Technology in Kentucky social studies classrooms

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Abstract

Technology has become an ever-present part of our world. The use of technology has many applications, including in the field of social studies education. This study focused on how technology is being used in Kentucky social studies classrooms and its perceived classroom effects. Using SurveyMonkey, social studies teachers grades 5-12 in 65 of Kentucky's school districts were asked what technologies they used in their classrooms. The survey had a 17% return from teachers. Survey results indicated that teachers most often used videos, apps, and websites. The main reasons for using technology are testing, student research, content review, and interactivity. Teacher and student enjoyment for using technology and improved student performance are the main triumphs. The main challenges to technology use are lack of technology in students' homes, weak school technology infrastructure and/or lack of equipment, and students being off-task when engaging with technology.

Literature Review

When reviewing literature for this research, it became clear that literature on the subject of technology in social studies classrooms falls into one of two main categories: how to use types of technology and teachers needing more training in technology use.

J. D. Gardner found in his research that "one key finding…was how unprepared teachers felt in the use of technology in the classroom. They also felt that professional development in technology is important and should be provided often to teachers" (Gardner, 2011, 20). This seems to be the trend across the literature that was reviewed. Teachers are interested in using

technology in their classrooms, but they feel unqualified to use it in an effective way. They lack the confidence to use technology to its full potential. Writing about a professional development workshop, Shriner, Et al. stated that "For social studies educators, specifically, professional development with regard to educational technology may hold the proverbial key in terms of their perceived confidence and belief in their ability to utilize various technological applications in their respective classrooms" (Shriner et al., 2010, 38).

The teachers Gardner talked to "talked a lot about professional development in terms of technology in their classrooms…[and] not [having] enough training" (Gardner, 15). Shriner Et al. used surveys before and after their professional development workshop to measure its effectiveness, and found that "participants gained statistically significant changes in their self-reported levels of confidence and competence using various educational technologies" (Shriner et al., 37). The need for professional development in technology use can be seen in the fact that Shriner Et al. says (when referring to activities done at their workshop) teachers "likely would not have had the time to learn of such resources and plan such a lesson if not for this workshop" (Shriner et al., 43).

To best improve teacher efficacy, training needs to be done at the pre-service level. Teacher education professor Alicia Crowe found that teachers weren't using technology in their lesson plans, so "a more thorough approach was needed that included consistently modeling the use of technology in teaching and frequently engaging students in the use of technology in class so they would be more inclined to use it in their teaching" (Crowe, 2004, 160). She found that "to begin to value technology as a tool, prospective teachers need to know that practicing teachers are using it" and "to more greatly develop their knowledge and increase their desire to incorporate technology into their classroom, it was important that these prospective social studies

teachers not only read about technology and be told of its importance, but directly experience how it can be used and how it does impact learning" (Crowe, 160). 19 of the 21 teachers she surveyed from her class felt that they were more comfortable using technology and had gained ideas about how to use it because of her teaching methods (Crowe, 164).

When it comes to professional development and teacher efficacy, it is clear that teachers want to use technology effectively but they need help. Literature shows that teachers can become more confident users of technology and gain ideas about how to use it if they are given the proper training. A teacher cannot be expected to take the time out of their already busy lives to figure out how to use technology on their own. It is much more efficient and effective for teachers to be able to learn while in college or through professional development programs.

Several works of literature discussed how teachers are using technology. The uses included apps, cell phones, the Internet, Smartboards, videos, and virtual field trips. The literature was concurrent with the findings of this project in that teachers are frequently using these types of technology.

Berson et al. wrote about the use of iPads and apps in social studies and determined that "the iPad served as a conduit for fostering classroom community building as well as promoting social studies learning goals" (Berson, et al., 2008, 88). Fredette, writing about the "Whispering History" app, demonstrates how interactive apps are useful in social studies. Fredette says that "in the area of history, I see technology allowing students to be collectors and curators of historical artifacts. When you do something yourself, that's the learning that sticks with you" (Fredette, 2012, 25). Fredette further supports this claim by saying app use allows "students [to]

become the researchers, the historians, sleuthing for answers instead of simply receiving them"
(Fredette, 24).

Berson et al. found that apps and the iPad have a positive effect: "Students, in turn, must
learn a new form of literacy as they move between apps and engage in both personalized and
collaborative learning experiences. The new literacy skills involved with iPads go beyond
traditional conceptions of literacy to include remixing media and content, collaborating with
peers at a distance, sharing and communicating findings clearly and efficiently, and
understanding which apps best fit their learning goals" (Berson et al., 89). They also forecast a
bright future for this technology, saying, "the functionality offered by the iPad, with its mobility
and ubiquitous applications, may be the spark to ignite a movement toward innovation that
empowers and enriches students' authentic, high quality learning experiences" (Berson et al., 91).

Cell phones are another type of technology that was discussed in literature. Brad Maguth
says, "the integration of cell phones in the social studies provides students and teachers with
immediate access to information when and where it's needed" (Maguth, 2013, 88). Indeed, cell
phones can be sources of information for student research that are in the palm of virtually every
high school student's hand. Cell phones can be used to send reminders to students about class, as
well as for personal response systems in the classroom.

The results of personal response polls can "be projected to the class for discussion and
analysis. Social studies teachers could use this tool to have students engage in digitally mediated
conversations about discussed content" (Maguth, 90). It is important to survey your class first to
gather their opinion about using their phones, because some students may not be comfortable
with the idea. Kennedy discovered this, finding that the students she talked to about cell phone

use for class "overwhelmingly agreed that this was that trying to integrate cell phones into education was "an invasion of our personal space," and pushed the boundaries between their personal and school lives" (Kennedy, 2010, 46).

When it comes to cell phones in schools, it is important to keep an open mind. "Simply disallowing and prohibiting the use of cell phones by students, especially as they grow in educational capabilities, marginalizes their ability to serve as twenty-first century tools that allow students to access information, communicate, and present new information" (Maguth, 90).

The internet, through all of its various websites, is another technology that plays a role in education. Social studies teacher Andrew Hostetler found that using online blog discussion boards had a profound impact on his students. Hostetler summarizes the potential of online blog discussion boards by saying, "The potential for online discussion lies in its ability to extend the classroom, overcome systematic limitations, and engage students in meaningful democratic discussions that encourage the development of the skills and dispositions necessary for citizenship in the twenty-first century" (Hostetler, 2012, 100). While discussing important issues in social studies, such as current events, "Students placed a high value on being courteous to others' opinions and the need for some logical reasoning or factual support of readers' statements and opinions" (Hostetler, 102). He found that "Students exhibited a greater sense of understanding of the issues, of society, and of our community thorough increased and more meaningful democratic talk online and in the classroom" (Hostetler, 104). Hostetler demonstrates the value of online student discussion in how it makes them more engaged and develops their understanding of how social issues and formal debate works.

Wilson et al. believes the internet can help connect to students because "in our fast-paced world, students are accustomed to instant gratification, perhaps expecting similar experiences in their classrooms" (Wilson et al., 2011, 65). They assert that students "are more apt to respond "cyberly" when expected to reply than they are in the traditional paper/pen method" (Wilson et al., 66). Wiki assignments create student ownership of their work, and "when students have ownership, they are more likely to submit quality work and enjoy the process" (Wilson et al., 68). Wikis also allow students to learn "to use their skills in research, collaboration, peer review, and technology" (Wilson et al., 68). Lisa Matherson, a teacher and an author of the Wilson et al. text, summarizes the importance of technology as such:

> Our students exist in a culture of technology. If we can find ways to harness the gifts of this culture, it will enable us to teach social studies to our students in a more exciting manner and will make our jobs just a little easier in turning our classrooms into student-centered instructional places; such a place where students are excited to learn about "boring old social studies." In addition to turning our classrooms into student-centered instruction, incorporating technology also readies them for the many aspects that they will encounter in the electronic world in which they will one day participate. (Wilson et al., 71)

Swan found that the internet, through online tools such as CaseMate (an alternative to BlackBoard), "provides the opportunity to utilize assessments in a formative manner through color-coded displays, enabling the instructor to integrate student responses from assignments such as reading responses or journals in a more seamless manner" and that it is particularly useful in social studies "because of the increased attention that online primary sources have received over the past decade" (Swan, 2009, 147). Ractham and Chen found that social media

"can enhance networking between students who are working in an online group as well as foster relationships amongst them since they are working together for the same common goal" (Ractham & Chen, 2013, 292). Edmodo, a Facebook-like website for education, is particularly useful because it "allows the instructor to control course materials, learning content, and evaluation criteria to the same extent in all…classes" (Ractham & Chen, 293).

Another type of technology is the SmartBoard and alternatives such as Promethean. Two master's theses were reviewed which studied this technology. J.D. Gardner summarized his findings about the SmartBoard as such:

> There were many observed uses of the Smart Board, including presenting notes, maps, audio and visual material, and review games and interactive games. These all have one connected theme, the change from the teacher being the sole presenter and "lecturer" of the material. The teacher still creates the material; it is just being presented differently, as with web-based learning. The teacher is becoming the facilitator of knowledge even in the live classroom setting (Gardner, 19).

Kennedy took a more analytical and critical approach to SmartBoards. She found that students are not getting to interact with the boards like they should and that teachers are using the boards in rudimentary ways only, which decreases their value to the classroom (Kennedy, 8-10). Kennedy found that SmartBoards do not offer enough interaction to justify their price tag (Kennedy, 23). Students interviewed by Kennedy "did not feel that they had enough opportunities to interact with this technology to be totally comfortable with it" (Kennedy, 46). In general, Kennedy found that the activities teachers used SmartBoards for could be done with cheaper technology and that the SmartBoard was not being used well enough to justify its price.

While her assessment is certainly critical, it serves as a reminder that teachers with SmartBoards need to be conscious of using their technology to its full potential.

The use of videos was a common theme in literature. Sheffield and Swan studied the use of the digital reenactment in the history classroom, which can and often does involve students creating their own videos. They found that "digital reenactments provide students with a means to share their research, creativity, and effort with an audience outside of the classroom" (Sheffield & Swan, 2012, 92). They found that digital reenactments increased student engagement because "knowing that others will be able to view their work provides added motivation for students to ensure that information is accurate, that the narrative is coherent, and that the finished product is of high quality" (Sheffield & Swan, 93).

McCrary discussed multimedia family history projects, in which videos are used. He said:

The process of creating a multimedia family history to share with peers helps to bridge distances created by culture, race, and social class. It provides students with opportunities to make sense of multiple perspectives based on time and context. Such learning activities also provide teachers with critical information on the conditions in which their students live and learn as ell as their students' perspectives on their own lives. The presentations to peers also promote a kind of interaction among students that disregards conventional privilege, welcomes multiple perspectives, and is nourished by diversity (McCrary, 2012, 96).

Wilson et al. found that short news videos are useful because "using such clips does not take large chunks of classroom time, but does allow students to get to the heart of the matter on relevant news stories of the day" (Wilson et al., 70). They also found that allowing students to

create their own videos "excites students, and they become committed to turning out quality work if they know they can become "video stars" within their classrooms" (Wilson et al., 71).

Wayne Journell assessed the value of CNN Student News as a use of video technology. He says that "evidence suggests that students' social studies instruction is doing little to encourage political and social awareness" and that "current events are often not a regular part of the curriculum" (Journell, 2014, 53). However, when observing a teacher who showed CNN Student News daily, Jorunell "was amazed at how attentive the students were throughout the entirety of each newscast" (Journell, 54). Student News is a useful technology because "each episode is accompanied by a written transcript that can be downloaded for English language learners or students with hearing impairments, and the website keeps an archive of all previously aired episodes for future reference" (Journell, 54). Student News relates well to students because it "does a great job of describing complex issues in a way that middle and high school students can relate to and understand" and because it touches "on issues that are of interest to their age group" (Journell, 56).

The final type of technology use that was mentioned frequently in literature was the virtual field trip. When implementing a virtual field trip assignment for his class, Scott Scheuerell found that "the Internet, utilizing cooperative learning structures, offers a promising method to motivate high school students to become connected with their peers and learn the content in the social studies curriculum" (Scheuerell, 2010, 194). He found that the virtual field trip promoted cooperative learning, which benefitted the community in the form of a local history project and led to academic achievement in the classroom (Scheuerell, 195-96). The virtual field trip promoted career readiness because it "provide[ed] a structure to help students become more skilled at working with others, including people from different racial, cultural, and

economic backgrounds" and it developed collaboration, technical, and social skills needed in the workplace (Scheuerell, 196).

Participants at Shriner et al.'s professional development workshop learned about virtual field trips and did their own from a student's perspective. They found that "a discussion of the skills used to create such projects in a relatively brief period of time highlighted the potential power of such activities in the classroom as the teachers began discussing the new things they learned as they gathered their pictures, data, and in- formation, and put together their projects. After noting the impact that the creation of virtual field trips had on their own growth in skills and knowledge, they extrapolated that the impact on student learning would be great" (Shriner et al., 39). "Teachers concluded that virtual field trips were, indeed, useful instructional tools to promote student engagement in meaningful learning" (Shriner et al., 39).

"There is a lot of research that deals with technology, but few focus on the secondary school social studies classroom" (Gardner, 4). This quote best summarizes the amount of literature and research that has been done on this subject. The literature reviewed for this project showed trends in technology use and the impact that technology use can have in the social studies classroom. However, the literature review made it clear that more research needs to be done on the subject of technology in social studies education. Berson et al. found that "currently, there are few research studies documenting the impact of integrating iPads for learning in the social studies" (Berson at al., 90). When researching SmartBoards, Kennedy found that "very little of the research surrounding this technology discussed how it was actually being used in a classroom" (Kennedy, 12). Kennedy makes a call for action:

Because this topic is ever changing as both technology and education continue to evolve, more studies will need to be done in order to develop any more recommendations. These studies should be larger in scale, scope and depth. The studies should be longitudinal in scale with content areas, schools, districts and states in order to get larger sample sizes so that the data is more stable therefore more concrete conclusions could be drawn. Future studies could be more in depth by covering more types of classroom technology beyond just [interactive white boards] and student computers (Kennedy, 57).

There is indeed a need for more research on this subject. Gardner says, "while technology plays an important role in the 7-12 social studies classroom, its overall role, purpose, and function is not completely known" (Gardner, 2). He also found that "further research should also be done in terms of professional development" (Gardner, 4). In short, Gardner said it best: "There is a lot of research that deals with technology, but few focus on the secondary school social studies classroom" (Gardner, 4). More work needs to be done if the most effective and efficient ways of using technology in social studies are to be fully understood.

Methodology

This research centers on the data collected from a survey sent to Kentucky social studies teachers about their technology use in their classrooms. The initial plan for this research was to find any correlations between standardized test scores and technology use in the social studies. For this reason, surveys were intended only for 5th, 8th, and 11th grade teachers of social studies in Kentucky, since those are the years in which social studies is tested by the state. We intended to follow up on the survey by spending time in local schools. However, there was very little interest expressed by any teacher to have the researchers in the classroom and the survey data

was inconclusive with respect to test scores. Because of this, survey data is strictly from 5th, 8th, and 11th grade social studies teachers, although the focus on test scores was dropped from the research after the surveys were completed.

The first step in the survey process was to collect contact information for school districts in Kentucky. We utilized the Kentucky Department of Education website to gather information and then contacted the districts via email. The email asked permission to contact social studies teachers in grades 5, 8, and 11, and requested that those teacher emails be provided if possible. If a district did not give the emails but did grant permission to contact teachers, we searched on school websites to find the teacher information.

Because some school websites only identify a teacher by subject and not by grade, there were instances where the survey was sent to social studies teachers who did not teach in the tested grade levels. Since the focus of the research was still on test scores during the time of the survey being sent out, the survey corrected this problem by first asking teachers if they taught social studies and at what grade level. If teachers answered that they did not teach 5th, 8th, or 11th grade social studies, the survey disqualified them and redirected them to a thank you page. Some demographic information questions were also asked in the survey, but no participating teacher chose to answer these questions.

Teachers took the survey anonymously through SurveyMonkey.com. The results of the survey were collected by SurveyMonkey and the data was imported into NVivo 10 qualitative analysis software. Mr. Perrin ran search queries based on key terms and ideas in the responses given by teachers. NVivo allows queries to be programmed to group similar terms and ideas together as a single result, using human judgment to decide if multiple qualitative responses have

the same meaning. The results of these queries show the frequency with which responses occur. This data can be interpreted to show what types of technology teachers are using, for what reasons, and to what effects.

In addition to the survey, we planned to observe multiple social studies teachers. The researchers were granted permission to observe by only one school, with permission to observe a week's worth of lessons at a large high school in Kentucky. The researchers entered the classroom and filmed the lesson, received any copies of materials given out in class, and remained silent observers within the classroom. The teachers were told not to alter the lesson plan for class in any way because of the presence of the researchers. The goal of these observations was to see if the survey data and literature review findings matched up with what was actually happening in classrooms. Unfortunately, with only one teacher being observed, the researchers could not observe a large enough sample size to make a confident claim.

The following is a list of the questions included in the survey, in numerical order as they appeared, with possible answer choices included when applicable:

1. Please identify your teaching assignment for 2014-2015.
   a. Elementary
   b. Middle Grades
   c. High School
   d. I am no longer teaching in a classroom
2. Please identify your grade level of teaching.
   a. 5th grade
   b. 8th grade
   c. 11th grade
   d. I do not teach in 5th, 8th, or 11th grade
3. Please identify the demographic description of your school.
   a. Rural
   b. Suburban
   c. Urban
   d. Other (please describe)

4. Do you teach social studies full-time?
   a. Yes, I teach only social studies
   b. No, I teach social studies 2-3 periods of the day
   c. No, I teach social studies 1 period of the day
   d. No, I do not teach social studies
5. Of these technologies, please select the ones you use in teaching social studies.
   a. SMARTboard or Promethean
   b. iPad
   c. Cell phone
   d. Clicker response systems
   e. Movies
   f. Eggspert of Jeopardy! Games
   g. Audiotapes
   h. Podcast
   i. Vodcast (or YouTube or Teacher Tube)
   j. CIITS
   k. Personally created web site on school server
   l. Personally created web site outside school server
   m. Twitter
   n. Facebook
   o. Other technology (please list)
6. If you selected SMARTboard or Promethean, please describe the way(s) in which you use the device.
7. If you selected iPad, cell phone, or CIITS, please list up to 10 apps or other technologies (such as games or movies) you have used in your classroom for social studies. Please describe the way(s) you have used each of these selected items in your classroom.
8. If you have selected audiotape, podcast, vodcast (YouTube or Teacher Tube), or web site, please respond to this question: Did you personally create the audiotape, podcast, or vodcast? In what way did you use this in the social studies?
9. If you selected Twitter or Facebook, please describe the way(s) in which you use this in the social studies.
10. On a scale of 1-10 with 1 being the lowest and 10 being the highest, how would you rate your personal use of technology in the classroom?
11. On a scale of 1-10 with 1 being the lowest and 10 being the highest, how would you rate student receptivity to using technology in social studies?
12. On a scale of 1-10 with 1 being the lowest and 10 being the highest, how would you rate student receptivity to units that do not use technology in social studies?
13. In what way(s) is your use of technology as a teacher supporting the curriculum relevant to the KCCT/K-PREP social studies assessment?
14. Please give us your opinion about using technology in your classroom. Be specific in your triumphs and challenges.

15. In comparing the social studies scores from 2013 to 2014, in what area(s) do you see the most positive growth? Does this correspond to your classroom observations of the area(s)? In what way(s) has your use of classroom technology supported this growth?
16. Gender
    a. Male
    b. Female
17. Age
    a. <18
    b. 18-29
    c. 30-44
    d. 45-60
    e. >60
18. Household income
    a. $0-$24,999
    b. $25,000-$49,000
    c. $50,000-$99,999
    d. $100,000-$149,999
    e. $150,000+
19. Education
    a. Less than high school degree
    b. High school degree
    c. Some college or Associate degree
    d. Bachelor degree
    e. Graduate degree
20. Location (Census Region)
    a. New England
    b. Middle Atlantic
    c. East North Central
    d. West North Central
    e. South Atlantic
    f. East South Central
    g. West South Central
    h. Mountain
    i. Pacific

Results

Sixty-five out of 173 Kentucky public school districts gave permission to contact their teachers. Out of the 655 teachers contacted, 104 took the survey, for a return rate of 16%. The

following are the results of qualitative analysis performed on survey response data, using NVivo 10 software. "References" refers to the number of times a response was given.

Types of technologies used:

Technologies	References
30 Hands	2
A Day in History (app)	2
ABC News (app)	1
ActiveInspire	1
America: The Story of Us	2
Ancestry	1
Apps	32
appSmash	1
APUSH Textbook (online)	1
Auto Rap	2
Bill of Rights (app)	1
Bookshelf	1
Brain Scape	1
Brainpop	2
BrainQuest	1
Cell phone	7
CERT's Podcast Series: Security for Business Leaders	
Chrome books	3
CITTS	2
Clickers	3
Compass (app)	1
Computer	10
Continents (app)	1
Crash Course videos	5
Dear America videos	1
Discovery Education	2
Document Camera	6
Dojo	2
Drop Box	1
Early Jamestown	1
Edmodo	10
Educreations	3
Ellis Island Tour	1
Eons	1

Felicity - An American Girl (movie)	1
Flip Chart	7
Following historians on social media	1
Following journalists on social media	1
Frontier Heroes	1
Frontier House series	1
Geo Map apps	1
Gettysburg	1
Google	3
Google Chrome	3
Google Classroom	1
Google Earth	1
GPS	1
HipHughes History (YouTube channel)	1
Histographies	1
History Alive	8
History Channel	4
iCivics	1
iMovie	3
Infinite Campus	2
Internet	13
iPad	6
iPad Air Server (for streaming video)	1
iTunes	1
Jamestown Online Adventure (game)	1
Kahoot	3
Khan Academy	1
Ladibug	1
Liberty Kids	1
Maps	11
Maptastic	2
Mission US	3
Movies	7
n+otes	1
Next Move	1
Night at the Museum (movies)	1
OneText	1
Online virtual field trips	2
Own devices (student's own)	7
Pages	2
Paperport notes	1

Pass the Past	1
Picture	3
Pintrest	3
Plickers	3
Podcasts	6
Popplet	1
PowerPoint	14
Prezi	4
Projector	3
Promethean	3
QR Code Reader	1
Quia	1
Quick Key (app)	1
Remind 101	6
Royalist: A History of Great Britain	1
Safari	1
Scholastic	2
Scholastic - The First Thanksgiving	1
School House Rock	1
Sign of the Beaver (movie)	1
Simulations	1
Smart technology	10
Social Studies Friendzy	1
Songs	3
Stack the States	2
Study Island	2
Tapes	2
TapQuiz	1
Teacher Tube	4
Tellagami	2
Text Messaging	2
Textbook Website	1
Ticker Tapes	1
Trivia Crack	1
Twitter	7
UnitedStreaming clips	1
US Constitution (app)	1
US History Timeline	1
US Presidents (app)	1
USA test prep	1
Videos	49

Voice recorder	1
Website	16
Weebly	3
Westward Expansion (app)	2
Williamsburg, Virginia (game)	1
YouDoodle	1
YouTube	17
Zimbio	1
Zipgrade	1

Reasons technology was used:

Reasons Used	References
21st century skills	3
ACT	4
Analysis	3
Auditory	1
Benefits the class	1
Bring content alive	2
Class announcements	1
Collaborate	1
College and Career Readiness	1
Communicate better educationally	1
Communicate with professionals	1
Constantly be informed, review, etc.	3
Content	31
Content review	19
Critique (students perform them)	1
Engage	12
Enhancement	6
Enrichment	1
End of Course assessments	8
Expand world beyond classroom	1
Explore topics deeper	1
Facilitate delivery of curriculum	1
Finding good resources	1
Formative assessment	6
Historical information	1
Hook (use technology to draw students in)	1
Informational	11
Instant feedback	1

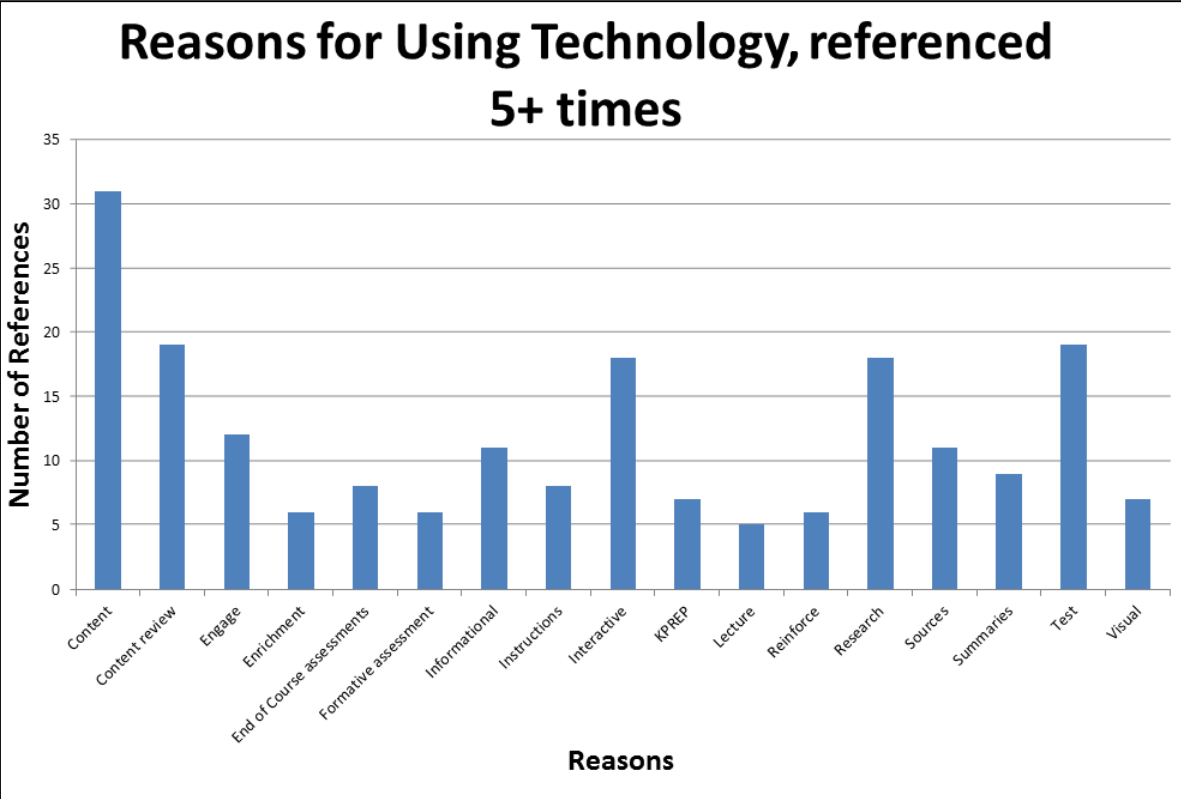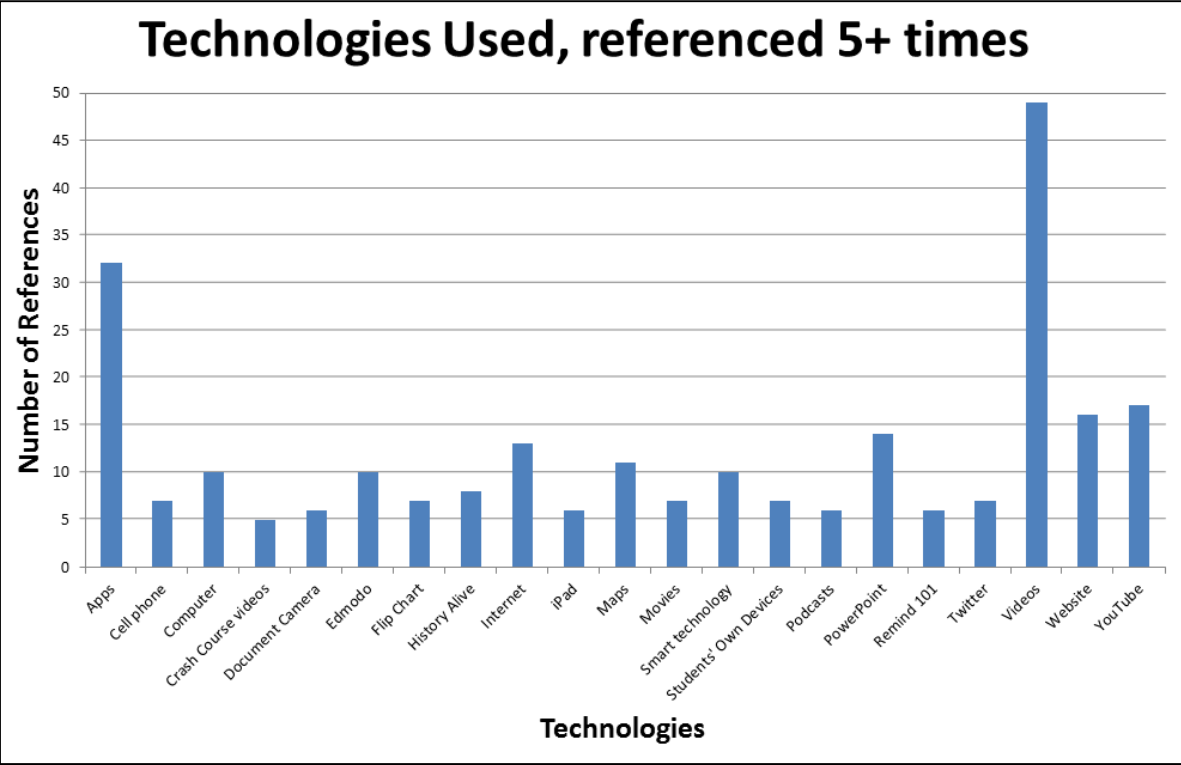|	
Instructions	8
Interactive	18
KPREP	7
Lecture	5
Literacy skills	1
Logical arguments (students create them)	1
Makes students want to learn	1
Motivate	4
Multiple Intelligences	1
National standards	1
Pacing	1
Parents informed	4
Polling	1
Post assignments	1
Quick response	1
Reinforce	6
Reminders	2
Research	18
Self-sufficient learners (students become)	1
Share student work	2
Showcase	1
Sources	11
Student presentations	4
Summaries	9
Supplement	3
Supports learning objective	1
Test	19
Thoughts on board	1
Up to speed (keeping students on track)	3
Visual	7
Weekly question responses	1

Challenges associated with technology use:

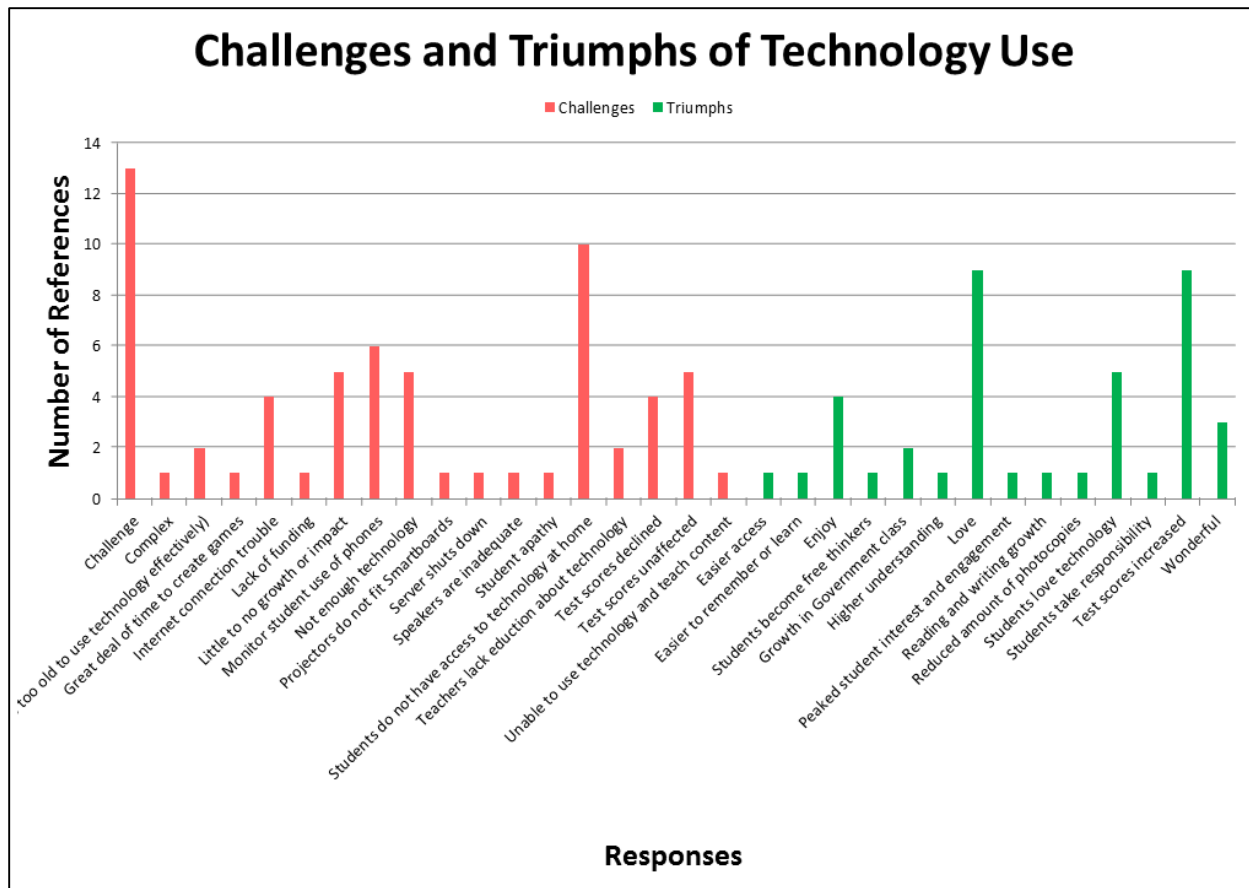| Results	Challenges
Challenge	13
Complex	1
Dinosaur (teacher feels too old to use technology effectively)	2
Great deal of time to create games	1
Internet connection trouble	4
Lack of funding	1

Little to no growth or impact	5
Monitor student use of phones	6
Not enough technology	5
Projectors do not fit Smartboards	1
Server shuts down	1
Speakers are inadequate	1
Student apathy	1
Students do not have access to technology at home	10
Teachers lack education about technology	2
Test scores declined	4
Test scores unaffected	5
Unable to use technology and teach content	1

Triumphs associated with technology use:

Results	Triumphs
Easier access	1
Easier to remember or learn	1
Enjoy	4
Free thinkers (students become)	1
Growth in Government class	2
Higher understanding	1
Love	9
Peaked student interest and engagement	1
Reading and writing growth	1
Reduced amount of photocopies	1
Students love technology	5
Students take responsibility	1
Test scores increased	9
Wonderful	3

The data shows that there are several trends associated with technology use in the classroom. The following charts show these trends.

Technologies Used, referenced 5+ times

Reasons for Using Technology, referenced 5+ times

Challenges and Triumphs of Technology Use

These graphs show the responses which occurred most frequently. Survey results indicated that teachers most often used videos, apps, and websites. The main reasons for using technology are testing, student research, content review, and interactivity. Teacher and student enjoyment for using technology and improved student performance are the main triumphs. The main challenges to technology use are lack of technology in students' homes, weak school technology infrastructure and/or lack of equipment, and students being off-task when engaging with technology.

Classroom observation by the researchers found that technology was being used for student research, to foster student-and-teacher communication, for the facilitation of group work and collaboration, and as an alternative to a physical textbook and worksheets. One teacher was observed at a large high school in Kentucky. This was the only school in which the researchers

were granted permission to observe. In this classroom, the students all had their own iPad which they were able to use in every class. Edmodo was one such resource/app that was used by these students on the iPads. The teacher had created a digital textbook for the class by compiling resources for use on the iPad. Handouts were all paperless and could be completed on the iPad, thus allowing students to flip between the assignment and resources on their device. A school computer lab was also used for student research for group projects. Both the computers and the iPads were used for collaboration and group work between students.

The teacher that was observed was very proficient in technology use. For this teacher's classroom and teaching methods, technology was not a new way to teach. It was *the way* to teach. This teacher was both fluent and fluid in the use of technology, meaning the teacher was very knowledgeable about how to use technology and was able to incorporate it into teaching in a seamless manner. The teaching we observed would be described as "next generation," "change-making" and even "revolutionary" by people who may observe it. This teaching should not be viewed as something set apart from the norm, which is what is implied by labeling it with the above terms. This style of teaching should be the aim and goal of any teacher. The fluent and fluid use of technology in the classroom is a realistically attainable goal for any teacher and school. With the proper training, practice, resources, and technology infrastructure, successful use of technology in the social studies classroom (and any classroom) can be accomplished.

Discussion

The results of this research show that technology use is an important part of social studies education. The literature reviewed for this research indicated that there are teachers using technology in new and effective ways to enhance the social studies curriculum. The literature

also revealed that many teachers do not feel adequately trained to use technology in their classrooms. The results of the survey showed that these trends hold true in the state of Kentucky. Teachers are using many types of technology for multiple reasons. They are trying to find ways to incorporate technology into their classrooms with the goal of achieving positive results such as improved student performance and increased student interest in learning. Kentucky social studies teachers are also experiencing the same challenges that the literature review indicated were present: lack of teacher confidence and lack of technology resources at school and in students' homes.

The results of this research show that technology use is prevalent in social studies education and the future is bright. Classroom observation showed the researchers that a teacher who is motivated and knowledgeable about technology use can incorporate technology into their classroom at a highly effective level. With the proper training and resources for teachers, social studies education throughout Kentucky and the country as a whole can be enhanced by technology.

Conclusion

The findings of this research indicate that teachers need more training about technology use. Teachers need to be able to feel confident in their ability and understanding when it comes to technology use in the classroom. Further research should investigate professional development availability and methods in the field of technology use in social studies, as well as in the field of education as a whole. When it comes to technology use in the classroom, the most important need is a well-trained, confident teacher. Good teachers can cause student growth in knowledge and enthusiasm for learning, and technology use can play a big part in this growth.

Further research should also investigate issues associated with student access to technology at home and issues associated with funding and technology resources within the schools. These issues can impede the effective use of technology by teachers.

References

Berson, I. R., Berson, M. J., & Manfra, M. M. (2012). Touch, type, and transform: iPads in the social studies classroom. *Social Education, 76,* 88-91.

Crowe, A. R. (2004). Teaching by example: Integrating technology into social studies education courses. *Journal of Computing in Teacher Education, 20* (4), 159-165.

Fredette, M. (2012). History, in its prime. *T H E Journal, 39* (9), 23-27.

Gardner, J.D. (2011). *Understanding the Role of Technology in a Secondary School Social Studies Classroom.* (Master's Thesis). Retrieved from Education resources information center. (ED521233).

Hostetler, A. L. (2012). Democratic use of blogs and online discussion boards in social studies education. *Social Education, 76,* 100-104.

Journell, W. (2014). Analyzing the appropriateness of internet-based school news programs for social studies classrooms: CNN student news as a case study. *The Clearing House: A Journal of Educational Strategies, Issues, and Ideas, 87* (2), 53-58.

Kennedy, M. (2010). *Technology in schools: A practical look at interactive whiteboards in secondary social studies classrooms* (Master's thesis). Retrieved from EdITLib. (123395)

Maguth, B. M. (2013). The educative potential of cell phones in the social studies classroom. *The Social Studies, 104* (2), 87-91.

McCrary, N. E. (2012). Building community through shared aesthetic experience: a multimedia family history project. *Social Education, 76,* 96-99.

Ractham, P., & Chen, C. (2013). Promoting the Use of Online Social Technology as a Case-based Learning Tool. *Journal of Information Systems Education, 24*(4), 291-297.

Scheuerell, S. (2010). Virtual Warrensberg: Using cooperative learning and the internet in the

    social studies classroom. *The Social Studies, 101,* 194-199.

Sheffield, C. C., & Swan, S. B. (2012). Digital reenactments: using green screen technology to

    recreate the past. *Social Education, 76,* 92-95.

Shriner, M., Clark, D. A., Nail, M., Schlee, B. M., & Libler, R. (2010). Social studies instruction:

    changing teacher confidence in classrooms enhanced by technology. *The Social Studies,*

    101 (2), 37-45.

Swan, G. (2009). Using internet applications to enhance formative assessment and soft

    scaffolding in the social studies classroom. *Social Studies Research and Practice, 4* (1),

    146-155. http://www.socstrp.org/

Wilson, E. K., Wright, V. H., Inman, C. T., & Matherson, L. H. (2011). Retooling the Social

    Studies Classroom for the Current Generation. *Social Studies*, *102*(2), 65-72.

Resources

DeSchryver, M., Mishra, P., Koehleer, M. & Francis, A. (2009). Moodle vs. Facebook: Does using Facebook for Discussions in an Online Course Enhance Perceived Social Presence and Student Interaction? , Proceedings of Society for Information Technology & Teacher Education International Conference, Charleston, SC, 329-336.

Doolittle, P. E., and D. Hicks. 2003. Constructivism as a theoretical foundation for the use of technology in social studies. Theory and Research in Social Education 31 (1): 75.

Hackney, R., McMaster, T., & Harris, A. (2003). Using cases as a teaching tool in IS Education. Journal of Information Systems Education, 14(3), 229-234.

Lee, S.-H., Lee, J., Liu, X., Bonk, C. J., & Magjuka, R. J. (2009). A review of case-based learning practices in an online MBA program: A program-level case study. Educational Technology & Society, 12(3), 178–190.

Maguth, B. M., List, J.S. & Wunderle, M. (2015). Teaching social studies with video games. *The Social Studies*, *106*(1), 32-36.

Milson, A. J., & Kerski, J. J. (2012). Around the world with geospatial technologies. *Social Education, 76,* 105-108.

Richardson, W. (2006). *Blogs, wikis, podcasts, and other powerful web tools for classrooms.* Thousand Oaks, CA: Corwin Press.