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Amie Musselman

MIchael Edward Hess

Charles L. Lowery
Ohio University - Main Campus

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About the Author(s)

Amie E. Musselman is a graduate student in the Department of Educational Studies of Ohio University. She recently earned a bachelor's degree in Middle Childhood Education for language arts and social studies, and a minor in English from the Department of Teacher Education at the same institution.

Michael E. Hess is an Assistant Professor of Critical Studies in Educational Foundations in the Department of Educational Studies in the Patton College of Education at Ohio University. His research interests include social justice, rural education, rural Appalachia, democratic leadership, place-based education, qualitative research methodologies and international service learning.

Charles L. Lowery is an Assistant Professor of Educational Administration in the Department of Educational Studies in the Patton College of Education at Ohio University. His research interest is in the development of scholar-practitioner school leaders as moral democratic agents for social justice, equity, and care.
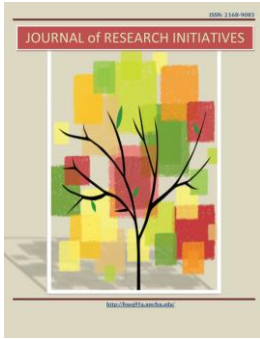
GAMING IN THE SOCIAL STUDIES CLASSROOM:
STUDENT PERCEPTIONS OF LEARNING HISTORY WITH MOBILE
MEDIA

Amie Musselman,
Michael Edward Hess, Ohio University
Charles L. Lowery (Ohio University-Main Campus)

Abstract

Mobile media is the over-arching term for handheld devices with internet capabilities such as smartphones and tablets. This multifaceted, handheld technology is common amongst teens and young adults. Specifically, individuals between ages 18 and 29 are primarily wireless internet users and owners of cell phones, 81%, and 93% respectively. This study addresses the question: what are public high school students' perceptions of mobile media in a social studies classroom? Of particular interest in this work is a better understanding of how mobile devices affect student interest and enjoyment during a World War II lesson. Traditionally, social studies instruction is heavily textual, relying on reading and comprehension skills. Previous research revealed social studies as one of the least favorite subjects among students, ranking below language arts and mathematics. This study investigated the perceptions of 87 tenth-graders from a rural public school in south-central Ohio. The participants completed surveys before and after playing D-Day, an educator-developed, the historical game available through the platform ARIS. The findings include the following themes: connected to the past, connected to present, connected to self. In addition, the results indicate an increase in student enjoyment and interest in social studies, as well as advocate for additional lessons with tablets or smartphones.

Introduction

Social studies is an integral component of education in the United States (Bermudez, 2015; Kentucky Department of Education, 2015; Ohio Department of Education, 2015). This core subject progresses, building off prior years' instruction and introducing new material. Students trace civilizations' transformations from B.C. to the present, while noting pivotal incidences and moments that initiate change (Kentucky Department of Education, 2015; Ohio Department of Education, 2015). Some have noted that students' citizenship skills advance when they participate in simulations, immersing themselves into different historical locations and significantly different roles (Stephens, Feinberg, & Zack, 2013). Such role-playing promotes critical thinking and historical empathy through an active pedagogical approach (Stephens et al., 2013).

Additionally, all topics do not employ the same instructional style nor receive the same attention; one historical event may encompass an entire day's lesson, while another may only be a brief talking point. Historical significance, consequently, varies from one individual to another (Seixas, 1994). Teachers may discuss an occurrence or paradigm solely to abide by state curriculum and standards. While an institution may deem it important, its students may fail to see the lesson's worth. Seixas (1994) argues, "A historical phenomenon becomes significant if and only if the members of a contemporary community can draw relationships between it and other historical phenomena and ultimately to themselves" (p. 285).

Thus, relevance influences individuals' perceptions of social studies. Schug, Todd, and Beery (1982) uncovered that students believed social studies to be an unimportant area of study; English, mathematics, and reading were regarded higher, "…preparing them for careers and teaching important skills which they will need in the future" (p. 14). It can be argued that this leads to students' disinterest or lack of enjoyment in social studies.

To improve student engagement, this study employs iPads, a mobile media device. These handheld gadgets not only define a generation but foster a new student archetype. Due the various time spent on and with such technology, Prensky (2001) insists, "today's students *think and process information fundamentally differently* from their predecessors" (p. 1). Adjusting pedagogical practices, consequently, will address these developments and improve perceptions of mobile media. Handled devices will be viewed as a tool for learning and teaching, instead of a classroom distraction. For Gee (2008), digital interaction offers a new experience by providing a *microcontrol* for users over virtual spaces. Through this idea of microcontrol, we experience both physically and mentally the sensation of being present in the virtual space (Gee, 2008).

Significance of the Study
This research augments knowledge in the field of education, especially instructional style, student engagement, and social studies. While there is scholarship regarding students' disinterest in history, little is known on the effects of integrating mobile media to improve pupils' demeanor (Friedman & Garcia, 2013; Schut, 2007). This study will contribute to the current scholarship on mobile media in a social studies classroom.

Statement of the Problem
Social studies is heavily textual, relying on reading and comprehensions skills (Bermudez, 2015; McHenry, 2014). Instruction, subsequently, involves lecturing and causes students to obtain a passive role. Repetition of one particular teaching style day after day obstructs achievement opportunities for students who would benefit from a variety of teaching techniques (Siler, 1997). The boredom of the teacher's instructional style shrouds students' views of the subject matter, perceiving it as uninteresting. A lack of variety hinders social studies when compared to other subjects (Schug et al., 1982). Therefore, this research will explore the impact of mobile media learning on student apathy with the following research question: what are public high school students' perceptions of mobile media in a social studies classroom? While there is scholarship regarding students' disinterest in history, little is known on the effects of integrating mobile media to improve pupils' demeanor (Friedman & Garcia, 2013; Schlechty Center, 2013). This study will contribute to the current scholarship on students' perceptions of mobile media in a social studies classroom.

Background of the Study
Mobile media offers a platform that is typically portable and offers internet access through handheld devices, whereas mobile media learning describes a connection of hand-held devices to online information and interaction for personal growth and augmented activity within virtual and practical communities (Dikkers, 2011; Dikkers, Martin, & Coulter, 2011; Hjorth, Burgess, & Richardson, 2012). This study regards gaming as the process that players participate in systems, responding in a dynamic manner to *agentive behaviors* (Granic, Lobel, & Engels, 2014). The researchers utilized Aris, which is a user-friendly, open-source platform to create and play in augmented reality experiences, for example in scavenger hunts and other interactive quests (Aris Manual, 2017). For the purposes of this study, we define an educator-developed game as an interactive, digital game specifically created for instructional purposes and/or a classroom setting.

The researcher developed a mobile media game titled *D-Day*, which was the product of an academic course that sought to expose future educators to mobile media learning. Due to her experience with guided tours and scavenger hunts, the first author and a fellow student-structured *D-Day* as a choose-your-own-adventure activity within the context of June 6, 1944. The game was created in a manner that would be accessible to educators with limited gaming literacies, yet still relevant for students. Dewey (1938) asked, "How many students…were rendered callous to ideas and…lost the impetus to learn because of the way in which learning was experienced by them?" (p. 26). Experiencing learning in this manner impacted the design of *D-Day*. The experience in the game was intended to introduce knowledge of historical events without being a distraction from the instructional day. Specifically, *D-Day* sought to augment the lesson not replace it. Players select from a list of actions and view the consequences, which govern their survival on Utah Beach. This historical, interactive story does not require players to wear additional technological accessories, like goggles or headsets. *D-Day*, consequently, is not a virtual reality game.

Understanding the context of this game and its relationship to learning social studies, students were exposed to historical implications of the Invasion of Normandy. Through the format of *D-Day*, students discovered that the Invasion of Normandy occurred on June 6, 1944, with multiple landings of U.S., British, and Canadian forces on various beaches in Normandy, France. Additionally, the students learn that this invasion brought about the ultimate liberation of all of northern France from the Nazi Reich by the end of that summer (Keegan, 2015). This event was a subset of World War II, or the largest global conflict occurring from 1939-45 between the Axis powers—Italy, Germany, and Japan—and the Allies— Great Britain, France, the United States, the Soviet Union, and China (Hughes & Royde-Smith, 2015).

Relevant Literature

Mobile media. Mobile media is the over-arching term for handheld devices with internet capabilities (Dikkers et al., 2011; Hjorth et al., 2012). For instance, mobile media encompasses, but is not limited to, the following technology: Apple and Android smartphones, tablets, and e-readers. Laptops and desktop computers, conversely, are not considered mobile media due to a lack of mobility. Specifically, mobile devices offer the user the convenience of on-the-go access and usage (Klopfer, 2011). This study, however, will focus on iPhones and iPads since *D-Day* is only compatible with iOS devices.

Growing importance. Accessing and transmitting data are not the only features of smart devices. Smartphones and tablets are used for games, music, video, and other practices of daily creativity (Hjorth et al., 2012). Consequently, mobile media appeals to communication, internet, game, art, and new media studies (Hjorth et al., 2012). This multifaceted, handheld technology is essential in today's society, especially for teens and young adults. Lenhart, Purcell, Smith, and Zickuhr (2010) found individuals between ages 18 and 29 are primarily wireless internet users and owners of cellphones, 81% and 93% respectively. The use of cell phones has become mainstream for adolescents: 75% of teens and 58% of 12-year-olds have such devices (Lenhart et al., 2010). Five years later, ownership grew and encompassed all but 12% of teens. Moreover, researchers found, "Nearly two-thirds of Americans are now smartphone owners, and for many, these devices are a key entry point to the online world" (Smith, 2015, p. 2). Therefore, mobile media has an integral presence in daily life.

Gaming. Along with technologic consumption, researchers discovered an additional trend among the youth population: gaming. Lenhart et al. (2010) posited that adolescents aged 12 to 17 are fervent consumers when it comes to devices for gaming, with 80% having a console and 51% owning a portable device. This popularity could attribute to a gadget's design. Richardson (2012) discussed how the iPhone's affordances—built-in web browser, sizeable touchscreen, and application market—might attribute to mobile gaming. Such features, she explained, foster different experiences: location-based play and casual mobile gaming. The first combines global-positioning services, an individual's movement, and social networks to foster a new perspective of being in town and together. Conversely, Richardson (2012) argued that mobile gameplay lasts about five minutes and can create personal space in public, requiring an augmented closed-loop interface between the participant and the device. Gaming can occur virtually anywhere due to mobile media's portability and Internet service. Salen (2008) noted, "the concept of *gaming*… goes beyond games, in the same way, that *learning* goes beyond the configuration of a classroom" (p. 9). This includes multiple literacies, ways of knowing and doing in gaming, as well as various media, spaces, and networks through productive and participatory activities (Salen, 2008).

Mobile media in the curriculum. Heafner (2004) revealed that technology affects student motivation and learning; students enjoyed an assignment because "technology made their work easier and more fun to do" (p. 46). Sustaining pupils' attention was also apparent in Friedman and Garcia's (2013) findings that high schoolers remained on task and worked together while using iPads—i.e. mobile devices. This exercise incorporated an app called Explore 9/11, which acts as an audio-tour of Manhattan during September 11, 2001, and includes personal experiences; for instance, New York City fireman and an office worker from World Trade Center gave testimonials of that day. Hearing individuals' voices and viewing their pictures caused, "History [to come] alive for these students in a way that print-based resources did not allow" (p. 122). Those that used iPads carried enthusiasm into the next day and suggested the activity would be uninteresting without the devices (Friedman & Garcia, 2013).

Schut (2007) argued that digital games are a new conduit for experiencing or learning history, nurturing understanding and historical knowledge. Specifically, Schut viewed alternative presentations of history as a means to generate multiple meanings and advocated for historical games because "players are not having history revealed to them, they are experiencing one construction of history" (p. 219). Games, which are structured play based on rules, initiate active participation, allowing to infer within historical contexts. Schut claimed,

> In a book, history is completed; the future work of the historian may change history, of course, but not the specific history that the reader is currently engaging. Short of using Wite-Out and a pen, the print is not likely to change. In a digital game, however, history is never set: The player always has the ability to redo history. (p. 229)

Reading a history textbook, in turn, is profoundly different than "…watching it unfold as a spectator" (p. 230).

Lastly, technology allows individuals to obtain various viewpoints, initiating mobile media learning (Dikkers, 2011; Friedman & Garcia, 2013; Schut, 2007). This reinforced one of Bermudez's (2015) tools of critical thinking, namely multi-perceptivity. Bermudez explained,

> Perspective taking affords the initial acknowledgment of different perspectives that must be considered. It requires that we step back from our own positions to recognize others and how they, in their position, see and experience things. By taking other perspectives, we also gain a perspective on our own. As a result, we come to understand that our

perspective is one point of view, and we gain access to other perspectives that we did not have before. (p. 109)

With this skill, students can acknowledge their positionality and further their historical understanding.

Digital native learners. Previous research has shown a paradigm shift in student behavior. Prensky (2001) argued that pupils now, "[T]hink and process information fundamentally differently from their predecessors" (p. 1). Students today haven't known a world without cell phones, computers, video games, and other gadgets. Thus, they are dubbed 'Digital Natives,' whereas those before the digital age are regarded as 'Digital Immigrants' (Prensky, 2001). Capturing today's students' attention with conventional pedagogies may be difficult. Failing to integrate technology fosters a disconnection between home and school life, causing 'Digital Natives' to be passive. From the pupils' perspective, Prensky (2001) explained, "Digital Immigrant instructors make their education not worth paying attention to compared to everything else they experience—and then they blame them for not paying attention" (p. 3).

Student engagement and interest. Technology may assist 'Digital Natives' in reaching an apex of learning and attention (Prensky 2001). Schlechty (2013) described five types of student involvement in the classroom: *engagement, strategic compliance, ritual compliance*, *retreatism*, and *rebellion*. This hierarchy ultimately positions engagement as a key component to learning; students will not retain material if it is not applicable or relevant to them (Schlechty, 2013). They may embody *ritual compliance*, completing the bare minimum without feeling connected to the content, or *retreatism,* failing to see the relevance to life. To reach engagement, students view the task meaningful and interesting despite being difficult; they perceive a sense of accomplishment by completing the activity; information is then retained and transferred to new contexts (Schlechty, 2013).

Montrieux, Vanderlinde, Schellens, and De Marez (2015) emphasize that the teacher's role impacts learning practices. The researchers uncovered increased student interest while learning with tablet devices, receiving an especially positive response from students age eleven to fourteen; older students were more critical towards tablet implementation and had a classical view of learning. Yet, students and teachers alike claimed deep learning could be reached if this technological integration was meaningful (Montrieux et al., 2015).

This augmented interest may result from active learning. Siler (1997) argued that the same teaching style each day deprives chances of learning for students, who may learn from an assortment of methodologies. A lack of variation and repetition yields a pupil's boredom and apathy. Consequently, the subject is regarded as uninteresting because of instructional style. Siler stressed, "Teacher creativity is essential to enhance the educational experience in the classroom, but it is also needed to keep teachers and their students active as learners" (p. 2).

In addition, student interest plays an essential role in learning processes. Individuals interest promotes cognitive functioning, allowing students to pay attention for longer duration and gain. Hidi (1990) argued that such interest creates a qualitatively different form of knowing in students. Hidi acknowledged that collecting and using individual interests could be time-consuming, especially since some environments have a higher number of students per teacher. Catering to pupils' interest is desirable, yet "few teachers have the time needed to individualize efficiently enough to profoundly affect learning" (p. 2).

As a result, students' perceptions of social studies are primarily pessimistic, making it the least liked school subject (Friedman & Garcia, 2013; Schug et al., 1982; Schut, 2007). Schug et al. (1982) revealed that other subjects were deemed vital due to the skills they offered; students

regarded reading and writing skills as helpful in their future lives. Moreover, this study indicated students did not consider social studies difficult, enjoyable, or significant. This indifferent attitude may explain why students were refraining from taking social studies in older grades; a smaller sample size resulted from fewer class offerings (Haladyna, Shaughnessy, & Redsun, 1982).

Apathy and disinterest stemmed from content presentation. Students not only commented on course information but teaching methodology; they described their experiences and recommended changes (Chiodo & Byford, 2004). Some scholars note that instructor enthusiasm also correlated with student attitudes (Chiodo & Byford, 2004; Haladyna et al., 1982). For Haladyna et al. (1982),

> Classrooms that are positive about social studies have positive social and class environments and good classroom relationships among students. Furthermore, positive attitudes are present when the classroom is well organized, and there are a variety of activities, good use of materials, definite goals, and assignments are completed. (p. 20)

Chiodo and Byford (2004) explained, "Students expressed a sense of joy when teachers were enthusiastic about the material presented. Furthermore, students suggested a teacher's enthusiasm brought a sense of belonging and motivation to learn" (p. 21).

Presiding over such classroom factors implies the teacher plays an integral part in social studies instruction. This supports Shaughnessy & Haladyna's (1985) perception of educators, "who [are] key to what social studies will be for the student. Instruction tends to be dominated by the lecture, textbook or worksheets…and social studies do not inspire students to learn" (p. 694). Therefore, enjoying the course depends on a combination of individual interest and instructional style. The subject itself cannot evoke pupils desire to learn; teachers have to gauge students' likes and present social studies in a way that compliments those interests. Subsequently, experience plays a significant role in student learning, especially in text-heavy subjects such as social studies (Dewey, 1938; McDevitt & Omrod, 2013; Shaughnessy & Haladyna, 1985).

Social studies as a subject. The Ohio Department of Education (ODE) (2010) defined social studies standards from micro-level to macro-level topics and processes. Students are initially exposed to the idea of life beyond their community and classroom, varying in culture, and heritage (ODE, 2010). Specific to this study, the United States' involvement in World War II is covered in high school when students study American history from 1877 until the present (ODE, 2010).

*Importance***.** The aforementioned standards not only outlined the course's progression but also emphasized social studies importance. Along with learning of the past to understand the present, students are anticipated to become productive citizens (Kentucky Department of Education, 2015; ODE, 2010, 2015). Acting sensibly and problem-solving were desired outcomes of social studies instruction, especially making informed decisions for the benefit of the public (ODE, 2010). Bermudez (2015) echoed this claim, stating that multi-perceptivity attributes to a democratic society, requiring "a sense of personal responsibility for the wellbeing of others, as well as concern for the common good" (p. 110). Therefore, civic engagement, in turn, is an ultimate goal of social studies.

Textual-based. Since Social Studies' is composed of the past, the subject is heavily textual and relies on publications. Literary skills, like analysis and inference, are essential to critical thinking and historical understanding (Bermudez, 2015). In order to foster "respect for diversity, independent thinking, and openness to controversial issues," Bermudez argued critical pedagogy should be applied to social studies, history, and civic education (p. 105). Critical inquiry empowers students to, "construct their own knowledge" and "transform dehumanizing and oppressive realities" (p. 105). Thus, critical thinking nurtures students' agency and social awareness by, "revealing bias, hidden assumptions propaganda and ideological manipulation…and explaining the deep structural forces that regulate societies" (p. 105).

Historical significance. Relating to social studies in this manner, in turn, impacts students' perceptions of the historical significance of the content (Chiodo & Byford, 2004; Sexias, 1994). Historical significance describes the relationship between past phenomena and current lives (Sexias, 1994). Consequently, a past event or occurrence only becomes important if community members can link themselves to the phenomena. Chiodo and Byford (2004) findings suggested that utilitarian value or lack thereof majorly affects views of social studies. Thus, Sexias (1994) suggested educators understand how their pupils use the past to add meaning to their lives because "curriculum cannot be based upon the accumulation of prescribed content whose significance remains a mystery to the students who learn it" (p. 300). The information will not seem relevant if a connection is not made.

Methods and Procedures

Students answered a survey that gauges their perceptions of social studies while uncovering their learning habits and suggestions for the subject. Pupils then played *D-Day*, a mobile media game, through the app *ARIS* on iPads. D-Day is a historical narrative that emphasizes choice; players decide from a list of actions, which ultimately determine their survival.

  First, players are introduced to Dwight Eisenhower's order to mobilize the Allied Expeditionary Force, listening to actual audio and viewing footage from the fateful day. This motivational speech set prepares individuals for gameplay. Their quest begins with a mission: to survive Operation Overlord. They proceed to navigate to the *Map* function and locate their assignment. Upon selecting *Utah Beach*, players receive the persona of Private Jack Clippinger, who is in the first landing craft headed towards Normandy. Participants either can *stand still* or *leave the boat and push to shore*. This decision, in turn, fosters multiple consequences and determine proceeding options for action; a player may interact with a fellow wounded comrade or General Theodore Roosevelt, Jr, or even receive a purple heart. Of the 19 possible endings, there are five instances in which the player survives, concluding the game with a video of actual footage from the fateful day. The study concluded as participants completed the post-survey, allowing individuals to reflect on their experience and tracking any changes from the pre-survey.

Participants. This study engaged in purposeful sampling, specifically the criterion based case selection; participants are chosen by their ability to meet particular criteria (Patton, 2015). As a result, participants were enrolled in American History, a course that spans from 1887 to the present (Ohio Department of Education, 2010). This is particularly important because this course covers the United States' role during World War II, including the Invasion of Normandy.

The sample consisted of 87 tenth-graders; 40 were male and 47 were female. 36 participants were age 15, 45 participants were age 16, and the remaining six participants were age 17. This study was conducted at a south-central, rural Ohio public school with a relatively homogeneous student population; more than 96% are Caucasian and 12% require learning accommodations (Ohio Department of Education, 2016). This Institutional Review Board (IRB) approved study included both paternal informed consent and participant assent. The primary investigator utilized professional contacts with the high school staff and faculty to identify prospective participants. The school principal acted as a key informant, recommending the classroom to be studied.

Research analysis. This study employed a qualitative survey before and after gameplay. The pre-survey consisted of twelve questions, including three short answer responses. Participants ranked their favorite subjects and selected adjectives that best describe social studies. Learning styles and comprehension were also questioned topics. The post-survey had twelve questions, five of which require written feedback. Along with the impact of mobile media on one's enjoyment, participants listed any issues when using mobile media. They then reasoned the helpfulness of additional lessons with a tablet or smartphone. Instead of writing their name, students received a number with no identifiers to assist with confidentiality.

The analysis for the written responses for the pre- and post-surveys underwent initial coding, second cycle coding, and developing of thematic units (Saldaña & Omasta, 2018). The researchers devised a list of words or phrases that describe each individual piece of data, also known as codes. For Charmaz (2014) codes are words that best capture an understanding of the sentiments expressed by the participants. The second step of analysis focused on second cycle coding and employed the most significant codes to analyze the totality of data. As a result, codes helped the researchers organize the data into categories, or groups of codes, that had similar symbolic meaning. Categories were condensed further into themes; these phrases or sentences then became the overarching, main ideas (Saldaña & Omasta, 2018).

Methodological considerations. Even though this study augments prior knowledge, the researchers acknowledge possible limitations. Students may have limited skill with Apple products or may not be comfortable when using mobile media devices, especially Apple products. Due to Ohio State Standards, World War II is discussed during tenth grade, specifically in American History as "Topic: From Isolation to World War (1930-1945)" (Ohio Department of Education, 2015). Participants, therefore, were sophomores because of this; no other grade level was selected for participation. Last, *D-Day* only covered one battle instead of World War II and its entirety.

Trustworthiness. To ensure credibility, the researchers utilized various techniques of trustworthiness (Marshall & Rossman, 2016; Patton, 2015). Patton (2015) identifies investigators' background qualifications and knowledge as important factors to the credibility of a qualitative study. Integral to this study, researchers' experience in qualitative research, teacher education, and school leadership grounded the strategies for trustworthiness. Techniques included inter-rater reliability (Patton, 2015), thick and rich description of the account

investigated (Creswell & Miller, 2000), and researcher reflexivity and mindfulness (Creswell & Miller, 2000; Patton, 2015).

Results

The analysis of qualitative short-answer responses ultimately revolved around the idea of connectedness. Whether it was in terms of the content, technology, or the individual, participants were linked to the activity. Three themes and subthemes emerged from the analysis: connected to the past (history brought to life), connected to present, and connected to self (increased enjoyment and interest, and choice).

Connected to the past. Depending on elapsed time and how history is presented, individuals may have difficulty visualizing and fully comprehending the past. *D-Day*'s format, however, sought to confront this issue. This historical narrative emphasized player choice and link participants to the Invasion of Normandy, an event that occurred seventy-three years ago. Many students voiced a connection to the experience. As one participant stated, "I felt like I was going through D-Day. I could see the choices those who survived and died had to make, and why their choices led to their victory." This individual related to the Invasion of Normandy to such an extent that he was on Utah Beach. He visualized the necessary decisions each soldier made and their possible consequences when adopting the persona of Private Jack Clippinger. Employing Bermudez's (2015) multi-perceptivity, this individual recognized other experiences and obtained a different standpoint he didn't have prior.

Imagining the past was easier for these tenth graders because they engaged in an interactive activity. This is best exemplified by one participant's response to the question: *In what ways did the tablet or smartphone impact your enjoyment of this lesson?* This individual wrote, "It is more interactive. Why learn about [it] when you could be there?" Instead of being in the classroom of a rural, south-central Ohio public school, he/she crossed the Atlantic Ocean and landed France's shore to aid the Allied effort. The participant was fully immersed in the activity that his/her current situation and surroundings did not hinder his/her engagement, fostering a relationship with D-Day because of a personal experience. As stated by another participant, a tablet "made [the Invasion of Normandy] more memorable to actually see it." These participants did not passively read a textbook but rather witnessed the past (Schut, 2007).

History brought to life. Therefore, the past became the present as participants used mobile media to learn about the greatest amphibious assault of all time. Their reality transformed into that of a person during 1944 upon adopting the role of an American soldier. Another tenth-grader also emphasized the role of immersion with the following comment: "Watching the video and seeing the pictures helped to make these historical events seem real and urgent for me to learn about." Viewing photos and actual footage from the Invasion, with a voice over of Eisenhower's Order of the Day, resurrected the past. Seeing what happened not only confirmed D-Day's occurrence, but also its importance. Correlating to Friedman's study, the iPad renewed history in a way textual sources could not (2013). Participants connected to the past.

Connected to the present. Despite focusing on the past, participants were also linked to the present. The iPad, a modern tool, helped teach the past. While appealing to visual and auditory learners, *D-Day* also fostered historical significance, connecting the tenth graders with current technology (Seixas, 1994). This led to responses like, "I think it might benefit a little using tablets or smartphones because technology is becoming a bigger part of our world." Thus, almost 83% of tenth graders desired additional lessons with iPads. Another participant agreed more lessons should include mobile media because, "most kids are on their phones, either way, so we feel more connected and will remember more [afterward]." This quote personifies

Prensky's (2001) Digital Natives or people who haven't known the world without computers or other technological devices. Incorporating mobile media, consequently, comforts and pacifies these students since virtually two-thirds of Americans and 88% of teens own cellphones (Lenhart, 2015; Smith, 2015).

        Connected to self. *D-Day'*s format allowed students to "construct their own knowledge" through critical thinking and self-reflection (Bermudez, 2015, p. 105). This digital game did not restrict the content since participants could redo history (Schut, 2007). Players immersed themselves into the setting and utilized metacognition when selecting their next action. Assessing one's thought process was essential; if participants failed to survive the invasion, they started over. As a result, the iPad allowed these tenth-graders to "negotiate the content instead of simply aiding [them] to learn facts by rote" (Montrieux et al., 2015).

        Increased enjoyment and interest. Incorporating familiar technology led to an overall positive response. When asked if mobile media would increase their enjoyment of social studies, 65% of participants predicted that it would. However, 79% of participants agreed that the iPad improved their enjoyment of history after the activity. From 10 options, individuals circled any adjective that best matched their view of history. The pre- and post-surveys indicate that *D-Day* altered participants' perceptions of social studies. In addition, as shown in Table 1, the post-survey indicated an increase in the percentage of students that consider social studies as interesting, fun, inspiring, and helpful. The post-survey also reveals a decrease in students that consider social studies as boring. From pre- to post-survey, the most significant changes occurred in students that viewed social studies as fun and inspiring. These findings mirrored Heafner's (2004) study, in which high-schoolers, using iPads, stayed on task due to a perceived enjoyment in completing their classwork.

Table 1
Survey Findings Based on 87 Participants

Social studies is…	PRE	POST	% Change
fun	33	45	+14%
inspiring	32	40	+10%
helpful	60	65	+6%
interesting	74	77	+5%
insignificant	3	5	+2%
important	74	74	0
uninspiring	5	5	0
dull	18	17	-1%
useless	7	6	-2%
boring	21	17	-5%

        We argue that the interactive format of *D-Day* assisted students to reach the optimum stage of engagement (Schlechty, 2013). Participants saw the activity as significant and considered it interesting. This group of tenth-graders often remained quiet as they completed *D-Day* during play*,* lending support to the argument that mobile gameplay, due to "an intense micro-perceptual closed-circuit between the eyes, hands, and screen," participants carved out a personal space within the classroom (Richardson, 2012, p. 147). However, it should be noted that

some individuals were so actively engaged that they voiced their enjoyment aloud to their peers, exclaiming "I did it!" or "I survived!"

Several players also shared their woes, sighing while saying "Ah! I got shot in the shoulder." One female student, in particular, seemed distressed and unsettled with her statement, "I keep dyin'!" She'd look around the classroom and ask fellow classmates if anyone else was in the same situation. Then, she cheered when she finally survived. Such a response supports the last component of engagement for this student regarded *D-Day* as difficult but felt accomplished upon finishing the activity. Most importantly, one male student was involved to the point of playing *D-Day* multiple times because he desired to find alternate ways to win.

Choice. For us, mobile media has a potential to increase students' sense of agency over their education while playing games such as *D-Day*. The participants in this study ultimately decided their role-play outcome by selecting actions in response to their situation. Such ownership in the activity fostered responses like, "It allowed you to decide what you wanted with different outcomes, so it made it more personal." Despite playing the same game, each student had their own unique, individualized experience and advanced at their own rate. As Dewey (1938) suggested, the way in which students experience new information can create an impetus for them to learn. Therefore, choice increases enjoyment and interest as students connect the content to themselves.

Conclusion

Almost 60% of participants ranked social studies within their top three favorite classes, while 85% considered this subject an important area of study. In this study, 69 of the 87 participants also stated that they "watch videos/TV programs" to discover or learn about social studies, becoming the second most popular response; "[listening] to class discussion" and "[taking] notes during class" were the first and third, respectively. This not only shows strategies that appeal to different types of learners but also the decline of the traditional student archetype. Paper and pencil activities may not fully engage students that have not known life without the Internet. The majority of participants advocated for more social studies lessons that utilize tablets or smartphones. This highlights the notion that mobile media is a part of these participants' daily lives, and familiarity or comfortability with such devices contributes to their positive response.

The persisting ideals of traditional education, however, arose in a handful of written responses. When asked if they would benefit from additional social studies lessons that incorporated tablets or smartphones, some participants preferred tactile experiences, like writing or physically handling a book. One sophomore student notated network connection as a disadvantage, acting as another concern and preventing this participant from "[doing] it on [his/her] own." As one response captured such a conflict: "I'm at a standstill, I enjoy the way [we learn] now but including technology would make it more interesting for everyone else. I do enjoy this [way]." Therefore, the instruction can balance traditional methods with modern technology. Using one to augment the other will ultimately increase student enjoyment and foster a connection between past and present, highlighting social studies' relevance by implementing mobile media as an instructional tool.

Implications for practice. We advocate that future educators must gain experience with mobile media in learning environments, learning how to incorporate it into the classroom as well as modeling how to use instructional technology. Importantly, 19 participants embodied this sentiment, selecting "Technology" as their least favorite school subject. While instructional style or teacher demeanor may contribute to these mentalities, several participants expressed difficulty with technology, either stating they were "bad at computers" or technology is "super complicated

and never explained at [their] pace." Educators cannot assume that adolescents innately know how to operate technology without explicit instruction. Conversely, technology should not be limited to desktop computers or laptops, but rather encompass all forms of technology, including mobile media.

   Implications for future research. Future research is needed to explore student views on mobile media within varying learning environments; location, socio-economic status, and other facets of society and identity may support or negate this study's findings. Moreover, additional research is needed to discover the relationship between learning with mobile media across content discipline and student achievement of learning objectives. We suggest further exploration of mobile media learning at varying grade levels in suburban and urban school districts across various regions.

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