THROUGH THE DEMOCRATIC LENS: THE ROLE OF PURPOSE IN LEVERAGING TECHNOLOGY TO SUPPORT HISTORICAL INQUIRY IN THE SOCIAL STUDIES CLASSROOM

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The emerging tools of the information age ... allow individuals to search for, obtain, integrate, analyze, evaluate, experience, and create new information with greater ease and timeliness than at any time in the past. The challenge for citizenship education in the twenty first century is to prepare students to use these tools and to have the basic understanding necessary to integrate information into problem solving and decision-making.[1]

Historical thinking is a very close relative to active, thoughtful, critical participation in text- and image- rich democratic cultures. Consider what good historical thinkers can do ... they are informed, educated thoughtful, critical readers, who appreciate investigate enterprises, know good arguments when they hear them, and who engage their world with a host of strategies for understanding it... Thomas Jefferson could hardly have wanted better citizens than these thinkers.[2]

These opening quotations provide a bridge between two strands of literature that together inform this study, which seeks to extend the research and focus of the recent "Enhancing Democracy Through Technology" themed issue of the *International Journal of Social Education*. The former represents literature that examines the pitfalls and the possibilities of integrating technology into the social studies. The latter represents a literature that examines the nature of historical thinking, and stresses the importance of providing students with the tools to support historical inquiry within the social studies. Both strands share ambitious agendas in terms

of advocating for pedagogical paradigm shifts within the teaching and learning of social studies. Additionally, both representative quotations recognize the powerful roles technology and teaching for historical thinking can play in educating young citizens for active participation within and through democratic societies. However, D. Antonio Cantu and Wilson Warren are correct in their contention that educators must go beyond simply arguing the potential of seamlessly integrating technology and engaging students in the doing of history as part of the process of educating for citizenship. They note, "at the dawn of the Twenty-first century, it is rather inconceivable to think we would still be engaged in a discussion of how to integrate technology and the Internet into the history teacher education curriculum. However, this is the reality of the situation."[3] They go on to argue that, "With the growing number of technology and Internet proficient students in middle schools and high schools ... the need for digital pedagogues in history classrooms is growing exponentially."[4] In response, this study looks to provide a clearer portrait of the extent to which practicing history and social studies teachers, who explicitly expressed an interest in the potential of technology and advocate the use of primary sources within their teaching, were using Internet technologies to prepare students to learn to think historically and in turn participate in the education of young citizens who are capable of informed deliberative criticism.

Teaching Historical Thinking and Harnessing the Potential of the Internet

Researchers in history education advocate instructional approaches that engage students in the processes of doing history, including building historical knowledge through the use of primary sources, conducting historical inquiry, and encouraging students to think historically.[5] This field of research, Pennelope Harnett contends, has contributed to a "growing recognition of a distinctive pedagogy for history, where the key skills and concepts [are] identified and particular ways of teaching and learning encouraged."[6]

While the 1899 Committee of Seven explicitly recognized the importance of history for preparing children for "good and useful citizenship,"[7] it is only recently that a growing number of educational researchers have begun to re-visit and re-stress the extent to which the processes embedded in historical thinking allow students to wrestle with the past in the same way citizens are asked to deliberate issues in a pluralist democracy."[8] Linda Levstik and Keith Barton write that "participation and pluralism depend on deliberation—the open ended (and

open-minded) discussion and reflection necessary for understanding our fellow citizens and for taking action towards a mutually satisfying future."[9] It is these cultivated "deliberations" prevalent within the framework of doing history that help facilitate history's potential to better prepare students for participation in a multicultural democracy. Specifically, leveraging historical thinking skills, such as recognizing multiple perspectives; developing reasoned judgments of historical causality, consequence and significance; and facilitating modes of documentary inquiry will yield Dewey's vision of Democracy as more than a form of government, but of a "a mode of associated living, of conjoint communicated experience."[10]

The emphasis on the creation of historical understanding through primary sources requires a shift from a genre of teaching that is lecture and fact centered to one that "systematically employs the processes of historical inquiry to reconstruct and reinterpret the past."[11] Support for the use of primary sources, as one form of data to facilitate inquiry within the social studies classroom, can be found in the benchmarks and standards of the American Historical Association, the National Center for History in the Schools, and the National Council for the Social Studies.[12] Concerns have been raised over whether such a pedagogical shift is feasible and/or reasonable to expect, given that such student-centered learning is likely to run counter to teachers' ingrained instructional approaches, if not their philosophies of learning history.[13] Additionally, the procurement and organization of requisite raw historical sources for students to decipher and analyze, even in the very recent past, has primarily relied on teachers' own resourcefulness and systems of cataloging, a circumstance that would certainly have contributed to the chaotic characterization of this pedagogical approach. However, as Frans Doppen notes, "social studies teachers' increased access to the Internet has opened up a whole new realm of historical sources and perspectives."[14]

The development of online sites dedicated to digital history archives that allow teachers and students' access to a limitless number of historical sources[15] has been touted as a means for engaging students in the construction and interpretation of history.[16] However, it is important to note that increased access to both traditional and web-based primary sources for both teachers and students does not automatically translate into teaching for historical thinking.[17] Rather, it is through teachers' pedagogical-content knowledge that students are purposefully guided through the regimen of techniques for evidentiary inquiry and assisted in the development of new methodological schema for intertextual and recursive historical study.[18] The term "Pedagogical Content Knowledge" (PCK) first received widespread attention in Lee Shulman's 1985 presidential address

to the AERA, in which he viewed it as:

> the particular form of content knowledge that embodies the aspects of content most germane to its teachability. Within the category of pedagogical content knowledge I include, for the most regularly taught topics in one's subject area, the most useful forms of representation of those ideas, the most powerful analogies, illustrations, examples, explanations, and demonstrations-in a word, the ways of representing and formulating the subject that make it comprehensible to others ... [it] also includes an understanding of what makes the learning of specific concepts easy or difficult: the conceptions and perceptions that students of different ages and backgrounds bring with them to the learning.[19]

Subsequent studies show that PCK develops with experience; Sigrun Gudmundsdottir notes that: "PCK is a practical way of knowing the subject. It is learned mostly on the job from trying things out, observing, talking and working with other teachers."[20]

As a result, while it is possible to argue that technology clearly has the potential to facilitate the teaching of historical inquiry, the reality is that it is teachers, guided by their own practical and deliberative understanding of the relationship between mean and ends, who must be ready, willing, and able to purposefully leverage the technology to conduct historical inquiry in the classroom. While researchers have found that integrating technology into classrooms is to a large extent a function of time, training and access,[21] very little research has been done to richly detail the use of instructional technology in supporting historical thinking within the K-12 history classroom. This study examines the extent to which current history teachers are utilizing the potential of technology to purposefully support historical thinking and ultimately citizenship education.

Methodology

Invitations to join this study were extended to teachers who participated in the Virginia Center for Digital History (VCDH) training efforts in the fall 2003. In these workshops, participants were taught a variety of ways to incorporate primary sources and to access the sources through the Internet. Of specific focus was the use of the VCDH sponsored websites on the Civil Rights Movement, the Civil War and the Colonial Period. They were also given instruction on the ways in which primary source exercises could support preparation for the Virginia Standards of Learning tests given at the end of the academic school year. Three teachers agreed to participate in this study. The three participants came from two high schools in a county school system in Virginia and taught a variety of achievement groups in eleventh grade U.S. History. Moreover,

each participant reported a high degree of access to technology within their classrooms. These resources included multiple Ethernet connections, a computer, a large screen monitor capable of displaying the screen of the teachers' computer, a DVD player, and a VCR in his or her classroom. All had access to a cart with a classroom set of wireless laptop computers that could be reserved for instructional purposes. By choosing three teachers with well-equipped classrooms, as well as an enthusiasm for the use of both primary sources and technology as indicated by their willingness to participate in the VCDH training efforts, this study hoped to examine the extent to which practicing history and social studies teachers were using Internet technologies to prepare students to learn to think historically while also identifying additional contextual factors that either facilitated or impeded the use of primary sources and technology in the U.S. history classroom. As the study progressed, additional background information was collected from the participants.

Participants

Participant 1. Larry has been teaching 20 years, 16 of which have been teaching U.S. history and has been teaching at High School A his entire teaching career. During the study, he taught 100 students placed in higher level achievement classes, including Advanced Placement (AP) sections. Larry completed Baccalaureate, Masters, and Doctoral coursework in American history as well as an undergraduate major in secondary education. He had no formal training in instructional technology.

Participant 2. Jason has been teaching 12 years, four of which have been at High School A. He has taught U.S. History for five years and, during the study, taught 80 students placed in mixed achievement groups. Jason completed a Baccalaureate degree in history education and had formal training in technology including an Associates Degree in Media Studies.

Participant 3. Jamie was in her second year of teaching U.S. History at High School B. She taught 120 students placed in standard and lower achievement groups. Jamie completed a Baccalaureate degree in history, as well as a Masters of Teaching in social studies education. She also completed six credits of course work in instructional technology and attended several technology workshops within the past two years.

Research Design and Analysis

This study entailed following the participants during the 2003-2004 academic year. The research design for this study included an examina-

tion of data from classroom observations using a conceptual /observational framework that explored the fidelity and frequency of primary source and technology use in terms of historical content and instructional processes.

Conceptual Framework

The framework was developed from the literature on historical thinking, [22] and the uses of technology in social studies.[23] The first three components of the framework related to the use of primary sources in terms of (1) the type of the primary source chosen, (2) the process by which the primary source was located and introduced into the lesson, and (3) the product(s) that resulted from teacher and student work with the primary source(s). For the technology component, the framework confined the use of technology to (1) acquisition of primary sources, (2) the delivery of primary sources and (3) student demonstration of primary source use. Special attention was given to the relationship between the use of primary sources and Internet technology, noting that these two facets of instruction are potentially mutually exclusive.

Within the scope of this study, we were concerned with examining the teaching and learning of historical thinking processes and, as such, viewed primary sources as the foundation for the framework. The primary sources used in the classroom were examined for their complexity, variety, and orientation. Because this study was confined to measuring methods of historical thinking, instructional processes were limited to the way in which primary sources were used in exercises to facilitate historical inquiry and the development of historical narratives Specifically, assignments and assessments were examined to determine the level of independence given to students to engage in historical inquiry, the degree to which students were supplied primary sources within the assessment, and the extent to which students documented the historical processes used within the assessment.

The conceptual framework confined the use of Internet technology to a mechanism for teachers to acquire primary sources, for students or teachers to deliver primary sources for instruction and finally, and for students to construct a historical narrative. Special attention was given to the relationship between the use of primary sources and technology, noting that these two facets of instruction are potentially, mutually exclusive. For example, it is possible for a teacher to promote historical thinking in the classroom using a multitude of non-digitally acquired primary sources as a means of reconstructing a particular event. The teacher could have students hand-write historical narratives, taking into account author bias

and historical perspective, and meanwhile documenting the meta-cognitive skills necessary in historical research. Because this study elucidated the role technology played in facilitating historical thinking, it was necessary to provide a mechanism for excluding technology as a factor in historical thinking.

Data Analysis

Data analysis was conducted using Frederick Erickson's model of Analytic Induction (AI) to establish whether primary sources and technology were used to support historical thinking practices in the secondary American history classroom.[24] Erickson's model is designed to unpack the local meanings of actions; it seeks to explore and explain these meanings, rather than just to provide a rich description of events. The researchers' goal in utilizing this model was not to establish proof of their assertions, but to demonstrate their plausibility. A total of fifteen classroom observations were completed for each participant as well as a pre- and post-interview with each participant. Instructional artifacts were also collected which included available lesson plans and other ancillary materials. The data was continually scrutinized during the study to derive assertions. Assertions varied in scope and in their level of inference, and were initially generated during fieldwork. They were tested and retested during analysis via a thorough review of all collected data. This refinement consisted of a systematic search "of the entire data corpus, looking for disconfirming and confirming evidence, keeping in mind the need to reframe the assertions as the analysis proceeds. "[25] During analysis, the researchers also sought "key linkages" among the data. A key linkage is of central significance to the assertions; it "connects up many items of data an analogous examples of the same phenomenon."[26] Key linkages were the foundations on which assertions were based. This process resulted in a series of assertions grounded in established evidentiary warrants.

Results

Assertions

Assertion 1: Participants frequently used primary source documents in their instruction, but their use varied in terms of the approach to document analysis, the connection the documents had to the overarching curricular design, and the overall level of student centeredness within each lesson. All three of the participants reported that they used primary sources on a regular basis in their American history curricula and this was corroborated in the observations that were conducted in each classroom. The fre-

quency of primary source use can be attributed to the participants' expressed belief in the importance of document-based approaches to history. Larry, the Advanced Placement (AP) teacher, stated the following,

> I think when you can hear the words coming from the original source, I think that gives it additional meaning. If you can read a speech by Sojourner Truth and realize that this woman was a slave and everything that she went through—I think that makes it easier for the kids to sort of put themselves in the shoes of the people that lived in that time period, I think that's really important.

Jason, who taught both advanced and standard achievement groups, and Jamie, who taught standard and lower achievement groups, expressed similar beliefs in the importance of using primary sources, explaining that original documents can add dimension to a traditional history curriculum with the addition of photographs, maps, and video. Jamie believed that the textbook provided a narrow perspective and thus used primary sources to widen students' understanding of history. Jason commented that students are more naturally inclined to engage with visual sources rather than text sources. He explained,

> When I lecture, I like to use pictures of artifacts from the time period. For example, when lecturing about the Industrial Revolution the other day, I showed the students a picture of the Watt Steam Engine and they were able to understand much better.

Another contributing factor to this consistent primary source use was the participants' access to digital documents as well as primary documents in hard copy. All three of the participants overwhelmingly value the Internet as a tool for acquiring digital primary resources. While Larry has eight file drawers full of primary sources that he has accumulated over the last twenty years of teaching, he explained it is often easier to reach for the search engine, *Google*, than to sift through all the hard copy. Similarly, Jason said,

> Right now with the Internet, I can gain access to anything I want— maps, video, photographs, just about anything. I don't need to get wrapped up in the old social studies pull down maps, but instead can download a series of maps from the Internet, download them into *PowerPoint* and crop according to my purposes. It's great!

Jamie concurred and rattled off a number of websites that she used on a frequent basis including the *Library of Congress* and *American Memory*, as well as subject specific sites that consist of the *Valley of the Shadow Project*, the *Holocaust Memorial Museum*, and *Virtual Jamestown*. While all three participants consistently used primary sources, the partic-

ipants' approaches to using primary sources, when examined in terms of the conceptual/observational framework, varied notably with regard to the degrees of sophistication, as well as the level of student centeredness within each lesson.

Though all three participants stressed the importance of using primary sources within their teaching, their approaches to using primary sources differed. Larry relied heavily on traditional, didactic methods of instruction, and sought to provide his student with access to primary sources throughout his year-long survey course. Larry required students to draw on documents that they had read as building blocks for new historical themes they encountered within the curriculum. Often, Larry would stop in the middle of a lecture to hand out a primary source, allow the students to analyze it, and then tie their analysis back to the instruction. Additionally, students were required and taught how to independently evaluate primary sources and to construct authentic, plausible historical narratives as preparation for the Document Based Questions on the AP exam.

Jason's instruction could also be characterized as teacher-centered. However, within Jason's class, the primary sources did not appear to connect to either purposeful skill building or larger content understandings. Often, Jason found a primary source immediately before a class period began and had little time to think about its utility beyond the immediate appeal. His lack of a deliberate approach in unpacking the sources and in posing historical questions in conjunction with the didactic nature of his instruction left little time for facilitating inquiry when a primary source was being used. Routinely, he would show the students a source and analyze it for them, or ask his students, "What do you guys think?" The lack of instructional directedness in source analysis made the exercises lack purpose and congruence within his history curriculum.

Unlike the other two participants, Jamie employed a student-centered approach to teaching history. When Jamie lectured, she would confine this part of instruction to around 15 to 20 minutes, instead opting for students to engage the historical documents or the questions that she posed. As part of this goal setting, Jamie employed cooperative instruction and project based assessment. Students in her classroom were routinely engaged in working on a project or exercise that required a degree of historical questioning, analysis, and explanation using documents. She asked students to use a four-step method to unpack primary sources. This method began with determining the message in the source, the bias of the author, the purpose of the document, and the document's effectiveness in achieving its purpose. Additionally, throughout the observations, Jamie

provided time for students to read a document, use her four-step method of analysis and then respond according to their own interpretation. This classroom expectation of students guiding their own inquiry assisted Jamie in facilitating her students' ability to think historically.

Assertion 2: Participants used technology to acquire and display artifacts. However, the participants' use of technology in instruction varied according to frequency and level of student centeredness. Contextual factors that promoted or inhibited use of technology included level of training and access to technology. All three participants used the Internet to acquire primary sources but to varying degrees. Jamie and Jason used the Internet almost exclusively to acquire the primary sources used in their history classes while Larry relied on hard copies and, on occasion, the Internet. Of all the primary sources Jason used, 100 percent were accessed through the Internet. Jason praised the World Wide Web,

> I can't imagine going back 11 years ago and trying to teach without the Internet. It's that amazing to me. I was talking Industrial Revolution yesterday and I put together a *PowerPoint.* Again, time consuming but I am pretty fast at it, too. You go to 'Google' images and put in 'Watt Steam Engine' or whatever and, within ten seconds, you have five pictures that you can copy and paste. I mean, wow. That's fantastic.

Jamie used digitally acquired sources approximately 85 percent of the time. Although she occasionally used books and workbooks that accompanied the history textbook, she relied more heavily on the Internet to make primary source acquisition easier. She said, "It's good to know that different websites house the sources I use. It just makes documents easier to use and takes less effort." In contrast, Larry used the Internet for acquisition on a less frequent basis, relying more heavily on the sources he had acquired in hard copy over the last twenty years of teaching. Of the primary sources he used, approximately 40 percent were digitally acquired. However, he did acknowledge the potential of the Internet for finding sources that he could effectively archive on his laptop for future use in his classroom.

> The truth of the matter is now with Google, a lot of times if I want to find the Resolutions of Nathaniel Bacon from Bacon's Rebellion, 1 can actually get it quicker going to the Internet and pulling it up, printing it and taking it and copying it. Right now, going home to find a hard copy is cumbersome.

The three participants approached technology for instructional purposes quite differently. Because Jamie and Jason used more non-discursive sources, they relied heavily on technology for displaying artifacts and delivering contextual information about the sources. Both participants frequently used *PowerPoint* as a way to display documents like maps, arti-

facts and photographs. Jason used *PowerPoint* to archive interesting documents that he found and then used those slides to create presentations that housed both notes for students and the occasional artifact. Larry denounced the value of presentation tools for note taking, instead preferring the chalkboard. He explained that writing notes on the board forces students to "fill in the blanks" rather than just copying verbatim from *PowerPoint* slides. It is important to note that Jamie was the only participant who actively encouraged student use of technology. In her class, students were expected to employ digital primary sources in several required projects. This included a Web Quest on early exploration, a research project on Reconstruction, and a presentation on Andrew Jackson. To a great extent the participants' differing approaches to using primary sources within their classroom can be explained through their level of technology training and their perceptions regarding the level of access to technology within their classrooms.

Each participant had very different technology experiences going into the workshops sponsored by the Virginia Center for Digital History (VCDH). When asked about these workshops, Larry explained, "I was surprised to see the workshop be so helpful in trying to educate me on where I can get information, making the Internet the resource that I can use." Jason found it helpful in other ways, "I found it eye-opening to have the instructor say how to use the sources." And finally, Jamie found the workshops helpful in that they "were a confirmation for what I am already doing and a time to share ideas."

Larry had virtually no formal training on using technology inside or outside of the classroom. Primarily Larry learned to use technology through the many student teachers that interned in his classroom and through colleagues. Jason's training in technology has been extensive. Before he transitioned into a teaching career, he obtained an Associates Degree in Media, worked in a radio station as a technician and ran the Media department at a small university in the South. He said of the technology training in his teacher preparation program,

> We had little courses on technology here and there, but every course that we were required to take, I could have taught because I learned the material intuitively... I am a gadget guy and I have a top notch system at home. Actually, I have four computers at home, so that tells you what a geek I am. I'm not a brilliant guy with technology, but I like the stuff.

This passion for technology was evident in Jason's classroom as well. Some of the equipment in his class included monitors, routers, and a DVD player that were personally financed.

Jamie's training in technology in her graduate teacher preparation program was substantive. Jamie took over 12 credits in instructional tech-

nology, and this included a technology course that specifically focused on digital history. Since that time, she has attended a number of workshops offered by the school. She said,

> One workshop had us developing digital stories using imovie. We were able to collect clips and artifacts and stream them together using the Mac software, adding titles and narration. I haven't had a chance to use the program but I would like to soon.

Despite the variance in training with technology, the participants' ability to navigate the Internet allowed the teachers to more easily integrate primary sources into their classroom.

As noted previously, all participants taught in technology-rich classrooms. When asked about access, Jamie said, "I pretty much have everything I want: laptops, classroom computers, Internet access, and the ability to project." However, Jason and Larry were less satisfied with the level of access. Their dissatisfaction helps explain the predominantly teacher centered use of technology within their classrooms. During observations Jason did not make use of the wireless laptops carts; however, on one occasion, he used the school's computer lab so that students could conduct research for an upcoming debate. Jason commented, "Until I have every child with a laptop that has ready Internet access, lot of things are merely going to be for my benefit...as in, what am I going to pull up and bring into class." Larry expressed similar frustration about a lack of ubiquitous computing access,

> Until every kid has that laptop built into their desk and a teacher can count on it working 98% of the time, it's not going to happen. When I want to use the laptops, I've got to go wheel that cart, both carts down to my classroom. You sign your life away. That's the other thing. You take on a huge responsibility. Everybody says 'Use this equipment' and as soon as you take it, if you break it, you're in trouble. You have to account for everything that goes on. If that mouse disappears, you're accountable. I don't need that pressure.

Although there was some dissatisfaction with the current level of access, Internet access accounts for a proportion of all the participants' primary source use as evidenced by the ways in which they acquired sources and their enthusiasm for the online databases which house the sources.

Assertion 3: The participants' pedagogical content knowledge informed their purpose for teaching history. This "purpose for teaching" emerged as the strongest influence on their ability to employ historical thinking strategies. Each of the participants had varying levels of formal training in both the subject matter and the discipline of American history. Larry had the

strongest background, with a Bachelors degree in American history and a Masters degree in Native American Studies, both from major universities. Additionally, he had finished his doctoral coursework in Colonial Studies, stopping short of the dissertation process. This fluency in historical content was evident during both the interviews and the observations. During his two interviews, Larry weaved in a discussion of Thomas Nast's disillusionment with liberalism during nineteenth-century American Reconstruction with a conversation about early American slavery and the difficulty of understanding socioeconomic influences on the "peculiar institution." Students heard anecdotes about George Washington's stepchildren, the duel between Alexander Hamilton and Aaron Burr, or the interpreted voice of Nathaniel Bacon in Bacon's Rebellion. Larry was also able to articulate the processes that are embedded within the discipline. He explained that history is

> not a set body of facts. I don't believe there is a set of cultural historical traits that, if you master, if you learned that John Smith saved Jamestown in 1608, that you understand Jamestown. I think everything we need to understand about is history is that it stems from interpretation.

Neither Jamie nor Jason were as fluent in the content knowledge of American history as Larry. Jamie had earned a Bachelors degree in history from a major university. As a second-year teacher, she seemed to be getting used to the amount of content that one had to cover in a survey course that spanned all of American history. In one interview, she described the embarrassment she felt when responding "I don't know" to students' questions. In the observations it was clear she was not able to pull in as many interesting anecdotes about various historical events and was not able to tie events together in an unfolding story as Larry was able to do. In terms of historical process, Jamie described history as a subject in which students need to hone their interpretation skills. She gave this definition of history:

> I guess history is like this ongoing discussion. I always ask them, 'How can you know for sure that this happened 200 years ago?' So we're always kind of searching and looking for answers and asking more questions or taking on a new perspective. So we can only approximate the truth.

Even though Jamie often lacked the outside or contextual knowledge of a particular event, she understood that the processes imbedded within the discipline were often more important than the facts, dates, and places that often dominate history instruction.

Jason had the least amount of formal training in history. He graduated from a small liberal arts college with a joint degree in both history and education. When asked why he chose history, he said that it required

less credits to graduate and, since he wanted to get into the classroom as soon as possible, he selected history as his content area. This lack of subject matter understanding was evident in his classes. When lecturing, Jason was rarely able to go outside of the factual content listed within the Standards of Learning (SOL). He explained, "I think the SOLs are great. They tell me what I need to cover and focus on. They give me a minimum to cover and that's great." Interviews and observations revealed that Jason did not clearly understand historiography. He admitted, "I do not consider myself a historian. I don't even consider myself a really knowledgeable person about history. This may sound really dumb, but, in my opinion, that is not what is needed to teach high school history." It was apparent after the interviews and observation that he was interested in history, but did not necessarily know how to approach the discipline or the subject matter.

Of the three participants, Jamie expressed the greatest enthusiasm for classroom pedagogy and employed the widest range of instructional approaches. On any given day, Jamie's whiteboard contained an essential question along with several objectives that guided the day's instruction. Each class began with a "Do Now", in which students practiced reading a historical document, answering a series of SOL questions, or responding to a photograph, news story, or question. This introductory activity routinely set up the lesson which was carefully constructed into several manageable chunks of activity that typically involved a variety of learning modalities. For example, in a classroom block of an hour and a half, students could watch a streaming video on Reconstruction, then transition to dissecting a primary source, and then end with time to work on an ongoing group project or assignment. The student population was noticeably more difficult in terms of behavior and it was clear that the instructional decisions were often planned to engage short attentions spans. During the interview, the conversation consistently steered to pedagogy. Jamie was concerned with the skill development of her students, particularly in the area of reading, writing, and analysis. She explained,

> The reading-writing part of the class is where a lot of my students, it makes them shut down and turn off. For me, it's kind of balancing the reading out loud, which I always do with my lower-level students, and I do with my academic, a lot of students do really well with that. Balancing that with having them read on their own and write on their own. It's always a struggle. The students complain, 'Hey, this isn't English class,' you know, when I ask them to write!

Larry was clear about his dislike of methods classes during the teacher certification process. He explained, "the worst history class was far better than any education class I took." He was deliberate in his peda-

gogical approach but employed a narrower range of methodologies that included mostly lecture with some discussion and the occasional Open Forum, or Socratic Seminar. When asked about his use of primary sources he explained,

> It's a real mixed bag but I think the heart of the program is still pretty much lecture based in terms of trying to tie the ideas from the primary sources into the bigger picture and tying that back into what the students are reading in the textbook.

Jason employed similar methodologies as Larry but was not as deliberate in his approach. Often Jason seemed pressed for time and was not able to devote additional efforts to other strategies beyond lecture. In over half of the observations, Jason was putting together materials for the first five minutes of the class or as the students engaged in a video, quiz, or review. He recognized this disorganization in both interviews. During the last interview, he explained, "What I need is time. Everything is just time consuming and so what I am doing and what I want to be doing are two very different things." At another time he elaborated that he is not to the point where he is designing clear units with a beginning and an ending point. Instead, he would teach for a few weeks and, in his words, he realized, "Hey, we have had enough...it's time for a test" and then move on to the next chunk of material. This style made his curriculum appear erratic and improvised.

Pedagogical Content Knowledge

Pedagogical Content Knowledge was evidenced in both Jamie's and Larry's instructional practice. However, these participants, rather than blending the components in equal parts, tended to favor either pedagogy or content. Larry covered a greater variety of historical topics, while Jamie employed a greater variety of instructional techniques. One of the reasons for this variation is the participants' educational background. Larry's formal studies were focused more heavily in studying history than Jamie. Further, the two participants had very different attitudes towards history methods. Larry, by his own admission, was less interested in classes that dealt with instructional methods. He enjoyed working exclusively with students that were college-bound and needed less instructional variation. By the nature of an Advanced Placement course, his classes required far more content coverage than Jamie's and, in his words, a lecture/discussion model of instruction allowed him to efficiently cover material.

Jamie, on the other hand, enjoyed thinking about skill development

in the context of a history class. Jamie worked with students that required a variation of instructional approaches and thus tended to employ strategies such as jigsaws, peer tutoring, and cooperative instruction. Additionally, she set up every lesson in chunks, so that she would never lecture more than twenty minutes at a time. She spent a great deal of time preparing worksheets, handouts, and other ancillary materials with a keen pedagogical eye. She employed several learning modalities in each lesson, including visual, auditory and kinesthetic, for greater historical understanding. It was typical in one class period for students to listen to a speech by a historical figure, see photographs of an event and work independently or in pairs to unpack a primary source. While she engaged in the historical subject matter, it was clear throughout the interviews and observations that she favored pedagogical knowledge.

Because his background in both areas was minimal, evidence of pedagogical content knowledge was least apparent in Jason's classroom. While Jason felt comfortable with the SOL subject matter, he was unable to articulate historical processes that undergird the discipline. Further, he did not demonstrate solid pedagogical understandings as evidenced by his narrow range of methodologies that he employed. Moreover, the lack of time and organization created a more reflexive teaching practice, one in which this participant could devote little time or effort to curricular planning. This participant prepared for three different classes including advanced and standard American history as well as world history. In one interview, he confirmed, "Now that I have jumped over to American Studies, and granted it's my fourth year of teaching it, it's been four years in flux. I teach three preps because they are if they are done right. It's hard". This perceived time crunch rarely allowed the participant to consider pedagogical content knowledge in the midst of the day to day urgencies in the classroom.

Purpose for Teaching History

Levstik and Barton describe the purpose for teaching history as the motivation for engaging in instruction.[27] In this study, it appeared that the presence or lack of presence of pedagogical content knowledge helped form the participants' purpose for teaching history. Larry's purpose for teaching Advanced Placement (AP) American history derived from strong content knowledge leanings and his purpose for teaching history was born out of his love of the discipline of history as well as the subject matter. During the course of this study, Jamie appeared most concerned with the skill development of her students. When asked about the purpose of teaching history in a public school, she

answered that she would like to create an active citizenry by helping her students "feel confident enough to read a newspaper article, to make sense of it and to see how it applies to them." She seemed peripherally motivated by the standards of learning or historical content in general and more often felt pressure to create lessons whose purpose is to help students read, write, and comprehend.

Jason's purpose for teaching history was not grounded in either the discipline of history or the pedagogy of teaching historical thinking skills. Instead, Jason seemed more concerned about building positive relationships with his students and allowing them to enjoy his class. Jason's goals for instruction did not stem from a desire to teach perspective or bias or from a desire to impart the subject matter of history. Instead, he wanted students to have a good experience in his class. He elaborated,

> I guess my philosophy is that so many kids when they come into my classroom and when I start talking to them, start knowing who they are, they hate history. I ask them, 'Why do you hate history?' and they respond, 'Oh, all those dates I have to remember' or this, that and the other thing and to me, it's like, how can you possibly hate history? You hate the story? There's too many things that they've had that caused them to hate history. I'd rather give them a good experience and get them to come out of it saying, 'yeah, I kind of like history.'

Jason's purpose for teaching was driven by altruistic or interpersonal connections with his students and lacked evidence of pedagogical content knowledge. Moreover, by his own admission, this altruistic purpose was often usurped by the practical realities of surviving day to day as a teacher.

Ability to Employ Historical Thinking Strategies

Jamie and Larry's purposes both align with the critical thinking skills that are embedded in historical thinking practices. As a result, each was able to effectively employ these strategies in the classroom. These exercises, however, reflected the content or pedagogical leanings of each participant. Exercises conducted in Larry's classroom were driven by larger content objectives because he purposefully constructed his American history curriculum to reflect his interest in disciplinary content knowledge. In contrast, exercises conducted in Jamie's classroom were situated in larger pedagogical objectives because she carefully constructed her American history curriculum to reflect her interest in building reading, writing, and analytic skills in her students. While both participants effectively used primary sources to engage students in historical thinking, their classroom methodologies were quite different but their practices were consistent with their purposes for teaching history.

Jason's purpose for teaching history did not directly align with the elements of historical thinking. His purpose for providing students with a pleasant experience in a history classroom, while not at odds with historical thinking, did not require students to engage in historical inquiry, to unpack documents, or to compare multiple perspectives. His use of primary sources in his American history classroom was an extension of his purpose. Primary sources were used to engage students or to provide entertainment in an otherwise static curriculum. The added time pressure also detracted from primary source exercises, as little thought appeared to be given to skill development or to the larger historical understandings rooted in the discipline. As a result, historical thinking was not effectively practiced within Jason's classroom.

Assertion 4: The participants' "purpose for teaching" emerged as the strongest influence on their ability to leverage instructional technology as a support for historical thinking practices. All participants were able to leverage technology to support some level of historical thinking practices but to varying degrees. However, the use of technology to support these practices was not necessarily due to the amount of training or technology access of each participant. Instead, it became clear that the participants used technology according to their own purposes for history instruction. And it was these purposes that inhibited or promoted the use of technology as means of facilitating historical thinking practices.

All three of the participants used the Internet to access primary sources as this practice aligned with each of their purposes. For Larry, the Internet was a vehicle for quickly and efficiently obtaining content related materials, specifically the documents he was already using in his practice. He said during one interview,

> The Internet is a tremendous asset for a new teacher and to say that I know everything or that there won't be another document I want to use, but I pretty much have down the documents I want to teach and which documents have worked well.

Jason and Jamie were less concerned with using a canon of documents and were far more willing to explore web sites for various types of documents. Their searches tended to be broader and more exploratory than directed. As a result, they obtained both text and non-discursive sources but for entirely different purposes. For Jason, he was most interested in finding documents that would entice his students into the study of history. He explained during one interview, "Primary sources don't really have a purpose other than as enrichment for a subject that we happen to be studying." In contrast, Jamie was more interested in

building a range of literacy skills and, as a result, she obtained resources that were text-based and non discursive, including maps, charts, photographs, and video that could be used to build on the critical thinking skills embedded within the historical thinking exercises she employed. Using these types of documents was congruent with her teaching purposes.

All three participants varied their use of technology in instruction. Because Larry purposefully used text documents and fewer non-discursive documents, his use of both the monitor or projection system was not as essential to his instructional purpose, Larry believed the blackboard was more functional and less work. In contrast, Jamie and Jason used Microsoft *PowerPoint* to house both notes and historic artifacts and thus used their monitors on a daily basis to operationalize their purposes of either engaging students or practicing the skills of note taking and analysis. Jason's own fascination with technology seemed to drive his use of technology within the classroom. The use of *PowerPoint* appeared to be a gadget of sorts in which he could use to make learning fun.

As for putting technology into the hands of students, Larry was reluctant. He did not feel technology helped convey content and explained that creating projects that required the laptop carts often took time away from his central purpose of content coverage, and that he could accomplish the same objectives without the equipment. He explained,

> I mean once they realize its history they're doing, the reaction isn't that fundamentally different than what it would be before. Even the kids who get excited about the Cold War museum and the projects they create...I could have done the same thing before with Xeroxed materials and saved the county far less than investing in trying to keep up the technology wheel.

Five years from now, Larry said that his classroom would not look much different than it does today even if every student had some kind of wireless computing device. By design, historical thinking opportunities in Larry's classroom were teacher centered primarily. His own laptop computer with Internet access allowed him to retrieve text resources that he was already using, but the monitor, the projection system, and the laptop carts did not offer this teacher a way to convey the content of his course in more meaningful ways.

Jason was also reluctant in using the wireless laptops. Primarily he wanted students to have fun in his class and enjoy studying history. During observations, it was also evident that Jason was struggling to survive as a teacher. As a result, his instructional purpose and practical purpose were, at times, at odds. In the case of technology, he insisted that he liked to have students engage in research using Web quests and inde-

pendent research, but in a span of over five months, only once were students given an opportunity to conduct their own research. In this instance, the exercise fell apart due to poor planning on the part of Jason. While Jason had great facility with technology, putting technology in the hands of students was a hurdle in his daily survival as a teacher.

Jamie embraced using technology as a means for students to conduct their own independent research. This use aligned with the goals she had set for the class. As a means of building research skills, students were required to use the Internet to gather resources in a quest to find answers to questions she posed. To build oral speaking skills, students used *PowerPoint* to organize their speeches and bolster their delivery. Further, to assist in building alternative literacy, students used *PowerPoint* to house non-discursive primary sources that they would later unpack in a group setting. Technology facilitated Jamie's purpose and thus she consistently incorporated laptop carts, monitors, and the Internet into instruction.

Discussion

Many educators recognize the potential role of technology in transforming social studies instruction.[28] At the same time, a number of studies have been published which not only document the barriers to technology integration, but also disclose disconnect between the idealism of the advocates and the reality of technology integration.[29] Both the promise and pitfalls expressed within the current literature base were evident within the findings of this study.

Each of the participants valued technology in supporting access to primary sources housed on the Internet. Indicative of this enthusiasm, all three chose to attend a number of workshops sponsored by the Virginia Center of Digital History that specifically focused on locating and integrating web-based primary sources into history instruction. Their familiarity with search engines as well as a host of other historical archives assisted the participants in both retrieving primary sources that were already part of the curriculum and discovering new sources that assisted in building a new curriculum. Even so, Peter Doolittle and David Hicks remind social studies educators that

> if integrating technology means nothing more than enhancing the traditional delivery system of social studies content, where laptops replace notebooks, where *PowerPoint* slides replace handwritten overheads, where e-textbooks replace hard copy textbooks, then we will be no closer to the NCSS vision of transformative, powerful social studies instruction.[30]

By this measure primary source acquisition did not prove transformative in the participants' classroom. Nonetheless, all three claimed that

accessing primary sources through the Internet was a time saver and thus encouraged the use of document-based instruction. Judi Harris, in 'Is it worth it test?' establishes two criteria for determining whether technology has a valued added effect on instruction.[31] In this test, she encourages teachers to ask the following questions when integrating technology into instruction: Will this use of technology enable students to do something that they couldn't do before? Will this use of the technology enable students to do something that they could do before, but better? Applying this same criterion to the teachers' use of technology for primary source acquisition, it became evident that technology added value to the development of the participants' history curriculum. Arguably, primary source acquisition could be the first step towards inching history instruction forward where documents become an integral part of the curriculum, replacing the static history textbook. Therefore, teachers' use of the Internet in accessing sources should not be underestimated as an important component in the beginning stages of a curricular transformation. However, within the scope of this study, the evidence clearly indicates that only Jamie went beyond using technology for content acquisition toward a more sophisticated application of facilitating student research and presentation using the school's wireless laptops. Both Larry and Jason were reticent to use technology in this way, explaining that it is often too cumbersome to check out the laptops for classroom consumption. During interviews with both participants, they initially asserted that until schools move to a ubiquitous computing model where each student has a computer built into their desks, technology would not be regularly placed in the hands of students. However, during the course of the study, it became doubtful that a ubiquitous computing model would transform Larry's entrenched teaching methodologies or Jason's readiness to develop meaningful and relevant instruction. When asked about having students' research and select their own primary sources, Larry expressed the following, "I pretty much have down the documents I want to teach and which documents have worked well." While Larry's curriculum is well established, Jason's is not. Jason often plans for instruction immediately before class and, consequently, does not incorporate student-centered activities.

If the chief value of technology lies in "providing the leverage so urgently needed for moving social studies away from passive, teacher-dominated approaches emphasizing recall and regurgitation and toward active student center forms of leaning,"[32] then a glimpse into Jamie's classroom might reveal a partial glimpse of the potential of technology to support historical inquiry and in turn provide students with key aspects of the knowledge, skills, and dispositions for democratic citizenry. Jamie

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consistently leveraged technology to further the critical thinking of her students: both Jamie and her students were, to an extent, prepared to implement technology as a tool for historical inquiry. When examining the factors that influenced using the Internet to support the doing of history, access to technology and a discipline-specific technology-training model appear to have contributed to the integration. Access to wireless laptops, a LCD projector, and a stationary classroom monitor allowed her to stay within the walls of her social studies classroom yet leverage technology in her instruction. Noteworthy, however, is the reality that all participants had the same level of access, and yet Jamie was the only participant to engage technology with an ambitious student-centered model of instruction that supported the concept of education for citizenship. Another contributing factor to Jamie's efforts was the level and quality of her training in technology. While all three of the participants had classes or mentoring in instructional technology, only Jamie employed student-centered strategies when teaching. Jamie's training was significant in that she had technology courses tied specifically to her discipline and one devoted entirely to incorporating digital history into classroom instruction.

While access to the Internet was critical in acquiring primary sources and that discipline-specific technology training was advantageous to integrating technology to a degree, it is important to recognize that the deciding factor that influenced why and how each participant implemented technology was their level of pedagogical content knowledge and associated sense of pedagogical authority and purpose as they planned and organized instruction to employ historical thinking practices within their respective classrooms. If the participants were not interested or comfortable in using technology to foster historical thinking opportunities, or lacked a thorough foundational understanding of the need to foster historical inquiry, then irrespective of their own claims regarding their use of technology and primary sources what actually occurred within their networked classrooms did not live up to the visions of the possible where teachers purposefully use technology as a tool to foster historical inquiry. Neither Larry nor Jason were interested in putting the hardware and software in front of the students. Moreover, other than accessing primary sources, technology did not offer Larry a more compelling delivery system for the content of his course; therefore, he was not interested in technology integration. Despite having the greatest amount of formal training in technology, Jason was unable to leverage technology to support historical thinking opportunities. His goals for instruction did not align with the critical thinking skills necessary for historical thinking and his technology use reflected his lack of PCK. In contrast, technology

offered Jamie an alternative means for skill development within her American history class. With technology, students in Jamie's class could create presentations on historical themes, research primary sources, and share a focal point for group work. As a result, she threaded technology throughout instruction and was able to leverage the tools to begin to facilitate the open-ended deliberations that Levstik and Barton believe will help further citizenship education in the history classroom.[33]

Conclusions

This study represents one of the first in-depth looks at self-reported high-frequency users of both technology and primary sources in social studies. Many researchers in the teaching and learning of history have documented the need for greater understanding of both historical and pedagogical content understandings in order to illuminate teachers' practices.[34] While these understandings, as this study indicates, are critical, Levstik and Barton put forward the notion that "if we want to change teacher practices, we must change the purposes that guide those practices."[35] As this study demonstrates, the participants' purpose for teaching, in terms of their "deliberative reflection of the relationship between means and ends" emerged as the strongest influence on both their use of primary sources and the use of technology to support these practices.[36] Consequently, more attention needs to be given to shaping teachers goals for instruction so that they align with the goals of historical thinking. Levstik and Barton acknowledge that changing or altering teacher purpose is no easy task; however, they suggest as a starting place an examination of the purposes that would both inspire and align with historical thinking. They argue that developing a disciplinary perspective, as predominantly exhibited by Larry, is not the most compelling reason for teachers to embrace historical thinking. Instead, they believe emphasizing a rationale situated in "humanistic goals necessary for democracy"[37] might be more acceptable to history teachers. By emphasizing the importance of teaching history for facilitating citizenship in a pluralistic democracy in a social studies pre-service or in-service venue, history teachers might be persuasively convinced of the need for students to critically examine historical events from multiple perspectives. Within this study Jamie came closest to appropriating such a stance.

While Levstik and Barton's work does not address the potential of technology to support *"Teaching History for the Common Good,"* this study, along with a number of articles in this issue, recognizes the importance of similarly re-conceptualizing the instructional purpose of technology within the social studies. The findings reveal the value of

educating teachers with regard to both identifying the potential and purpose of using technology as a tool to foster historical thinking as part of the vital mission of educating for citizenship. Larry Cuban's work similarly affirms this perspective when he contends that "without a broader vision of the social and civic role that schools perform in a democratic society, our current excessive focus on technology use in schools runs the danger of trivializing our nation's core ideals.[38] For Cuban, the question to be answered by teachers is to what extent technology can help "create better communities and build strong citizens?"[39] Framing both in-service and pre-service discipline specific technology courses around Cuban's question, we contend, will allow teachers to begin to purposefully re-conceptualize their own understandings of using technology within the social studies. Preparing teachers who are capable of articulating and purposefully utilizing technology to enhance the process of educating for citizenship through teaching historical thinking within the networked history and social studies classroom of the 21st century is a goal that all teacher educators in the field of social studies should be willing to strive for.

While Leonardo Da Vinci is credited with the following: "Make your work to be in keeping with your purpose," he was certainly not prophesizing about this research. Nevertheless, his words undoubtedly resonate with the findings of this study and the positions expressed in the article's opening quotes by Fontana and Van Sledright. More important, his insight could well assist educators in seeing history instruction as a mechanism to educate students for democracy and to ultimately leverage technology to these ends.

NOTES

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