Social studies educators have displayed an interest in student-created multimedia, including digital documentaries. The research community has responded with a small but growing body of studies, but the literature to date has not explored students’ perspectives on these assignments. This study combined classroom observations, document analysis, and student interviews to examine students’ views of technology, the curriculum, and their final products. The findings reveal that students come to technology-based, content-driven assignments with prior conceptions of both the technology and the content. These expectations shape student actions and transform the assignment, in some cases surpassing curricular expectations. Evidence from students’ products, classroom observations, and interview data, however, also suggest that student agency was limited by the classroom reality of mimetic learning. The results of this study have various implications for teacher educators and educational researchers interested in leveraging technology to improve learning. They must acknowledge the dynamic nature of classroom interaction and the impact student choices have on Technological Pedagogical Content Knowledge (TPACK). Technology integration occurs in the operational curriculum, often in unpredictable ways. Based on our study we know that student preconceptions and desires impact the learning goals. By better understanding the role of student agency, teachers can plan for instruction that uses digital history to effectively teach content.

Citation for this Article

**Introduction**

Digital history is “the study of the past using a variety of electronically reproduced primary source texts, images, and artifacts as well as the constructed historical narratives, accounts, or presentations that result from digital historical inquiry” (Lee,
2002, p. 53). Digital history has captured the imagination of practitioners and researchers for its potential to make history education more authentic, relevant, and democratic (e.g., Cantu & Warren, 2003; Clarke & Lee, 2004; Craver, 1999; Marri, 2005; Saye & Brush, 1999). Because digital primary sources are accessible, searchable, and malleable, teachers can guide students through inquiry-driven approaches, and engage students in the creation of historical narratives. According to Cheryl Bolick (2006), “Because learning through historical inquiry with primary sources is a radical shift from how social studies content is typically taught, teaching and learning with digital archives holds the potential of transforming the nature of social studies education” (p. 123).

Our research has explored digital history through classroom activities in which students create slide show presentations (in PowerPoint) and digital documentaries (via PrimaryAccess; http://www.primaryaccess.org). First released in 1984, PowerPoint (and other slideware) has become a near-ubiquitous presence in K-12 classrooms (Dynarski, Honey, & Levin, 2002) and is a powerful platform for engaging students in digital history (Hofer, Ponton, & Swan, 2006). Digital documentaries are a more recent phenomenon, following on the heels of free digital video-editing software bundled with Apple (iMovie, 1999) and Windows (Movie Maker, 2000) operating systems. Our work has sought to better understand the affordances and limitations of digital documentaries within the context of the demands of curricular content coverage, assessment practices, the challenges of classroom management, and teachers’ pedagogical aims (Manfra & Hammond, 2008).

Teaching with student-created digital history projects is a complex activity involving layered interactions between teachers’ disciplinary perspectives and pedagogical preferences, the selection of technological tools, and the curricular framework (Hofer & Owings-Swan, 2005; Hofer & Swan, 2006; Swan, Hofer, & Levstik, 2007). Proponents emphasize the opportunities that digital documentaries provide for engaging students in authentic learning and higher-order thinking (Bull, Hammond, & Ferster, 2008). Technological pedagogical content knowledge (TPACK — see Mishra & Koehler, 2006) provides a framework for understanding the complex interplay between teacher decision-making, pedagogy, and technology use. Several studies have employed this framework to analyze digital documentary activities (e.g., Hofer & Swan, 2008; Manfra & Hammond, 2008).

Previous studies on student-authored digital history projects have tended to focus on the role of the teacher acting as the curricular-instructional gatekeeper (Thornton, 2001a, 2001b). A thorough understanding of student perceptions and their effect on classroom outcomes is absent from this framework and this research, is a common weakness in educational technology research (Schrum, Thompson, Maddux, Sprague, Bull, & Bell, 2007). According to Peter Albion and Cleborne Maddux (2007), knowledge in a constructivist classroom is “constructed by the learner from personal and shared experience” (p. 305). For authentic learning to occur, it is essential for teachers to build on students’ prior experiences with not only the content being studied, but also the technology being integrated. As teachers become aware of student preconceptions for learning (Spires, Lee, Turner, & Johnson, 2008), they can use this information to more effectively integrate emergent technological applications, such as student-created digital documentaries, for learning in the social studies classroom. Our qualitative study examines student-authored digital history from the perspective of student experience.

We emphasize the social construction of knowledge in the classroom, as negotiated between the teacher and student. This includes a conception of curriculum not as a pre-determined "course to be run" (Eisner, 2002, p. 25) but one that is distilled through classroom experience. This classroom experience emerges from the interaction between students and
teachers, interaction among students, and events such as fire drills, Internet access failures, announcements, and so on. In other words, curriculum is made visible by "looking backwards" to what has occurred. "In a sense one could have a curriculum only after it was experienced by a child" (p. 26). This view of curriculum highlights the role of student agency in classroom outcomes (Dewey, 1902) and led us to examine TPACK from a socially constructed perspective to gain an understanding of how it is experienced and influenced by students.

**Conceptual Framework**

Punya Mishra and Matthew Koehler’s (2006) TPACK extended Lee Shulman’s (1987) framework of pedagogical content knowledge to include technology as an influential factor in quality classroom instruction. TPACK describes teaching as a complex and dynamic activity between three overlapping spheres of knowledge—technology, pedagogy, and content. A student-created digital documentary activity about the Civil War, for example, requires the teacher to draw upon and integrate content knowledge (information and sources about the Civil War), pedagogy (e.g., how to structure the project, provide feedback, assess student work), and familiarity with technology (e.g., features and limitations of the software used). According to Mishra and Koehler, productive technology integration in teaching considers all three spheres not in isolation, but rather as interrelated (2006, p. 1029).

The current TPACK model (see [http://punya.educ.msu.edu/research/tpck/](http://punya.educ.msu.edu/research/tpck/)) includes a dashed circle labeled Contexts around the original Venn diagram illustrating the interplay between technology, pedagogy, and content knowledge. Our study resides in this outer circle, specifically exploring the role of students. We are interested in investigating student agency and its influence on the operational curriculum. According to Elliot Eisner (2002), “The differences between what is planned in the way of aims, content, activities, and sequence and what actually transpires in the classroom can be formalized into a distinction between the intended and the operational curriculum,” (p. 32). During the enacted curriculum, the intended curriculum is transformed by teacher and student perceptions, choices, and actions. What the body of literature in the field of social studies education and technology integration has neglected is the study of what happens in “real classrooms” (Schrum et al., 2007). We sought to understand the transformation of the intended curriculum by students, through classroom observations, interviewing students, and examining student-created digital documentaries.

**Methodology**

**Research questions**

To better understand the relationship between student perceptions and TPACK, the authors observed slideshow and digital documentary projects in middle and high school history classrooms. These observations were followed by student interviews and focus groups discussing students’ work and learning outcomes. The following research questions guided our study and our data analysis:

- As students approach digital history multimedia product creation (either a slide presentation or a digital documentary), what pre-existing conceptions do they impose?

- How do their expectations interact with the teachers’ intentions to shape the final products and student statements about their learning?

**Data collection**

We conducted a comparative case study of two research sites. These sites were chosen...
Based on purposeful sampling (Patton, 1990) to include both first-time and repeat authors of digital documentaries and contrasting pedagogical styles. The first site, Hayes Middle School, is located in an urban area of Virginia. The teacher, Mr. Smith, is a white male in his second year of teaching, with six sections of 7th-grade U.S. History. Within Mr. Smith’s two Honors-track classes, seven students (and their parents) consented to be interviewed for the study. These seven participants reflected the composition of the other 30 students in the Honors-track in that they were predominantly white (85%) and female (70%). All of the students had previously used PowerPoint, and the majority (70%) of the students had used PrimaryAccess.

In two separate units of instruction, Mr. Smith assigned student-created digital history projects: one PowerPoint presentation and one digital documentary. Both assignments were summative (conducted at the end of the unit and re-capitulating the content taught); brief (less than ten slides or less than two minutes of video); and completed in one week (five consecutive, 45-minute working sessions) with teacher feedback offered throughout. The assigned topics were drawn from post-Civil War America (e.g., the rise of Jim Crow laws and settlement on the Great Plains) and the early 20th century (the Spanish-American War and the Great Migration). Students worked in pairs, completing a presentation at the end of one unit and then a digital documentary on the other. For both projects, students were directed to summarize the information presented during instruction and to add any additional information that they felt was important or interesting. The teacher reviewed the students’ work daily and provided formative feedback through verbal comments (on the PowerPoint-based project) or verbal comments plus text notes (for the PrimaryAccess-based project).

The second site, Grant High School, is located in an urban area in Virginia. Mr. Maxwell, is a white male with eight years of teaching experience. The researchers recruited him for this study because of his interest in teaching critical thinking skills to his students. The 20 participating 11th- and 12th-grade students were in Mr. Maxwell’s U.S. history class. Two-thirds of the students are African-American, and the remaining third are white or Asian. The course was classified as “non-college prep” by the school administration. Grant High School operates on a modified block schedule, with alternating days of 90-minute classes. The students had used PowerPoint previously, but never PrimaryAccess.

Like Smith, Maxwell assigned two separate digital history projects, one in PowerPoint and one in PrimaryAccess. Both projects were summative (conducted at the end of the unit and re-capitulating the content taught); brief (less than 15 slides or less than 5 minutes of video); and completed in four, 90-minute block periods. His assignment to his students was to invent a fictionalized, historic perspective, chosen from a teacher-created list (e.g., white, Northern abolitionist; small, Southern farmer) and to describe three or more events from that perspective (e.g. Missouri Compromise, Kansas-Nebraska Act). Students were then to create a digital documentary that either described Westward expansion (on the PowerPoint project) or recounted the Civil War era (on the digital documentary project) from that perspective. For both projects, Mr. Maxwell provided face-to-face feedback. For the PrimaryAccess-based project, he also required students to complete a set of critical thinking prompts based on the work of Richard Paul (1993).

**Data analysis and validity**

Sources of data included field notes, semi-structured interviews with the teachers, student focus group and student interview responses, student products (slideshow and documentaries), students’ submitted class work, and teacher-created handouts. We employed a con-
stant-comparative method to analyze the data and form conclusions (Glaser & Strauss, 1967). As data collection culminated, both researchers independently analyzed the entire data set for students’ attitudes towards the project tasks, the technologies used, specific features of the technology, requests for assistance or modification, and so forth. The researchers then compared their analyses to identify common and divergent codings, and to construct preliminary findings. These findings were then tested by a search for counter-evidence, leading to a final, revised set of conclusions. We found that our dialectic process of data collection, analysis, and refinement of conclusions led to more reliable or "trustworthy" findings (Eisenhart & Howe, 1992; Glesne, 1999).

Findings

Our analysis of classroom observations, student work, and interviews conducted with the students provided evidence of the reshaping of the intended curriculum through classroom practice. These findings underscored the importance of recognizing student agency and voice in the TPACK framework. Specifically, student experiences diverged from the planned curriculum as they negotiated their use of the technology, their understanding of the assignment, and their acquisition of the content knowledge.

Student judgments of the technology

Student preconceptions about PowerPoint as a didactic tool and digital documentaries as a media form shaped their expectations about the assignment. For instance, the first-time digital documentary-makers (the high school students) reported that they thought they would be shooting video and reenacting the past. Instead the technology they were provided reminded them of “a glorified PowerPoint” (Focus group interview, January 23, 2007) -- in fact, as students were first being introduced to PrimaryAccess, PowerPoint was an immediate reference point: 

Student: This is like PowerPoint.

Other student: It is an upgrade from PowerPoint.

(Two students in the back of the room keep debating whether it's like PowerPoint or not.) (Maxwell classroom observation notes, January 15, 2007).

During the focus group, students stated that they found the digital documentaries to be “a little plain…but boring”; “It reminded me of PBS” (Focus group interview, January 23, 2007). Their final judgment of the digital documentary project was "a PowerPoint with noise" (Focus group interview, January 23, 2007). The teacher’s explanation of the assignment (i.e., to create a “movie”) did not align with the students’ perceptions of the technological tools their teachers provided. In contrast, none of the middle school students — most of whom were creating digital documentaries for the second time — presented this concern. One of the middle-school participants stated that his digital documentary was "like you see on television" (Participant ID 6314 interview, May 30, 2007). The students with more experience making digital documentaries made a clear distinction between the movie-making project and their slideshow project.

Students accepted the function of the more established slideware tool (PowerPoint), but challenged the function of the digital documentary application (PrimaryAccess). All students in both groups reported that using PowerPoint was easy and familiar. One of the middle-school participants shared that her first curricular use of PowerPoint was as part of a report on dolphins composed in the second grade. Students singled out the tools’ emphasis on formatting. For example, one student appreciated the ability to "play with the background" (Participant ID 5020 interview, May 31, 2007).
and another reported that "It's fun putting the slides together" (Participant ID 6134 interview, May 31, 2007). In PrimaryAccess students are guided to first write their script and then to add images to their documentaries. In contrast, many students wanted to work with the pictures first. One student explained, "I wanted to start with the pictures. It was hard to actually line the pictures up with the scripts so I can imagine what it'd be like if you had actually started with the pictures" (Focus group interview, January 23, 2007). The middle school students did not identify the writing as a concern, but they did flag the recording of a voice-over narration. In separate interviews, two students expressed a dislike of this step—"I did not like recording [my] voice" (Participant ID 6256 interview, May 31, 2007). Other students, however, independently cited this as an attractive feature of the movie-making project over the slideshow: "You get to record your voice. It is fun" (Participant ID 5020 interview, May 31, 2007).

Looking across both classrooms, students' perceptions of the technology shaped their views of the multimedia digital history projects. All of the high school students, as first-time digital documentary creators, expressed a preference for PowerPoint-based projects—after all, the documentaries created in PrimaryAccess were just "PowerPoint with noise" (Focus group interview, January 23, 2007). The middle school students, as repeat authors of digital documentaries, presented an interesting division in opinion over the merits of PrimaryAccess and PowerPoint. Two students expressed a preference for PowerPoint-based projects, two preferred the PrimaryAccess-based digital documentary project, and two expressed no preference. For those that preferred PowerPoint, they disliked the recording of their voices with PrimaryAccess, and appreciated the ease of use of PowerPoint. One participant explained that a PowerPoint presentation is "just easier to make. It is easier to ... put together—just use images and type it up" (Participant ID 6256 interview, May 31, 2007).

The students who preferred the digital documentary project approved of the narration-recording step and disparaged PowerPoint, with one participant characterizing it as "pretty much just text with backgrounds" (Participant ID 6133 interview, February 9, 2007).

Re-invention & going beyond the intended curriculum

In both classrooms, students challenged their teachers' assignments by re-inventing the task, and in some cases, going beyond the intended curriculum. During both the working sessions and the focus group, Maxwell's students expressed a deep desire to be expressive and to create unique products. One way in which students manifested this urge was in their invention and elaboration of their persona, the narrator of their Civil War-era chronicle. Approximately half of the 16 digital documentaries were written from an individual's perspective and included references to other persons—spouses, children, aunts, and uncles, cousins, and even a godparent: "My husband’s best friend died that day [at Pottawatomie, Kansas]. Now what is my daughter going to do without her godfather?" (Student product ID 8095). Through these narrators, the student authors crossed lines of race, class, and even gender. Some scripts used vivid language to evoke the narrator's perspective on events, as in the case of a Southern woman who bitterly described Lincoln and his wife "waltzing into Ford's Theater in Washington to watch some British comedy called ‘Our American Cousin’" (Student product ID 8090).

Another way in which Maxwell's students challenged the assignment was through their pursuit of distinctive images for their digital history projects: "Can we put pictures in ourselves?"; "Can we add pictures at home?" (Maxwell classroom observation notes, January 15, 2007). Of 66 total student vocalizations recorded during the class period, 21 discussed the use of images, and seven of these expressed a desire for more image choices (e.g.,
"All these pictures suck"). The only more-frequent coding category was technical questions (23 vocalizations, e.g., "I need help logging in"). As a result of the student interest in adding their own images, Maxwell added more and more images to the 71 he had already collected for the assignment. During the focus group, one student explained "everybody had the same pictures – [we] want to be unique" (group interview, January 23, 2007).

Only one of Smith’s students demonstrated a similar pattern of creative re-invention of the assigned task. Her digital documentary assignment became a commercial for "Inventions and adaptations of the Great Plains": “Sick of hard-to-finish wooden fences, too frail to be of use? Well, we have an almost no-wood alternative! Sharp and strong barbed wire keeps the wild animals out of your fields and the cattle in!” (Student product ID 5020). Her PowerPoint project on the Great Migration, independent of any prompting from Mr. Smith, took a perspective on the events, exactly as Maxwell had asked of his students. Four of the project’s eight slides offered details from the (invented) life of Clara, a young girl moving north with her family.

Among Smith’s students, four of the seven students reported working on their PowerPoint presentations or PrimaryAccess documentaries outside of class time, thus exceeding teacher expectations of student behavior. One student reported working on her PowerPoint outside of the allotted class time, working on "mostly visual stuff. Like backgrounds, text, orienting" (Participant ID 5020 interview, May 31, 2007). Three students reported working on their digital documentaries from home, either composing their script or arranging the image sequence.

Mimetic learning: The path of least resistance

Despite these attempts to diverge from the curriculum, across the classes, the student-created digital documentaries resembled surprisingly close approximations of the standardized content presented in the curriculum documents, textbook, and teacher presentations. According to Frederick Drake and Lynn Nelson (2005), history education commonly falls into the "mimetic tradition" of teaching, or "teaching as transmitting an identifiable body of knowledge from the teachers to the students" (p. 36). During Maxwell's documentary-making sessions, for example, he made repeated reference to the importance of precise factual reproduction:

Teacher: Your script has to be factually correct and I'll ding you if it's not...How are you going to get your facts?

Student: I'm going to use my notes (Classroom observation, January 15, 2007).

On the following working session, the teacher again underscored the primacy of factual presentation: "Add fictitious family elements [but] plan out factual elements first" (Classroom observation, January 17, 2007). Maxwell's students reported that they depended on his help to write their scripts. One student contended, “I don’t really think it [the digital documentary assignment] helped our knowledge … it is all basic knowledge that we incorporated into our video …” (Focus group interview, January 23, 2007).

In Smith’s classroom, the student slide-shows and documentaries were heavily influenced by teacher statements and presented almost rote renditions of the standardized curriculum. When discussing an in-class task leading up to their first project, three students brought up instruction from their 6th-grade teacher, such as "overcrowding" or "overpopulation" east of the Mississippi River triggered migration to the Great Plains: "Last year we talked about like after the Civil War about Reconstruction but also moving west, ... teachers told us how it got crowded in the East so people moved west." (Participant ID 6314..."
This characterization of motives for westward migration is not part of the curriculum framework for the 7th-grade course and was not presented during classroom instruction, but persisted in students' thinking and writing. Looking at students' end-of-unit projects, the phrase "treeless wasteland" — referring to the Great Plains region — appeared in several scripts and was even repeated verbatim by two students during their interviews. This same phrase appears in the Virginia Standards of Learning (Virginia Department of Education, 2001, p. 155). Smith himself characterized his teaching as heavily influenced by the district curriculum framework: “You need to know this [facts specified by the curriculum], and let's get that down before we move on” (Teacher interview, January 25, 2007). His students affirmed this factual emphasis during separate interviews. One student summed up her experience in history class as, “It is just purely facts that you memorize” (Participant ID 6256, May 31, 2007). All of Smith’s students’ final projects faithfully reproduced the facts presented during instruction with only one error.

The trend of accurate representation of facts is underscored by this lone exception. Among Smith's students, one digital documentary was scored as containing an error: it described the Great Migration not as a single episode but as a series of movements, including one from north to south. This description is historically correct (e.g., Rabinowitz, 1994, pp. 331-339), but it contradicts the instruction given to the students: the curriculum framework, textbook, and classroom presentations all present the Great Migration as a single, long transfer from south to north. More nuanced understandings about the event, such as rural-to-urban migration in the South, migration to the West Coast, and the north-to-south migration in the late 20th century are ignored. (A subsequent curriculum revision includes the concept of multiple destinations, but still omits the student's observation about reverse migration -- see Virginia Department of Education, 2008, p. 20).

All seven of Smith's students indicated an active interest in history, citing visits to museums and historical sites, reading books with historical content, and/or watching the History Channel. Two students discussed their parents as impacting their interest in social studies — in fact, one student's parents are published anthropologists. Despite these statements, only one documentary — the “erroneous” Great Migration project — incorporated information that hinted at this wealth of additional historical knowledge, understanding, and interest.

Across the classes, the assignments explicitly encouraged students to synthesize their historical understandings and create a new, original product. The enacted reality, however, was mimicry of the content-driven presentations of the teachers. In some instances, the students challenged the technology and the parameters of the assignment, but, for the most part, created a product that resembled the teachers’ pedagogical aims and reflected the curricular imperative of covering mandated content.

**Discussion**

Our findings highlight the role of students as co-creators of classroom curriculum. While teachers act as curricular gatekeepers through their selections of content, methods, and materials (Thornton, 2001a, 2001b), students also have agency in the classroom (Dewey, 1902; Eisner, 2002). As such, our understanding of classroom instruction must view the role of the teacher as “emergent rather than prescriptive” (Henderson & Gornik, 2007, p 106). The successful teacher is “sensitive to the flow of events and to the student’s engagement in those events in order to make adjustments” (Eisner 2002, p. 152). In our study the teachers’ initial expectations for the multimedia assignments were altered over the course of instruction as students brought their own pers-
pectives to the assignments. Maxwell, for instance, was flexible in adding additional pictures for students to make their movies more unique.

The final products generated by the students were not merely variations on a theme established by their teachers, but a negotiation of teacher aims with students’ understandings of the technology and the assignment goals. We noted that this negotiation focused on two important aspects of the planned curriculum: the technological innovation -- digital documentaries -- and the pedagogical innovation -- student authorship of historical accounts. The enacted curriculum was altered by student willingness to embrace these innovations for learning.

It appears that the student participants had already adopted PowerPoint, not just as a technological tool, but as a cultural norm. All of the middle school students testified that they had used the tool before, and the high school students even used it as a point of reference when discussing digital documentaries. PowerPoint was an established schema for students, both in terms of product (“just text with backgrounds”) and process (“just use images and type it up”) they understood the tool and the concept of making a PowerPoint as part of a classroom project. Digital documentaries, on the other hand, were a new concept for the high school students. They judged it in terms of the already-adopted tool. For them, Primary Access was “glorified PowerPoint” or “Power Point with noise.” It makes sense that students would fall back on their preconceptions regarding technology, in this case an application (PowerPoint) that they frequently encountered in school and social studies classrooms (Hofer, Ponton, & Swan, 2006). These comparisons suggested that the students did not view the affordances of digital documentaries (e.g., motion and narration) as substantive. In these instances student resistance to the technological innovation seems to have limited their ability to focus on the learning aspects of the assignment. For instance, the middle school students who expressed a dislike of recording their voices also expressed their reluctance to adopt the technological innovation of the digital documentary format in class.

The students also balked at the attempted pedagogical innovation of integrating student-authored, historical accounts in the classroom. Across the two classrooms, we noted that students tended to take the path of least resistance (Milson, 2002) in the presentation of content knowledge. Maxwell’s students were eager to do the aesthetic tasks — such as select pictures, add humor to scripts, and record narrations — yet tended to create scripts that reflected the minimum standard for critical thinking. Smith’s students were asked to present a more traditional recapitulation of instruction, but invited to add “anything else” that they found interesting. Despite the fact that all seven students expressed an active interest in history, only one of the seven students was able to add an “anything else” that reflected this interest.

The students’ reluctance to respond to teachers’ technological and pedagogical innovations reiterates the point that a technology cannot lend itself to a particular outcome (e.g. a digital documentary is not inherently constructivist). A good place to begin to integrate technology for learning is with an explicit exploration of students’ initial understandings about technology and instruction (Spires et al. 2008). This exploration might begin by focusing on the aesthetic and creative affordances of the technological tool.

In our study, student expectations of creative license during media making were particularly striking. During both the slideshow and digital documentary projects, students expressed a particular interest and attention to personalizing their final products. Maxwell’s students pushed for more pictures to be included in the teacher-supplied list, and some projects incorporated humor or invented entire extended families and not just a single point of perspective. Several of Smith’s students displayed their creativity by elaborate work in
formatting PowerPoint slides or redesigning their assignment (i.e., as a fictional narrative or an advertisement). The student participants prized the opportunity to be creative and make their work distinctive. Student-created digital history projects are a powerful way to provide students with an outlet for this generative impulse and to motivate student engagement in more authentic learning tasks.

It is important to note that the creative touches we observed were about aesthetics and packaging, not the content — no project, for example, made associations between the Civil War and other topics of instruction, or a new understanding about the Great Migration. James Henderson and Rosemary Gornik (2007) cautioned teachers “not to fall into the trap of activities that are fun and even interesting but do not lead to anything intellectual” (p. 116). In other words, teachers can capitalize on the creative aspects of digital documentaries to motivate reluctant students, but cannot rely solely on the technology to lead students to more authentic and intellectual tasks. Building up students’ historical understanding and inquiry skills to the point where they can bring the same level of energy and inventiveness to their content as to their aesthetic choices calls for a transformative pedagogy (e.g., Scheurell, 2008), and explicit scaffolding of the task (Brush & Saye, 2002).

Evidence of student agency in our study suggests that educators and researchers who focus on the connections between content, pedagogy, and technology must also contextualize it in terms of student perceptions. This goes beyond merely recognizing the contexts in which technology is integrated, to take into account the role of the students in the classroom. John Dewey (1902) reminded us that “Learning is active … It is he [the student] and not the subject-matter which determines both quality and quantity of learning” (p. 13-14). If our aim is toward more vitality in the curriculum, our attempts to leverage technology for learning must recognize the central role of students.

Our study provides two rich examples of the integration of technology in the social studies classroom. It explores the TPACK framework from the perspective of student agency and provides evidence of the importance of recognizing student preconceptions. In the operational curriculum of the classroom a kind of dialogue occurs between teacher and students (Eisner, 2002), leading to the negotiation of pedagogical aims and technology affordances. Future studies will continue in this vein, focusing on the contexts in which TPACK occurs and beginning to better understand the relationship between student preconceptions and learning outcomes.

**Conclusion**

If digital history is to transform history education, as Bolick (2006) and John Lee (2002) suggested, teachers must account for the learner’s perspective. Teacher educators and educational researchers interested in leveraging technology to improve learning, acknowledge the dynamic nature of classroom interaction and the impact student choices have on TPACK. Technology integration occurs in the operational curriculum in often unpredictable ways. Based on our study, we know that student preconceptions and desires impact the learning goals. By better understanding the role of student agency, teachers can plan for instruction that uses digital history to effectively teach content.
References

Print-based


Web-Based


