"Putting it in Technicolor:" The influence of a pre-service teaching residency at a historic site, archive, library, or museum on in-service pedagogical practices

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ABSTRACT

Over the last 30 years, colleges of education across the nation have examined and deliberated how best to educate pre-service history teachers for the challenges of the modern classroom. Specifically, they sought to create and refine teacher preparation programs that foster within the pre-service history teacher the propensity to use authentic teaching practices once they are licensed and instructing independently in the classroom. Using a situated learning theoretical framework, this research study adds to the literature on this topic by examining how a semester-long pre-service residency at a historic site, archive, library, or museum influences in-service history teacher pedagogy. Utilizing an ex post facto qualitative research methodology with a questionnaire, interviews, and analysis of lesson plans, this study pursued the objective of evaluating the nuances of a residency and how those experiences influence in-service pedagogical dispositions. The findings of the study conclude pre-service history teacher residencies offer valuable and unique learning spaces for the pedagogical development of pre-service history teachers by promoting authentic-based teaching models that participants carry into their in-service teaching.

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1. Introduction

Since the inception of compulsory education in the United States at the end of the nineteenth century, there has been an ongoing debate in every discipline regarding how to educate pre-service teachers for the challenges of the classroom (Cremin, 1964; Evans, 2004). These deliberations have always been contentious, and the education of history teachers is no exception (Van Hover & Hicks, 2018). For the first half of the 20th century, history classrooms centered around rote memorization from a single narrative text within a teacher-centered framework of instruction (Fenton, 1967; Good, Farley, & Fenton, 1969; Kliebard, 2004; Rugg, 1939). At the beginning of the 1960s, American educators began to identify the need to revamp how American students learn history (Dow, 1991; Frechtling, Sharp, Carey, & Vaden-Kiernan, 1995). Specifically, academics and theorists began to propose a myriad of instructional methodologies to replace rote memorization as the standard for history education (Barton & Levstik, 2003; VanSledright & Kelly, 1998). Building upon the findings in Brunauer's landmark publication, *The Process of Education* (1960), history education has slowly moved toward an instructional methodology grounded the creation of knowledge rather than the reproduction of it through the use of authentic resources and the adoption of expert

historical disciplinary teaching practices (e.g., Achinstein & Fogo, 2015; Darling-Hammond, 2010; Seixas, 1998; VanSledright, 2004).

Although numerous studies indicate history teachers understand, believe in, and value authentic teaching and assessment practices, their classroom instruction continues to reflect more traditional teaching practices: teacher centered instruction, textbook dependent, rote memorization of facts, and assessments dominated by multiple-choice, true-false, and fill in the blank questions (Grant & Gradwell, 2009; Van Hover, Hicks, & Dack, 2016). To address this deficiency, teacher preparation programs across the country have experimented with a wide range of experiences to promote the acquisition of expert history teaching practices (Wilson & Wineburg, 1988). One area of scholarly interest are methods courses (Cox & Barrow, 2000; Ragland, 2014) that integrate residency experiences at informal sites of history education (ISHE): museums, libraries, archives, and historic sites.[1] While these programs vary in scope and duration, they are all designed to expose preservice teachers to expert practices of historians and how these experts use authentic material (Baron, 2014; Patterson & Woyshner, 2016).

Research studies that have been conducted of pre-service teacher residencies at ISHEs indicate they foster the tendency to design and teach inquiry-based lessons, integrate documents and artifacts into daily work, and develop higher levels of Bloom's Taxonomy in their classrooms through the use of expert history teaching practices (Patterson & Woyshner, 2016; Reidell & Twiss-Houting, 2015). However, while early research seems to indicate pre-service residencies at ISHEs advance expert teaching practices, there is currently insufficient data to make reliable correlations between the experiences teacher candidates have during their ISHE-based experiences and how they instruct once they become classroom teachers. The purpose of this study, therefore, is to determine the influence of a semester-long pre-service residency at an ISHE on inservice history teacher pedagogical practices.

2. Literature review

Over the past three decades, education researchers (Bain & Mirel, 2006; Barton & Levstik, 2003; Grant, 2013; Seixas, 1998; VanSledright, 2004; Wilson & Wineburg, 1988) have examined how history teachers instruct and sought to discover new ways to move the discipline from a "traditional" style of teaching to that of an "authentic" form of instruction. Researchers use "traditional" to refer to a style of teaching that is typified as being teacher-centered, primarily whole-class instruction, textbook dependent, and assessed by rote memorization exams (Goodlad, 2004; Nokes, 2010). In contrast, authentic teaching reflects pedagogical practices that are student-centered, grounded in real-world application, and where the teacher encourages the creation of knowledge by students rather than the reproduction of it.[2] (Newmann & Archbald, 1992; Renzulli, Gentry, & Reis, 2004; Van Drie & Van Boxtel, 2008).

Building on the research of the aforementioned educators, Fogo (2014) conducted an exhaustive three-year study which examined, identified, and defined expert core disciplinary practices for secondary high school history teachers. Working with 23 master teachers/expert historians, 11 veteran high school history teachers, and 16 educational researchers, Fogo's research concluded by identifying nine historical disciplinary instructional practices that comprise the core competencies of authentic teaching: (1) use historical questions, (2) select and adapt historical sources, (3) explain and connect historical content, (4) model and support historical reading skills, (5) employ historical evidence, (6) use historical concepts, (7) facilitate discussion on historical topics, (8) model and support historical writing, and (9) assess student historical thinking. While numerous studies exist that define expert disciplinary practices for history teachers, this study acknowledges that experts in this field recognize and use Fogo's list (2014) of nine core disciplinary practices as an integral part of the discussion on expert teacher practices (e.g., Crocco & Livingston, 2017; Dack, Van Hover, & Hicks, 2016; Seixas, 2016).

While Fogo's list is used by experts in the field to identify expert history teaching, his work does not identify how teachers acquire these competencies. Research studies do suggest that educative experiences within real-world, non-classroom learning environments enhance pre-service teacher learning because the experiences highlight the relevancy and applicability of the material at hand (Barnes & Gachago, 2015; Stein, Isaacs, & Andrews, 2004). They also indicate novice teachers rely on lived experiences to construct classroom lessons (Calderhead & Robson, 1991; Goodlad, 2004). Harzler-Miller's (2001) research concluded that novice history teachers are not prepared pedagogically to teach with authentically even though they understand the merits of this type of instruction. Her findings indicate that while new teachers have significant amounts of content knowledge, they lack the reflexive tendency to transfer authentic teaching methods from college to their classrooms.

Building upon the research that concludes real-world non-classroom learning environments enhances pre-service teacher pedagogy, one particular strand of pre-service teacher education research is focusing on the influence of pre-service teacher education at ISHEs. Although limited in depth, the data available suggests situated experiences at ISHEs influence pre-service pedagogy because these experiences ground student learning and practice in real-world situations under the direction and guidance of experts (Herrington & Herrington, 2006; Tochon, 2000). The literature available indicates teacher experiences at ISHEs often results in an increased ability to deliver content knowledge in authentic ways (Jung & Tonso, 2006; Schrum,

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[1] For purposes of clarity and simplicity, these four locations will be referred to, either individually or together, as Informal Sites of History Education (ISHE) within this study.

[2] Throughout this paper, these two definitions reflect the author's intentions of what traditional and authentic practices represent.

Kortecamp, Rosenfeld, Briscoe, & Steeves, 2016). Building on this point, other studies have found that the maturation of expert disciplinary practices are maximized within collaborative, informal learning sites rather than traditional education settings where teacher-centered instruction and factual recall dominates learning (Herrington, Parker, & Boase-Jelinek, 2014; Lee & Hannafin, 2016; Saye & (SSIRC), 2013).

In studies that focus on pre-service teacher experiences at ISHE's, the literature documents teacher pedagogies moving away from static lectures and text-based instruction to pedagogies which are typified by: student-centered instruction; real-world applications; integration of a wide variety of resources, and; engaging classrooms which promote active learning (Lombardi, 2007, p. 16; Picciano & Steiner, 2008; Todd & Brinkman, 2007). Drawing upon the findings from this research, the literature indicates the unique environment and resources that ISHEs offer the pre-service teacher would be very difficult to replicate in a traditional college classroom. This is not to suggest learning cannot happen in a classroom, but instead ac-knowledges how an ISHE offers a unique space that leverages learning in ways not currently happening in traditional college classrooms.

3. Research question

The limited research available that examines the potential role pre-service history teacher programs at ISHEs might play in the pedagogical development of emerging teachers creates a significant gap in the history teacher education field. In light of this gap in the understanding of the role pre-service teacher education residencies at ISHEs play in teacher pedagogical formation, the current study poses the following research question:

- What historical disciplinary pedagogical practices do history teachers develop during a semester-long pre-service resi-dency at historic sites, archives, libraries, or museums?

4. Theoretical framework

The theoretical framework employed by this study is grounded in situated learning (SL) as defined by Lave and Wenger (1991). Rooted in Gibson's theory of affordances (Greeno, 1994) and Vygotsky's social learning theories (Vygotsky, 1978), Lave and Wenger (1991) propose that the construction of knowledge is anchored in the situation in which the experience transpires — both the physical and social. SL theory places the highest emphasis on how the social and cultural structure of the experience provides meaning to the acquired knowledge. The basic unit of analysis, therefore, is not the individual or the environment, but instead the relation between the two (Nardi, 1996). As a theoretical lens, SL offers a means of analyzing what an individual is doing within a learning space in a way that synthesizes the cognitive, physical space, and social di-mensions of the experience.

Situated Learning theory evolved out of and continues to develop through the analysis of how novices become masters within apprenticeships (Brown, Collins, & Duguid, 1989; Lave, 1977, 1997; Young, 1993). To the situated theorist, learning is viewed as a culture of acquisition within real-world settings (Kirk & Kinchin, 2003). Learning happens within a participatory framework and not simply a cognitive process that occurs in the individual mind (Lave & Wenger, 1991, p. 15). Knowledge is created and distributed among the co-participants in authentic spaces rather than being an isolated act that is not influenced by the social and cultural setting (Hutchins, 1995; Resnick, 1987). Within a SL framework, learning cannot be analyzed without taking into account the context in which the learning occurred (Greeno, 1997).

Pre-service teacher education experiences at ISHEs, when viewed through a SL lens, offers researchers the opportunity to consider and analyze the influence of social, cultural, and environmental factors on pedagogical formation that are unique to a residency. Utilizing SL as a theoretical framework allows the analysis of the construction of knowledge within the participants while accounting for the influence of both the physical space and the social nature of the organization. Furthermore, it enables the researcher to differentiate the distinct situated experience during at the ISHE which is absent from the experiences within classroom education courses. In this way, SL theory offers an optimal lens through which to analyze the participants of this study and answer the research questions herein.

5. Methodology

In order to identify the independent variables that influence how and why in-service history teachers instruct authen-tically, it was necessary to identify in-service history teachers whose disciplinary practices reflect authentic teaching and examine why they possess those expert pedagogical dispositions. Studies that examine pre-service teachers during education courses and student teaching (Donmez, Yesilbursa, & Altikulac, 2015; Voet & DeWever, 2018), while important, do not provide an accurate prediction of future performance (Barton & Levstik, 2003; Goodlad, 2004). The kind of study required to un-derstand which pre-service teacher experiences influence in-service teacher pedagogical practices is one that identifies the variables which in-service teachers attest to as the influencing factors of their current pedagogy. It is for this reason that an ex post facto research methodology was selected for this study (Bogdan & Biklen, 2007). Kerlinger (1964, p. 360) defined ex post facto research as:

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that research in which the independent variable or variables have already occurred and in which the research starts with the observation of a dependent variable or variables. He then studies the independent variables in retrospect for their possible relations to, and effects on, the dependent variable or variables.

For this ex post facto study, a questionnaire, interviews, and lesson plan analysis were selected to identify patterns in the collected data. This study grounds itself in Fogo's (2014) research, using his defined list of historical disciplinary practices as the benchmark for defining competencies that best support authentic history instruction. Collected data provided a means to understand participant perceptions of residency experiences and how social interactions within these spaces uniquely inform pedagogical development. Layering Fogo's competencies on the data illuminated the ISHE experiences that foster authentic instruction and highlighted the potential influence these programs contribute to pre-service teacher education programs (Creswell & Clark, 2011).

5.1. Participants

Since 2011, every graduate of Eastern State University's (pseudonym) social studies teacher preparation program (a public university located in the eastern United States) has completed one semester-long residency at an ISHE near its campus. The residency program is an embedded part of the program's weekly social studies methods course which is typically taken by the pre-service teacher during the semester preceding their student teaching placement. The methods course is one in a concourse of classes which create the core of Eastern State's pre-service social studies teaching program. Covered within these courses are fairly typical education instruction: classroom management, differentiated learning, teaching methods of instruction, and authentic teaching practices as defined by Fogo (2014). In addition to the core teaching standards of the education program, Eastern State's methods course includes the ISHE residency and provides space during the methods class to discuss residency experiences. During the residency, participants work at least 3 h per week at the ISHE with historical experts, their residency peers at the same location, and middle/high school students conducting research. The stated goal of the residency is to expose pre-service teachers to the disciplinary practices of experts at ISHEs and provide the pre-service teachers the opportunity to work with authentic resources in authentic settings.

In March 2018, Eastern State University's College of Education sent an e-mail to 25 randomly selected residency graduates (selected by the college) asking them to participate in this research study. Six responded to the email and agreed to participate in this study (Fig. 1).[3]

Name	Age	Gender	Grad Year and Degree from Eastern State U.	Residency Location	Current Employment
Teri	24	Female	2016 B.S. in Secondary Education/Social Studies	Digital collections library of a science museum	11th grade English teacher at a small-town high school
Emma	24	Female	2017 B.S. in Secondary Education/Social Studies and History	Archives of a museum	Museum archivist and educator
Steve	37	Male	2015 B.S. in Secondary Education/Social Studies	Education department at a historic site	English professor at a university in Japan
Doug	30	Male	2015 B.S. in Secondary Education/Social Studies	Education department at a museum	11th and 12th grade history teacher at a Catholic high school
Paul	35	Male	2015 M.Ed. in Secondary Education/Social Studies	Archives of a museum	9th and 12th grade history teacher at an urban magnet high school
Charles	33	Male	2017 M.Ed. in Secondary Education/Social Studies	Education department at a historic site	8th grade Social Studies teacher at a rural middle school

Fig. 1. *Participant Demographic Information.*

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[3] Pseudonyms have been substituted for all participants.

5.2. Data collection

Data was collected through three different instruments which together provide a unique lens through which to understand participants and their experiences at their residency: a questionnaire, interviews, and the examination of a lesson plan created and taught by the participant. Through each of these instruments, participant perceptions of what they believe they learned during their residency experience and how they have internalized those lessons in their current educational positions were explored.

Questionnaire. After agreeing to participate in the study, but prior to the first interview, participants were provided and completed a demographic questionnaire (Appendix A). The questionnaire was utilized to identify the differences/similarities between participants and facilitated the adjustment of interview questions (Creswell & Clark, 2011).

Interviews. Participants were interviewed three times for this study using a semi-structured open-ended question format (Appendix B). During the first interview, participants reflected on their residency experiences to inform this study on how learning at the ISHE differed from education classes and student teaching. Of particular interest was how the participant perceived the social and environmental influence of working at the ISHE on their pedagogical development. The second interview examined how the residency experience influences current teaching practices and explored participant perspectives concerning the efficacy of the residency program. The final interview probed participant perceptions on how the residency experience will influence future teaching (Seidman, 2013). Rossman and Wilson (1985) recommend a combination of quantitative and qualitative approaches to research because together they corroborate, elaborate, and present "fresh insight" (p. 637) to the explored data that may be missed from a singular analysis. Thus, while many studies solely use a questionnaire to gather data, interviews were included in this study to honor the voices and experiences of participants as suggested by previous research.

Lesson Plan Analysis. Prior to the second interview, participants provided a lesson plan which they had created, taught, and considered typical of what they do daily in the classroom. The lesson plans were analyzed for authentic teaching strategies using Fogo's list (Appendix C). During the interview, *thinking aloud* strategies (Barton, 2015) provided participants the opportunity to explain in their own words why they designed the structure and determined the content of the lesson. Particular attention was afforded to those sections of the lesson plan determined before the interview as being authentic and aligned with Fogo's list. Following the participant's explanation of the lesson plan, *stimulated recall* technique (Barton, 2015) was implemented to gain an understanding of any links between how the participant designed the lesson and their residency experience. To this end, the participant was asked by the researcher why different aspects were included in the lesson plan and if/how the residency experience influenced how the lesson was constructed and taught (Creswell & Clark, 2011). Integrating a lesson plan analysis facilitated the exploration of participant expert teaching tendencies and providing an additional set of data which to compare participant pedagogy to accepted expert historical teaching practices.

5.3. Data analysis

Following the collection of the interviews and surveys, all data was entered into a NVivo 12 program file. Prior to any coding, careful and repeated readings of the interview transcripts were completed to understand participant perspectives and to begin to identify semantic links between the data. An initial taxonomic analysis allowed for the identification of emerging domains and trends within individual interviews and across the participants. Discourse analysis of participants responses was performed at the paragraph and sentence level (Alreck & Settle, 2004; Tannen, Hamilton, & Schiffrin, 2018). Granularity, therefore, remained at the sentence and paragraph level, with the exception of in vivo coding which further narrowed participant responses to single words and utterances (Chi, 1997; Saldañ;a, 2015).

This study utilized Fogo's (2014) list of historical disciplinary instructional practices to determine participant use of authentic, expert-teaching practices.[4] An initial analysis of the data was performed using Fogo's list (Appendix C) as a benchmark to determine how participants perceive their experiences at ISHEs influence their pedagogical disciplinary content. The results of this analysis were used to measure the prevalence of expert teaching practices and identify linkages between pedagogy and pre-service teaching experiences. This examination does not explain why participants teach as they do, but rather documents those expert practices, as defined by Fogo, that the participants self-identified as what they do in the classroom today. To explain why the participants act as they do, the literature review was leveraged to provide markers for understanding the situated experiences participants took away from their ISHE residencies.

From the literature review, four distinct areas emerged that typify experiences pre-service teachers of all disciplines usually have at informal sites of learning: content/resources, pedagogy, peer/expert collaboration, and informal learning environments. Focusing on these areas, a descriptive coding scheme was created (Saldañ;a, 2015) which was used to code the interview transcripts during first cycle coding (Appendix D): *Content/Resources*, the acquisition of new content knowledge or new understanding of what types of resources are uniquely available at the ISHE; *Pedagogy*, general skills acquired or internalized during a residency; *Peer/Expert Collaboration*, the influence of peers/experts on participant learning or the unique

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[4] While numerous studies exist that define expert disciplinary practices for history teachers, this study acknowledges that experts in this field recognize and use Fogo's list (2014) of 9 core disciplinary practices as an integral part of the discussion on expert teacher practices (e.g., Crocco & Livingston, 2017; Dack et al., 2016; Seixas, 2016).

ways participants understand material because of these human interactions during the residency; and, *Informal learning environments*, the influence on participant learning that can only be explained by being at the informal site of learning (for this study, this concept refers to a historic site, library, archive, or museum) or in proximity to the artifacts or documents stored therein.

In a second round of coding, an in vivo methodology was employed in order to prioritize and honor the participant's voice (Fontana & Frey, 2005). Using this strategy, unique participant trends or themes were identified that were missed with the coding scheme created before the interview (Theron, 2015). Using NVivo 12, word queries were performed to identify language commonly used by all participants or words used by those at similar residency locations.

To understand the first cycle coding data, a third cycle coding process using a focused coding system (Charmaz, 2006) was implemented to capture and illuminate trends missed during the descriptive and in vivo coding. All data was then synthesized to identify trends in the data between the participants as well as those unique to certain locations (Alreck & Settle, 2004).

5.4. Reliability and validity

Protocols were integrated into this study to standardize collection methods and promote the integrity of the data. To promote reliability, the survey instrument and interview protocols were examined by authenticating experts at the university-level before implementation (Golafshani, 2003). Validity was maximized by member checking (Cho & Trent, 2006) of all transcripts and the analysis of the data by participants.

6. Findings

As the extant research on pre-service history teacher experiences at ISHEs is mostly anecdotal with little data and disparate theoretical underpinnings which support the conclusion that pre-service teacher pedagogy is informed by the ISHE experience this study referred to the emerging trends from previous studies conducted with pre-service science and art teachers at in-formal sites of learning as it prepared instruments to analyze the collected data (e.g., Falk, Storksdieck, & Dierking, 2007; Henry, 2004). Using the trends from various pre-service science, art, and history teacher studies, coding schemes identified trends within and across the participants of this study. While there are some macro-level trends that emerged from this study that are similar to previous research studies in other disciplines, the data collected and analyzed also suggests pre-service history teachers have very different experiences than their counterparts at science and art in-formal learning spaces. The following findings summarize the collected and analyzed data from this study.

6.1. Historical disciplinary instructional practices

Using Fogo's list of the core disciplinary practices for secondary history education (2014), an analysis was made of the interviews to identify which practices were referred to most often by the participants as they described the influence of their residency on their current pedagogy. Table 1 is the frequency distribution of how often each participant referred to each of Fogo's practices in their interviews.

Of the nine competencies, the participants self-identified the following as influential during their interviews:

- Select and adapt historical sources ($f = 62$);
- Employ historical evidence ($f = 44$); and
- Explain and connect historical content ($f = 35$).

Table 1
Frequency of historical disciplinary practices.

Name/ Competency	Frequency of Acknowledged Historical Disciplinary Instructional Practices by Competency								
	Use Historical Questions	Select & Adapt Historical Sources	Explain & Connect Historical Content	Model and Support Historical Reading	Employ Historical Evidence	Use Historical Concepts	Facilitate Discussions on Historical Topics	Model and Support Historical Writing	Assess Student Thinking about History
Teri	2	15	7	0	13	4	7	0	0
Emma	2	10	4	2	4	2	1	0	0
Steve	5	7	1	0	6	0	3	0	0
Doug	0	7	4	1	2	0	1	0	1
Paul	10	15	14	1	12	10	9	0	2
Charles	4	8	5	1	7	3	4	0	2
Total	23	62	35	5	44	19	25	0	5

6.2. Selecting and adapting historical resources

Throughout many of the studies conducted within the fields of science and art pre-service education at informal sites of education, one of the most common findings was the perceived increase of content knowledge[5] by participants (Aquino, Kelly, & Bayne, 2010; Frechtling et al., 1995; Wissehr & Hanuscin, 2008). While content knowledge varied among participants in these studies, research does suggest that intensive residencies at in-formal sites of education significantly increase participant content knowledge. For example, in Wissehr and Hanuscins' (2010) study of pre-service science teachers at a local hands-on science museum, nearly 75% of the sixty-nine participants reported the increase of content knowledge as a result of the residency. However, in this study, only Doug reported an acquisition of content as an important element of his residency. However, Doug was the only participant who worked at a ISHE focused on historical traumatic events. The visceral experience may have played a role in his emphasis on content and not process. The rest of the participants in this study, however, essentially silent on the issue of content as a major point of their residency.

Instead of focusing on content specific information, the data from this study illuminates how participants gained a new appreciation for the variety of resources available at ISHEs, developed skills for finding and selecting resources from an ISHE, and internalized the propensity to integrate those resources into daily lessons. Working at the ISHE and becoming a member of its community of practice, residents began to appreciate the complexities of history education and adopt practices which move them away from the single narrative of the textbook and to a more authentic pedagogical style of teaching. For example, Paul worked at an archive where he studied the history of women soldiers during the U.S. Civil War. As he discussed how his experiences during his residency influence his teaching today, Paul did not address integrating the stories he learned during his work at the archive. Instead, Paul explained that his experience allowed him to recognize underrepresented voices in history and strive to help students seek out and appreciate them when learning about historical events.

> And my time at [residency location] makes me consider those underrepresented voices when I plan lessons. I just try to seek these types of things out to provide a richer, more complex view of history for my students to engage with. Any textbooks can give the macro level, but ***I want to put it in technicolor***. [Emphasis added]

What can be understood from Paul's experience is the tendency of pre-service teachers to learn new ways of thinking about history in practice rather than the acquisition of specific details. While he uses rich content in his teaching, Paul, as well as the other participants, places an emphasis on wanting his students to develop the propensity to look beyond the information provided in the textbook and work with the complex nature of historical inquiry.

Participants indicate that their pre-service pedagogical development was significantly influenced by their residencies. The residency enabled the participants to consider historical concepts and events outside the boundaries of the textbook narrative. In one of the final portions of her interview, Teri described her most significant takeaway from the residency program as follows: "I think it was much less about the content and more about how to implement the strategies I was taught in my methods class." The takeaway from the residency was not content, but an appreciation for resources and an internalized disposition to supplement their textbooks with primary source documents in their daily instruction.

Appreciation for resources. The reflective takeaway of process over content by Teri and the others in this study occurred even though they were given access places, documents, and artifacts of the museum normally out of the public's eye. Additionally, every participant reported receiving not only a comprehensive tour of their ISHE residency; but was also encouraged to take advantage of every resource at the site in the completion of their duties. Thus, even though participants were introduced to and provided unlimited access to collections in ISHEs, their growth was not in content information acquisition, but instead in how to find, vet, and use multiple types of resources. On this point, Paul remarked:

> Working in those places and having those opportunities is really great for that [learning how to work with documents/ artifacts]. And you don't get that in a college classroom. We can all go on the internet and read about these stories, but there is something about working with the resources and creating lesson plans that really makes it sink in … So, it enabled me to have a critical eye in order to learn how to look at resources, how to work with resources, and how to create lesson plans that really work.

From Paul's perspective, the residency allowed him the space and opportunity to work with resources in the creation of lesson plans. He saw content knowledge as something easily obtainable from the internet and not something he had to focus on during his residency. Instead, Paul's reflection focused on the skills he developed during the residency, such as cultivating a critical eye when working with resources. His newly acquired ability to find, evaluate, and leverage resources in the creation of lesson plans elevates the propensity to move beyond the narrative of the textbook and create new lessons which really work.

Similar to Paul, Teri noted that her residency equipped her with the skills she needs to teach authentically. She wants to help students see beyond what is presented on the surface of the issue and think more deeply about the historical situation at hand. One example of this is Teri's reflection of how her residency influences how she teaches today.

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[5] Content knowledge was defined by participants and is referred to in this paper as facts, concepts, theories, principles, specific examples, and general information supporting the specific discipline studied.

> I think I am now able to help students see biases in their work. I want students to see more than what they are working with, like documents and artifacts. So, it's taking that idea of showing them how to work with documents and figure out biases and perspectives. So, I want to get my students to look deep and see different perspectives.

Participants in this study commented that they developed the ability to question the mainstream narrative and interrogate resources from many of the day-to-day requirements of working with a wide variety of documents and artifacts during their residency. In every interview, participants noted that their residency experiences introduced them to the concept of how different types of resources can complement each other and promote student learning. Additionally, it provided an opportunity for the participants to self-assess their work and to learn how to continually improve lesson plans and supplemental material.

Linking resources to creating classroom material. Within the scope of their daily work at their ISHE, participants performed functions typical of ISHE staff. This afforded residents the opportunity to work firsthand with authentic resources within the ISHE community of practice. From resident reflections, performing this work within the social community of the ISHE seems to have a significant influence on how they teach today. For Doug, his residency influences his pedagogy, even when teachers around him are working in very traditional ways.

> They [fellow teachers in his department] are pretty much doing traditional teaching - old school. For me, it is taking advantage of resources available to me. I guess I am always looking for supplemental material to add to my lessons and incorporating them into a project-based assignment. I would say that I do wonder sometimes why other teachers don't take advantage of the resources so readily available to them. So, I guess I did get more out of the internship than I thought before.

Doug's reflection of moving away from the narrative provided by the textbook and to a format which is rich with primary source documents is one that ripples throughout all of the interviews in this study. Combined with the theory of how to teach with primary source documents that was provided in their methods courses, participants noted that their residency continues to influence their selection of course material and how they teach students to work with that material today. Similar to Doug's reflection, Emma commented:

> I think I knew primary sources were important and teaching with primary sources is important, but I think I couldn't make the case until after my residency. So, I really do think that it was the methods class in combination [with the residency] that really made that sink in for me. It is really clear to me now how much the [residency] shaped me as a teacher.

The comments above by Emma and Doug are reflective of the other teachers in this study. Novice teachers, after working as members of an ISHE community with authentic material, seem to be more willing to move away from what other teachers in their department are doing and strike out on their own. The residency seems to have not just given them the tools to find and use material outside the standard coursebook; it has also instilled in them the confidence to believe that what they are doing is the best methodology for enhancing student learning.

As a graduate student without an undergraduate degree in education, Steve concluded that his residency profoundly influences the way he structures lesson plans today.

> Because of the internship I made my classes more project based than I otherwise would have. Even now, teaching English in Japan, I am using what I learned in my internship to develop a more project-based curriculum. Right now, I am in the middle of project-based assignment that is going like gangbusters. So yeah, I guess it was pretty influential now that I think about it. Wow, I never thought of this before.

Steve's reflection is important on two accounts. The first is that Steve demonstrates how pedagogical instructional practices learned during a history residency are transferable to subjects outside history. The second is that Steve did not even realize how influential the residency was before his interview. He internalized engaging students in historical conceptual analysis with primary source documents to a degree that this pedagogical practice became a fundamental and instinctual part of his core teaching practice.

Steve is not the only participant whose residency experience influences how they teach subjects other than history. Teri, currently employed as a high school English teacher, was also influenced by her work during the ISHE residency. When reflecting upon a recent lesson on *To Kill a Mockingbird* for her eleventh grade English class, Teri commented:

> So when I was teaching *To Kill a Mockingbird*, I integrated photographs and newspaper articles from the Scottsboro Trial. Because of the internship, I am always trying to link what is going on in the classroom to actual history. I want to make it real for them and using archival material is the way I can do it. And working at the archives gave me the understanding on how to find and pull material to use in my class.

Through Steve's and Teri's reflection there is evidence that pre-service teachers develop expert disciplinary practices from their residencies and transfer those practices into the classroom; no matter what subject they teach.

6.3. Pedagogy

In every interview conducted for this study, participants noted the influence the residency has had upon their current teaching practices. Theoretical strategies and pragmatic pedagogy were taught in the methods courses, but participants note that it was only during the residency that they internalized them. This is a particular point because the interviews document that it was not student teaching that fostered the transition of authentic teaching from theory to current practices; instead it was the situated interactions within the ISHE setting and with peers/mentors that fostered the construction of expert teaching practices as defined by Fogo. While some participants were influenced more than others, each acknowledged in their reflections and in the analysis of their lesson plans, that the residency has had a profound influence on how they evaluate resources to use in the classroom and how they prepare lesson plans.

Authentic teaching. One particular shift in pedagogical practices that is reflected by all participants of this study is the willingness to embrace of a more authentic teaching pedagogy through the implementation of expert teaching practices. It should be noted that this skill was not learned in isolation at the residency placement for most participants, but instead is linked to University X's methods courses. Undergraduate participants interviewed for this study consistently noted the importance of first learning pedagogical theory in the classroom and then having a chance to work with those theories in the space afforded to them at their ISHE. The findings herein suggest that pre-service teachers in this study internalized theoretical teaching practices during the situated experiences at their residencies. The data from this study suggests that it is the relationship between the pedagogical methodologies the students learn in the classroom and application of those methods in the situated community of practice at the ISHE that promotes the propensity to teach with inquiry using expert teaching practices. For instance, when asked for an example of this, Doug replied with the following:

> One of the things emphasized [during the methods class] is teaching students how to do research and not just use Wikipedia. My experiences during my internship reinforced what we learned in class. It was like we learned what we were supposed to do in class and then we actually did it with real students during the internship.

In this case, Doug's experiences during his residency and his methods class developed within him the pedagogical disposition to teach authentically and not rely on textbooks as the sole source of perspective or information. Although he learned theory in the classroom, Doug did not internalize it until he saw it unfold in practice at the ISHE. While he attributes his methods classes to providing him the theoretical framework for best teaching practices, he points to his residency, not his student teaching, as having afforded him the opportunity to practice these teaching skills and concretely understand the importance of implementing them. The residency experience validated the teaching points emphasized during Doug's methods classes and allowed him to transfer knowledge into practice.

Similar to Doug, Charles noted in his interview that the residency experience allowed him to link the theory of what he should be doing in the classroom to actual students. For Charles, the real-world application offered by the residency instilled in him a new understanding beyond what he learned in his methods class.

> My experiences at my residency was different from my coursework in that I was researching with primary sources in order to expand the curriculum. I was creating actual worksheets that students used on the tours and when they got back to their classrooms. In the [college] classroom, we were learning more about creating lessons and assessments. But it was theory. The difference really was [in the classroom] it was theory and at the residency it was real.

In each of the interviews in this study, there is a thread of continuity between what the participants learned in their college methods courses and when it was internalized in their teaching. Each participant acknowledged that authentic-based instruction was something they understood before they entered their residency. However, they did not internalize it as a professional pedagogical strategy until they were in the space of the ISHE working as a member of their community of practice. Thus, the result of the intersection of person, information, and ISHE location seems to be the nexus between understanding and learning.

Research skills. For other students, the residency provided the opportunity to think deeply about teaching history and how to instruct students on the art of interrogating sources and the research question. Their residency allowed them the time and opportunities to develop teaching strategies they use today. When asked how the residency influences how he teaches students to analyze sources, Paul replied with the following:

> The way I look at it, it is more like a proof in math. You have to analyze the document and prove that it fits in the narrative. Working with documents during the internship really helped me figure out that process of examining and analyzing different documents and teaching students how to do that.

In this reflection, Paul highlights a trend across all the participants of the study: the importance of interrogating documents. All participants, including Paul, point to their residencies as an important reason why they teach with authentically and encourages their students to consider other perspectives outside the mainstream narrative.

Similar to the other participants in this study, Teri's residency provided the opportunity to work outside of the familiar and grapple with material very different from what she was used to. In her case, Teri was working in the digital images department of a science museum. This experience provided Teri with the chance to develop a set-piece methodology to analyze documents and artifacts she now teaches her students to use.

This gave me a chance to analyze something I had not before. I got to see the difficulties that students go through and, through my struggles, learn how to break things down so students can analyze something they have never seen before. So I guess it taught me how to break down that process for students who are working with material they are completely unfamiliar with.

Paul and Teri's interviews indicate that their pedagogical development was uniquely influenced by their residencies. As history majors, both admitted to having done numerous research projects on a diverse range of topics before their residencies. However, during their interviews, both also definitively identified the situated experiences at their ISHEs as the reasons why they have the ability and tendencies to teach authentically.

6.4. Peer/expert collaboration

Both international and domestic teacher education programs highlight the profound benefits of situating pre-service teacher education courses within ISE settings (Lemon & Garvis, 2013; Yu & Yang, 2010). Specifically, the data and the findings from the prior research suggest pre-service and in-service teachers often grow pedagogically because of the unique collaborative experiences they have with both peers and museum experts (Ferry, 1995; Gregg & Leinhardt, 2002; Lemon & Garvis, 2013; Watters & Ginns, 2000). Using this research as a guide, participants were queried about how relationships in the ISHE space influenced their learning. The goal for this line of questions was to determine how relationships within situated informal learning spaces offered by ISHEs influence pre-service pedagogical growth. This section of the study will discuss participant reflections on how experiences with peers and expert mentors influenced learning during their residency and how they teach today.

Peer Collaboration. One trend in this study which can be seen across the data from every participant is the emphasis each placed on the influence of relationships at their residency. Specifically, participants noted the collaborative nature of working with residency peers and completing tasks together. It seems that it is not just the physical environment of the ISHE or the access to authentic resources that improves pedagogical formation. The data indicates how the unique social interaction pre-service teachers have during their residency influences their future teaching. In this area, participants highlighted two aspects of peer collaboration that they believe influenced their growth: a non-competitive social environment and real-world tasks.

Non-competitive social environment. Participants working at their residency placements with peers uniformly described their associations as uniquely positive and motivating as compared to working with a partner in a typical classroom setting. Because they sensed the work as more than just a class project they were completing together for a grade, their relationships to each other and the work they were achieving took on new meanings. This suggests that it is not just the environment, or the tasks being completed, but instead the influence of the social interaction with peers and mentors. Paul's comments below reflect how the ISHE setting influenced his relationship with his partner, their work, and how the synergy of these two factors positively influenced their work.

It did not feel like we were in a class. In a classroom you are a little more covetous of your work since there is a grade. But in this setting, it was collaborative. It was more real-world work. It was not competitive, like in a classroom, it was a shared sense of purpose to get the best product created that we could.

Paul's comments and reflections of working with peers during his residency are echoed throughout the interviews collected in this study. In each interview, particularly well highlighted by Paul, they acknowledge that they had already established relationships with their peers prior to and during the residency. When they were in spaces outside the ISHE, their relationships were task focused and non-collaborative. However, while they were interacting within the ISHE space, their relationships changed. And this change does not seem to be a result of the material being covered or the environment of the ISHE alone. What comes through in Paul's reflection is the profound influence of the situated learning experience that occurs in the intersection of the social relationship between peers and the environment of the ISHE.

Real-world tasks. Similar to participants studied in other educational research studies (Barnes & Gachago, 2015; Condy, 2015; Dennen & Burner, 2008), the pre-service teachers consistently expressed the real-world nature of their positions and that they knew what they were creating would be used by students and teachers as motivational factors for doing the best work. They stopped viewing their work as part of a residency associated with a methods class and instead internalized it as a critical part of the success of the ISHE where they were positioned. For example, Doug explained that his residency "was real-world, not an abstract assignment or something that we knew was not actually going to be used by actual students."

Because they were making lesson plans which would be used by teachers and students, participants seemed to come to new understandings on the utility of ISHEs and how they offer resources they can draw upon as they create material for their own classrooms. In Steve's reflection, he attributes his understanding of the importance museums can play in supplementing his curriculum to something he learned during his residency and not in his methods class.

Making real lesson plans for real students allowed me to see how museums offer learning resources not included in textbooks. I don't think I learned that in my (methods) classes. I just know now how to find and leverage resources outside textbooks and the internet.

Steve's reflection underscores how the situated experiences of his residency influence his perspective of integrating outside material into student learning. Instead of being grounded to the narrative within his classroom textbook, Steve has

shifted to including multiple-sources and perspectives that he now believes can be found in museums. In an earlier part of his interview, Steve recalled visiting a museum during a methods course where he was briefed on the different resources available therein. However, as stated in the reflection above, he notes his work at the museum as the crucial factor in his understanding of how important museums can be in supporting his curriculum. This is a critical point because it highlights the influence of the situated experience of the residency on Steve's pedagogical development. Although he received the same information in the trip to a museum during his methods course, it was not until the residency that he could fully appreciate and internalize the scope of museum resources. Similar to his peers, Steve's pedagogical development was influenced within the intersection of the material presented to him and the environment of the residency.

Expert mentorship. Research on the importance of mentors and their influence on pre-service teachers is well-documented in the literature (Feiman-Nemser, 2001; Katz et al., 2011; Woyshner, Reidell, & Brasof, 2013). Data from the interviews highlight the emphasis participants placed on the important role their ISHE mentor played within their residency experience. The pre-service teachers in this study highlighted two specific ways their ISHE mentor influenced their development that was different from their experiences in a traditional classroom setting: creating a collaborative atmosphere and allowing for creative freedom.

Creating a collaborative atmosphere. The participants indicated that their ISHE mentors created collaborative and inclusive social environments in which to work and solve problems. Respondents reported that their mentors, often from the first day, made them feel like an important member of the ISHE community of practice and welcomed their ideas and suggestions on how to improve operating conditions at the ISHE. When asked to elaborate on this, Doug stated: "We got a tour on the first day by our mentor. She asked from the first day [for us] to continually looking things we could change in the museum to make it better."

Instead of putting the pre-service teacher in a room with an individual task to complete, the mentors uniformly scheduled time in the day to work together with the residency peers. On this point, Paul experienced the benefits of the collaborative atmosphere his mentor created:

> He was laid back, collaborative. We worked with things and jointly figured things out. It felt like a workplace environment instead of like a classroom where the teacher is in charge and giving very specific direction. So, this was very different from a classroom teacher with whom you rarely talk to one on one. With a university professor you are given direction and then set out and normally get no direction for several weeks. In this case, I met [my mentor] every day and got great feedback. I think it really helped me grow and maximized what I got out of my time there.

The social interaction between participants and peers at the ISHE is noted by the residents as a significant aspect to their pedagogical growth. Unlike their interactions in a college classroom with their professors, the situated environment at the ISHE is credited by the participants as a driving force for creating the conditions which maximized their learning. Being made welcome and valued in the ISHE community of practice seems to have inspired residents to approach their tasks with energy and empowered them to seek out unique solutions to challenges instead of waiting for instructions and directions as they would in a college education class.

Allowing for creative freedom. With the establishment of a collaborative atmosphere where mentors encouraged new ideas and suggestions, the pre-service teachers of this study indicated they felt they had both the freedom and the mentor's encouragement to be creative in their design of educational material. Elaborating, Doug commented:

> She [the mentor] checked in with us every day and asked if we had any questions, but she gave us the freedom to create the student worksheets as we saw fit … She gave us guidance, but what we created was our call. It was even, like hey, these kids are coming on a field trip and I want you to create something interactive and something they will engage in — it was completely our call on what we made.

Dovetailing on Doug's comments, Teri noted that her mentor encouraged her to think up solutions on her own to the problems at hand.

> I think it was pretty good balance between leaving me alone and giving me guidance. She gave me a goal and let me figure out what I needed to do. But she would always come in from time to time to make sure I wasn't hung up on anything. We bounced ideas off each other, it was very collaborative, very team based.

Unlike traditional college classrooms with set learning objectives and rubrics for excellence, participants describe a collaborative learning environment which empowered pre-service teachers to explore innovative ways to present learning material. Residency graduates attributed the team-based environment of the ISHE and the social interaction with their mentors and expert staff as an important element of their pedagogical development. The creative freedom afforded them at their ISHE facilitated their understanding of the importance of integrating authentic resources and creating team-based learning environments.

6.5. Informal learning environments

There is a growing body of literature which suggests teachers learn in distinctly positive ways when the educational setting is outside the traditional college classroom and within the physical space of an ISHE (Baron, Sklarwitz, Bang, & Shatara, 2018; Leinhardt & Gregg, 2000, pp. 1—30; Seligmann, 2014). Research indicates that the scale, resolution, and perspective of

many objects cannot often be replicated outside of these sites or within virtual platforms (Hooper-Greenhill, 2007; Melber & Cox-Petersen, 2005; Olson, Cox-Petersen, & McComas, 2001). Other studies (Cox & Barrow, 2000; Wright-Maley, Grenier, & Marcus, 2013) note that unique learning opportunities occur when participants interact with peers, professors, and ISHE educational experts at these sites. Previous findings, such as those reported in the work of Falk (2004), Goulding, Walter, and Friedrich (2013), and Trofanenko and Segall (2014), determined that "situating leaning from museums within enlarged scope and scale are not just abstract niceties; they are fundamental to validly determining what is or what is not learned from the museum experience" (Falk, 2004, p. 584). Based on this literature, this study sought to discover if the situated informal learning environment of the ISHE influenced the acquisition and/or refinement of historical disciplinary instructional practices of the pre-service teacher participants.

The data collected in the current study supports the above-mentioned research and suggests it is particularly beneficial for pre-service teachers to experience these opportunities as they develop historical disciplinary instructional practices. For example, during his residency at a historic site, Charles learned how to plan and lead student trips in order to leverage the unique learning opportunity that occurs when students encounter historical objects at museums. Reflecting on a class field trip, Charles notes below how the location of learning can influence student interest and engagement:

> Yeah, definitely. I think it was just standing in from of the Terracotta Warriors that did that. They [Charles' students] were really into it and not bored at all. They asked really great questions and were genuinely interested in ways that they never were in the classroom. I remember we watched a video back in the classroom where some of the teens tuned out and got bored, but that did not happen at the museum. Like I said, they were really into it at the museum. Seeing them up close really made a difference. I think it just invokes an emotional response. It became real.

Charles's reflection illuminates the influence of informal spaces on learning. In this case, the students had already learned the concepts and been exposed to images of the Terracotta Warriors. However, when confronted with the Warriors in the space of the museum, students became "genuinely interested in ways they never were in the classroom." Charles' ISHE experiences and the pedagogical content knowledge he developed during his residency prepared him to lead class discussions at the museum and create moments of inquiry for his students.

According to Steve, the physical aspects of the historic sites supported learning in very concrete ways. To Steve, it was not just about the artifacts housed in the museum at the historic site or the physical structure of the buildings at the site, but an embodied experience that contributed to the overall learning experience.

> Part of it was learning at the penitentiary [the ISHE]. The whole atmosphere of the prison evokes something in you. It changes how you learn I think. You know, the cold stones, the dampness, the overall feeling that you are in a real place where people were imprisoned. That just makes the material more real.

Steve's reflection is a critical point of data in this study. It identifies and captures the influence that a space and its history have on individuals when they are connected in a situated experience. Separately, they had almost no influence on him. However, as he walked through the damp corridors of the prison and could imaginatively conjure the events that occurred there – his learning changed. It became a visceral moment that changed how he understood and conceptualized the information. While it may not be so in every case, informal spaces have the ability, as Steve reflected, to change how you learn.

7. Discussion

This research study suggests pre-service history teacher residencies at ISHEs of at least one semester in length influence the pedagogical development of pre-service history teachers and continue to influence their educational practices after they are in the classroom or working in other educational environments. Additionally, it provides insight into what kinds of ISHE sites promote different lessons learned by the participants.

7.1. Historical disciplinary instructional practices developed

In college classrooms, future history teachers learn details of historical facts and theoretical pedagogy; during their residencies, they self-report that they learn to appreciate how often minority perspectives and narratives are omitted from high school history textbooks. This study concludes that one reason the residency is so important in the pedagogical growth of pre-service teachers is the opportunities they have to work with a wide variety of resources and seeing information not on view to the public. This behind the scenes access, which the participants described in the *appreciation for resources* section of this paper, seems to have internalized within the participants a manifestation for teaching students the importance of seeking out and acknowledging multiple perspectives surrounding every historical event as well as the ability to transfer those research skills to their students. With this understanding, pre-service teachers realize during their residencies that ISHEs have much more to offer than what's on display. The data from this study indicates that ISHE participants develop the propensity to want to teach with empathy and empower their students to see beyond the dominant, and often singular, narrative offered to them in their textbook – to teach authentically and transfer those skills to their students.

However, knowing the narrative in most high school textbooks is incomplete does not necessarily translate into a teacher being able to integrate the missing stories into their classrooms. Teachers need to be able to find those stories in order to use them. The data compiled in Table 1 and the corresponding narratives in the findings portion of this study illuminate the

importance the participants believe the residency played in their pedagogical development. In most cases, the participants noted that they already understood the concepts, such as using primary source documents in the classroom and student-centered teaching; however, they place the emphasis on how they internalized those concepts while they were at their ISHE and when they were with mentors or peers. What seems to be happening in this study is a unique, situated learning experience within the framework of the residency. It is not the environment, the peers/mentors, or the information that individually make a difference. Instead, it is the relation between all three at the intersection of the residency that generate change.

This study also determined that teachers who complete a residency feel empowered and comfortable to work with ISHE educators and within ISHE spaces as they implement authentic teaching strategies to supplement their single narrative textbooks. This self-reported data builds upon previous research in this area which notes the trend that novice teachers, in particular, are statistically less likely to integrate museum artifacts and resources into their classrooms unless they have been introduced to these spaces prior to entering the classroom (Morentin & Guisasola, 2015). This research also supports previous studies by Olsen, Cox-Petersen, and McComas (2001) that recognized the importance of pre-service teaching experiences at museums in facilitating classroom instruction with artifacts. The reason for why the ISHE residency is so influential was noted in a previous study: "Situated learning [within the residency] is valuable because it provides an interactive, participatory framework for learning that is created by varied encounters, rather than an abstract body of knowledge." (Aquino et al., 2010, p. 229). The data from this study suggests ISHE residencies provide valuable experiences for pre-service teachers which uniquely lead to the propensity to teach using expert historical teaching practices.

This trend is consistent with other studies which indicate pre-service educative experiences that do not have a residency component built into it will not adequately prepare teachers to understand how maximize the resources and expert assistance available at ISHEs (Henry, 2004; Leinhardt & Gregg, 2000, pp. 1–30; Melber & Cox-Petersen, 2005; Patterson & Woyshner, 2016; Stone, 1996). Additionally, the data from this study indicates when pre-service teachers watch and work with expert museum educators, they internalize the importance of and gain confidence in teaching with documents and artifacts. This does not mean the pedagogical strategies which methods course teachers advance is different from those practiced by ISHE educators: participants indicated they were the same. However, participants report working at an ISHE provided a real-world experience they draw upon when planning lessons and teaching.

7.2. Shared practices

In the final paragraphs of Fogo's work, he proposed the question: "To what extent are effective teaching practice shared across disciplines?" (Fogo, 2014, p. 179). Neither Fogo's research nor this study provides solutions to this question. To answer this question, it is crucial to review the literature as well as examine the pedagogical practices that match those of different disciplines. Thus, this question is beyond the parameters of this study. However, while it is beyond the scope of this study to speak to and attempt to identify links between the residency and pedagogical practices of non-history teachers, the data collected does illuminate several areas and provides useful information for future studies.

In this study, two of the six participants completed the residency program and have since switched to teaching English: Teri, who teaches 9th and 11th grade English at a small high school outside a major urban city in the Northeast, and Steve, who teaches English at a Japanese university. While both of their reflections provide great insight to how the residency informs their basic pedagogical disposition, what is difficult to ascertain is if there is a content link between what they learned during their residency and their current instruction within an English classroom. What we can glean from their interviews is that their experiences at their residencies influence what they do in the classroom, regardless of subject.

This study does not conclude the effectiveness of the disciplinary practice, rather, it presents a case regarding what is learned during the ISHE residency may be transferable to other disciplines. It is important to emphasize that while it seems to be transferable and useable, it may not necessarily be effective. Further research in this area is thus warranted before any conclusions are made on the usefulness of similar residencies in these disciplines.

8. Limitations

Similar to any qualitative study conducted, it must be acknowledged that certain limitations influencing any conclusions drawn from the data derived in the current study must be acknowledged (Marshall & Rossman, 2016; Patton, 2002). The first two limitations that must be noted are the small sample size and the sample profile of the participants of the study. Although over 200 persons have completed the residency program, this study interviewed only six participants. The data derived from the interviews and questionnaire must be analyzed with the understanding that the small sample size may not be indicative of the consensus of what the total population experienced and currently practices.

The second limitation is that the respondents in this study were from one university. This could not be avoided because Eastern State is one of a handful of institutions which require all social studies education majors to complete a residency. Nevertheless, this point may mean that the results are not transferrable to other schools of education.

The third limitation that must be acknowledged is that the data collected is dependent upon the memories of the participants. Cognitive researchers (Koriat, Goldsmith, & Pansky, 2000; Pecher & Zwaan, 2005) explain that memory is often fallible and inconsistent with the lived truth. Hence, participants may not always be accurate in their reflections of their ISHE

experiences. However, since all participants independently recalled the same general experiences, it is entirely possible that reflections were more or less accurate.

The fourth limitation concerns the lesson plan analysis. There is no way to determine if these are actually "typical" of participant teaching practices since direct observations were not used. To account for this gap in understanding, pedagogical practices were identified within each lesson plan. Lesson plans were then compared to each other to identify trends in teaching practices and assess the commonness of teaching practices. Comparing lesson plans to each other, they were able to corroborate each other and validate the use of the lesson plans in the data for this study.

Finally, this study and the findings therein are the subjective interpretation and analysis of the researcher. In all qualitative studies, the researcher's experience (Marshall & Rossman, 2016) must be acknowledged and accounted when evaluating the limitations of the study. The data for this study was not generated on its own. The researcher created it and drew out from the interviews what he deemed important. It is entirely possible that data was overlooked due to a pedagogical preference of the researcher or that he was simply blind to it because of his positionality, biases, and life experiences.

9. Conclusion

The most recent review of history teacher preparation literature (Van Hover & Hicks, 2018) highlights the continuing debate of how to best prepare pre-service history teachers for the challenges of the modern classroom. The current study is important to the literature because it looks at an emerging field within this topic which has little quantitative or qualitative data available for scholarly review: the pedagogical implications of a semester-long residency at an ISHE on pre-service history teachers. Furthermore, the findings of this study are very encouraging and provide rich data that adds to the discussion on pre-service teacher pedagogical development and the role residencies can play during this developmental period.

The data collected for this study indicates that pre-service history teachers develop expert disciplinary teaching practices after performing a semester-long residency at an ISHE. Specifically, the residency internalized within the participant the skills of selecting, adapting, and employing authentic historical evidence as they engage students with authentic teaching practices. Participants noted that they came to understand critical skills during their residencies in very different ways than in their other teacher preparation experiences: education methods courses and student teaching. Although the same pedagogical content knowledge was emphasized in all three learning environments, participant reflections indicate that an ISHE residency offers a learning environment which facilitates the internalization of expert teaching practices in ways very different from other pre-service education learning environments. The determining factor in this study, as defined by the participants, was that the learning took place within the intersection of the physical space of the ISHE and the social interaction between themselves and their residency peers and ISHE staff while at a residency.

In addition to internalizing previously learned material from their teacher education courses, residents reflected upon the unique lessons and skills they learned at their ISHEs. Specifically, participants noted that the ISHE experience provided them with the knowledge, skills, and confidence to work with ISHE staff and in the site collections as in-service teachers. This allows them to draw from ISHEs to supplement their textbook with authentic resources in ways most teachers are unable to do. Another area of difference is expanding their classrooms with field trips. Residency graduates see the ISHE as an extension of their classroom while the literature notes that most of the time a field trip is a one-off day from regular instruction and is rarely integrated into classroom curriculum and learning goals.

Although the data collected from this research is very interesting and the findings illuminating, it would be prudent to reserve any definitive conclusions without further studies with an increased number of participants. Future studies might benefit from the quantitative analysis of a more detailed survey with a larger population pool. Careful consideration of different resident demographics might provide meaningful understandings to how, why, and to what degree participants internalized different expert disciplinary practices. Other areas of emphasis should include how the residency influences the integration of field trips and the ability to leverage ISHE resources. In conclusion, it is recommended that a future situated learning study be conducted with a more comprehensive participant population in order to validate the findings of this study and illuminate any additional areas that did not surface due to the small population pool.

Appendix A

Participant Questionnaire

1. Name:_____
2. Gender:_____
3. Age:_____
4. High school location (Please circle one): Rural Suburban Urban
5. Did you participate in National History Day in high school? (Please circle one): Yes No
6. University:
   Year of graduation:_____
   Major(s):_____
   Name of FR residency:_____
7. Do you have a master's degree? (Please circle one): Yes No If yes, please answer the following:
   College/University:_____ _____ _____
   Degree
   Awarded:_____
   Year Awarded:_____
8. Employment
   Current place of employment:_____
   Year you started working here:_____
   Subject/Grade you teach:_____
   If not a teacher, what is your position:_____

Appendix B

Semi-Structured Interview Questions

Interview #1 Pre-service Teaching.

1) Social studies education at university and the FR Placement.
   a) Can you begin by telling me a little bit about your FR experience? What was your typical day like?
   b) Was your FR placement different in any way than the courses you took on campus? If so, how? Provide an example.
   c) Was there anything you learned during your residency that you did not learn in a your pre-service coursework class that you think is important?
   d) Did you have a chance to work with high school students during your residency? If so, can you provide an example? What did you learn from helping high school students do research at your FR placement?
   e) Were there any other Temple students at your FR? If so, did you work at the same time and collaborate with the other Temple grad(s)? Was working with fellow students at your FR different in any way than working with them in a traditional classroom? If so, in what way(s)?
   f) Describe your interaction with your FR mentor during your residency? How often, on a weekly basis, did you work with your mentor? Does that interaction influence how you teach today? If so, how?
   g) Have you used any contacts you made during your FR experience to help you in the classroom? Have you asked them for advice or for any resources? If so, please provide an example.
   h) What was your biggest take away from the residency?

Interview #2 Current teaching strategies and practices.

1) Content/Resources
   a) In what ways, if any, did your FR residency influence your emphasis/de-emphasis on content in your instruction today?
   b) What influence, if any, does your FR experience have on how you select resources for your students today?
   c) Is conducting historical inquiry part of what your students learn how to do in your classroom? If so, in what ways, if any, did your FR experience influence how you organize and use content/resources when teaching historical inquiry skills?
2) Pedagogy.
   a) Looking at other history teachers in your school, do you think that you teach in any different ways than they do? Are your lesson plans similar or different than the peers you work with? If so, how?
   b) When planning a unit, do you integrate outside resources into your lesson plans? Why or why not? If yes, which ones? How do you determine which ones to use?

c) Reflecting back on your FR experience, do you think it influences how you plan individual lessons today? If so, how?

d) Do you think your FR experience influences how you plan a unit? If so, how?

e) Do you consider yourself an educator who teaches with inquiry? If so, do you think your FR experience fostered your ability to teach with inquiry in ways you otherwise would not be able to? If so, how?

f) Do you think your FR experience allows you to find and use material that you would otherwise not be able to? If so, how?

g) Have you taken your students on a field trip to an ISHE as part of a class? If so, can you provide an example? Why did you take your class to an ISHE rather than teaching in a classroom?

h) Building off the previous question, do you think ISHEs offer learning opportunities which cannot be replicated in the classroom? In other words, does your teaching and student learning "in the same space" as the document or artifact influential to student learning?

Interview #3 Final comments.

1) Final Comments.

   a) Do you think your FR experience was a worthwhile part of your pre-service teaching experience? If so, how and provide an example of why?

   b) Do you think your FR experiences will continue to influence how you teach? If so, how?

   c) Thank you for assisting me with my research, is there anything you would like to add about your FR experience that we have not already discussed?

Appendix C

Historical Disciplinary Instructional Practices

Practice Number and Title	Description	Coding Abbreviation
1. Use Historical Questions	The teacher plans lessons and units around historical questions. This practice focuses on the use of questions that have driven historical scholarship and debate (e.g., Was Reconstruction about emancipation or reconciliation? Could the United States have avoided involvement in World War I? How did the Chinese Communists succeed in establishing the PRC?) to organize instruction. Further, this practice involves presenting questions focused on historical analysis that elicit and support the development of students' historical thinking and understanding, raising questions in response to students' ideas, and creating opportunities for students to generate their own historical questions.	HDIP1
2. Select and Adapt Historical Sources	The teacher centers instruction on appropriate and engaging historical sources that include various types of texts and artifacts and illustrate multiple perspectives and interpretations. Sources should include both primary and secondary texts and may include images, political cartoons, documentaries, movies, graphs/charts, and maps. This practice also focuses on how the teacher prepares and/or adapts historical sources—such as excerpting documents or utilizing scaffolding questions—to help make them accessible to students.	HDIP2
3. Explain and Connect Historical Content	The teacher uses historically appropriate and comprehensible explanations to describe and connect historical content, concepts, and accounts. This practice includes how the teacher uses various tools (e.g., timelines, maps, films) and strategies (e.g., lectures, storytelling, examples, analogies) to help students develop knowledge of different periods of history and specific historical contexts. When appropriate, the teacher connects historical content and concepts to the personal and cultural experiences of students and also helps students see the distinctions between their personal and cultural experiences and historical content under study. This practice includes making relevant connections between historical and contemporary events and phenomena.	HDIP3
4. Model and Support Historical Reading Skills	The teacher models and provides students opportunities for guided and independent practice of discipline-specific reading skills. This practice focuses on how the teacher illustrates and supports different historical reading skills, such as evaluating and comparing different source materials, considering the historical context in which different artifacts and documents were created, or corroborating evidence and historical accounts.	HDIP4

(*continued*)

Practice Number and Title	Description	Coding Abbreviation
5. Employ Historical Evidence	The teacher demonstrates the use of evidence in addressing historical questions and developing and evaluating historical claims. This practice focuses on how the teacher uses, and supports students in using, multiple forms of evidence—for example, both primary and secondary sources, visuals, maps, charts, and graphs—to develop and support historical claims and understand the connections between claims and evidence.	HDIP5
6. Engages Students in Historical Conceptual Analysis	The teacher plans lessons and units that focus instruction on first- and second-order historical concepts (e.g., nationalism, revolution, cause and effect, change and continuity, chronology, significance). The teacher illustrates how historical content explored in class connects to, or is representative of, historical concepts and creates opportunities for students to engage in conceptual analysis of historical events, sources, and artifacts.	HDIP6
7. Facilitate Discussions on Historical Topics	The teacher creates opportunities for students to engage in extended discussion with teachers and among peers about historical questions, controversies, sources, or artifacts. This practice focuses on how the teacher demonstrates—and has students practice—considering, clarifying, presenting, and supporting ideas and comments with evidence, and the extent to which discussion is grounded in historical questions, texts, or artifacts.	HDIP7
8. Model and Support Historical Writing	The teacher models and creates opportunities for students to develop and communicate historical analysis through writing. This practice focuses on the extent to which the teacher designs classroom activities that support students in using writing conventions to construct historical accounts, formulate historical claims and arguments, address counter-arguments, and use evidence.	HDIP8
9. Assess Student Thinking about History	The teacher crafts and implements formative and summative assessments that gather valid information about students' ability to engage in historical analysis and understanding of historical accounts and concepts. This practice focuses on the extent to which a teacher identifies and evaluates student thinking and provides feedback to help students improve their historical knowledge, reasoning, and communication.	HDIP9

(Fogo, 2014, pp. 194–196).

Appendix D

Descriptive Coding Scheme

Content/Resources.

- (CR1) Provided me opportunities to learn new material by working with primary source documents and artifacts which are essential to understanding and teaching history. [InTASC: 5(c), (Bain & Mirel, 2006), (VanSledright & Kelly, 1998)]
- (CR2) Provided me the opportunity to gain new content knowledge and realize how minorities are often left out of mainstream historical narratives. [InTASC: 2(o), (Sleeper-Smith, 2009), (Hopper-Greenwell, 1992)]
- (CR3) Being exposed to new evidence provided me the learning environment to change my mind on what I thought happened in the past. [InTASC: 5(m) (Trofanenko, 2006),]
- (CR4) Provided me the opportunity to realize that what I don't know about historical events and persons impacts how I create lesson plans as much as what I do know. [(Gabella, 1994), (Segall, 1999)]

Pedagogy.

- (P1) Provided me experiences that strengthened my ability to teach students how to conduct historical research. [(Marcus, Stoddard, & Woodward, 2012), (Powers, 2004), (Seligmann, 2014)]
- (P2) Helped me develop strategies to teach students to critique narratives and common misconceptions about historical persons and events. [InTASC: 4(b) (Pershey & Arias, 2000),]
- (P3) Provided me experiences to mentor students doing research which strengthened my ability to design student-centered lesson plans. [(Wunder, 2002), (Reidell & Twiss-Houting, 2015)]
- (P4) Provided me with the experiences and tools I need to design lesson plans that present multiple perspectives from which to view historical events. [(Sundermann, 2013), (Grenier, 2010)]

- (P5) Provided me the chance to learn new strategies on how to create learning experiences that draw upon students' communities of origin. [(Brugar, 2012)]

  Peer/Expert Collaboration.

- (PEC1) Working with peers and experts provided me a unique opportunity to improve my research skills. [InTASC: 10(r) (Meichtry & Smith, 2007),]
- (PEC2) Working with peers and experts increased my ability frame historical questions and create inquiry-based lesson plans. [(Schrum et al., 2016)]
- (PEC3) Working in an informal environment with peers and experts improved my collaboration skills. [InTASC 10 k, InTASC 10(i) (Watters & Ginns, 2000),]
- (PEC4) Gave me the opportunity to build a network of peers and professionals who I am able to draw upon for support as a teacher. [InTASC: 10(c) (Aquino et al., 2010),]
- (PEC5) Because of the informal, low-risk environment of the ISHE, I will able to process feedback from peers and experts in ways that improved my teaching skills. [InTASC 10(r), InTASC 10(t) (M. K. Stein & Smith, 1999),]

  Power of Place.

- (PP1) Allowed me to realize how important ISHEs, and the documents/artifacts they contain, are in connecting students to their historical past. [(Rosenzweig & Thelen, 1998), (Grenier, 2010)]
- (PP2) Helped me realize how influential it can be to view artifacts and documents in a space outside the classroom. [(Marcus et al., 2012), (Leinhardt & Gregg, 2000, pp. 1–30)]
- (PP3) Showed me that everything I really need to teach history is not always available on the internet or in the course textbook. [(Melber & Cox-Petersen, 2005), (Gregg & Leinhardt, 2002)]
- (PP4) Improved my understanding of history by providing immediate access to the places, documents, and artifacts critical to understanding historical events. [InTASC: 4(a) (Wright-Maley et al., 2013),]
- (PP5) Allowed me the opportunity to see that what is presented in an ISHE, and in textbooks for that matter, are influenced by historians and do not necessarily reflect every perspective of the event. [(Segall & Trofanenko, 2016), (Tlili, Gewirtz, & Cribb, 2007)]

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