around the gallery," and to "settle down and be thinkers and lookers" so they could figure out what they might learn from each exhibit. Ms. Barnes undoubtedly had expectations for these explorations, yet students were not yet engaging in the ways she had hoped. The students had not yet received the modeling, instruction, and/or practice they needed to understand *how* to engage with the space. In this instance Ms. Barnes made concerted efforts to tell students what they should be gleaning from

the experience (although her efforts were not likely to immediately change how students engaged with their surroundings or the artifacts). Even though the students were more specific in choosing their artifacts and visibly more earnest in completing the tasks than they had been on Monday, for the most part, they still did not seem to be engaging the way Ms. Barnes thought they would (or could) be. Again, this is not a criticism but an observation that may highlight a potential challenge of the BHL that could be addressed in professional development.

Back in the classroom, around 2:00 p.m., Ms. Barnes started a discussion about the sources of light that students identified during their explorations. She wanted to compare and contrast the different light sources, but in the interest of time (they were behind schedule) she drew each source that students mentioned on the board, and simply wrote a list. Being behind schedule was a pattern that emerged early in the week, and may have been an indication that the schedule was just too full. Reflecting on and processing content and experiences was the portion of each activity that seemed to suffer when the group had to move on to stay on schedule.

Wednesday

Wednesday began more smoothly than had Monday or Tuesday. The bus arrived to the MHM on time (9:00 a.m.), and after walking to their classroom the students quickly put their bags and lunches away and recited their rights and responsibilities almost from memory. "I have the right to ask questions ... I have the right to learn...." Ms. Barnes used the time between arriving and their first presentation for a few short activities to activate students' prior knowledge about the Civil War.

Prior to the BHL students watched a video introducing them to Abel Peck (the first color bearer in Michigan's 24th Infantry) and the Civil War, so Ms. Barnes had a brief discussion about

what students wanted to learn that day. "I was wondering who was first starting the army and stuff," Evan remarked. Krista then stated, "I wonder how many people were in the Civil War," and Ellie similarly offered, "I was wondering how many people were lost." Ben asked, "What was the first gun made in the war?" Ms. Barnes responded to students' questions and comments by telling them to "pay attention to the presentation and in the galleries" to see if they could find answers. Although the scope of the questions ranged, the students were obviously interested in the *content* planned for Wednesday—likely an indication that their excitement now extended beyond simply viewing objects into understanding history. The students may have also exhibited this initial excitement because, having viewed the Civil War video before the BHL, they had some prior knowledge they could already apply to the context. Students were positioned to engage very differently than when they did not have this specific background information.

Continuing to activate (and probably assess) students' prior knowledge, Ms. Barnes asked students, "What do you think Civil War means?" Krista, the first to respond, simply stated, "A war between two states." Matthew added, "Like when one country like the USA fights for what it thinks." Their responses were genuine, and its possible these students were recalling information from the video (although it could have also been learned elsewhere). Ms. Barnes further encouraged the students' curiosity. "We are going to learn more about the Civil War today," she stated before starting the book *Henry's Freedom Box* by Ellen Levine (a book about a slave who mailed himself to the North in a crate after his family was sold at the slave market). Unlike the prior two days, Ms. Barnes and the students seemed more settled into the experience. She was able to get students thinking about the upcoming topics for the day, while the students sat with anticipation and more appreciation for the environment around them.

The Civil War and Abel Peck's flag. All of the activities on Wednesday were rooted in the Civil War. As Ms. Barnes read *Henry's Freedom Box*, the museum education coordinator walked in to greet the group and escort them to another classroom where she would start the presentation about the Civil War and Abel Peck's flag. Once the students gathered in the new classroom the presenter wrote "Economy" on the board and asked students, "What do you do with money?" Several students responded: "Spend it!" "Pay bills." "Buy cars." "Buy birthday presents." "Buy a house." "Pay mortgages." "Buy food." Money was obviously a familiar topic for students, although the answers were somewhat surprising (e.g., paying mortgages); even the presenter seemed surprised by their responses. The presenter built from this discussion of economics into reasons why the Civil War occurred, which, as she included, went beyond slavery.

"What do you know about the Civil War?" the presenter asked. Hailey and Tyler were the first to respond. "When two different states were fighting for battle," Tyler answered. And Hailey added, "There was one state that said their state was free and one state had slaves, so Michigan was the free one. And Michigan said, 'Why don't you let them free?' They disagreed so they got into war." Hailey obviously had misconceptions about the connection Michigan had to the Civil War, but she did display some background knowledge. The presenter astutely engaged students (and the adults) in a discussion of some of the facts and concepts behind the Civil War. Krista mentioned that slavery meant "you work for someone else when they don't do the work." Anna offered that the Civil War happened "One hundred and fifty years ago!" Although I cannot entirely attribute students' interest or answers to the video they watched before the BHL, the video probably prepared them with knowledge about the Civil War they then

accessed during this discussion. Aside from that video, the students would not yet have encountered the Civil War in their social studies curriculum, but could have been exposed to it through other avenues.

With the help of two chaperones, the presenter unfurled a replica of Abel Peck's battle flag. "This is a copy of Abel Peck's flag. A copy. You're going to see the real thing in five minutes," she said. "I'm showing you a copy so you can relax before we see the real one." The presenter was trying to help students prepare for the rare experience ahead of them. While the group looked at the flag, the presenter set the stage for Abel Peck: a volunteer in Michigan's 24th Infantry, a father to one daughter, standing unarmed while holding the United States flag amidst 1000 men during the Battle of Gettysburg. Looking around at the students, they seemed captivated by the story of this soldier from their home state. They may have been interested because they did not fully understand why a man from Michigan would fight in a war many states away, and the questions they asked after viewing the flag (described in the next section) also indicated that students were trying to understand Peck's perspective.

We left all of our materials in the classroom and walked through the Plowshares to Swords exhibit toward a nondescript door. Once there we walked through the door into the dimly lit flag archives, and before we turned the corner the presenter reminded us not to touch anything and to stay an arm-length away from the flag. The full group of 25 students and 6 adults encircled Abel Peck's flag in silence. Our presenter reminded us that this flag had seen the Battle of Gettysburg, and many men lost their lives while holding it. Nobody moved, nobody talked. When our time viewing the Civil War flag was up, we moved slowly around the flag and back out the door, through the exhibit, and to the classroom. It was not immediately apparent if

students fully understood the historical significance of the flag, but the presenter's stories about Abel Peck and the fact that the flag was not typically accessible may have helped to increase students' attentiveness.

After viewing the flag students asked the presenter several questions that illustrated their interest in learning more about the flag's history. For example, Hailey asked, "I saw on the blue part [of the flag] there was some dark blue, what was that?" "Where is the other half [of the flag]?" asked Evan. Matthew wondered, "How rare is the flag?" And Molly asked, "Who was the last person that died [in the war]?" These questions seemed to reflect a shift in the students reaction toward the artifacts during the BHL. Students may have been excited by what they saw, but they also had a genuine interest in wanting to know the rest of the story, the history behind the artifact. Their interest in knowing more than what was visible reflected a growing sense of narrative among the artifacts and galleries.

Individual explorations. In an attempt to capitalize on students' interest during the Civil War presentation, Ms. Barnes modified her plans for Wednesday and had students conduct their artifact studies soon after the presentation. Ms. Barnes changed her plans for the first time during the BHL, which demonstrated the autonomy she had in designing the museum experiences for her students. With exception of the chosen presentations that needed to occur at specific times, the rest of the schedule was open and adaptable. Ms. Barnes was also likely experiencing an increased level of comfort being in the museum.

Everyone retrieved their notebooks from the classroom and headed back into the Plowshares to Swords exhibit with the goal of identifying and drawing four different artifacts (Ms. Barnes used that word specifically) and hypothesizing the purpose of each one. The goal

for this exploration reflected the historical thinking skill of sourcing, although this was not made explicit and whether that was intentional was not clear. There was no logistical grouping of students (besides having the full group on the same exhibit), and they spread throughout the whole space. A few students seemingly disappeared, only to return after drawing artifacts back in the alcove displaying a few more Civil War battle flags. James was one of those students and he kindly escorted me back to view the battery flag he had drawn. Unlike other days, it was apparent that James had read the labels and spent time learning about this particular flag; he had many details to share.

Most of the students chose their artifacts quickly, but Hailey wandered somewhat aimlessly through the exhibit. When I stopped her to ask what she was observing, she asked, "What's an artifact?" It became immediately evident why she had not started her independent study; Hailey did not remember the definition of an artifact. Hailey was not the only student; Molly similarly struggled to choose artifacts because she could not remember what an artifact was. I defined 'artifact' for Hailey, and tried to help her remember when the presenter used and defined the word earlier in the day. After listening to my definition Hailey purposefully walked over to a few handwritten letters displayed on a wall and started to draw. I followed, and asked her who wrote the letters. "Abraham Lincoln!" she responded. Hailey was, however, incorrect as the letters were written by Austin Blair (Michigan's governor at the time of the Civil War). The labels were, undoubtedly, written above a third-grade reading level, but it was clear that Hailey was unsure of *how* to read a museum display (e.g., labels and surrounding artifacts) and she did not try reading the letters themselves to determine their contents or purpose. Hailey's example was indicative of the way students may not have been prepared for how to "read" a

museum, that is, how to survey the space, analyze the artifacts, and/or engage in thinking skills that would foster deeper connections to the history (not just the artifacts).

The group spent about 45 minutes examining artifacts in the Plowshares to Swords exhibit. Even though the students were spread throughout the exhibit, there was little doubt what any of them were doing; they were all conducting their artifact studies. Ms. Barnes, for example, never had to check a student's behavior for being inappropriate, and I observed students showing their findings to each other and moving from one artifact to the next. During this, and other activities, the students were busy, enjoyed the experience, and were being exposed to rich history. However, the students did not seem to know how to make sense of the experiences they were having or the different artifacts they were seeing. To use Ms. Barnes' language, students were not sure how to fit their new knowledge, from this new context, into their existing schemata.

Thursday

Because Ms. Barnes changed her plans on Wednesday when this activity would have occurred, she used Thursday morning to ask students to reflect on the Abel Peck presentation. After arriving at the museum by 9:00 a.m., and going through the arrival routine, Ms. Barnes asked the students to write questions they had for Abel Peck in their notebooks. As students volunteered to share their questions aloud, it was evident these questions varied widely. Some students asked questions about the living conditions during the war. For example, Connor asked, "How long did you get to sleep?" Cora asked, "Was it cold in the tent?" And Krista asked, "What kind of food did you eat during the Civil War?" While other questions were more emotive, such as: "Why did you go to war when you had a daughter?" (Hailey); "How did Abel

Peck live?" (Ben); "How did it feel to stand in the middle of the army?" (Molly); and "Were you scared?" (Cora). Although not every student shared their questions out loud, they had all written at least one question for Abel Peck in their notebook. These questions did not exclusively reflect specific historical thinking skills, but the latter three evoke historical empathy, which is valuable in establishing context and understanding historical perspectives.

One Room Schoolhouse. By 9:30 a.m. the group was back in the oversized elevator heading to the second floor mezzanine for their presentation in the One Room Schoolhouse. The presentations on the prior three days took place in a classroom, and this was the first that occurred entirely in a gallery. Students were excited to return to the One Room Schoolhouse. They briefly spent time there on Monday during their "Mums the Word" tour, and several students expressed a desire to return to the gallery. It was like they felt an immediate connection, or at least interest, to that historical classroom that was quite different from their own.

Upon entering the gallery the docent instructed students to take a seat at one of the desks, some ended up sitting two students to a desk. She stood at the front of the classroom wearing a period-specific dress, and immediately transported the students back in time. "Pick up your slates," the presenter told the students. The presenter led students through recitation and elocution simulations to give them a sense of what lessons nineteenth century schoolchildren may have experienced. These "lessons" students experienced were quite different than those I observed in their classroom before and after the BHL. However, after the BHL Ms. Barnes mentioned that students wanted to participate in recitations during math, which was an example of how a new (and novel) experience students had during the BHL transferred to their classroom, at least temporarily.

"Let's explore with our eyes," the presenter said moving to the next stage of the presentation. "How are we going to light this schoolhouse?" she asked. "How are we going to heat this schoolhouse?" Students quickly scanned the room and pointed to the oil lamps hanging on the walls, and to the obvious stove prominently situated in the center-back of the classroom. During this portion of the presentation the "teacher" guided students in making distinctions between this classroom and their modern experiences in school. The schoolhouse presentation reflected the general theme for the week, "then and now," and students started making distinctions between their own experiences and those of nineteenth century schoolchildren. Being able to distance oneself from the past is indicative of the historical thinking skill of sourcing, and aids in developing an understanding of historical perspectives and appreciation of the past. If, however, this was an intended result of this conversation, it was not explicit.

For most of the presentation the chaperones and Ms. Barnes (and I) primarily observed and did not participate in the presentation. However, the presenter had four stations set up throughout the room, which chaperones supervised for the remaining portion of the presentation. Small groups of six students rotated among the stations where they: examined images of school children and artifacts like the rapping stick and the inkwell; tried on and discussed children's clothes like suspenders and capes; analyzed the costs of clothing by looking through catalogues; and investigated McGuffey Readers. There was something unique about each station and something that students could relate to.

There was little doubt that the students' expectations for this gallery were met by this presentation. The students seemed to enjoy imaging themselves as school children during the nineteenth century, and they appeared engaged in exploring the artifacts at each station. There

were moments during this presentation when students honed in on the history of the Schoolhouse and understood how it was different than their own schooling experience. Based on the students' interest in this topic and the types of explorations they were involved in, I noticed, however, a missed opportunity to help students reflect on their learning and make sense out of the skills they were employing at each station.

Childhood games. The theme of childhood continued after the One Room Schoolhouse presentation as the group went outside around 10:45 a.m. to play various childhood games. Ms. Barnes chose the games for students to play: marbles, tin-can telephone, Cat's Cradle, and Op-Yop. Although these games were not confined to particular time periods, they represented childhood games from past times and games these students were (mostly) unfamiliar with. The students played games on the sidewalk and grass area in front of the MHM. Students spent between fifteen and twenty minutes playing each game, and at the Op-Yop and Cat's Cradle stations they first made the game (e.g., tying the string, threading the button) before playing. Different chaperones took charge of different stations, and I helped the students thread their buttons to make and play the Op-Yop (winding up the string and pulling it apart repeatedly so the button spins and makes a clacking sound). When Ms. Barnes asked the students to wrap up their game playing, she had to use the allure of lunch to get them to stop playing. The students were thrilled they could keep their Cat's Cradle strings and Op-Yops. To be sure, several of the students continued playing these games throughout lunch, the following day, and even back at school the following week.

The historical knowledge students gained from this experience was not made explicit (by Ms. Barnes or the students), although it is likely students developed some understanding that children's games can be universal across time and culture.

Individual explorations. Later in the afternoon, around 12:45 p.m., the group went to the third floor for their individual explorations. Although the students had been grouped in the different galleries all week, Ms. Barnes encouraged the students to work together as a group. Like other days, the groups (and their chaperones) spread throughout the third floor and mezzanine to conduct their artifact studies. The goal was to find at least one artifact and ask what, why, where, how questions about it. Despite the instructional goal, which could have positioned students to engage more deeply with their chosen artifacts, the students seemed distracted by working in groups. Several of the students identified artifacts quickly like they did on Monday and Tuesday, then spent the remainder of the time wandering with their group mates. It was not clear that these students had also answered the required questions about their objects.

Ben was the only student who did not stick with his group. He drew his first artifact, a plane engine, rather quickly, but Ms. Barnes encouraged him to take more time drawing his second artifact, the motor of a 1940s refrigerator. I sat down for a moment with Ben to discuss his thinking. "What did they put in the fridge? Why did the fridge look different" he asked me. I took the opportunity to guide Ben through the display of the 1940s kitchen to encourage him to answer the questions himself. For example, there was a Victory Garden replica near the kitchen and he decided maybe they kept the vegetables in the fridge. The questions Ben asked illustrated that he was interested in knowing more about the refrigerator. These questions were also

indicative of sourcing or contextualizing historical thinking skills as they generate interest in the purpose and context of the artifact (I discuss this in the next chapter).

As I moved among the groups it became apparent that the chaperones were not clear about Ms. Barnes' expectations for the activity. Most of the chaperones were "new" on Thursday (it was their first day chaperoning the BHL). They seemed less inclined to keep the students focused on their artifact studies and more inclined to let them wander. Many students just wandered, rarely writing or stopping to explore an artifact more deeply. There was, undoubtedly, value in allowing students to wander freely and talk with each other, but in this instance it seemed to distract from the essence of the BHL and the artifact explorations. However, the students remained within the galleries for the full duration of the activity, which highlighted one unique characteristic of the BHL. The BHL as a museum program was designed to immerse students in the artifacts and galleries instead of just "skating" through. The chaperones may have misunderstood the purpose of engaging students in these explorations, or were more accustomed to typical field trips where students wander quickly through the galleries.

Writing letters. For the final activity on Thursday Ms. Barnes asked the students to write a letter to her discussing if they thought she should return to the BHL with her class the following year. She encouraged the students to give specific reasons whether they said yes or no. The students had a variety of responses, but all were in the affirmative that Ms. Barnes should take her students to the BHL next year. The group gathered in a circle (in the classroom) to share their responses. Students randomly volunteered, and jumped into the conversation when there was a pause (they did not raise their hands or wait for Ms. Barnes to call on someone). Some of the responses included:

Hailey: “There’s lots of stuff when the volunteers came. Like we get to make our mustard. We got to make it our own self and it was awesome.”

Anna: “It is awesome and cool and really neat to learn here.”

Cora: “I learned a lot!”

Matthew: “It was fun making the lighthouse and eating apple pie. And seeing Abel Peck’s flag.”

Ben: “We were listeners, and we respect together ... and there are lots of things to learn.” Nobody interrupted another student or talked out of turn. They were focused on the discussion wherein students frequently commented on how much they learned and how fun it was to be at the museum. The discussion seemed to sum up their experience (so far): students enjoyed the different activities and being in the museum, and they were exposed to and learning some history (or skills, or facts).

Friday

The bus pulled up to the MHM at 9:00 a.m. on Friday, the last day of the BHL. After the students got situated in their museum classroom for the last time, Ms. Barnes led them in reciting their rights and responsibilities as they had done on prior days. “Again?” asked Evan. He continued, “We’ve been reading these all week!” as if to suggest that they knew their rights and responsibilities so well it was no longer necessary to recite them.

Rights, Rivets, and Roasters. At 9:30 a.m. the army of neon green t-shirts gathered in the oversized elevator headed for the third floor where they had their last docent-led presentation of the BHL. Exiting the elevator they were greeted by a “suffragette” who led them through the first portion of the presentation on women in Michigan history. As the group walked past the

Ford Model-T and assembly line, the "suffragette" told students, "You know, women weren't allowed to drive cars," which seemed odd to the students, likely because they had all seen women driving. Several of the girls, in particular, turned toward each other with wide-eyes. The group entered the 1920s street scene where the "suffragette" told stories of women going on hunger strikes, protesting outside of the White House in Washington D.C., and being heckled by men to return to their families. She pointed to a sign for women's rights in Africa in 1996. "See? This is still an issue in modern times, not just the past," she told students (although to the students who were born in 2004, 1996 would have still been an abstract time period). Although this portion of the presentation did not seem exclusively tied to Michigan history, the students were exposed to a time that reflected very different social structures than they were used to. The students did not (compared to other presentations) seem to have many questions during this portion of the presentation, which may have been because it was not explicitly connected to to their experiences.

When the group walked through the "secret" door from the 1920s into the Arsenal of Democracy they were greeted by "Rosie the Riveter" who was poised to discuss women's roles during World War II, particularly in Michigan. The students gathered below the wall-sized picture of war planes being produced in an automobile factory. With an Army Jeep behind them, and an airplane engine in front of them, the students listened to "Rosie" tell stories of women going to work in the factories, including how they wore their husband's clothes and put their hair up in bandanas.

"Rosie" also talked about rationing and recycling, "That's right, recycling was important back then, too," she told students. She handed each student a Hershey Kiss chocolate candy,

then had them gather the foil wrapping from each of the candies to discuss how even children were encouraged to look for particular materials that could be recycled into scrap for war supplies. Students were actively involved in this presentation as the presenter did an excellent job relating these historical events and concepts to the students' lives. The students passed around a ration book for sugar. "Can you imagine only being allowed to buy certain amounts of sugar or meat?" she asked the students. "Once you used up your ration stamps, you couldn't get any more." "Rosie" seemed particularly adept at making concrete connections for the students as she moved through her presentation. She also asked students to spread out in the gallery, find an artifact they were interested in, and write a question about that artifact. Several boys gathered around the Army Jeep in the center of the room, Ben chose the aircraft engine, several girls looked through the lockers, and James situated himself underneath the nose of the real fighter plane sticking out above the entrance. Perhaps unlike some of their other individual explorations, the students had some historical context for the artifacts they chose during this mini-artifact study because of the presentation it was a part of.

After finishing these mini-studies, the group walked into the 1950s kitchen where they were greeted by a "50s housewife" donning an apron and holding a wooden spoon. The "housewife" pointed out new technologies that became domestically available after World War II, like the dishwasher, the ergonomic chair, the washer and dryer, and the television (which proved to be somewhat distracting as it played "I Love Lucy," newscasts, and other shows on repeat in the background). "Who has been to Meijer?" she asked the students, all of whom raised their hands. She then told them about Mrs. Meijer putting groceries in her husband's barber shop, which led to opening the first Meijer grocery store in a town about 60 miles away

from where the students' lived. "And do you know something else that was new in the 50s? McDonald's!" The "housewife" proceeded to tell students that "for 50 cents we could buy a hamburger, fries, a Coke, and have 5 cents left over for gum." Students were undoubtedly intrigued by how much 50 cents could buy at McDonald's during the 1950s, as they probably had some concept of 50 cents. They were also interested in the redemption stamps/booklets. "You got to get free stuff just from putting stickers in a book?!" exclaimed Cora.

There were several artifacts in this gallery that seemed familiar and/or interesting to students (e.g., television, kitchen appliances), and students readily made connections to the artifacts on the display. For example, the students wanted to know about the television shows that children watched during the 1950s. However, this portion of the presentation occurred after students had been listening to presenters for over an hour. A few students seemed obviously fatigued, like Ben who squatted near the wall and put his head on his knees, and James and Tyler who sat on a bench in the corner of the gallery. Others seemed restless, like Evan who alternated between standing and sitting, and Cora who kept looking around the room and changing where she was standing.

Hidden stories in your family photographs. Between lunch and the final individual explorations of the BHL, Ms. Barnes engaged students in an activity where they worked in groups to examine family photographs (from various time periods in her family's history). Students were divided into small groups of six and rotated the different photographs among them. For each photograph, the groups had five minutes to discuss the following questions: Who are these people? What are they doing? Are they related? What are their clothes like? When was the picture taken? What are they going to do next? These types of questions foster the use of

different historical thinking skills like sourcing, contexualizing, and inferring. Ms. Barnes did not include specific instruction (or modeling) around those skills before starting this activity, but the questions do require more thoughtful engagement than questions that might elicit simple descriptions. The students had to focus on the details of the photographs because they were otherwise decontextualized from specific time periods.

The students seemed to have the most difficulty deciding when a picture was taken; they thought Ms. Barnes was in all of the photographs, which spanned from the early twentieth century through the 1960s. In this instance students demonstrated limited exposure to other features that would help them distinguish specific (or even general) time periods. Other details of the pictures caused lively debate. For example, Evan and another student argued about whether a person in one of the pictures was a boy or a girl. Evan held firm that the person was a boy, even though the individual was wearing a dress. "But boys could wear dresses," he recalled from that morning's presentation when a presenters mentioned that young boys sometimes wore dresses. Evan was trying to contextualize and make sense out of the image, but he misaligned the information from the presentation to this context (the image was Ms. Barnes during the 1960s) probably because he still only had a general sense of past time periods (e.g., past versus present).

After each group had a chance to discuss the four different pictures, Ms. Barnes gathered the students to the center of the room to discuss the pictures in detail and get a sense of how students responded to the questions. Specifically, she wanted students to provide details, the evidence, of how/why they formed their conclusions. James, for example, referenced the "different looking" sled in the picture from 1918 to conclude that it was "old." Evan and Krista

both concluded that one image was from Christmas morning because there were presents and a Christmas tree in the background. Ms. Barnes pointed out the milk cans in the background of an image of two girls (from 1947) to help the class contextualize where the image may have taken place (on a farm). She encouraged the students to consider the details of the images, and subsequently artifacts, to learn more about them. Ms. Barnes was modeling historical thinking, specifically inferring. Even though the skill was not explicit and the modeling was not extended, the students did use evidence to support their conclusions.

Michigan's natural resources. It seemed fitting that the last hours of the BHL were spent in the galleries. As a precursor to their final explorations, Ms. Barnes gathered students on the third-floor mezzanine in front of the "Michigan's Natural Resources" mural. Before heading upstairs students made "telescopes" that, Ms. Barnes instructed, would be used to help them "zero in" on the details of the largest and smallest artifacts they could find. So, with telescopes and notebooks in hand, the students sat in a semi-circle facing the large mural.

Ms. Barnes introduced their "game" (her words) after defining 'mural' for her students. "Look at the mural for one minute, but don't write anything down. Just look," she instructed them. As students concentrate on the mural in front of them another student group walked through the gallery behind them. Most of the students stayed focused on the mural and/or seemed oblivious to the group of fifteen or so wandering through. "Okay, turn around," Ms. Barnes said. "Backs to the mural. Now write everything down that you can remember about the mural." Each student wrote in his or her notebook, including Evan who was generally reluctant to write. After one minute, Ms. Barnes told the students to turn around and look at the mural for another minute, again with "no talking and no writing." "See what you didn't see the first time,"

she told them. "What did you see?" she asked. Students noticed a wide variety of details about the mural and raised their hands to share. Responses included: "A river in back" (Evan); " Something with apples on it" (Tyler); "Wood. Pine" (James); "Cherries" (Molly); "A city" (Hailey); "I saw fruits" (Krista); "Some hay" (Matthew); and "Berries" (Cora). The mural was visually stimulating and the students visibly demonstrated interest in looking at the details of the mural. This was another shift in the ways the students engaged with the artifacts at the museum as they concentrated on the details that made up the narrative of the whole image.

"What is the big idea of this mural?" Ms. Barnes asked the students after they shared their observations. Matthew responded first, "The circle of life." And Tyler added, "Making things." Ms. Barnes shared the title of the mural with her students and told them, "These are all things that come from Michigan: lumbering, the river, industry, beaches, fruit, cows, shipping, farming, log cabins, mining...." Ms. Barnes attempted at various times during the week to help students focus on the details of an artifact, and during this activity most of the students seemed to "get it." Matthew's and Tyler's responses particularly illustrated a shift from simple observations to understanding more complex concepts about an artifact, which is indicative of historical thinking.

Ms. Barnes' Reflection on the BHL

The week following the BHL I interviewed Ms. Barnes to discuss her impressions about the experience. Specifically, if she felt her goals were met, what she thought students got out of the experience, if she had seen any carryover to the classroom, if there was anything difficult or that she would change about the experience, and if/why she would want to do it again. Ms. Barnes undoubtedly felt her expectations and goals were met, if not exceeded, by the experience.

"It was very much what I hoped it would be," she stated. "I thought it would be harder to keep the kids engaged than it actually was ... even though at first I thought it was too soon to take them, they're not well-enough disciplined, they're young, I think it was a great team building week. We nailed some learning behaviors that I've seen transfer into the classroom, which is really nice."

Specifically, Ms. Barnes shared that students' questioning was more thoughtful, and that students were demonstrating a "higher level of thinking" after the BHL. "I just think they're more open to being a little more self-reflective," she stated. When she prompted students to explain or provide detail in their answers, "they know what that means. I think they're just a little more observant ... and more able to be more detailed in their answers. I think that's a crude process that's changed." Ms. Barnes also mentioned that students had been more willing to "experiment" with different kinds of reading genres and books, like realistic fiction and historical fiction, after the BHL. She was also able to suggest different books to students based on topics or galleries from the BHL, and students responded positively to her suggestions because she could "put it into historical context of something they've seen." As Ms. Barnes continued, "It just opened up a lot of new areas of conversation for them."

Ms. Barnes also discussed connections to the BHL that she and students were making back in the classroom. For example, she talked about the fact that they had a "common experience" to draw from or examples she could use. She could provide students with examples from the museum to use as writing topics and she was seeing more detail in their writing. Ms. Barnes also shared that she used the "We Can Do It" image (poster) in one of her lessons, and when her students started talking about seeing "Rosie the Riveter" at the museum she carried on

a conversation about women's rights. She stated, "So we talked about the fact that women were doing things different than they were done before. They dressed differently. And trying new things really works out for people and that's why you have to be open to new ideas and experiences." She also mentioned the connections they were making in their science unit to lighthouses and talking about what they learned at the museum in that context. However, because Ms. Barnes did not teach social studies she was not completely sure how they were making specific content connections, if at all, during their social studies curriculum. Ultimately, Ms. Barnes felt there was "Just a real expansion of [students'] area of knowledge, of the possibilities," and that it was a "luxury to have that incredible classroom available" to her students. It was clear that Ms. Barnes was satisfied by the overall BHL experience.

I also asked Ms. Barnes to share if there was anything she felt was difficult about participating in the BHL, or if there was anything she would change about the experience. She felt Monday was difficult because the lesson plan and some materials were left behind, but also because it was new. "Having it all be new was really challenging, I felt really tense all day [Monday]." This tension was noticeable when I observed on Monday, and may have also reflected in students' behaviors (e.g., not settling into the explorations). She also discussed the challenge of teaching in a new setting for the week. She stated, "Being in the new setting and not really knowing what I was going to do next [without the lesson plans] was difficult. And not getting through it all. We had so much more planned." Based on the amount of activities they did have, it is difficult to imagine what else they could have squeezed into the experience. Other than Monday, Ms. Barnes felt she and students hit a sort of "stride" during the BHL and did not think the other days were as challenging. Ms. Barnes also felt that managing and coordinating

what the chaperones were doing, and having so many of them at a time, added to the level of "anxiety" as she put it, and was somewhat overwhelming. Her reflection on the chaperones was unsurprising given my observations of how they did not always, albeit inadvertently, seem to support Ms. Barnes' instructional goals.

There were only a few aspects of the BHL Ms. Barnes said she would change. For example, she would have liked more time to "do more of the thinking" during the week. She stated, "I wish we had taken more time to do the debriefings and the reflective part. I just think that's where some of the best learning goes on and I think I really skated over that, and I would try to do that in the future." Ms. Barnes also felt there were a few things she would change (or address) due to the fact that this was her first time participating in the BHL. Specifically, she said, "I would be able to describe what we were going to do better [next time]. I'd be able to prepare some of their behaviors a little different ... I would take more time to model [gallery time] and set up some expectations of what that would look like." Ms. Barnes was obviously conscious of some of the same limitations I observed about students not being prepared to interact with the space. Despite these few changes, Ms. Barnes stated "This is the first time I've ever been on a field trip where there weren't lots of things that I wanted to change."

Last, Ms. Barnes and I discussed some general benefits from participating in the BHL. Her students, she said, loved the novelty of being out of school for the whole week and learning and seeing so many different things. She also stated that students benefitted from the exposure to history more than they gained specific content knowledge. "I don't think they made a strong tie to Michigan as much as they did just a historical perspective ... They just loved the looking, the visual stimulation ... When they talk about it they're not reflecting on their thinking, their

reflecting on what they did and saw." A response like this suggested that Ms. Barnes felt her goal to engage students in process more than content retention was met. Ms. Barnes also discussed how she benefitted from being a learner in the environment of the museum and BHL, and "learning a different way about how to question and reflect and think about their experiences." She seemed to have a new appreciation and understanding about her students after the BHL. When I asked Ms. Barnes if the BHL was worth the time away from school she stated:

> I think it was absolutely worth it. I guess the big idea I come away with is that these kids are more excited about learning than they were before. They now know what it feels like to be exposed to new ideas and new learning, and that's an exciting thing to have happen because they spent a whole week doing it. So when I say we're going to learn about something, they're like "Okay!" They're more open to it and sponge-like.

Ms. Barnes also confirmed that she was "absolutely" going to sign up for the BHL for the following school year.

Summary

The findings in this chapter highlighted several strengths of the BHL experience, but also uncovered moments when there were (in my opinion) missed opportunities to enhance student learning. The students were exposed—albeit somewhat superficially—to a variety of state history topics, made connections to the past, and demonstrated interest in history by asking and embracing historical questions. Additionally, this study illustrated student enthusiasm for being in a museum, and the ways they were motivated and had opportunities to engage with historical topics outside of the classroom environment. However, this study also illustrated the importance

of matching activity goals to time allotment, structuring time for student reflection, and modeling (and practicing) skills and habits of mind.

Strengths. The first strength of the BHL was the exposure to Michigan history. The BHL provided opportunities for students to engage with and be exposed to Michigan history (e.g., Michigan's role in the Civil War, life in Michigan during the nineteenth century). Exposure and engagement happened during presentations, individual (artifact) explorations, hands-on activities, and when students were just wandering through the galleries. At the beginning of the week the students seemed excited primarily by the artifacts they saw in the galleries. That excitement continued for the rest of the week, but students also started demonstrating more interest in the history behind the artifacts, which was likely connected to a building sense of historical contexts (or at least an understanding of how Michigan may have been different in the past). At various points the students made connections to Michigan history, particularly during presentations like the One Room Schoolhouse. To use Ms. Barnes' words, this exposure to Michigan history seemed to help students start building their schemata around various topics and concepts. Students also developed an appreciation for the differences between "then" and "now." A few presentations and activities (e.g., One Room Schoolhouse, "Family Photographs") seemed to particularly foster students general contextualization of the past, and distinctions between past and present.

Second, Ms. Barnes stated that she wanted her students to become "wonderers" and "questioners" of the past as a result of the participating in the BHL. Students did engage with Michigan history by asking questions and wondering about historical topics. A few presentations and activities, like the Civil War presentation, particularly empowered students to ask questions

that were (most often) historically relevant. Ms. Barnes also structured a few opportunities for students to talk about what they "wondered" about various topics. These comments and questions from students were increasingly thoughtful and grounded in the artifacts and information they had seen and experienced. At the beginning of the week the students likely had little prior knowledge (specific to these topics) to build on, but as their exposure to various topics increased the students had more concrete information and experiences to rely on.

Last, students were motivated to participate and engage with history in the museum environment. There was little doubt that the students were visually stimulated during the BHL and excited to participate each day. They continually expressed their enjoyment about being in the museum and their anticipation for returning during the BHL week and beyond. There was 100% attendance among students during the BHL (with the exception of one student who moved on Friday) and I never heard complaints (from the students or Ms. Barnes) about being away from school, or about any of the activities they were engaged in. Ms. Barnes chose topics she thought would be "interesting" to students, and there was little evidence to the contrary.

The novelty of the space likely contributed to why students were interested in the topics and enthusiastic about participating in the BHL, however, the students were also given autonomy in their learning during the BHL. They could choose galleries (for the most part) and artifacts to explore more closely; students were particularly autonomous during their individual explorations. The activities were primarily student-centered and students were mentally and/or physically engaged throughout the BHL experience. Although there were behavior expectations that carried over from the classroom, the students were positioned to learn differently in this

space. Indeed, students had conversations and experiences that, arguably, would not have occurred were they not in the museum in the first place.

Missed opportunities. During the BHL there were missed opportunities that would have fostered students' experiences and learning in various ways. The first missed opportunity was due to the mismatch between activities or task goals, and time allotment. During some activities the students were rushed (e.g., writing their letters on Tuesday), while during others they seemed to have *too* much time. For example, although the students were highly engaged (or at least excited) wandering through the galleries during their individual explorations, they were only "on task" for small chunks of the time devoted to those explorations. Students were visually stimulated by their wandering, but the task goals could have included more scaffolded engagement for students so they could develop deeper understandings of their chosen artifacts (beyond drawing and labeling). These types of goals would have also been better suited to the time allotment.

Another missed opportunity was due to the amount of activities throughout the week. From the moment Ms. Barnes and her students arrived at the MHM they were moving from one activity to the next in an obviously full schedule. In some ways this is understandable given the desire to take full advantage of the week and museum, but the students had few opportunities to reflect on their learning and make sense out of their experiences. Ms. Barnes even stated in her post-interview, "I felt like we were so busy trying to get activities accomplished that I would've like more time for processing." There were sporadic moments throughout the BHL wherein Ms. Barnes tried to give students time to process, but these times were often rushed so the group could stay on schedule. Marching from one activity to another was not inherent to the BHL, and

may have been more indicative of Ms. Barnes' inexperience with designing a BHL experience that structured thinking time for students. This type of reflection could have enhanced the connections students made within the museum, their content retention and/or their skill development.

Last, there were few instances wherein Ms. Barnes modeled different thinking and observational skills (further detailed in Chapter 5), and only a few times when she made specific curricular connections (e.g., between sources of light in the museum and their current science unit). The BHL presentations and activities provided numerous opportunities for students to learn and practice thinking skills (particularly those inherent to "doing history") that could foster their engagement with artifacts and historical topics, however, these skills and habits of mind were rarely explicit for students. Additionally, the instances of modeling that did occur during the BHL were isolated and students generally did not have the immediate opportunity to practice. It was clear that some students exhibited, to varying degrees, these skills or habits of minds as the week progressed, but had they learned and/or practiced some of the skills before and throughout the BHL they may have had more purposeful interactions within the space.

These opportunities may have been missed for several reasons. For example, one reason may be that this was Ms. Barnes' first time participating in the BHL, therefore she may have been more focused on logistics (e.g., moving through the scheduled activities) than seizing (or seeing) teachable moments. Another reason may be that Ms. Barnes had limited experience with the museum's contents and space and the content of the third-grade social studies curriculum (she was not the primary third-grade social studies teacher). Ms. Barnes may have also missed opportunities based on the little professional development she had related to the BHL, and

teaching social studies in general. Finally, Ms. Barnes may have made the choice to prioritize particular skills or topics over others.

The BIG History Lesson is designed to be more than just a visit to a museum. The BIG History Lesson is designed to immerse students in learning history. Participating teachers have autonomy when designing the experience for their students, but learning in the BHL needs to be highly scaffolded for students. The students in this study were enthusiastic throughout the week, but the heavy focus on activities and the limited modeling by the teacher seemed to inhibit opportunities for learning history in in-depth ways.

Chapter 5

Historical Thinking

Silence. Not one student, chaperone, or teacher made a sound as we stood looking at the torn and fragile battle flag from the Civil War. The archives were cool and dimly lit as we encircled the flag, an artifact from Michigan's contribution to the Civil War. The presenter broke the silence to point out the tears, the stains, the stars, and remind all of us that men died while holding this flag during the Battle of Gettysburg. That sobering fact permeated the room, and the group stood mesmerized and still. Yes, students were given specific instructions on where to stand—one arm's length away from the display table—but nobody told these third-graders how to react to seeing Abel Peck's flag. As the presenter got choked up describing the flag and its symbolism, the air was thick with interest and understanding. This flag was important, and the students seem to know it.

We left the archives and walked back to the classroom through the Plowshares to Swords exhibit. To finish the presentation, the presenter asked the students if they had any questions after seeing the flag. "I saw on the blue part [of the flag] there was some dark blue, what was that?" asked Hailey. "Where is the other half [of the flag]?" asked Evan. Matthew wondered, "How rare is the flag?" And Molly asked, "Who was the last person that died [in the war]?" The students were asking questions that were not only authentic to the historical context, but reflected their interest in learning more about this historical artifact.

The BIG History Lesson (BHL) is designed to immerse elementary students, in this case third-graders, in Michigan history. This immersion into history is often captivating, like it was with Abel Peck's battle flag. It is a unique opportunity for elementary students to engage with their state's history through exploration of primary sources. The activities during the BHL are designed to be student-centered and to position students as investigators of the past. Students have the opportunity to explore thousands of artifacts in dozens of galleries in ways that frequently utilize historical thinking skills (e.g., identifying and comparing objects/sources, asking questions, considering details, and investigating context). Thus, the BHL has the potential to uniquely position students to "do history" in ways that are often limited or not available at all in elementary school classrooms.

In this chapter, I present my analysis of the ways students demonstrated historical thinking skills both during the BIG History Lesson and during pre- and post-historical thinking activities. Specifically, I answer the following questions: During what activities in the BHL did students engage in the four historical thinking skills of sourcing, contextualizing, inferring, and corroborating? Did students' skills in sourcing, contextualizing, inferring, and corroborating change following the BHL? In what ways did Ms. Barnes, the teacher, model or teach these historical thinking skills? My responses to these questions reveal the potential that the BHL has for helping students develop historical thinking skills, which are neglected in most third-grade social studies lessons, and also the importance of explicit modeling. My responses also reveal some of the missed opportunities for students to develop historical thinking skills.

In this chapter I briefly, and individually, summarize each of the four historical thinking skills, describe my observations of students using the skills during the BHL (usually describing

one instance in which they demonstrated the historical thinking skill at the MHM), and then present results of the historical thinking activities. In the last section of this chapter I cross-analyze the BHL and historical thinking activities more explicitly to identify trends between both data sets. Although these four skills are mutually supportive as students develop historical ways of thinking and doing, and are overlapping, I analyzed them individually because they provide a useful way of organizing the complex work of historical thinking (and, not unrelated, because they are often discussed separately within the National Standards for Historical Thinking and the historical thinking literature). Within each section of this chapter I primarily discuss the five focal students of this study, Ben, Evan, Hailey, James, and Krista, and the degree to which they individually used these skills. Where pertinent I also include data from other students in the class, whom I also had permission to observe, to show the range of historical thinking activities that are possible among third-graders in a museum field trip.

The instances I describe for each of the four historical thinking skills represent the times I witnessed students exhibiting characteristics of those skills. However, this is not to suggest that these instances are the only times students engaged this skill. There could have been other occasions that I was unable to observe due to the nature of this study and the BHL itself. As a participant observer I did, however, interact with the students frequently during my observations of the BHL, and in those instances I engaged students in conversations that presented opportunities for students to engage with the artifacts. Some of those interactions are reflected in the examples below.

Sourcing

Sourcing is a requisite skill for historical comprehension. According to the National Standards for Historical Thinking (National Center for History in the Schools [NCHS], 1996) students who comprehend historical sources are able to do the following: recount the details and literal meaning of historical passages; identify the author of a source or source itself; appreciate historical perspectives; differentiate between historical facts and interpretation; and identify the purpose and perspective from which a source was created. As a heuristic of historical thinking, sourcing means to ask questions about an author's or the source's purpose, motivation, and reliability in relation to knowledge of the events at the time the source was created, and when applicable the audience for the source (Drake & Brown, 2003; NCHS, 1996; Seixas & Peck, 1994; Wineburg, 2001). Sourcing should also help readers create a distance between their own views and those of the people of earlier times (Wineburg, 2001). When students engage in sourcing they begin to develop an appreciation of the past, through historical perceptions and thinking. Sourcing is not a stand-alone skill and is necessary to the overall process of historical thinking, "doing history." Identifying the author, purpose, audience, and time period of a source is necessary, but not wholly sufficient to understand and interpret an artifact. Without sourcing, however, students more acutely face the challenges of presentism, which limits historical comprehension.

Sourcing poses several challenges, particularly for young learners. As Wineburg (2001) posits, sourcing (and other historical thinking skills) is an "unnatural act" and requires deliberate engagement to get the intended benefits (i.e., historical comprehension). For sourcing to become more natural, students need explicit modeling and opportunities to practice this skill with a

variety of sources (Levstik & Smith, 1996; VanSledright, 2002). Another challenge of sourcing is presentism: using modern values and constructs to interpret the past. Although it is impossible to entirely remove ourselves from the ways in which we might interpret the past, overcoming presentism requires self-examination, or understanding our own assumptions and beliefs based in our experiences (Brophy & Alleman, 2006; Brophy et al., 2012; Barton & Levstik; 2005; VanSledright, 2002). As VanSledright (2002) posits, this is a "Herculean task," especially for elementary students (p. 147). To identify a source, the author, the audience, and the purpose requires the careful examination of the source, but it also requires a level of historical empathy, which is often impeded by presentism.

The focus for this section is the degree to which students engaged in sourcing. That is, if students identified the source, when and how students asked or answered questions about the purpose of an object/source, the author's purpose, and the audience for the object/source.

Teacher modeling. During the BHL teacher modeling of how and when to engage in sourcing was scarce. This was not particularly surprising given the nature of social studies instruction often found in elementary schools (i.e., that social studies is often neglected in the elementary classroom and that when social studies is taught, the instruction is often overly reliant on the textbook and not engaging to students) (Brophy & Alleman, 2008; Levstik, 2008; Brophy & VanSledright, 1997). Although students encountered many artifacts (often unfamiliar) in the BHL, instructional emphasis did not center on identifying the origins, author, audience, and purpose of these objects—instead, the focus seemed to be on identifying the object's visible details and hypothesizing its meaning.

However, there was one instance when the teacher introduced sourcing (although she did not use that terminology) to her students. On Tuesday after the individual explorations Ms. Barnes briefly discussed the issues of authorship and purpose. Ms. Barnes had her students gather in the Farm and Factory gallery on the third floor. She proceeded to tell students they "need to settle down and be thinkers and lookers" in the galleries and always ask the question, "What are they trying to teach me in this exhibit?" She discussed with her students that the creators of the exhibit are trying to tell a story and convey historical knowledge, and as observers the students could figure out what that was. Ms. Barnes also explained that the exhibits were in chronological sequence and the timelines in each exhibit could help students see what happened at that time. Ms. Barnes was, arguably, trying to help her students understand not only how to read/observe in a gallery, but also to understand that there was a historical narrative unfolding in each one. To comprehend a historical narrative requires the skills of sourcing, one of which Ms. Barnes alluded to in this example (but did not make explicit for students). In general, however, sourcing was emphasized the least among the four skills.

BHL observations. Students did ask many questions during the BHL; as such, their curiosity of the artifacts was evident. However, the kinds of questions they asked did not tend to reflect the kinds of inquiries involved in sourcing (e.g., wondering about the purpose or creator of an artifact). In fact, of the four historical thinking skills analyzed in this study, I identified fewer instances of sourcing by the students than with skills such as contextualizing or inferring.

Ben. Ben was the only student whom I recorded frequently asking questions about either the author of an object or the purpose of the source. Ben was curious about the origins and purposes of artifacts. He also frequently asked these questions independently (that is, without

prompting). The types of questions Ben asked reflect questions consistent with the sourcing heuristic. For example, during the "Beacons and Bravery" presentation he asked the presenter, "Who invented the lighthouse?" and when looking at the 1940s kitchen he wondered about the purpose of the metal box on top of the refrigerator (the motor). Unfortunately, Ben did not always get answers to these questions from the galleries or from the teacher or presenters, nor did he openly start researching the answers on his own while at the museum. However, even without having his questions answered, he kept asking questions.

Evan. During the BHL I recorded two specific instances when Evan engaged in sourcing. These two instances reflect Evan engaging two different attributes of sourcing: considering the origin and identifying the purpose of an artifact. For example, in a class discussion before the Civil War presentation Evan said, "I wonder who invented the army and stuff." Although he was not engaging in sourcing about a particular object (rather, of the concept of war), this kind of questioning is an important part of historical thinking. Evan may have been building on his curiosity about the military. During the One Room Schoolhouse presentation Evan pointed out that the hole in the desk was for holding the inkwell. In this example Evan may have had prior knowledge about the inkwell (it had not yet come up during the BHL). The thinking he exhibited in both examples, however, is indicative of sourcing.

Hailey. I recorded one instance of Hailey engaged in sourcing during the BHL. In this instance Hailey asked a question about the purpose of an artifact to one of her peers. During the "Mums the Word" tour of the third floor Hailey looked over the balcony on the third floor mezzanine to the Lakes and Land gallery below. Observing the large canoe on display, she asked another student, Anna, "Do you think that canoe was a rescue boat?" To this Anna shrugged and

responded, “I wonder what they did with the big ores.” Although this instance was seemingly isolated, it illustrates Hailey questioning the purpose of an artifact as prompted by its location within the museum.

Non-focal students. There were also examples of sourcing among non-focal students during the BHL. In one instance I prompted two students, Cora and Ellie, to think about the purpose of the artifacts they chose during their individual explorations (a spearhead and a copper blade). When I prompted these two students they each offered up suggestions relevant to their objects: “to pierce stuff” and “to get food.” The students did not engage in sourcing on their own, but they did respond to my guidance by talking them through the features of each object to examine their objects in this way. Moreover, when I prompted them, they did seem genuinely interested in thinking about the purpose of these objects

Historical thinking activities. All five focal students completed both the Edmund Fitzgerald and the Mackinac Bridge historical thinking activities either before or after the BHL. Both activities included questions for each layer (e.g., object or document) that engaged the sourcing heuristic (and the other three historical thinking skills). Questions that prompted students to source during the activities included: What do you see in this photograph? What do you think this object is used for? What do you think this object/document is? Who do you think this object/document was written/created for? In addition to the predetermined questions, I also asked impromptu (follow-up) questions with each student when I wanted clarification and/or to hear more of how the student arrived at their answer.

There were various instances of sourcing during the historical thinking activities (one potential reason sourcing occurred more frequently during the activities is because sourcing was

intentionally included in the activity structure). All five students engaged in sourcing during the activities and scored at the emerging level for their pre-activities (Table 2). Only one of the five focal student's rubric scores for sourcing improved to developing in the post-activity.

Table 2

Historical Thinking Rubric Scores—Sourcing

Focal Student	Pre Activity	Post Activity
Ben	2	2
Evan	2	2
Hailey	2	3
James	2	2
Krista	2	2

Note. 1=Beginning; 2=Emerging; 3=Developing

The sourcing rubric scores were based on the degree to which students: 1) identified the type of document or object; 2) considered information, details and/or perspectives provided by the source; 3) considered the purpose of the source (or source's author); and 4) recognized author or audience (see Appendix H). In the pre- and post- activities, all five students addressed, to varying degrees, the first three components of sourcing; however, none of the students addressed the author or audience in either the pre- or post-activity. One possible reason students did not consider author or audience might be that these students have not had any consistent experiences or modeling that required them to think about a document or object in this way. Acknowledging an author or audience also engages a sense of bias, which is a complex understanding that, again, students may not have had the opportunity to develop. Another possible reason is that students

may not have felt they needed that information to obtain meaning that was relevant or helpful in their sense-making of the objects.

Ben. Ben's sourcing score was Emerging for both his pre-activity (Mackinac Bridge) and post-activity (Edmund Fitzgerald). Ben had similar types of responses in both activities, identified the types of objects (or sources) in both activities, and wondered about the author or purpose of the different sources. For example, Ben identified the newspaper article about the Edmund Fitzgerald and he also asked, "Why would they write an article about it?" He seemed to be aware of the human element behind these sources and that these sources had some type of origin. Ben did, however, have difficulty avoiding making interpretations or interjecting his own opinion when describing the sources and struggled to consider potential audience of each source.

Evan. Evan scored at the Emerging level for sourcing in both his pre-activity (Mackinac Bridge) and post-activity (Edmund Fitzgerald). Evan identified the different types of sources presented in each layer of the activities, but he had difficulty discerning the newspaper articles. He also hypothesized the purpose for various sources and features within the sources. During his post-activity, for example, Evan suggested the ship's radar was "like a light" used to detect and warn the ship's crew about storms. Evan had difficulty discerning author and audience among the different sources in both activities.

Hailey. Hailey was the only focal student whose sourcing score improved (from Emerging to Developing) between her pre-activity (Mackinac Bridge) and post-activity (Edmund Fitzgerald). Specifically, in the post-activity, Hailey questioned the purpose of the bell, the Edmund Fitzgerald, and the "holes" (windows) in the ship. Purpose is an important aspect of sourcing. Hailey also used specific and extensive evidence when describing the sources in her

post-activity, whereas in her pre-activity she relied more on her personal opinion or what she did *not* see in the images.

James. James' sourcing scores remained at the Emerging level for both his pre-activity (Edmund Fitzgerald) and post-activity (Mackinac Bridge). In both activities James identified the types of sources and explained why he identified them as such. For example, he thought the Edmund Fitzgerald article was a newspaper article "Because the words are small like a newspaper." He also identified the purpose of various sources as well as features within the sources. For example, James wondered about the purpose of the "tower" on the Edmund Fitzgerald and the "cables hanging down" from the Mackinac Bridge. James, however, did not acknowledge audience for any of the sources, and he continually used personal opinion as he described the sources—particularly for the Mackinac Bridge activity.

Krista. Krista's sourcing scores remained at the Emerging level for both her pre-activity (Edmund Fitzgerald) and post-activity (Mackinac Bridge). Krista easily identified the different types of sources, with the exception of the Edmund Fitzgerald newspaper article, which she thought was an Internet website. She also examined the purpose of different objects, particularly the bell. When I asked Krista what she thought the bell was used for, she responded, "I don't know. Maybe like on a clock, like whenever it gets to 12 o'clock, 1 o'clock, on the clocks they ring it each time the clock comes." Krista used concrete examples in her responses, but like her peers, she did not identify audience or author for any of the sources in both activities.

Summary. Sourcing requires the investigator to provide specific details from the source as evidence to make interpretations about the purpose, author, and audience of the source. All this must be free from personal judgment and presentism. In general, students engaged in one

aspect of sourcing, identifying purpose and/or author, during both the BHL and the historical thinking activities; students did not ask questions about the date, motivation, or audience of the source. Ben was the exception to this finding because (in both contexts) he asked about the author of various objects/sources. This finding is consistent with research that suggests young learners generally have little understanding about the interpretive nature of history, or the work that historians do (Barton, 1997; Brophy & VanSledright, 1997).

Students had differing experiences with modeling and skill structure between the BHL and the historical thinking activities. The students engaged in sourcing more frequently during the historical thinking activities than the BHL, which illustrates the need for explicit and extended modeling. Both of the historical thinking activities were structured to engage students in sourcing throughout the activity, while Ms. Barnes only modeled sourcing once for students during the BHL. Although the students did not fully engage in all aspects of sourcing, the results from the historical thinking activities reinforce the notion that students used this thinking skill (and considered the purpose of sources) when they were provided with opportunities that specifically encouraged them to do so (Levstik & Smith, 1996; VanSledright, 2002).

In both the BHL and during the historical thinking activities the students did consider the purpose of various sources or objects. Students considered the purpose of *familiar* objects that were situated in new contexts or unidentifiable contexts. For example, at the museum Cora and Ellie offered hypotheses about the purposes for a spear and a copper blade, two objects they had likely seen (or at least something similar) in other contexts. During the historical thinking activities each focal student wondered about the purpose of the Fitzgerald bell, which was a familiar object (a bell) in a new, or less familiar, context (the first image of the bell was,

arguably, lacking context). I did not observe any instances of students considering the purpose of an object that they could not first identify. This finding may reflect the contextual nature of knowledge (Lave & Wenger, 1991), such that students only considered sources they could identify and had some prior context with which to associate it.

In sum, students did engage in sourcing during the BHL and the historical thinking activities, indeed, they were curious about the different sources. However, their engagement of each aspect of sourcing (e.g., author, audience, motivation) was limited in both settings.

Contextualizing

Like sourcing, contextualization is a necessary component of historical thinking, and historical inquiry more generally. Contextualizing means the examination of the time period and circumstance in which an author lived or an object was from. When an object was created or used, for example, is just as important as why or how it was used and, indeed, fosters the understanding of the latter two. An integral characteristic of contextualizing is the ability of an investigator to display historical empathy: putting oneself in the role of the historical figure to more fully comprehend the context (Brophy et al., 2012; Levstik & Barton, 2005; Lowenthal, 2000; Seixas & Peck, 2004; Wineburg, 2001; Yeager, Foster, Maley, Anderson & Morris, 1998). As a historical thinking skill, contextualization involves the ability to consider historical circumstances of time and place, without presentist assumptions, in order to make informed conclusions about a source (Drake & Brown, 2003; VanSledright, 2002; Wineburg, 2001). This requires an investigator to connect the source to a specific circumstance in time and place, but also situate the source within a broader context of historical understanding. "Students' contextual knowledge of [a] historical period in which the document or artifact was created

becomes critically important" to "doing history" (NCHS, 1996). Doing this is not a simple task; context must be carefully reconstructed using available evidence, which is often incomplete or scarce (VanSledright, 2002).

There are various challenges to contextualizing. Presentism is one of the biggest challenges to contextualization. Investigators of the past must set aside their own positionalities to more fully understand the people, events, cultures, and ideas of the past (which is no easy feat as it's virtually impossible to fully understand the experiences of the past). To avoid presentism is to establish a more authentic historical context for an author or object, and understand how the past is different from the present (Brophy & Alleman, 2006; Barton & Levstik; 2005; VanSledright, 2002). Another challenge of contextualizing, particularly for young learners, is the lack of historical content knowledge relevant to the topic. Wineburg (2001) argues that contextual thinking is challenging even for individuals with strong history content knowledge. Even if students are able to understand there is a difference between past and present, for example, they may not have the content knowledge that could enable them to build a specific historical context for a source. It is important to note that I am not suggesting students engage with history from an entirely deficit standpoint; students undoubtedly have abundant prior knowledge and experiences. Rather, I am suggesting that the third-grade students in this study (or other young learners) may not have had extensive or specific content knowledge related to the events, time periods, or sources explored during the BHL and historical thinking activities.

This section explores when and how students in this study employed the skills of contextualization. That is, if students identified when and where in history an object (or author)

was from, considered why an object may have existed during that time, and established an immediate or broader (and plausible) context of the time period.

Teacher modeling. Similar to sourcing, there were few instances I observed of the teacher modeling how to contextualize during the BHL. This is not particularly unusual given the time and sustained effort required to model contextualizing, which includes challenging beliefs that students or the teacher hold about the past (Reisman & Wineburg, 2008). Additionally, Ms. Barnes did not state that teaching this skill was part of her goals for the week. The general theme for the BHL, as defined by Ms. Barnes, was "then and now." This theme was designed to foster students' understanding of the past more generally and how the past was different from the present. The curriculum for this BHL did broadly address then versus now (although the activities and presentations did not occur in chronological order), but the skills required to consider specific historical contexts were not explicit throughout the BHL.

Two instances of Ms. Barnes modeling contextualizing occurred on Wednesday in the Plowshares to Swords exhibit, after students' individual explorations. Ms. Barnes gathered the students together near a nineteenth century woman's dress and asked, "What's different about this than what women wear today?" The students respond with answers like: "There's no design on it," and "There's no fashion." Ms. Barnes took a moment to address the "no fashion" comment and asked the students if it was possible that fashion might have been different "a long time ago." Most of the students nodded in agreement and she walked with them over to an exhibit with Austin Blair's (Michigan's governor during the Civil War) top hat and wooden desk. Looking at this exhibit several students suggested that modern hats were "better" than Austin Blair's top hat. In response to this distinction—an obvious example of presentism—Ms. Barnes

specifically stated that whether the hat was "better or worse" was a matter of opinion, not historical fact. Although Ms. Barnes did not explicitly tell students that she was using a specific historical context to make sense of these artifacts, she was modeling some of the thinking skills involved in contextualizing. Further, but again without being explicit, she introduced the concept of presentism and implied that it was not a valid approach to examining the context of an artifact.

Last, during the "Family Photographs" activity on Friday students worked in small groups to examine images from Ms. Barnes' family that depicted various family members and events in different time periods. For example, one image depicted her mother and a friend playing outside, and another picture was of Ms. Barnes and her siblings on Christmas. As part of this activity students responded to the following questions: Who are these people? What are they doing? Are they related? What are their clothes like? When was the picture taken? What are they going to do next? After the small group work Ms. Barnes led a full-group discussion about students' responses in relation to each photograph. During this discussion Ms. Barnes emphasized contextualizing by encouraging students to think about how clothing, decor, and background images hint at what time period a photograph was from, and why a particular image might have been taken. The questions for the activity undoubtedly reflect those that engage or seek to identify historical context. Unfortunately, Ms. Barnes did not specify this thinking skill further, and this instance occurred in the afternoon on the last day of the BHL.

BHL observations. The theme of "then and now" was reinforced in various presentations and activities throughout the BHL, and despite the lack of explicit modeling there were various instances, both prompted and impromptu, when students engaged in

contextualizing. Most of these examples did not address specific historical contexts, rather they engaged an unspecified historical time that was different from the present.

Ben. Ben demonstrated contextualizing in a few different situations during the BHL. Each instance occurred during a docent or teacher presentation, and he contextualized both with and without prompting (from an adult). Additionally, each instance demonstrated a general distinction between an unspecified past and the present. For example, near an old gas pump in the 1920s Street Scene gallery Ben turned to me and said (referencing the sign with '23¢' on it), "Twenty-three dollars, I mean 23 cents was a lot of money in the old days, but it's not now." Ben clearly had a sense of *difference* between the past compared to the present; however, he did not specify particular historical contexts, nor did he identify surrounding objects or sources to aid his contextualizing.

Evan. There was one instance in which I observed Evan contextualizing during the BHL. Eva engaged this thinking skill independently (without prompting) to make an appropriate contextualization using objects from disparate situations. During the "Family Photographs" activity Evan noticed the date on the back of one of the images, 1918, and immediately recognized that it was the same date from the "suffragette's" sash during the "Rights, Rivets, and Roasters" presentation earlier that day. As a result of making this connection, Evan suggested this photograph was from that same time period, despite his group-mates thinking the photograph depicted Ms. Barnes as a child. For whatever reason (possibly extended exposure), Evan remembered the date on the suffragette's sash and was able to connect it to this new source.

Hailey. Hailey demonstrated contextualization a few times during the BHL. In each of these instances Hailey struggled with presentism as she confronted objects, events, or ideas that

were far removed from her own conceptions and experiences. After the "Rights, Rivets, and Roasters" presentation, for example, and learning about hunger strikes associated with the women's suffrage movement, Hailey asked the "suffragette," "Why would women try to like, not eat for days?" Hailey was curious about these concepts (or events, or objects), but tended to question them from a presentist perspective rather than consider the historical contexts.

James. There were two instances in which I observed James overtly contextualizing, and both instances were prompted by either Ms. Barnes or a presenter. In one of these examples James used specific evidence from the source to help him contextualize. During the "Family Photographs" activity Ms. Barnes asked the class, "What are some of the details in the picture that gave you some clues [about the time period]?" James responded with "The sled" (referring to one of the specific pictures). He then told Ms. Barnes the sled was different than the types of sleds he used, so he knew it was from a long time ago. These examples reflect James' burgeoning understanding that artifacts have clues that indicate their historical context.

Krista. Krista engaged in contextualizing a few times during the BHL. Not unlike her peers, Krista's own perspective and experiences informed the ways in which she attempted to contextualize past events. For example, when Ms. Barnes asked the class (in the Plowshares to Swords exhibit) about the difference between a dress (a muted color of tan) and modern women's clothing, Krista responded with, "There are no colors. No pink, purple, blue, or red." Krista made distinctions between "then" and "now" based on her perspective and experience. Although she did not particularly apply evidence from surrounding artifacts (or labels) to contextualize this artifact, she did attempt to make a distinction.

Non-focal students. In addition to the five focal students there were several other instances of contextualizing that occurred among other students during the BHL. These instances primarily took place during the presentations and activities on Thursday and Friday. A few of these instances illustrated students using presentist perspectives to engage with artifacts. For example, in the One Room Schoolhouse when the "teacher" asked students what might be in a lunchbox from the nineteenth century, Matthew suggested bananas, Tyler suggested applesauce, and Molly suggested pudding cups. Other instances illustrated students broadly contextualizing a source or event. During the "Family Photographs" activity, for example, Ms. Barnes mentioned the television in one image was "in black and white." To this Cora concluded that the television, and subsequently the picture, must have been "old." Students offered contextualizations that were not grounded in specific historical contexts, however, they did try to make sense out of these objects with the information they did have.

Historical thinking activities. During the pre- and post-historical thinking activities students were asked to contextualize the artifact, image, or document by stating if they thought it was old or new, or from a long time ago or a recent time. Although all five focal students had some prior knowledge about the Mackinac Bridge, it was clear they did not have the detailed content knowledge around these topics and time periods that would have fostered more specific contextualization. The contextualizing scores from the pre- and post-activities were the lowest of all four skills, and demonstrated the least amount of change of the four skills analyzed in this study (Table 3). Indeed, the only change reported was actually a lower score on Hailey's post-activity than on her pre-activity. As I stated earlier, since Mrs. Barnes did not state that

contextualization was a goal for the BHL, students' stagnant scores are not necessarily surprising.

Table 3

Historical Thinking Rubric Scores—Contextualizing

Focal Student	Pre Contextualizing	Post Contextualizing
Ben	1	1
Evan	1	1
Hailey	2	1
James	1	1
Krista	1	1

Note. 1=Beginning; 2=Emerging

Contextualizing scores were based on the degree to which students considered when, where, and why for each source, as well as the immediate or broader context of the time period (see Appendix H). Of all the skills analyzed in this study, contextualizing was the only skill wherein all, or even most, of the students scored at the Beginning level on their pre- and post-activities. Each of the focal students generally used nondescript contexts such as "olden days" and "back then" to reference the historical time periods of both the Mackinac Bridge and Edmund Fitzgerald. Hailey, the only student to score Emerging on the pre-activity, was the only student who, prior to reading the Mackinac Bridge story, discussed why a bridge might be necessary and how people got across the Straits of Mackinac prior to the bridge being built. Ben and Hailey also both used their hands to demonstrate the bridge's location between the upper and lower peninsulas of Michigan. Other than these instances, students' contextualizing skills

reflected generalized understandings of the past compared to the present (as reflected by their scores).

Ben. Ben scored at the Beginning level for both his pre-activity (Mackinac Bridge) and post-activity (Edmund Fitzgerald). Ben contextualized the sources more generally, which was consistent with the BHL findings. He also used colors (black, white, rust) to contextualize different photographs and artifacts during the pre- and post-activities. For example, during his post-activity he stated the photograph of the Edmund Fitzgerald was new because it was "in color and not in black and white like the olden days." Ben used evidence to contextualize the sources, and in one example he tried to make a more distinct contexualization. Specifically, he suggested the cars in the Mackinac Bridge pictures were old and "maybe from the nineteens or eighteens."

Evan. Evan's contextualizing rubric scores were at the Beginning level for both his pre-activity (Mackinac Bridge) and post-activity (Edmund Fitzgerald). Evan contextualized by relying on the visible features, like color, of a source. He also contextualized by making comparisons between the sources and their modern counterparts to establish general distinctions. While examining the first image/layer of the Mackinac Bridge activity Evan commented that the cars on the bridge were "old fashioned cars" because they were "different from now" and he did not see similar cars driving around. Evan relied on his personal experience, which was applicable in this instance.

Hailey. Hailey was the only focal student whose contextualizing scores changed between her pre-activity (Mackinac Bridge) and post-activity (Edmund Fitzgerald). However, her score went from Emerging to Beginning. Based on the data from both the BHL observations and the

historical thinking activities, it is not clear why her score decreased. Hailey exhibited far more prior knowledge about the Mackinac Bridge than the Edmund Fitzgerald. Further, she could not rely on obvious distinguishing features to determine even a general historical context for the Edmund Fitzgerald. For example, Hailey thought the cars in the first layer/photograph of the Mackinac Bridge were "old fashioned":

Hailey: Well they look like kind of old fashioned cars.

Alisa: Okay, what makes you think they're old fashioned cars?

Hailey: Well because like comparing to our kind of now, like there's some weird details about the cars.

Alisa: Have you ever seen cars like this?

Hailey: Sort of.

Alisa: Where? Like in a movie? Or how come you recognize them as old fashioned?

Hailey: It looks different than what's ours, compared to our cars these days.

In contrast, Hailey thought the Edmund Fitzgerald was from a time "in the middle" between old and recent and could not pinpoint any features to support her claim.

James. James' contextualizing scores remained at the Beginning level for both his pre-activity (Edmund Fitzgerald) and post-activity (Mackinac Bridge). James relied on color to generally contextualize the photographs, but he had difficulty identifying other features that may have placed other sources into historical contexts. For example, James suggested the Mackinac Bridge stamp was from a time "somewhere in the middle" of old and recent "just because," without giving further explanation.

Krista. Krista scored at the Beginning level for both her pre-activity (Edmund Fitzgerald) and post-activity (Mackinac Bridge). Krista used color to contextualize photographs (black, white, rust) and considered the cars on the Mackinac Bridge to be "old fashioned." Krista did, however, offer the most concrete example of contextualizing among all of the students during her post-activity. She used her parents' birth years, which she thought were "1950 something or maybe 1960" to contextualize the date of the Mackinac Bridge article (1957). She may not have had a concrete understanding of the 1950s, but she did use something concrete, her parents, as a reference point.

Summary. Contextualizing requires the investigator to examine the creation of a source, make connections or distinctions between time periods, discuss relevant historical content, and recognize a plausible broader historical context. During the BHL and both historical thinking activities there were various instances in which students engaged in contextualizing. In fact, compared to sourcing there were more examples of students contextualizing during the BHL. However, the focal students' contextualizing rubric post-assessment scores were the lowest of all four skills. Students demonstrated that they could contextualize using general notions of "past" versus "present," or "then" versus "now," but none of the examples considered the "why" question, and many were underscored by a degree of presentism. Despite these limitations, the results do suggest that with specific prompting, students developed distinctions between their own experiences and those of past people or events, which is significant to contextualizing.

It was clear that students lacked the *specific* content knowledge they needed to contextualize sources or objects (or time periods) more particularly. This is not surprising considering the sequence of the state curriculum, the social studies instruction often enacted (or

not) by elementary teachers, and the fact that contextualizing is difficult even for individuals who have strong content knowledge (Wineburg, 2001). Moreover, this was not a goal of Ms. Barnes' participation in the BHL. Although students lacked the content knowledge related to these aspects of Michigan history, and arguably had not received skill-based instruction to contextualize, there were instances in which students used (with varying degrees of relevance) prior knowledge and experience to try to make sense out of new information. This demonstrates that students did not lack the ability to contextualize, per se, but they had not yet learned the content or skills that would have better enabled them to engage with the historical content of the BHL and historical thinking activities.

Contextualizing also requires a sense of historical empathy (and a lack of presentism). The students struggled with presentism in both settings, and rarely demonstrated historical empathy. For example, Ben suggested the use of GPS to aid water rescues, and James could not believe that boys had to use a pink toilet (in the 1950s gallery). There were a few instances, however, in which I observed students demonstrating a sense of historical empathy. For example, Krista exhibited empathy toward the feeling of vulnerability and lack of protection in the Civil War soldiers' tent, and Hailey thought it was "unfair" that the Mackinac Bridge put ferry owners out of business. This finding reflects another challenge of contextualizing, which requires the ability to recognize one's positionality in the world, and set aside their positionality, beliefs, and experiences in order to understand the past more authentically (VanSledright, 2002). The students likely had few (if any) opportunities to think about themselves in relation to the past. Again, this is a skill that requires specific instruction and understanding and is, undoubtedly, challenging for people of all ages and backgrounds.

Throughout the BHL and the historical thinking activities students contextualized time periods through general distinctions. For example, students frequently used the color (or lack thereof) to determine how "old" an image was (e.g., the black and white Mackinac Bridge picture or the black and white images from the "Family Photographs" activity). There is scholarship that suggests students as early as kindergarten can place images from various time periods in order, and that specific dates have little meaning for children prior to third or fourth grade (Levstik & Barton, 1996). The historical thinking activities engaged content from specific time periods, but we did not focus on specific dates. And the BHL was organized around the general theme of "then and now." Given these factors, the students arguably demonstrated contextualizing skills at an appropriate (or at least an expected) level.

Inferring

Inferring is integral to historical thinking (and historical inquiry more generally), and builds on the skills that foster historical comprehension. As a historical thinking skill, inferring is characterized by historically contextual conclusions, or interpretations, based on reasoning and evidence from a source (or sources) (Hicks et al., 2004; Wineburg, 2001). Inferring is more than just making interpretations, although that is an essential characteristic. It fosters continued exploration of a source beyond the literal evidence, encompasses historical perspective or point of view, and strengthens the distinction between fact and opinion (NCHS, 1996). Like sourcing and contextualizing, inferring requires an understanding of historical and personal perspectives and is affected by the degree to which the investigator applies relevant prior knowledge and removes personal opinion/bias from conclusions. Inferring provides the opportunity for an investigator to think beyond the initial or most visible facts to develop a deeper understanding

based on evidence that needs to be drawn out of the source, and often requires "filling in the blanks" (Hicks et al., 2004; VanSledright, 2002). In this way, both the literal and "unseen" evidence of a source are integral to making interpretations and, subsequently, inferences.

One of the biggest challenges to inferring (and to historical inquiry in general) in schools is students' compulsion to find the one right answer, the one interpretation, or the one preeminent perspective (NCHS, 1996). Students are conditioned to consume the history presented to them as *the* history, without understanding the decisions of inclusion and exclusion (the decisions of what is historically significant) that were made (Gabella, 1993; Epstein, 1994; Wineberg, 1991). We can never fully know the past, and conclusions about the past are made from available evidence (often with much inferring). Positioning students to do history allows them to drive the investigation, so to speak, which might be particularly frustrating if they have this compulsion to find the "one truth" of history. Overcoming this tendency requires specific modeling and sustained opportunity (Levstik & Smith, 1996; VanSledright, 2002).

Compounding this challenge is the way history is conventionally presented in schools. Learning about history in schools, particularly for young students, has largely been reduced to rote memorization of events, "important" people, and dates (Cuban, 1991; Seixas, 1999). History in schools, particularly elementary schools, is often simplified and not presented as complicated or controversial (Barton, 1996; Brophy & Alleman, 2006; Brophy & VanSledright, 1997; Levstik, 2008). When faced with the opportunity to investigate historical evidence and be responsible for making inferences about a historical event or source, students may struggle with knowing how to engage a "messier" history than they have previously experienced. The task is no less important in light of this, but the issues of *how* are paramount.

This section explores various instances in which students made inferences both during the BHL and the pre- and post-historical thinking activities, including when students made interpretations, considered historical perspectives, used evidence to form conclusions, and inferred based on literal and not visible evidence—the characteristics of inferring. During both the BHL observations and historical thinking activities students made inferences grounded in relevant evidence and/or prior knowledge, but there were also times when students relied on misinformation, misconceptions, and/or personal biases to make inferences. Both types of inferences, however, illustrate the students trying to engage this thinking skill and provide a better understanding of their processes.

Teacher modeling. As with the other three historical thinking skills, teacher modeling (and extended practice) is paramount for students to fully engage in inferring. During the BHL, however, specific modeling of inferring skills was scarce. The instructional emphasis, particularly during the individual exploration of artifacts was geared toward the identification of objects and not evidence-gathering or making historically relevant inferences. However, throughout the week students had numerous opportunities to draw conclusions, make interpretations, and subsequently infer information. How students made these interpretations and inferences varied, and they were primarily inferences unprompted by the teacher.

The only specific instance of teacher modeling I observed was on Friday during the "Family Photographs" activity. Students worked in small groups to examine a series of family photographs from different time periods. As part of this activity students responded to a series of questions, some of which engaged inferring skills. Those specific questions were: Who are these people? What are they doing? Are they related? What are they going to do next? Students had to

form conclusions (make inferences) based only on the evidence from each picture (although that did not prevent them from using their own experiences). Not only did students examine the details of each photograph, but they inferred information based on unseen evidence. For example, in an image of two young girls who were just standing side by side in a picture, the students inferred that they were playing together (even though there was no visible evidence of play). Ms. Barnes conducted a full-group discussion after the small group work and walked the students through these questions. Although she was not particularly explicit about why she was addressing those particular questions, Ms.Barnes modeled some of the thinking skills involved in inferring.

BHL observations. Students made inferences about objects or events throughout the BHL. These inferences were prompted during various presentations, and a few of them occurred while students carried out their individual explorations. As mentioned, some of these inferences were formed using relevant prior knowledge and/or available evidence (seen or unseen), while other inferences were made based on misconceptions, misinformation, or personal biases.

Ben. There were three instances I observed in which Ben made inferences during the BHL. In one example Ben used visible and "unseen" evidence, but also relied on prior knowledge (and experience from his pre-historical thinking activity about the Mackinac Bridge). In the second example Ben displayed an understanding of historical perspective. He listened to the Civil War presenter describe the conditions of slaves working in cotton fields and Ben suggested it was "mean" that slaves were denied the right to drink water whenever they wanted to. This was also one of the few examples I observed of historical empathy during either the BHL or the historical thinking activities. Finally, Ben made one inference during the "Beacons

and Bravery" presentation that relied on a presentist perspective, although it did demonstrate that he was trying to make a connection to the topic and it was offered without prompting from the presenter.

Evan. Evan made one inference that I observed during the BHL, specifically during the "Family Photographs" activity. In this example Evan relied on a presentist idea and did not use contextually relevant evidence, although he did try to employ what he thought was historically relevant information. Evan and another classmate argued about whether one of the individuals in the picture was a boy or a girl. The individual had short hair, was wearing a dress, and from the students' perspective, looked like a boy with short hair dressed in girl clothing. Evan concluded the individual was a boy arguing that, "boys could wear dresses." During a discussion with the three women in history presenters earlier in the day, one of the presenters mentioned that young boys sometimes wore dresses. That presenter was referring to the early twentieth century, while the picture in question was from the late 1960s.

Hailey. Hailey made four different inferences I observed during the BHL. In two of these instances she used visible and unseen evidence (about lighthouses) to make inferences about lighthouse architecture (for example, why lighthouses would need to be tall). In the other two instances she relied on misconceptions to make inferences. For example, she inferred that a series of letters in the Plowshares to Sword exhibit were from Abraham Lincoln when they were written by Austin Blair. Hailey likely knew who Lincoln was before the BHL, and she relied on this information before considering evidence from the letters (or surrounding artifacts). However, her inference is not surprising given the prominence of Lincoln in U.S. History in

relation to the Civil War and the likelihood that his letters might be on display at a history museum.

James. There were two examples I observed of James making inferences during the BHL. In one instance James relied on a misconception and not evidence to discuss the origins of a red tam from a United Auto Workers strike exhibit (he thought it was a Russian tam). However, in the other example, James clearly relied on available evidence from the galleries to make his inference. James chose a Civil War battery flag for his individual exploration on Wednesday and told me the flag was "For the artillery. And they didn't have tanks so they had to carry the other weapons." This inference demonstrated that he had explored the information and objects in the exhibit, including the labels about the flag, and considered unseen evidence, that is, he placed the flag into an appropriate historical context (before tanks were used in battle). It is also possible that James had prior knowledge about battery flags, given his interest in military history and related objects.

Krista. Krista offered relevant inferences four times that I observed during the BHL. During three of these instances Krista exhibited the use of prior knowledge, unseen evidence, and literal evidence in these instances. For example, Krista made inferences in the Plowshares to Swords exhibit about the drummer boy's drum and the vulnerability of sleeping in a canvas tent on a battlefield. During "One Room Schoolhouse" presentation Krista concluded that the Level 3 McGuffey Reader was for eighth grade because there were so many words she did not recognize or understand. She was also the first to suggest that the Level 3 may not have meant the grade level, which demonstrated she understood there was more than just the visible evidence

to make sense out of that artifact. However, one of Krista's inferences relied on a misconception about the Titanic being represented in a Michigan history museum.

Non-focal students. There were additional instances in which I observed non-focal students made inferences during the BHL. There were instances in which the inferences were formed around personal (presentist) biases. However, there were also instances when students used visible evidence, unseen evidence, and relevant prior knowledge to form conclusions about various sources. For example, while the students examined the "Michigan's Natural Resources" mural on the third floor, Ms. Barnes asked students, "What is the big idea of this mural?" She wanted students to make inferences about story of the mural. Tyler concluded that the big idea was "making things." Matthew concluded that the mural depicted "the circle of life." The mural depicted various Michigan industries and natural resources. Tyler used visible evidence (e.g., "the factory") to support his conclusion. Matthew relied on unseen evidence, specifically, there were features that contribute to supporting life (e.g., water, food) and livelihood (e.g., industry, the individual farming).

Historical thinking activities. There were numerous examples of students engaged in inferring during the historical thinking activities. Like in the BHL, the focal students made various inferences during both the Mackinac Bridge and Edmund Fitzgerald activities. All five focal students had more prior knowledge about the Mackinac Bridge than the Edmund Fitzgerald, but prior knowledge alone was not a deciding factor in the degree to which students made relevant inferences. The structure of the activities included questions that fostered each student's use of evidence, as well as how frequently they made conclusions from or about the sources. The inferring scores from the pre- and post-activities were consistently higher than both

the sourcing and contextualizing scores (Table 4). Four out of five students scored at the emerging level for their pre-activities, and four out of five students scored at the developing level for their post-activities.

Table 4

Historical Thinking Rubric Scores—Inferring

Focal Student	Pre Inferring	Post Inferring
Ben	2	3
Evan	1	3
Hailey	2	3
James	2	2
Krista	2	3

Note. 1=Beginning; 2=Emerging; 3=Developing

Inferring scores considered the degree to which students made interpretations using evidence from the source, acknowledged perspective and point of view, and considered the "unseen" as well as the "seen" (see Appendix H). Academic ability did not seem to be a factor in the results of these (or any of the other) scores. For example, Evan was the only student who had a Beginning score during his pre-activity and a Developing score during his post-activity. According to Ms. Barnes, Evan had the lowest academic achievement level of all five focal students, yet he arguably made greater gains than any of his peers (on this skill). James' scores were the only scores that remained unchanged, however, James' scores in *all* four skills remained static between pre- and post-activities. Ben, Evan, Hailey, and Krista each made gains in inferring between their pre- and post-activities.

Of the three characteristics of inferring, the strongest areas for all five students was in making interpretations using evidence, and considering the "unseen" as well as the "seen." The weakest area for all five students was considering point of view or perspective, a result consistent with the sourcing and contextualizing findings. In general, each student based interpretations and conclusions on evidence. Similarly, the students used their prior knowledge and experience in relevant (and sometimes non-relevant) ways as they made inferences about the sources. The clearest distinctions between students' pre- and post-activities was that students relied more on relevant (and specific) evidence and prior knowledge during their post-activities. The only exception was James who consistently referenced misinformation about the Mackinac Bridge during his post-activity. As a result, James was the only student who struggled to make inferences in his post-activity that used available evidence.

Ben. Ben's inferring score improved (from Emerging to Developing) between his pre-activity (Mackinac Bridge) and post-activity (Edmund Fitzgerald). The primary difference between these two activities was that Ben used specific evidence to make inferences during his post-activity, and he made several inferences without my prompting. Ben made two inferences that relied on misconceptions, but most of his inferences were logical and based on relevant prior knowledge (sometimes tied to the BHL), and visible and unseen evidence. Specifically, during the Mackinac Bridge activity Ben made inferences about which bridge it was and what the suspension cables were for. During the Edmund Fitzgerald activity Ben made inferences about the type of ship, the bell, the radar on board the ship, and how the ship crashed. For example, we had the following interaction when discussing the image of the Fitzgerald (from the first layer of the activity):

Alisa: What else do you see?

Ben: It's huge. It's orange, red, and black and white and yellow. And there's the giant thing [pointing to the captain's tower]. And I think it can, I think it's going to crash.

Alisa: Why do you think that?

Ben: I don't know. It's giant. The big boats crash easy. Remember what we learned at the museum?

Evan. Evan's inferring score improved from Beginning to Developing between his pre-activity (Mackinac Bridge), and post-activity (Edmund Fitzgerald). He was the only student who scored at the Beginning level during his pre-activity and scored at the Developing level during his post-activity. The biggest change between his pre- and post-activities was that Evan was able to offer inferences that were not prompted by me, and his inferences used specific (and mostly relevant) evidence. He also made several inferences using unseen evidence during his post-activity, which is something he did not do during his pre-activity. Specifically, during Evan's post-activity he made inferences about the ship's bell, the ship depicted in the newspaper article, the Fitzgerald's radar, and the ship itself. For example, as Evan examined the image in the newspaper article he concluded that the ship was the Fitzgerald and that it was broken in half, but went on to conclude how the ship's breaking in half would cause it to sink (i.e., the water enters the ship, the half with the engine would sink faster because of its weight). He stated, "The engine is in front, and that's where boats start to sink first." Evan used relevant prior knowledge, but also evidence from the image to support his conclusion.

Hailey. Hailey's score improved from Emerging to Developing between her pre-activity (Mackinac Bridge), and post-activity (Edmund Fitzgerald). The main distinction between the

two activities was that Hailey offered specific evidence from the sources to justify her conclusions made during the post-activity. She made one inference based on misunderstanding a word—she thought 'hail' meant weather instead of praise—and one that relied solely on her own opinion. However, most of her inferences relied on evidence from multiple sources and did not rely solely on the source(s) at hand. During her pre-activity Hailey made inferences about the bridge (primarily based on her prior knowledge) and why people were on the bridge. In her post-activity she made various inferences about the ship, the ship's bell, and the ship's radar. For example, after reading the book about the Edmund Fitzgerald Hailey made an inference about why the bell (from the second layer) was rusty. She concluded the bell was rusty "because it sank with the ship!" She used evidence from the book, which talked about how shiny the bell was, and that we knew the Fitzgerald did, in fact, sink with the bell attached to it.

James. James' inferring scores remained at the Emerging level between his pre-activity (Edmund Fitzgerald) and post-activity (Mackinac Bridge). He was the only student who scored at the emerging level for his post-activity, which was in large part due to the fact that he relied primarily on misinformation or misconceptions (not evidence) as he made inferences about the Mackinac Bridge. For example, he suggested the people standing on the bridge (in the first layer) were participating in the Bridge Walk[7] and maintained that conclusion throughout the activity. In his pre-activity James relied more on the available evidence and less on his opinion or misconceptions. James made inferences about the type of ship the Fitzgerald was, and about the ship's bell, during his pre-activity.

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[7] The Bridge Walk is an annual event in September when thousands of people walk across the bridge from St. Ignace in the Upper Peninsula to Mackinaw City in the Lower Peninsula. The Bridge Walk is traditionally led by the Governor of Michigan.

Krista. Krista's inferring score improved from Emerging to Developing between her pre-activity (Edmund Fitzgerald), and post-activity (Mackinac Bridge). The primary difference between Krista's two activities was that the inferences she made during her post-activity relied on more specific evidence within the sources. During her pre-activity, Krista relied more heavily on her own ideas (not necessarily situated in evidence) to support her conclusions. For example, assuming (in the first layer) the ship was an "old" houseboat and "might break like the Titanic" without supporting evidence. In her pre-activity Krista also made inferences about the origin of the ship's name and how the ship sank. For example, while we examined the sketch from the newspaper article Krista demonstrated how large waves might cause a boat to crash and sink. She suggested:

> Maybe huge waves and heavy waves split it in half and that's how it started to sink. Because it's kind of like when you lean over [the side] a boat and water starts coming through and putting weight on the boat, and it starts going down.

During Krista's post-activity she made relevant inferences about which bridge it was, the stamp, the danger of building the bridge, and why people were standing on the bridge.

Summary. Inferring requires the investigator to make logical conclusions, utilize evidence from the source, think beyond the visible/literal evidence, identify points of view and/or multiple perspectives, and make interpretations from the source. In short, it is a very challenging and sophisticated skill (and is far more complex than interpreting). There were numerous examples of students making inferences throughout the BHL and the historical thinking activities; some of these inferences relied on relevant evidence and prior knowledge, while others relied on non-relevant evidence, misinformation, or misconceptions. In both types

of inferences, however, the students were engaging different aspects of this thinking skill. Compared to sourcing and contextualizing, the degree to which students engaged in inferring during the BHL was more frequent and their rubric scores were also higher. Further, four out of five focal students' rubric scores improved from their pre- to post-historical activities.

Some of the inferences that students offered relied on relevant evidence (both visible and not visible) and prior knowledge (although their prior knowledge on these topics was limited). For example, Evan inferred that the setting for a photograph was Christmas morning before opening presents because (among other things) of the Christmas tree in the background, and James inferred that the rusty bell belonged to the Edmund Fitzgerald because of the name engraved on it. In these (and other similar inferences) the students only used their prior knowledge if it was relevant (and accurate), and they relied on both visible and unseen evidence available within the source or gallery. Additionally, there was not a consistent gallery, presentation, or source in which students consistently offered these types of inferences. For example, Krista used evidence and prior knowledge to infer the purpose of the Civil War drum in the Plowshares to Swords exhibit, but Hailey made an inaccurate inference that Austin Blair's letters belonged to Abraham Lincoln in the same exhibit. Similarly, during the Mackinac Bridge historical thinking activity Ben inferred that the purpose of the suspension cables was to hold the road, but during the same activity James inferred that the bridge was once a drawbridge.

There were also instances in which students offered inferences that relied either on details or evidence that was non-relevant to the source (or context), personal opinion, or misinformation. For example, James inferred that the red tam (belonging to a U.A.W. worker) was a Russian hat (a conclusion based on a video game), and Krista assumed the Edmund Fitzgerald was a

houseboat (a conclusion not based in evidence). Both of these examples illustrated instances in which students relied on their personal opinion or experience to make a conclusion rather than considering available evidence. Additionally, students made these types of inferences at various times; there was not a consistent setting (e.g., source, gallery).

One possible reason for this, particularly at the MHM, was that students did not have explicit or extended modeling of how to read artifacts/galleries in a museum. For example, students may not have known to read the labels (or they had difficulty reading the labels as they were written for a wide audience), or consider surrounding sources before making conclusions about an object. During the historical thinking activities the students had very limited information to draw from, which also may have contributed to these types of inferences.

There were, however, more inferences made by students during the historical thinking activities than during the BHL. The only instance I observed of teacher modeling of inferring occurred on the last day of the BHL, and the individual explorations that could have engaged this skill were primarily focused on object identification and labeling (not interpretation). In contrast, the historical thinking activities consistently positioned students to make inferences. For each source (layer) of both the Mackinac Bridge and Edmund Fitzgerald activities I asked students to consider the available evidence and make conclusions about each source. Thus, students had multiple opportunities to make inferences about a variety of different sources. The frequency, or practice, may have also contributed to the fact that four out of the five students' inferring scores improved between their pre- and post-activities.

The greatest challenge facing students as they made inferences during the BHL and the historical thinking activities was the degree to which they considered historical perspective.

Students did not engage historical perspective in either setting, aside from the few instances in which specific students briefly demonstrated historical empathy (as previously discussed). This was a challenge (and omission in their inferring) that was consistent with the sourcing and contextualizing findings, and may have been due to their limited content knowledge (specific to these topics). It would be difficult to engage a historical point of view without knowing the human or environmental factors involved. This may have also been because both the BHL and the historical thinking activities did little to specifically engage students in point of view, and this, like the other historical thinking skills, needs to be learned. Although the historical thinking activities implicitly included perspective, my analysis revealed that I did not consistently ask students to think about perspective, unlike other aspects of inferring—relying on evidence, forming conclusions—in which I consistently engaged students.

Students' prior knowledge played an interesting role in making inferences, as well. For example, their personal experiences with the Mackinac Bridge seemed to limit their consideration of evidence from the source. All five students had very little prior knowledge or experiences related to the Edmund Fitzgerald, but more consistently relied on evidence from the sources to make relevant inferences during that activity. In general, however, students often channeled relevant prior knowledge, used evidence from the sources, acknowledged/used the "unseen," and made interpretations.

Corroborating

Corroboration involves the examination and comparison of interpretations and important details across multiple sources to identify similarities or differences (NCHS, 1996; Wineburg, 1991a, 2001). To engage in corroboration, an investigator compares evidence from a variety of

sources in order to decide which sources are most appropriate given the finding and context (Drake & Brown, 2003; Hicks et al., 2004; Wineburg, 2001). Any contradictions identified among the sources should, ideally, be explored further (what information does the investigator need to fill in the gaps?). An important aspect of corroboration is the ability to distinguish between unsubstantiated opinion and hypotheses that are grounded in historical evidence (NCHS, 1996).

As a historical thinking skill, corroboration builds on each of the three aforementioned historical thinking skills. Corroboration builds on sourcing and contextualizing; historical context and sourcing both contribute to assessing the reliability, validity, and perspectives of sources being corroborated. It also builds on inferring, which fosters the interpretations and initial conclusions gleaned from a source. Corroboration is the capstone of historical thinking, and generally occurs after the investigator has examined (or been exposed to) a variety of relevant sources (Drake & Brown, 2003; Hicks et al., 2004; Wineburg, 2001). As such, it is the last historical thinking skill I discuss.

Corroboration, like all historical thinking skills, poses challenges for students, particularly for elementary students. Because corroboration relies on sourcing and contextualizing, the degree to which a student engages these skills might influence the conclusions they can draw after comparing sources. For example, if students do not recognize divergent perspectives between two sources, they may unduly dismiss the validity of both sources (Barton, 1997). The lack of content knowledge specific to the topics (likely due to limited exposure) may also affect the degree to which students are able to contextualize sources (Wineburg, 2001). Thus, they may not understand which sources are most appropriate (given the

historical context) to compare. Another challenge of corroboration, particularly for young learners, is the potential lack of experience in distinguishing unfounded opinion from evidence-based hypotheses (NCHS, 1996). Distinguishing opinion and evidence is, undoubtedly a skill unto itself that needs to be taught and practiced so students can use it to corroborate the reliability of sources.

This section explores the degree to which students engaged in corroboration during the BHL and historical thinking activities. That is, if and when students compared sources, identified similarities or differences among sources, substantiated previously made conclusions or made new conclusions, and offered new questions or avenues of exploration.

Teacher modeling. There was one specific instance I observed during the BHL in which Ms. Barnes explicitly modeled the thinking skills involved with corroboration. Specifically, she modeled how to compare and contrast seemingly disparate objects that might be pieces to the same story. Ms. Barnes modeled corroboration for the students (although she did not explicitly discuss when or why students might engage the skill) just after their explorations wherein they were sourcing artifacts (i.e. identifying purpose). As such, the modeling was not matched to the most immediate activity students had engaged in.

After students completed their individual explorations in the Plowshares to Swords exhibit, Ms. Barnes had all of the students sit down near a display of a woman's bust, some chains, and a bonnet. She asked the students, "Why would the museum put these three objects together?" The students made a connection between the woman's bust and the bonnet as a woman's hat, but they were unsure how the chains related to the other two. Ms. Barnes then defined 'abolitionist' for the students, pointed to and read the label about Laura Havelin (an

abolitionist from Michigan). She told students the chains had been cut off the neck of a slave after reaching freedom in the North, and the three items told the story of women's involvement in abolitionism in the nineteenth century. To model the corroboration process, students offered the initial connections among the objects and Ms. Barnes described how they contributed to the same story. During this example, Ms. Barnes primarily told a brief story about Laura Havelin and did not make the thinking skills particularly explicit for students.

BHL observations. During the BHL students spent hours in the galleries of the Museum through their individual and small group explorations, full-group activities and discussions, and docent-led presentations. Despite the amount of time spent in the galleries and looking at artifacts, the results of these observations suggest that students scarcely engaged in (visible) corroboration during the BHL. It is possible that students compared and contrasted objects/ sources at various times, and in my limited ability to observe every student at the same time I could have missed when it occurred. There were examples of students comparing and contrasting artifacts with their own experiences, but these did not occur in the context of corroborating a particular finding.

The only identifiable examples of students (potentially) engaged in corroboration were times when the students asked questions. Questions are an important aspect of corroboration, although asking questions does not exclusively entail (or result from) corroboration. When associated with corroboration asking questions signifies some gap in information after examining a variety of related sources. Although the students did not visibly participate in corroboration at the museum, they prolifically asked questions. These questions likely stemmed from curiosity—which is not insignificant—but Ms. Barnes also encouraged students to ask questions throughout

the BHL. For example as they viewed the lighthouse on the third floor she asked students, "What are you wondering?" There were other instances in which Ms. Barnes encouraged the students to ask questions about what they were seeing and experiencing.

Wednesday, before the Civil War presentation, Ms. Barnes asked students what questions they had about the Civil War. Some of the questions included: "What was the first gun made in the war?" (Ben), "I wonder how they got through the war, the ones that didn't die. How did they survive?" (Anna), "How many people were in the Civil War?" (Krista), and "How many people were lost?" (Ellie). After the presentation students asked questions like: "What happened to the other half of the flag?" (Evan), "What was the first flag in the museum?" (Ben), and "How heavy was [the cotton sack]?" (Connor). Thursday morning Ms. Barnes asked students what questions they had for Abel Peck himself. These questions included: "Why did you go to war when you had a daughter?" (Hailey), "Were you scared?" (Cora), "What kind of food did you eat during the Civil War?" (Krista), "Who carried the flag after Abel Peck?" (Ben), and "How did it feel to stand in front of the army?" (Molly).

Before the "Rights, Rivets, and Roasters" presentation on Friday Ms. Barnes asked students to write three questions they had for women in history. Students asked questions such as: "Who gave women the right to vote?" (Hailey), "How did they get their suitcases in the plane back then?" (Molly), and "What did they eta [eat]?" (Ben). After this presentation all three docents returned to the classroom with the class where students asked additional questions such as: "Why would the women [suffragettes] go to jail?" (Cora), "How did [boys from the 1950s] play the game [Davey Crockett] from the television?" (Matthew), and "Why would women try to not eat for days?" (Hailey).

Students' questions reflected their curiosity, and they may have also reflected one aspect of corroboration. I was not able to observe any explicit corroboration taking place, however, it is reasonable to suggest students were exhibiting some of the thinking processes that are reflective of corroboration. The fact that students did not receive explicit or extended modeling to learn how to corroborate may have contributed to their limited engagement with the skills. However, another cogent factor may have been the ways they did or did not engage the prior three thinking skills, all of which build up to and enhance the corroboration stage.

Historical thinking activities. There were numerous instances of corroboration during both pre- and post-historical thinking activities, due in large part to the structure of the activities. The structure of these activities (layered sources, tiered questions) was designed to foster cross-source examination and comparison. Although the structure was in place for students to compare sources, students independently made conclusions and often corroborated without my prompting. The results of this section indicate that students engaged corroboration using both sources from the activities and content from the MHM.

Similar to inferring, students' corroborating scores (for both pre- and post-activities) were consistently higher than either sourcing or contextualizing (Table 5). In fact, students' corroborating scores for both pre- and post-activities were, overall, the highest among all four historical thinking skills studied. Four out of five students scored at the emerging level during the pre-activity, the fifth student (James) scored developing. All five students scored at the developing level during the post-activity. Although all the scores were comparatively strong, James' scores remained unchanged between pre- and post-activities.

Table 5

Historical Thinking Rubric Scores—Corroborating

Focal Student	Pre Corroborating	Post Corroborating
Ben	2	3
Evan	2	3
Hailey	2	3
James	3	3
Krista	2	3

Note. 1=Beginning; 2=Emerging; 3=Developing

Corroborating scores were determined by the degree to which students considered: 1) similarities and differences between sources; 2) factors that created similarities or differences; 3) evidence to support conclusions; and 4) additional questions or possible sources (see Appendix H). All five students frequently engaged the first, third, and fourth skills/characteristics identified above, and all five students struggled to explore factors that created the similarities or differences. The fact that students struggled with the second characteristic is not particularly surprising given the findings of the other three historical thinking skills. That component of corroboration specifically requires the exploration of perspective and historical context, which was something students struggled with during the activities and during the BHL.

Ben. Ben's corroborating score improved from Emerging to Developing between his pre-activity (Mackinac Bridge) and post-activity (Edmund Fitzgerald). Frequency alone was not an indicator of the rubric, however, Ben compared the similarities and differences between the Edmund Fitzgerald sources more than during his pre-activity. Subsequently, during his post-

activity Ben offered more conclusions, relied more on the evidence among the sources in the activity, and also used information from BHL presentations.

During his pre-activity Ben corroborated the sources to make conclusions about why people were standing on the bridge (in the first layer), and when the bridge was built. During Ben's post-activity he corroborated the sources, for example, to make conclusions about the ship, the ship's bell, and how the ship crashed. He also referenced the "Beacons and Bravery" presentation as he discussed how waves could cause a ship to sink. Although students asked questions throughout the activities, I structured them so students could pose culminating questions, which might signal gaps in information. Ben wondered, for example, "Why did they connect the two peninsula thingies?" in reference to the Mackinac Bridge, and "How did they find the bell on the ship after it sank?" He also suggested that we could use "the Internet! Or we could go to a museum! Or reading!" as additional sources for these topics.

Evan. Evan's corroborating score improved from Emerging to Developing between his pre-activity (Mackinac Bridge) and post-activity (Edmund Fitzgerald). In both his pre- and post-activities Evan made connections among the sources. In his post-activity Evan also expanded on those connections and considered specific evidence to support his conclusions, while in his pre-activity Evan rarely expanded on the connections or used evidence to support his conclusions. For example, when reading the book about the Mackinac Bridge, Even pointed to an image from the book that depicted the same event (cars going across the bridge for the first time) as the first image/layer of the activity. When I asked him to expand on his conclusion he offered, "It just looks like it." In contrast, during his post-activity Evan corroborated the sources to conclude that the ship in the first layer, the newspaper sketch, and the book were all the Fitzgerald. He pointed

out specific features of the ships depicted in each source to support his conclusion. Like Ben, Evan also referenced an artifact from the MHM during his post-activity (a wooden cargo ship in the maritime display).

Evan also posed questions at the end of each activity. For example, at the end of the Fitzgerald activity he wondered how old and how heavy the bell was, but he also wondered "How long was the Titanic?" The Titanic seemed to be a frame of reference for Evan (and others) during this activity, likely because it was the only other shipwreck he had prior knowledge about.

Hailey. Hailey's corroborating scores improved from Emerging to Developing between her pre-activity (Mackinac Bridge) and post-activity (Edmund Fitzgerald). Hailey made comparisons among the sources of the two different activities, but during her post-activity she extended her comparisons and included specific evidence from the sources to confirm her conclusions. When Hailey corroborated sources during her pre-activity she did not, generally, include specific evidence from the sources or expand on the connections among them. Hailey also considered whether we could trust the information of the sources during her post-activity. She thought we could likely trust the information in the Fitzgerald book because we could compare the details to the newspaper article and the other pictures:

Alisa: Do you think we can trust the information in this book?

Hailey: Yes. Probably.

Alisa: Why?

Hailey: I mean, it might be realistic fiction.

Alisa: What if we compare it to the other pictures or the news article?

Hailey: Yeah, I think it's real.

Alisa: Why?

Hailey: We have some other things that tell us the same thing as the story. [Pointing to the newspaper article and the first image of the Fitzgerald.]

When I prompted her to think about it, Hailey suggested we could use the Internet or another book to find more information about the Fitzgerald. And she was the only student who suggested that if we used more sources "we might just have more questions." Hailey had some sense that there was more information than what any one source could provide.

James. James was the only student who scored Developing on both his pre-activity (Edmund Fitzgerald) and his post-activity (Mackinac Bridge). James' rubric scores for each of the historical thinking skills remained static between his pre-activity and post-activity, however, his corroborating score was the highest overall. Throughout both activities James corroborated the similarities and differences among the sources, but he also frequently expanded on those connections. James also had a tendency to blur fact and opinion during his post-activity about the Mackinac Bridge. This was consistent with his inferring score wherein he struggled to make relevant inferences because of his reliance on personal opinion.

During his pre-activity James corroborated the sources to make conclusions about the name and condition of the bell, and the shipwreck. For example, the last sentence of the Fitzgerald book read, "The great ship had plunged to the bottom so fast that no one may ever be sure what caused it to sink" (Wargin, 2003). After I read this sentence to James and Krista, James replied, "Oh, we know," then pointed to the newspaper article that discussed the "Three Sisters waves" and said, "The water." During his post-activity James made conclusions about

the type of bridge, why there were people on the bridge, and why the bridge was built. He was the only student who challenged information provided by any of the sources. Specifically, James challenged the fact that the Mackinac Bridge was (at the time it was built) the longest suspension bridge in the world. He thought it was the Golden Gate Bridge. Similarly, James suggested we could only trust "some of the things" in the sources, the things we knew were "true" (e.g., could see) like the bridge and the ferry boats. James was the only student to suggest a historical site (Whitefish Point) as an additional resource for our topics.

Krista. Krista's corroborating score improved from Emerging to Developing between her pre-activity (Edmund Fitzgerald) and post-activity (Mackinac Bridge). Krista corroborated the sources in both activities, but in her pre-activity Krista did not necessarily expand on the connections she made among the sources, and there was one instance when she made a conclusion based primarily on her own opinion. Krista did not corroborate sources as frequently in either activity when compared to her peers. In her post-activity, however, she used more specific (and relevant) evidence to corroborate her findings and demonstrated some understanding about the reliability of sources.

During Krista's pre-activity she corroborated the sources to form conclusions about the ship's bell, its name, and how the ship sank. During her post-activity she formed conclusions about the type of bridge (she compared it to the London Bridge), the cars on the bridge, and why there were people on the bridge (in the first image/layer). To form this last conclusion she initially suggested the people were waiting for taxis after reading the newspaper article (third layer). Then when we read the book that showed a similar image and specifically talked about a parade, she used the similar features of both images to conclude the first image was a celebration

and the first time cars went across the bridge. At the end of both activities Krista asked questions about the sources/topics. For example, she asked, "Was the Edmund Fitzgerald like the Titanic?" and "Did the cargo get to where it needed to go?" and "How did they make the road for the bridge?"

Summary. Corroboration requires identifying appropriate connections, similarities, and differences among sources; questioning the validity of a source; making evidence-based conclusions; distinguishing fact from opinion; and asking new questions and suggesting additional sources. Corroborating offered inconsistent findings between the BHL and the historical thinking activities. There were few instances of students corroborating during the BHL, and those instances only reflected one aspect of corroboration (asking questions). In contrast, there were numerous examples of students corroborating during the historical thinking activities, and students engaged various aspects of corroboration (comparing and contrasting, using evidence, identifying additional resources).

The most compelling reason for this difference was the degree to which the skills of corroboration were structured into the two different settings. Corroboration was not explicitly structured into the BHL, but it was explicitly structured in the historical thinking activities. Each focal student corroborated sources during both the Mackinac Bridge and Edmund Fitzgerald activities. Corroborating was, overall, the highest scoring historical thinking skill. Each focal student demonstrated a more sophisticated engagement with this skill than with any of the other historical thinking skills (based on their rubric scores and evidence from their individual activities). In general, the students relied more on evidence than personal opinion to compare the sources and make or confirm previous conclusions. The structure of the activity arguably

fostered the comparison among sources, and students frequently exhibited corroboration independent of what I or the activity positioned them to do.

In general, the students had little difficulty comparing and contrasting sources and making conclusions during the historical thinking activities, but they rarely offered suggestions as to *why* sources may have differed (or been the same). This reflects the similar challenges they faced with sourcing and contextualizing (i.e., understanding perspective and historical context). The students also had difficulty examining the validity of sources (only a few students questioned the validity of any of the sources we explored). This finding potentially reflects the ways in which historical texts are positioned with authority in schools (Bain, 2006; Barton, 1997; Epstein, 1994; Gabella, 1994; Wineburg, 1991b) and a tendency among elementary students to treat all historical sources equally (Barton, 1997).

Of the four historical thinking skills in this study, corroboration was the least prominent among students during the BHL. Ms. Barnes modeled the skill briefly on Wednesday, but there was little relationship between this modeling and students openly corroborating sources; the modeling was also not explicit nor was it extended. The students also did not have sustained practice with corroborating. Ms. Barnes consistently encouraged students to ask questions throughout the week, and asking questions is an important component of corroboration. Questions can emerge from conclusions, or the inability to make conclusions because more information is needed. In this way, it is possible to suggest that while students did not demonstrate corroboration skills during the BHL, some corroboration may have taken place mentally among the students. As the capstone of historical thinking, the students likely needed more explicit modeling and practice to engage this skill. Each day of the BHL there were

numerous activities to manage, and perhaps because this was Ms. Barnes' first time participating in the BHL she may have missed opportunities to extend students' skills after modeling them.

Collective Analysis of Historical Thinking Skills

In this final section I discuss general themes of how and when the students enacted the four historical thinking skills during the BHL and the historical thinking activities. Specifically, I discuss three main themes, which I return to in Chapter 6: 1) how the interconnectedness among the four skills influences the enactment of each skill; 2) the similarities among the strengths and weaknesses of each skill; and 3) the role of context in influencing students' use of the skills. As a reminder all students but one (whose score was unchanged) improved between the pre-activity and the post-activity, and the two skills in which there was greatest improvement across the students were inferring and corroborating.

First, there is a symbiotic relationship between and among these skills, and the findings from this study support this interconnectedness. For example, historical perspective plays a key role in the enactment of each of these skills. Thus, if students were unable to establish a historical perspective (e.g., authorship) while they engaged in sourcing they generally did not rely on (or again indicate) any type of historical perspective as they made inferences. The students sourcing and contextualizing scores did not improve much (if at all) between pre- and post-activities), however, they did make gains in the (technically more difficult) skills of inferring and corroborating. The juxtaposition of the different skills reflects, to some degree, the role of specific content knowledge (or at least exposure) in engaging these skills. The students in this study were just starting their third-grade year and Michigan history curriculum. As such, it was clear (in both the BHL and the historical thinking activities) that they had little content

knowledge specific to the areas they studied. Such content knowledge, in addition to modeling and experience, would have supported their contextualizing and their understanding of authorship, intention, or audience (sourcing).

Although there were limitations to students' inferring and corroborating (somewhat due to their weaknesses in sourcing and contextualizing as discussed below), the students made frequent inferences during the BHL and historical thinking activities. Students were also adept at corroborating during the historical thinking activities. Inferring and corroborating are supported by contextual and/or content knowledge, but they do not rely exclusively on this type of knowledge. These two arguably more complex thinking skills engage a variety of processes (e.g., compare and contrast, evidence use, interpretation, questioning) in which students demonstrated particular potential.

Another way this symbiosis manifests among the historical thinking skills is how they rely on each other to develop more comprehensive understandings of an historical event/time/source. The results of this study suggest that students' corroboration, in particular, relied heavily on the degree to which they engaged sourcing, contextualizing, and inferring. During the BHL student corroboration was almost non-existent, which reflected how frequently (and to what degree) they engaged in sourcing, contextualizing, and/or inferring, and/or the way students viewed the artifacts as valid because they were in a museum (therefore no need to substantiate them). On the other hand, during the historical thinking activities the students frequently engaged in corroboration, but the structure of the activity supported this engagement by consistently engaging them with the other three skills, as well. As the capstone of historical

thinking, corroboration builds on the evidence, data, and thinking involved in the other three skills.

Second, there were similarities in the strengths and weaknesses among the historical thinking skills. These findings were consistent among all five focal students, although there was some variation with *when* students exhibited these strengths or weaknesses. For example, James frequently relied on his personal opinion/bias or misconceptions during the Mackinac Bridge activity, but relied on evidence during his Edmund Fitzgerald activity. Krista, on the other hand, relied on evidence and prior knowledge during her Mackinac Bridge activity, but inserted more of her personal opinion during the Edmund Fitzgerald activity.

During the BHL and the historical thinking activities the students exhibited similar strengths while enacting different historical thinking skills. Specifically, the students demonstrated strengths in comparing and contrasting sources, establishing general distinctions between past and present contexts, using their prior knowledge, using evidence, and asking questions. For example, one of the primary distinctions between students' pre- and post-activity inferring scores was the degree to which they relied on evidence (both seen and unseen) to support their conclusions. Similarly, toward the end of the BHL week students more consistently used evidence to support their inferences about various artifacts (e.g., during the "Family Photographs" and "Michigan's Natural Resources Mural" activities).

There were also consistent weaknesses among the students' use of the four historical thinking skills. Specifically, the students struggled to establish specific historical contexts and intentions, consider historical perspective or bias, and bridle their own perspective or bias. For example, during the BHL it was evident the students did not have a historical understanding of

the early nineteenth century as they made conclusions about schooling during that time period. Similarly, during the Mackinac Bridge historical thinking activity the students had difficulty moving beyond a general distinction of the time period (1950s) as classified by, for example, "old fashioned" cars or black and white photographs.

Last, the degree to which the historical thinking skills were structured into the activities and contexts played an important role in their use by the students. Comparing the BHL experience to the historical thinking activities, there was a stronger relationship between the historical thinking activities and students' historical thinking skills because those activities were specifically structured to foster each skill. Although my study does not allow me to assert a causal relationship between the BHL and the development of students' historical thinking skills, it was clear that students did engage these skills to varying degrees during the BHL.

There was also some cross-over between the BHL and the historical thinking activities, particularly for the ways in which students engaged sourcing, contextualizing, and inferring. For example, whether students could identify/name an object/source (in both contexts) affected the degree to which they engaged each skill. Evan, for example, could not identify the stamp during his pre-activity, thus he made very few observations about the stamp or its relationship to the other artifacts. Similarly, during the BHL students tended to choose familiar artifacts for their individual explorations, even if the artifacts looked somewhat different than what they were used to (e.g., a 1950s television or 1940s refrigerator).

During both the BHL and the historical thinking activities students were exposed to countless new sources, and they were arguably in situations that required them to exercise new skills. However, more purposeful modeling of these skills during the BHL may have fostered

more refinement of the skills among students in that setting. Indeed, the results of the historical thinking activities suggest that consistent modeling and having opportunities to practice these critical thinking skills fostered some skill refinement among students. Thus, the results of this chapter are not without limitations, but they provide an important illustration of the ways in which third-grade students can think historically—both in "authentic" settings of the museum and in structured tasks.

Chapter 6

Discussion

> *The image of good [history] teaching ... is one that is grounded in subject matter. It is a disciplinary conception of history teaching that presupposes that one major goal for teaching history is the communication of historical knowledge—the central facts, concepts, and ideas of the discipline-–and the nature of the methods employed by historians ....*
>
> — Wilson, 1991, p. 101

> *No one flunks a museum.*
>
> — Frank Oppenheimer, as quoted in Cole, 2009, p. 17

Museums and schools are very different places, yet both strive to provide students with valuable learning experiences. Historical thinking, or doing the work of historians as Wilson (1991) posited, is integral to engaging students in history instruction that is grounded in content and skills that are valuable beyond the scope of any one history unit. To engage students with methods that reflect "doing history" provides them with the opportunity to be in the proverbial driver's seat to investigate historical people, places, and events, and therefore build historical knowledge. Student-centered learning, however, is not isolated to school settings. Students who visit museums have vast opportunities to build knowledge and make connections to the past. One of the greatest strengths of learning in a museum is the freedom with which a student might explore and build this knowledge. Oppenheimer—who founded the Exploratorium in San

Francisco, California—succinctly represented not only the benefits of learning within museums, but arguably the seduction of the space, as well.

Two main purposes drive this study. The first is to describe what students do during a weeklong immersion museum history program (in particular, the BIG History Lesson, at the Michigan Historical Museum), specifically focusing on the activities, their responses to the activities, and how their historical thinking skills are evident as they explore the museum's artifacts. During the BHL students were exposed to a variety of Michigan history topics during (mostly) student-centered activities, asked numerous historically relevant questions, and remained enthusiastic and visibly engaged throughout the week. However, there were also missed opportunities wherein the students' learning could have been expanded (e.g., through reflection), and where they could have built connections within the museum and to their own learning or prior knowledge. The steady stream of activities and brief instances of teacher modeling seemed to be factors in these missed opportunities, as did the limited experience this teacher had in teaching social studies and limited professional development she received to use the museum effectively. Throughout the BHL students were enthusiastic and actively involved, and Ms. Barnes stated that her goals for participating in the museum were met.

The second purpose of this study is to explore elementary students'—specifically third-graders'—use of historical thinking skills generally, and during the BIG History Lesson. I was interested in learning both the ways their skills might have changed over the course of the week, as well as whether, and the degree to which, students began applying these historical thinking skills in practice. The findings are complex: for the most part, the students demonstrated growth in their use of historical thinking skills when prompted during the activities. However, the

students did not display these skills as often as I expected during the BHL. For example, when examining artifacts at the museum, with the exception of one student they did not—on their own—ask questions about the origin, purpose, or author of the artifacts. Further, they did not tend to assess the validity of the artifacts, which may reflect the authority that some students ascribe to historical texts and objects (Bain, 2006; NCHS, 1996; Seixas, 2000; Trofanenko, 2006; Wineburg, 1991b), and museums (Hooper-Greenhill, 1999; Trofanenko, 2006). The primary differences between the two contexts, and thereby the differences in how students used historical thinking skills, seemed to be the degree to which the skills were scaffolded into the process.

In this chapter I situate the findings from my study in the literature on museum education and elementary students' historical thinking. I show how my study both builds upon and extends the current knowledge base. I then present the limitations of my study, offer recommendations for practice, and suggest future areas of research. Finally, I conclude by explaining the educational significance of this study.

Summary of Findings

The BIG History Lesson. As an immersion museum program wherein students participated for five consecutive days, the BHL undoubtedly provided numerous and diverse opportunities for elementary students to engage with historical content. The BHL is quite unlike typical school field trips that spend a few hours (at most) exploring an entire museum, and it is also quite unlike the school classroom. Indeed, museums are free from the constraints of traditional schooling, and therefore able to encourage unique pathways of learning (Hein, 1998; Hein, 1999; Hooper-Greenhill, 1999; Melber & Abraham, 1999).

The students were invited to learn history using the museum in myriad ways. For example, the students experienced one docent- or historian-led presentation each day of the BHL. Students can certainly experience (invited) expert presentations at school, but these are arguably few and far between, or might be during a school-wide assembly. During the BHL presentations students were surrounded by artifacts, and/or in spaces designed to re-create particular points in time (e.g., 1920s street scene), which is unquestionably different from the contexts of most in-school presentations. As such, it provided students with opportunities for engagement with history by, for example, being able to ask and receive answers to questions or explore an artifact of their choosing. The BHL illustrates the diversity of experiences students can have exploring and learning history in a museum.

The students in this study remained interested and enthusiastic throughout the BHL, which, at the very least, speaks to the students' enjoyment of and engagement in the space (Falk & Dierking, 2000). Further, the BHL (as configured by the teacher in this study) was activity-driven, which had both strengths and limitations. One obvious strength of the almost constant string of activities was that students were continuously involved in a new activity and/or with new content. The students were interested, highly engaged, and attentive throughout these activity sequences. Another strength was the variety in the types of activities (e.g., hands-on, exploratory) students participated in during the BHL. Experiential learning (Dewey, 1997) activities play an important role in museum trips/programs (Anderson, 1999; Connolly, et al., 2006; Cox-Petersen & Pfaffinger, 1998; Falk & Dierking, 2000; Finson & Enochs, 1987; Griffin & Priest, 1997; Hein, 1998, 1999, 2004). These types of activities have the potential to foster deep levels of cognitive engagement and attention among students during a museum experience

(Connolly et al., 2006; Finson & Enochs, 1987; Griffin & Priest, 1997). Further, research suggests that students make cognitive learning gains in museum programs (or visits) that are more structured (i.e., docent tours) than a casual visit might be (Stronck, 1983). The students in this study were, in many ways, positioned to be immersed in historical content as structured by these various activities. These activities and the constant move from one activity to the next held students' attention and fostered their curiosity and engagement throughout the BHL.

As Rosenzweig and Thelen (1998) discovered by interviewing Americans, there are seemingly natural ways that individuals engage with and try to understand the past. Specifically, people tend to use their personal (and/or familial) experiences to understand the past. This sense-making approach was apparent among students throughout this study. For example, during the historical thinking activity about the Mackinac Bridge Ben, James, and Krista each shared a story about when they visited the bridge with their respective families. And during the BHL, the students made various connections between their school experiences and the history presented in the One Room Schoolhouse. The limitation for the students, as Rosenzweig and Thelen (1998) similarly noted from their survey respondents, was reaching beyond these familiar realms to understand the unfamiliar. As a pedagogical framework, historical thinking skills provide the structure that guides students through a process of understanding the unfamiliar past. Additionally historical thinking is an active learning approach encompassing skills that put students at the center of the learning process instead of situating them as passive consumers of the unknown. The relationship between activity and structure provides fertile ground for students to move beyond the familiar (which, as Roszenweig and Thelen noted, can be both constraining and helpful).

During the BHL students had the opportunity to exercise choice in their learning. Although students might have choice during particular activities or topics in the classroom (e.g., independent reading time), choice plays a unique role in museum education. Indeed it is a strength that museums can offer choice and visitor/student autonomy in ways schools cannot (Falk & Dierking, 2000; Griffin, 2004). Although the students did not have the opportunity to choose *which* activities they wanted to participate in, or in what order, they had choice within some of the activities. Most notably, the students could choose, based on their interests, which galleries (notwithstanding Ms. Barnes' reasonable logistical constraints) and artifacts they wanted to explore during their individual explorations each day. When choices are equitable they foster student learning and engagement by supporting students' diverse interests, but choice can also foster students' motivation to learn (Brophy, 2010). Inquiry-based and free-choice learning activities can be particularly generative of student engagement and learning (Anderson, 1999; Connolly et al., 2006; Falk & Dierking, 2000; Gregg & Leinhardt, 2002; Wunder, 2002). This study provides an illustration of some of the ways students (at the very least) remained engaged when they were provided with choice in their learning at the museum.

In addition to the many strengths of the variety and amount of BHL activities, there were also a few limitations to this approach. For example, there seemed to be a mismatch between the time allotment and goals for certain activities. Similarly, there were presentations that seemed to stretch a few students' attention spans (e.g., one and a half hours of the Women in History presentation). Another limitation was the time constraints of the schedule of activities. Whereas Ms. Barnes consistently engaged and facilitated various types of activities for students, there seemed to be little time for modeling (by design or by choice) of how to engage with the space or

the activities within the space (e.g., individual explorations). The learning experiences that students have in museums can also foster substantive connections for students to school curriculum and personal experiences. However, the role of the teacher in facilitating these types of learning-oriented experiences (rather than simply task-oriented) experiences is vital for students to make these personal or curricular connections.

The amount and types of activities students participated in during the BHL had a complicated outcome. Ms. Barnes' goals for the BHL did not include historical content knowledge, although it was clear that she wanted her students to learn something—something having to do with history (she talked about the importance of students developing a foundation upon which to draw throughout the school year). I have little doubt that students did, in fact, learn *something* about history during the BHL, but it was clear that the activities they participated in, or how they were facilitated, did not foster the deep levels of cognitive engagement that are possible within a museum.

The environment of the BHL undoubtedly fostered students' curiosity. However, students' use of historical thinking skills was sporadic and inconsistent. Although historical thinking skills were not part of her explicit goals for the week, Ms. Barnes modeled each of the four skills at least once for students during the BHL. Unfortunately, these instances of modeling were isolated and not supported with student practice. The students did not have the opportunity to refine or understand the importance of these skills when exploring history, and did not use these skills frequently. Without explicit or extended modeling (ideally beforehand) the students did not consistently use historical thinking skills during the BHL. Further, this type of modeling should, ideally, occur (or at least start) before the BHL. As Alleman and Brophy (1993) suggest,

new skills and new content should not be taught simultaneously. Because historical thinking skills are "unnatural" (Wineburg, 2001), explicit and extended modeling, coupled with numerous opportunities to practice, is critical for students (Levstik & Barton, 2011; Levstik & Smith, 1996; VanSledright, 2002; VanSledright & Brophy, 1992; VanSledright & Frankes, 2000). The importance of teacher modeling of historical inquiry skills is well-situated in the literature, but this study extends the conversation to museum settings.

Ms. Barnes hoped that participating in the BHL would provide a foundational experience for her students, one in which they could refer to individually and collectively for the rest of the year. One unique characteristic of the BHL was the actual time spent during the program (and subsequently exploring history). Students participated in roughly 25 hours of history instruction during the BHL, which is as much as they would get in at least 12 weeks during the school year. This group of students received two hours of social studies each week, but that time was not just devoted to history instruction. The amount (let alone substance) of social studies instruction these students received in school was not unique. Various studies have demonstrated that elementary social studies is taught from two or three days per week, to only 30 minutes or less per week, or not at all (Brophy & Alleman, 2008; Burroughs et al., 2005; Levstik, 2008; Rock et al, 2006; VanFossen, 2005). The very nature of having time to engage with history fostered questions and conversations among the students (about historical topics or artifacts) that may not have occurred otherwise considering the time constraints (and lack of emphasis) on teaching history (or social studies more broadly) in the classroom. Thus, students were being exposed to more history content at the beginning of the year than they might have over the course of several months.

Although I did not conduct a longitudinal study to examine the degree to which this was a foundational learning experience, it was evident in the focal students' post-interviews and activities that they had gained new knowledge and remained excited about the BHL and the museum. I asked each student to tell me anything he or she remembered about the museum. Ben, for example, recalled everything from minute details like the drink bucket and "feti bag" in the One Room Schoolhouse, to a detailed description of the beach apparatus drill and seeing Abel Peck's flag. His favorite presentation was "Rosie the Riveter," and he recalled various details about women going to work during the 1940s. Evan recalled, among other things, the "big wheels," various details about the mine, and what you could buy for 50 cents during the 1950s. Evan mentioned his favorite parts of the whole week were seeing Abel Peck's flag and playing the childhood games. Krista's favorite part of the BHL was the One Room Schoolhouse (and related presentation). She described many details of that gallery, but also discussed how they compared to a real one room schoolhouse she had been to near her grandmother's house in northern Michigan. Each of the five focal students recalled numerous facts, details, galleries, activities, and presentations from the BHL, and shared individualized responses, but they did not recall any big ideas or discuss major understandings based on their experiences during the BHL. These interviews occurred only one week after the BHL, so it was probably still fresh in their minds. However, we know that museum experiences tend to be generative and long-lasting (Bielick & Karns, 1998; Falk & Dierking, 1997), and it was clear from these students that there were many memorable moments from their week at the MHM.

Despite the many interesting and exciting activities and opportunities students had to engage with history during the BHL, there were types of learning activities that were noticeably

absent during this BHL, specifically, activities that engaged students in reflection (or "processing" to use Ms. Barnes' language). One of Ms. Barnes goals for the BHL was to engage students in questioning and wondering about the past, but also to help them develop metacognitive awareness (e.g., having students explain their answers). Students asked many questions throughout the BHL and wondered about many historical topics or artifacts, but it was less clear that students were developing this metacognitive awareness. To be sure, metacognitive awareness (and cognitive engagement more broadly) is fostered through opportunities to reflect on learning experiences (Bonk & Cunningham, 1998). Further, reflective opportunities can occur individually or within a group (Bielaczyc & Collins, 1999; Bonk & Cunningham, 1998). There were a few times during the BHL when Ms. Barnes paused to have students think about their experiences (e.g., "circle shares"), but these moments were focused on what students liked or wondered about the museum, not particularly what they were learning. These "circle shares" were valuable in gauging students' interests, and seemed to be an opportune time to try to engage students in more thoughtful reflection on what they were learning. Ms. Barnes herself stated, "Another year I would hope I could get more of that processing activity. I felt like we were so busy trying to get activities accomplished that I would like more time for the processing."

Ms. Barnes stated that she wanted to expose students to Michigan history during the BHL, and there is little doubt that this goal was met. In five days these third-grade students participated in broad exposure to topics, people, places, and events within Michigan history. Although there is potential within the BHL structure to foster deep cognitive engagement or specific content retention among students, this particular BHL experience had different goals.

Despite the missed opportunities for students to receive explicit skill-based instruction or reflect on their learning, this does highlight a strength of the BHL. Teachers who participate in the BHL have the autonomy to design the week using the activities and presenters (mostly) of their choosing. In this way the teacher can align his or her unique goals for participating with the experience; the teacher is not trying to force the BHL into his or her curriculum, or vice versa. And because of the length of the program, the BHL is an investment for teachers rather than a quick break from school learning (as might be typical with "roller skate" tour field trips).

Students' historical thinking skills. For over one hundred years, historical inquiry has been at the heart of history education reform movements (see Committee of Ten on Secondary School Studies, 1893; The Bradley Commission on History in Schools, 1989; NCHS, 1996). The types of thinking processes and skills that historians engage when investigating the past have even been written about by historians themselves (e.g., Novick, 1988). However, the process of historical inquiry has not found its way into elementary schools as an instructional model the way, for example, scientific inquiry has. As such, history teaching in elementary schools is still very much entrenched in rote memorization of "linear" events (Cuban, 1991; Seixas, 1999), facts and textbooks (Brophy & Alleman, 2008; Levstik, 2008), and "collective memory" or "heritage history" (Lowenthal, 1998; Seixas, 2000; Von Borries, 2000). These entrenched approaches to history education position students as passive consumers rather than active agents within the process of learning about the past (Barton, 1996; Levstik, 2008; Segall, 1999; VanSledright, 2011).

In contrast, historical thinking (as a method of historical inquiry) situates students at the center of knowledge creation. Indeed, much research supports the use of historical thinking

skills with students (Bain, 2005; Brophy & Alleman, 2006; Levstik & Barton, 2011; VanSledright, 2002; Wineburg, 2000), and even with elementary students. This study examined the varied successes of engaging third-grade students with historical thinking during structured activities and during the BHL experience. Because of the students' grade level (third) and students from varied academic abilities and backgrounds, this study is uniquely situated within the literature. Although Ms. Barnes did not explicitly include historical thinking skills in her goals for participating in the BHL, I examined if/how/when students might engage these skills in that more "authentic" history learning environment. Students can, undoubtedly have authentic learning experiences in the classroom, but the disciplinary work of historians engenders an image of being entrenched in artifacts and historical sources as is possible within a museum.

On the other hand, students exhibited more consistent use of historical thinking skills during the pre- and post-historical thinking activities than they did when exploring in the museum. This finding is not completely surprising given the nature of the activities, which were designed specifically to engage students in these skills (Levstik & Smith, 1996; VanSledright, 2002). However, because these were third-grade students this finding does extend previous studies of older elementary students (e.g., fourth and fifth grade) to this younger grade level, and contributes to what Levstik & Smith (1996) found studying "gifted and talented" third-grade students. Although I did not provide explicit modeling of each skill structuring the questions and probing students' thinking—if I would have the students' use of these skills may have further benefitted—the structure of each activity provided multiple opportunities for students to engage in sourcing, contextualizing, inferring, and corroborating various artifacts. The students were situated quite differently between the two contexts (VanSledright & Frankes, 2000), and the

results of this study (including students' post-assessment scores) suggest that students engaged historical thinking more adeptly and frequently during the historical thinking activities than during the BHL. These skills did not necessarily become systematic for the students, but there was generally progress between the pre- and post-activities. And even though the activities were isolated from the classroom environment or curriculum, that is I took students out of the classroom to conduct the activities, the students were able to engage in this type of historical inquiry. Prior research about elementary students' historical thinking (more holistically) has typically been longitudinal (such as over a full school year) (e.g., Levstik & Smith, 1996; VanSledright, 2002; VanSledright & Frankes, 2000), but even as a short-term study these results (from the historical thinking activities) highlight the importance and generative results of scaffolding these skills for students.

Despite the divergent contexts (Melber & Abraham, 1999; Hein, 1998; Hein, 1999; Hooper-Greenhill, 1999) wherein I examined students' historical thinking, there were similarities in how students used historical thinking skills between these two contexts. For example, in both contexts—the museum and the historical thinking activities—the students struggled to consider the immediate or broader historical context of a source. This was more surprising during the BHL where students were immersed in Michigan history than during the historical thinking activities, which were isolated from their history/social studies instruction (and conducted in random rooms at the school). Although these students had not yet received much formal history (or social studies) instruction before the BHL, I expected they would use the historical contexts, as defined by the galleries, more than they did. This assumption may have been unfounded considering students' lack of preparation for knowing how to read the museum space, but also

perhaps because the BHL was not structured with particular emphasis on developing deeper understandings of these time periods.

During the historical thinking activities, however, I did not expect the students to consider specific historical contexts because of the decontextualized nature of the activities. I assumed that students would not have specific content knowledge, aside from prior knowledge or experience (VanSledright & Kelly, 1998), and therefore only asked them to contextualize the sources in each activity using general distinctions. My analysis revealed that I did not push students to think beyond these general constructs, and perhaps as a result, only two students did so. Students' contextualizing scores were the weakest of all four skills, but it was evident that, even considering their potential lack of knowledge about the topics, I did not engage students in contextualizing to the degree that I engaged them with the other three skills. However, despite the limitations in how I engaged students in contextualizing, it was evident that they could broadly contextualize (even without specific content knowledge) (Barton & Levstik, 1996).

Another similarity with how the students engaged historical thinking in both the BHL and during the historical thinking activities was that students struggled to identify historical perspective and bias (Barton & Levstik, 2005; Brophy & Alleman, 2006; Seixas, 2000; VanSledright, 1998; VanSledright, 2002; Wineburg, 2001). This is related to some degree to their contextual knowledge. Without an understanding of who was involved in a particular historical event, for example, it would be difficult for students to consider particular perspectives. However, this might also be reflective of the way historical texts are situated for students and how students interact with evidence. Indeed, textbooks continue to be a main resource in history classrooms (Paxton, 1999) and hold an authoritative position in social studies

instruction (Bain, 2006; Levstik, 2008). As such, students are often positioned to accept the information "provided" by textbooks as factual rather than having been written with a particular perspective (or bias). Further, elementary students generally have a straightforward relationship with historical evidence such that they treat all sources as equally valid (Barton, 1997). Identifying bias or perspective is arguably challenging regardless of students' grade levels (Wineburg, 1991), and if all sources are generally considered equally credible there would be little need for students to explore bias. This study illustrates how students use historical thinking skills to examine sources, particularly how students are limited (by content knowledge, traditional pedagogy, and authority ascribed to history) in engaging with these sources in more critical ways.

One challenge facing the teacher in incorporating historical thinking into the BHL is that most teachers, particularly elementary teachers, lack the disciplinary training and professional development around the work of historians (Barton, 2005; Levstik, 2008; Seixas, 1993). As mentioned, historical thinking was not an explicit goal Ms. Barnes established, but the times that she did model these skills for her students were limited (by choice or circumstance). It seemed that she had some sense that these were important skills for the students to engage within the museum environment, but she may have been preoccupied with trying to move on to the next activity in a very full BHL schedule. Given the limited amount of professional development it is not surprising that Ms. Barnes did not model these more explicitly at the museum.

Limitations

Although the findings of this study are promising in many ways (e.g., there was growth in students' historical thinking skills, students were highly engaged during the BHL), there are also

limitations to the study, in particular with regard to the research design. First, this study is a case study, a design I employed to explore one classroom's experience with the BHL in a deep and meaningful way. However, as a case study, the findings from this study (about the BIG History Lesson and students' historical thinking skills) are not generalizable to all BHL experiences or to all third-grade students. The teacher, students, structure of the BHL, and the researcher-designed historical thinking activities are unique to the circumstances of this study. My intention was to highlight the BHL experience (which itself varies from class to class). As, in part, a descriptive study, I did not control for any specific factors during the BHL. Although the museum provides the presenters, the space, and some activity ideas, it is ultimately individual teachers who design the BHL curriculum for their students. Thus, no two BIG History Lessons will look the same. There were, indeed, countless human and environmental factors that affect the implementation of, and student engagement within, the BHL. I also intended to understand the ways these third-grade students used historical thinking skills both inside and outside the museum. My case study focuses on five students, however, I conducted the historical thinking activities with a random sample of students, which provides some sense that these findings were not situated to one academic ability level. Indeed the findings of this study suggest that these students could—with modeling, practice, and support—use these thinking skills, but I was able to provide them with individualized attention (and time) to do so.

Second, the BIG History Lesson is a unique immersion museum program. The length of the BHL undoubtedly provides opportunities for student engagement, the least of which is actually having time to engage with history on a deeper level, but most history museum programs reflect one-day experiences such as gallery tours or traveling trunk programs.

Although there may be findings that are applicable to other types of museum programs, and the BHL may share attributes with other programs, I cannot make generalizable claims. However, my goal was not generalizability. Instead, I sought to provide a rich description that offers comparability and translatability (Goetz & LeCompte, 1984) or fittingness (Guba & Lincoln, 1981, 1982): my hope is that readers will glean a detailed and substantive understanding of what happened in the BHL and be able to imagine how these findings may apply to other instances of museum immersion programs.

Further, the program is not widely accessible to teachers. Although many teachers eagerly participate each year (and several of those teachers return each year), many teachers may be logistically prohibited from participating (e.g., the museum is too far away from their school to bus there every day). There is also a limited number of teachers who can participate each year because of the resources the museum can allocate (classroom space, presenters) on any given week. As promising as this program is for engaging elementary students in history, it is not widely available to all teachers. Again, however, my intention is to suggest some implications for informal learning situations, such as the importance of teacher modeling and skill scaffolding, and the excitement and sustained engagement students had during a museum program.

Finally, as with all research, there is the possibility for researcher bias. Having seen more than one BIG History Lesson in action (Kesler Lund, 2010), I have witnessed the possibilities for engagement that it holds for students, including students' use of historical thinking skills. Although I tried to be unbiased in the presentation of my findings, it is difficult to ignore my own opinions about the BIG History Lesson. I strived to be unbiased, and I wanted to provide an authentic description of a museum program that allows elementary students to engage with

subject matter that is so marginalized in their schooling experience. To manage the bias I brought to this study, particularly for the historical thinking analysis, after initially casting a wide net of what was considered historical thinking, I reanalyzed my data multiple times. Upon further analysis I reorganized my categories and examined the examples of historical thinking in light of both contexts (BHL and pre-/post-activities). I took a multi-faceted approach to analyze the data from this study and in the end I had fewer examples of historical thinking than what I started out with during the first rounds of analysis.

Implications for Practice

Because this study occurs across two contexts—an elementary classroom and a history museum—there are multiple stakeholders in this type of work (beyond the students themselves). In this section I identify the implications this study might have for the practice of social studies classroom teachers, teacher educators, and museum educators.

Social studies classroom teachers. Particularly for elementary teachers who have limited time to teach social studies amidst the wave of literacy and Science, Technology, Engineering, and Mathematics (STEM) educational mandates, participating with museums (or, arguably other informal education environments) may provide invaluable opportunities to engage with this subject matter. That is, history museums provide unique circumstances wherein students can learn history. One of the greatest strengths of the BIG History Lesson is that it provides ideas, time, space, and resources to learn history. Students engage with ideas, content, and/or artifacts that they might not have otherwise have the opportunity to. Knowing the possibilities for student engagement in a museum is significant for social studies educators to understand that an immersion museum experience, and arguably a shorter museum trip, can be

more than just a "day away from school." To do this effectively, however, teachers need to think about how to prepare students to participate within *and* with the museum space, how the experience will build on students' prior knowledge and connect to classroom curriculum, how to build in time for student reflection, and how to model the desired skills, habits of mind and/or learning behaviors for students before and during the experience.

Teacher educators. This research has significance for teacher education when considering the degree to which pre- and in-service teachers are prepared to integrate museum experiences into social studies instruction. There is extensive scholarship that explores the importance of student preparation (by teachers) for museum experiences in order to foster cognitive engagement and connections to the content (and personal experiences) (Anderson, 1999; Bitgood, 1989; Connolly et al., 2006; Cox-Petersen & Pfaffinger, 1998; Falk & Dierking, 2000; Finson & Enochs, 1987; Griffin & Priest, 1997; Price & Hein, 1991). This suggests that teachers must know how to use this instructional "tool" in ways that benefit student learning. Ms. Barnes was undoubtedly prepared (with lesson plans and activities) to engage her students in the BHL, however it was less evident if students make any connections to the curriculum. Specific teacher preparation (for pre- and/or in-service teachers) might help teachers understand how to use a museum program as a valuable instructional method that, at the very least, incorporates the museum experience into their curriculum in ways that augment student learning. To effectively prepare pre- and/or in-service teachers to incorporate museums teacher educators need to consider how to model effective field trips (e.g., by taking pre-/in-service teachers on a field trip to a museum) including pre- during- and post-visit activities, how to identify natural connections between curriculum and museum offerings, and how to identify ways that students

can authentically engage with content within the space (e.g., limiting the transfer of classroom structures into the museum space).

Museum educators. This study also has significance for museum educators. Current museum education research suggests museum learning and experiences have positive effects on how students learn and retain content (Abrams & Falk, 1995, 1996, 1997; Abrams et al 1997; Anderson, 1999; Bielick & Karns, 1998; Falk & Dierking, 1997; Falk & Dierking, 2000; Griffin & Priest, 1997; Hooper-Greenhill, 1987; Melber & Abraham, 1999; Pierpont, 2005). By employing targeted thinking skills in an immersion program, students engage with history on a deeper level, thus, gaining a deeper understanding of the targeted museum content. This could enhance the way museum educators design and consider museum programs, particularly for those responsible for the BHL. Specifically, the degree to which thinking skills like those associated with historical thinking (inquiry) are explicitly incorporated into the structure of the BHL and its activity and presentation offerings.

Additionally, this study has significance for BHL teacher preparation more specifically. Teachers who participate in the BHL also participate in a two-day professional development workshop to help them design their individual BHL curriculum, expose them to the various BHL offerings and activity ideas, and engage them with the museum as a resource ("An Introduction to the BIG History Lesson," 2010). This workshop is undoubtedly vital to participation in the BHL. Based on the findings of this research, it was not evident that Ms. Barnes, as a novice BHL teacher, was prepared to help her students know *how* to engage with/read a history museum. This is not to diminish teacher (or student) autonomy, but it is worth mentioning that novice BHL teachers might benefit from professional development that differs from teachers

who have previously participated and specifically includes training on how to engage, utilize, and teach within the museum space in ways that are distinct from the classroom.

Areas of Future Research

There is little doubt that more work needs to be done to further understand how young students (i.e., third- through fifth-graders) engage in historical thinking, and the value of an immersion museum program like the BHL for elementary students and social studies. My study is an important step in exploring these questions, however it also sheds light on the importance of other areas of research.

One area of research concerns the grade level of students with whom historical thinking skills have been examined. Existing research on historical thinking among elementary students primarily explores historical thinking among fourth or fifth graders (e.g., Barton, 1997; VanSledright, 2002), with one study that specifically examines the influence a community of historical inquiry has on third-grade students in a "gifted and talented" class (Levstik & Smith, 1996). There are some studies that explore isolated skills, like chronological thinking (e.g., Levstik & Barton, 1996) or historical time (e.g., Barton, 2002; Barton & Levstik, 1996), associated with history among K-5 students, but still few that examine historical thinking skills (especially holistically) below fifth grade. If formal history curriculum starts in third-grade (as it does in the Michigan state curriculum framework), it is reasonable to suggest that these disciplinary skills might also be appropriately situated at that grade level (assuming grade-level appropriateness). One case study is not enough to widely suggest that students at this grade level can engage in these thinking skills, although it is a start. Additional research on elementary students' historical thinking might further support the findings from this and other studies that

suggest young students do, in fact, have the capacity to engage with these sophisticated thinking skills that are typically reserved for upper grades (provided modeling and time for practice are in place).

Another area of research concerns the contexts wherein elementary students use historical thinking skills. Specifically, future research might investigate how these skills are engaged more holistically during classroom history (or social studies) instruction. I examined the focal students' historical thinking skills in isolated, pull-out contexts rather than in class. An exploration of in-class dynamics might provide additionally rich understanding of if/how/when young students learn or engage historical thinking, as well as the teacher pedagogy required to engage students with these skills.

A third area of future research about the BHL concerns student content knowledge and retention. Whereas I examined students' historical thinking skills during the BHL, I did not examine their content knowledge or retention before, during, or after participating in the BHL. The high stakes nature of schooling (although notably less so with social studies) might suggest that students need to learn specific content during a program like the BHL in order to make this program "worth" the instructional time that it consumes. I suggest there is undoubtedly potential for deep learning of historical topics during the BHL, but I did not explore this aspect of the program for this study.

Similarly, additional research might include a longitudinal study of students who participate in the BHL. Museum education and visitor studies scholarship suggest that individuals who visit (casually or on school trips) museums retain content and experiential knowledge (Bielick & Karns, 1998; Falk & Dierking, 1997). If there is long-term retention from

casual or typical school field trips where students and visitors stay, on average, less than one hour exploring an entire museum (Dierking & Falk, 1994), what might the retention look like for students who are immersed in the galleries for 25 hours for five days?

Another area of future research concerns the need for comparative studies among participating teachers/classes. Specifically, I suggest the need for a comparative study among novice and veteran BHL teachers. As mentioned, this was not the first BHL I have observed: I conducted a pilot study two years before this study to examine teacher pedagogy during the BHL (Kesler Lund, 2010). The participating teacher in that pilot study was a veteran elementary teacher, but also a veteran BHL teacher—it was his fifth time participating in the program. There were significant differences between that veteran BHL teacher and the teacher in this study who was participating for the first time. For example, the veteran teacher had a clear trajectory for the week, including which curriculum standards he wanted to teach and how the BHL curriculum would fit into his classroom curriculum. The veteran teacher was also more equipped at preparing his students for the experience (e.g., modeling and practicing skills beforehand) and maximizing time for reflection during the BHL. The teacher in this study undoubtedly engaged her students in interesting activities, and the students were exposed to a vast array of artifacts and topics, but it was less clear that they knew *how* to engage within the space and they definitely lacked the time to reflect on their experiences and learning. Additional research might uncover, for example, how the professional development provided by the museum might need to differ for novice versus veteran teachers.

Finally, future research might explore if/how the BHL benefits students who are often under-served by traditional (formal) classroom environments. Different spaces orient our bodies

and minds in differing ways, and there is potential within the BHL as a program (and the museum as a space) for these students to engage in ways they might not in the classroom (Maxwell & Evans, 2002). During this and my pilot study I witnessed, for example, students diagnosed with Attention Deficit and Hyperactivity Disorder, students who were academic "low achievers," and even "gifted" students participate in the BHL in ways that differed from how I saw them participating (or not) in the classroom. Additionally, in my pilot study in particular I witnessed these same students carry over behavior and engagement from the BHL back into the classroom. Research in this realm might explore how the space influences what students do and how they interact, as well as how it might benefit their learning (and other types of interaction) in unique ways.

Significance of the Study

This study provided an in-depth description of the teaching and learning that occurs during a week-long museum immersion program. It also demonstrated the ways third-grade students' historical thinking skills changed over the course of the week. It is significant for drawing needed attention to exploring the ways young students develop historical thinking skills and for shedding light on the importance of understanding the relationship between museum education and student learning in history.

History (and social studies more broadly) in elementary classrooms faces the challenges of marginalization and often perfunctory teaching that does not foster in-depth investigation of the past among students. The amount of time spent engaging students in learning historical content is on a steady decline to the point where some elementary students are rarely engaged in learning history (or social studies) (Brophy & Alleman, 2008; Burroughs et al., 2005; Levstik,

2008; Rock et al., 2006; VanFossen, 2005). This is a precarious position for curriculum designed to teach students about how the past influences the present, and how they, themselves, are agents in the present and future. Further, the inquiry skills associated with learning history, those that reflect the work of historians, position students to critically engage with not only the past, but the present.

Unfortunately, the potential for these skills are largely unrealized in most elementary classrooms where the focus (and time) remains on literacy on STEM subject areas. Historical inquiry—historical thinking—no doubt requires a time investment on behalf of teachers and students in order to gain the benefits of this approach. However, without it, students are left with a curriculum in which they are largely passive consumers of the past. This study illustrated that third-grade students can engage in historical thinking, which is undoubtedly a more cognitively active, student-centered approach to teaching history. This is significant to support (or challenge) how teachers think about what young students know and what they can do. With time, opportunity, and structure, students can engage in complex, critical thinking.

The second area of significance is in museum education. Museums have vast potential for contributing to students' historical content knowledge, as well as serving as contexts in which students can engage in historical thinking (D. Anderson, 1989). The BIG History Lesson provides a distinct environment (compared to classrooms) for students to learn about history using artifacts and through expert presentations. The nature of the immersion experience should, theoretically, provide students with experiences that foster deeper understandings of historical topics. As this study demonstrated, the role of the teacher is critical in helping students not only engage in historical thinking, but understanding how to use/read the museum (its artifacts and

exhibits) in general. Even with some professional development beforehand, the participating teacher missed (or chose not to take) opportunities to more authentically engage students within the space. This is significant in understanding how teachers need to be prepared to engage their students in the BHL, but also how the space does not inherently foster students' historical thinking skills.

As much as historical thinking is a method of engaging students in learning content, it is also a method of helping students learn invaluable thinking skills that are valid not only in life, but in other educational settings. This study displayed, as other researchers have, young students' potential to think historically, and illustrated the value of engaging those skills in classrooms and museums. With the challenges facing social studies in elementary school, it is imperative the educational community continue to identify powerful and meaningful ways to engage students in the content to capitalize on what little time is devoted to it in the curriculum. The potentially wide applicability of historical thinking skills and appropriateness using them with elementary students could make this method an increasingly attractive option for teachers.

APPENDICES

Appendix A

Observation Protocol

	Student Indicators	Date/Context	Comments
Use of Historical Thinking Skills at the Museum	Asks questions about the object		
	Compares objects		
	Interrogates the purpose of an object		
	Questions the author/source		
	Examines context of object		
	Makes interpretations		
	Demonstrates historical empathy		
	Considers multiple perspectives		

Figure 1. Observation Protocol. This figure illustrates the base protocol used when observing students at the museum to identify when they used particular historical thinking skills.

Appendix B

Pre-Museum Student Interview Protocol

1. Tell me about what you've been learning in social studies this year.
    - If students haven't learned much social studies yet: What did you learn last year?
2. What do you like about learning social studies?
3. Is there anything you don't like about social studies?
    - If so, what?
4. What types of things (projects, activities, lessons) do you do in social studies?
5. How does your teacher help you learn social studies?
6. Have you ever been on a field trip before?
    - If yes, where? Tell me what you remember.
7. Have you ever been to a museum before?
    - If yes, Who did you go with? Tell me about it.
8. Do you ever go to museums or science centers or the zoo with your family? What do you like about it?
9. Are you excited for the BIG history lesson with your class? Why (not)?

Show students a floor plan of the Michigan Historical Center for following questions:

10. What do you hope to do at the museum?
11. What do you think you will see at the museum?
12. What do you think you will learn at the museum?
13. Tell me what you know about Michigan history.
    - What do you hope to learn about Michigan while at the museum?

Appendix C

Post-Museum Student Interview Protocol

1. Tell me what you remember from the museum.
2. What was your favorite part of the BHL? Why?
3. Was there anything about the BHL you didn't enjoy? Why not?

Show students a floor plan of the Michigan Historical Center for following questions:

4. What did you learn about Michigan history while at the museum?
5. What did you like about learning at the museum?
6. Who was your favorite presenter? Why?
7. Was there anything you wanted to spend more time doing at the museum?
8. Did going to the museum help you learn social studies? Why/not?
9. Was there anything challenging about learning at the museum?
10. How is the museum different from learning in the classroom?
    - How is it the same?
11. Would you like to go back to the museum? Why/not?

Appendix D

Historical Thinking Activity 1

Step 1 – Photograph

Image of Mackinac Bridge Opening Day:

Mackinac Bridge Authority. (n.d.). Image of Mackinac Bridge opening day. Retrieved from http://www.mackinacbridge.org/photo-gallery-10/29/.

Questions

What do you see in this photograph?

What details do you notice?

Do you think this is a recent photograph or from a different time? Why?

What questions do you have about this photograph?

Where can you find answers to those questions?

Step 2 – Artifact

Mackinac Bridge Commemorative Stamp:

Mackinac Bridge Stamp. (1958). Retrieved from

http://www.mightymac.org/mackinacbridgestamp.htm

Questions

What do you notice about this object?

What are the unique characteristics of this object?

What do you think this object is used for?

What do you think it is?

What does this add to what you think about the picture?

Step 3 – Historical Fiction

Whelan, G. (2006). *Mackinac Bridge: The story of the Five-Mile poem*. Chelsea, MI: Sleeping Bear Press.

This book is set in the 1950s at the time of the Mackinac Bridge construction. The story follows a boy whose dad owns a ferryboat and brother is working construction on the new bridge. It explores the animosity of the father for losing his business because of the bridge, but also the social and economic advancement of the bridge. Throughout the book are historically accurate references to the bridge's construction and engineering, as well as a timeline and additional historical information at the beginning and end of the book. The target reading level is ages 4-8.

Questions

What do you notice about this book?

What types of images are used?

Who do you think this book was written for?

What does this information contribute to what you know/think about the individual in the photograph?

Is there anything it contradicts?

How reliable do you think this information is? Why/not?

What conclusions do you have about the individual portrayed in these pictures and documents?

Step 4 – Secondary Source

Newspaper article:

Foust, H. (1957, November 1). Open Mackinac Bridge to auto traffic today. *Chicago Tribune*.

Retrieved from

http://pqasb.pqarchiver.com/chicagotribune/results.html?start=10&type=historic&id=

Questions

What type of information is presented?

Who do you think wrote it?

Who do you think this was written for?

What does this information contribute to what you think (or know) about the place in the photograph?

Is there anything it contradicts?

How reliable do you think this information is? Why/not?

What conclusions do you have about the place portrayed in these pictures and documents?

Appendix E

Historical Thinking Activity 2

Step 1 – Photograph

Image of Edmund Fitzgerald:

LeLievre. R. (1975). Image of the Edmund Fitzgerald on the St. Mary River. Retrieved from http://www.mhsd.org/fleet/O/On-Columbia/fitz/default.htm

Questions

What do you see in this photograph?

What details do you notice?

Do you think this is a recent photograph or from a different time? Why?

What questions do you have about this photograph?

Where can you find answers to those questions?

Step 2 – Artifact

Image of the Edmund Fitzgerald bell.

S. S. Edmund Fitzgerald Online. (n.d.). Image of the Edmund Fitzgerald bell. Retrieved from http://www.ssefo.com/info/bellrestore.html.

Questions

What do you notice about this object?

What are the unique characteristics of this object?

What do you think this object is used for?

What do you think it is?

What does this add to what you think (or know) about the first picture?

Step 3 – Historical Fiction

Wargin, K. (2003). *The Edmund Fitzgerald: Song of the bell*. Chelsea, MI: Sleeping Bear Press. This book is historical narrative written for young readers. The narration and images depict the sinking of the Edmund Fitzgerald in Lake Superior in 1975. The ship's bell – now a memorial to the lost sailors – underscores the narrative about the ship and shipwreck. As the narrative progresses in the book, the tension builds and the story of the shipwreck unfolds. The book contains factual information about the Edmund Fitzgerald, and an epilogue discussing the recovery of the bell and its use on the anniversary of the sinking.

Questions

What do you notice about this book?

What types of images are used?

Who do you think this book was written for?

What does this information contribute to what you know/think about the photograph and artifact?

Is there anything it contradicts?

How reliable do you think this information is? Why/not?

Step 4 – Secondary Source

Newspaper article:

Wreckage of the Edmund Fitzgerald: Fitzgerald tragedy tied to killer waves. (1978, September 24). *Chicago Tribune*. Retrieved from

http://pqasb.pqarchiver.com/chicagotribune/results.html?st=advanced&QryTxt=edmund+fitzgerald&type=historic&sortby=REVERSE_CHRON&datetype=6&frommonth=01&fromday=01&fromyear=1978&tomonth=12&today=28&toyear=1978&By=&Title=

Questions

What type of information is presented?

Who do you think wrote it?

Who do you think this was written for?

What does this information contribute to what you think (or know) about the place in the photograph?

Is there anything it contradicts?

How reliable do you think this information is? Why/not?

What conclusions do you have about the place portrayed in these pictures and documents?

Appendix F

Historical Thinking Activity 1 Curriculum Standards

Michigan Grade Level Content Expectations

3 – H3.0.8 Use cases studies or stories to describe how the ideas or actions of individuals affected the history of Michigan.

National History Standards (K - 4)

Standard 3C: The student understands the various other groups from regions throughout the world who came into the his or her own state or region over the long-ago and recent past.

Standard 3E: The student understands the ideas that were significant in the development of the state and that helped to forge its unique identity.

Standard 4B: Demonstrate understanding of ordinary people who have exemplified values and principles of American democracy.

Standard 4C: The student understands historic figures who have exemplified values and principles of American democracy.

Appendix G

Historical Thinking Activity 2 Curriculum Standards

Michigan Grade Level Content Expectations

3 – H3.0.8 Use cases studies or stories to describe how the ideas or actions of individuals affected the history of Michigan.

3 – G5.0.2 Describe how people adapt to, use, and modify the natural resources of Michigan.

3 – G4.0.1 Describe major kinds of economic activity in Michigan today, such as agriculture, manufacturing, services and tourism, research and development, and explain the factors influencing the location of these economic activities.

3 – E1.0.3 Analyze how Michigan's location and natural resources influenced its economic development.

4 – H3.0.1 Use historical inquiry questions to investigate the development of Michigan's major economic activities.

National History Standards

Standard 3E: The student understands the ideas that were significant in the development of the state and that helped to forge its unique identity.

Appendix H

Historical Thinking Activity Rubric

Table 6

Historical Thinking Activity Rubric

Historical Thinking Components *Guiding Questions*	Proficient	Developing	Emerging	Beginning
Sourcing Student considers: *1. Type of document* *2. Information, details and/or perspectives provided* *3. Purpose* *4. Author or audience*	Responses identify the type of document/object; provide specific details from the document/image/ object; use evidence to identify the author and/or audience; use evidence to discuss the purpose of the source; are free from personal judgement and presentism.	Responses identify more than one possibility for type of document/ object; use vague details from the document/object/ image; identify multiple possible authors and/or audiences with or without evidence from the source; uses some judgmental or presentist language.	Responses identify one possibility for type of source, not necessarily accurate; use general details from source(s) mixed with personal opinion; allude to purpose; provide little sense of authorship or audience.	Responses do not reflect the type of source; rely on personal opinion instead of evidence; provide no sense of authorship or audience.
Contextualizing Student considers: *1. When and where* *2. Why* *3. Immediate and broader context of time period*	Responses lead to an understanding of people, groups, and/ or events; examine the creation of the source; make connections and/or distinctions between time periods; include relevant historical content; recognize a plausible broader context.	Responses include some relevant historical content; recognize a limited context; make perfunctory connections between time periods and/or sources; acknowledge possibilities of source creation.	Responses include some relevant historical content; do not recognize broader context; make minimal or no connections/ distinctions between time periods; acknowledge possibilities of source creation.	Responses include irrelevant historical content; do not recognize broader context; make minimal or no connections/ distinctions between time periods and/or sources; do not acknowledge source creation.

Table 6 (cont'd)

Inferring Student considers: 1. *Interpretations using the source* 2. *Perspectives/POV from the source*	Responses are logical; connect to evidence found in the source(s); go beyond literal/visible text or imagery; identify points of view and bias; acknowledge multiple and/or competing perspectives; draw interpretations from the source(s).	Responses are mostly logical; use some evidence from the source(s); focus primarily on literal/visible evidence with inclination there might be more; acknowledge a perspective and/or bias; draw interpretations from the source(s).	Responses use some evidence from the source(s) mixed with personal opinion; rely on literal/visible evidence; acknowledge a possible perspective; draw interpretations from the source(s).	Responses do not reflect content of the source(s); rely on literal/visible evidence without a sense of the "unseen"; do not acknowledge perspective; do not provide interpretations.
Corroborating Student considers: 1. *Similarities and differences between sources* 2. *Factors that create similarities or differences* 3. *Conclusions* 4. *Additional questions or sources needed to guide questioning*	Responses identify appropriate connections between sources; compare similarities and differences among sources; questions validity of source; draws conclusions based on evidence; recognizes fact versus opinion; identify the limits of relying on one source for information.	Responses identify connections between sources; compare similarities and differences among sources; draw conclusions not necessarily based in evidence; blur fact and opinion; rely heavily on one source for information.	Responses identify possible connections between sources but do not expand on the connections; draw conclusions not based on evidence; blur fact and opinion; acknowledge the validity of only one source.	Responses do not establish connections (similarities or differences) between the sources; do not draw conclusions; blur fact and opinion; do not acknowledge the validity of source(s).

Appendix I

Pre-Museum Teacher Interview Protocol

Motivation

3. Tell me about why you decided to participate in the BHL this year.
4. Why the BHL instead of a traditional one-day field trip?
5. What is your previous experience with field trips? Is it a regular part of your curriculum each year?

Planning & Curriculum

6. How do you see yourself as a teacher?
7. How would you describe your commitment to social studies?
8. How did you go about planning the curriculum for the BHL week?
    - Tell me about how you will integrate this week into your classroom curriculum.
9. What social studies curriculum will you incorporate into the BHL?
10. How do you integrate the core curriculum (other disciplines) around this learning experience?
11. What types of skills might students developing in relation to the BHL?
    - What types of skills might you start developing with students beforehand?
    - What skills will you continue building on throughout the year?

Perceived Benefits (for teaching & students)

12. In what ways are you hoping students will benefit from this [emotionally, socially, academically, etc.]?
13. In your opinion, how do you think students best learn history?

14. Is there a particular kind of learner for whom you think the BHL is particularly beneficial? Are there learners who you think might not get as much out of it?
15. In what ways are you hoping your craft will benefit from this experience?

Appendix J

Post-Museum Teacher Interview Protocol

16. Walk me through what you think were the highlights of the week.
    - For students and their learning...
    - For you...
17. Describe anything you that didn't go as planned, and why.
18. How would you describe students' learning throughout the week?
19. How would you describe students' engagement throughout the week?
20. How would you describe your role during the week?
21. How did the experience compare to your expectations?
22. Were there any "ah-ha" moments for you during the week?
23. What did you (or the teacher who teaches social studies) do as closure from the museum experience?
24. Have students discussed anything from the museum, or made connections with their experiences since they've been back?
25. Have you noticed any changes among students since you've been back in the classroom?
26. How will you integrate the learning (and content, skills) from the museum into the curriculum going forward?
27. Cost-benefit?
28. Responses from student journals about whether you should bring students back next year?

Appendix K

Michigan Historical Museum Map

DIRECTORY

Second Floor Galleries

1. Prehistoric People
2. First Europeans
3. Statehood
4. Settlement
5. Civil War
6. Copper Mine
7. Iron Mining
8. Lumbering Era
9. Rural Michigan
10. Growth of Manufacturing

Second Floor Mezzanine Galleries

11. One-Room Schoolhouse
12. Victorian Parlor
13. Victorian Dining Room
14. Out-of-Doors
15. Victorian Bedroom
16. Victorian Kitchen

Third Floor Galleries

17. Farm & Factory
18. Auto Dealership
19. 1920s Theater
20. The Arsenal of Democracy
21. Upper Peninsula
22. At Home in the 1950s
23. 1957 Detroit Auto Show
24. The 1960s
25. Lakes and Land

Third Floor Mezzanine Galleries

26. 1920s Antique Shop
27. City Growth hallway
28. Labor Struggle
29. The Great Depression
30. Civilian Conservation Corps
31. 1930s Bungalow

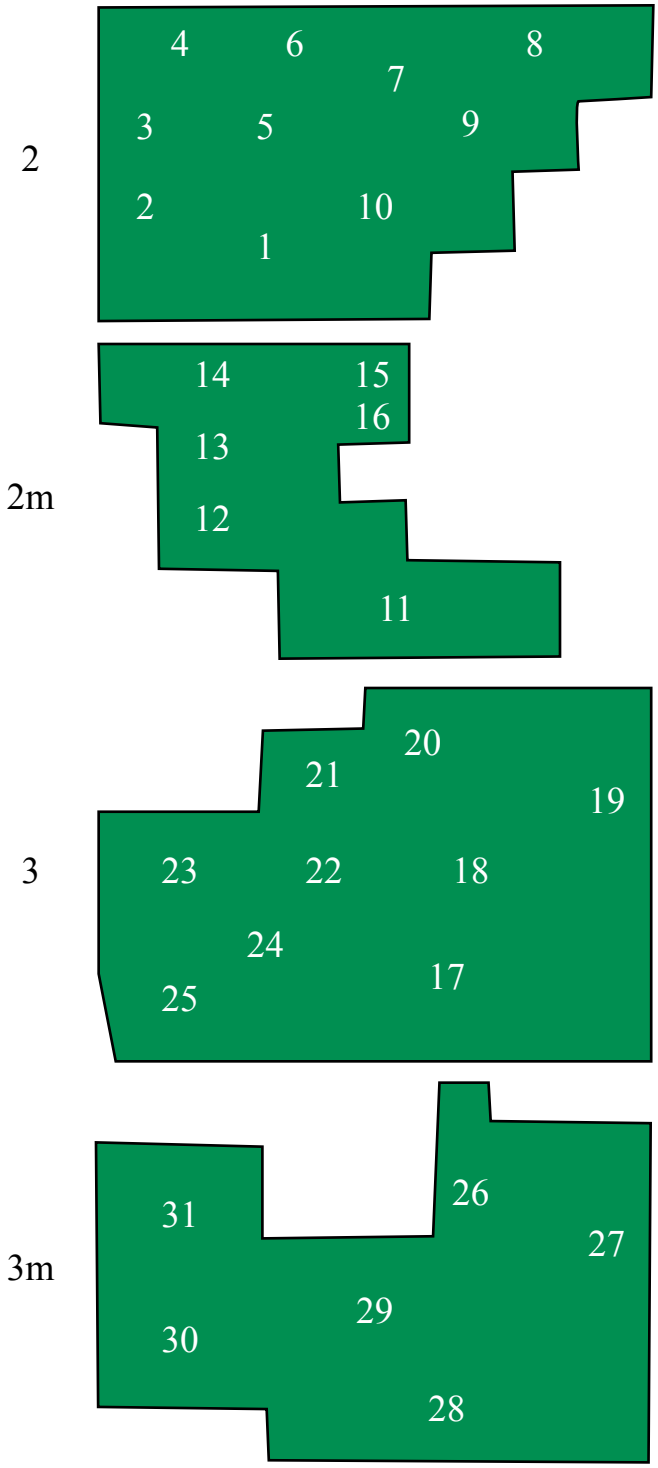

Figure 2. Michigan Historical Museum Map.

Figure 2 (cont'd)

This figure illustrates the floor plan for the main exhibit levels of the museum, adapted from the MHM website. For interpretation of the reference to color in this and all other figures, the reader is referred to the electronic version of this dissertation.

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