Spring 5-14-2021

# How Does the Use of a Social Studies Video Game Affect Student Learning?

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## Recommended Citation

Crumb, John S. II, "How Does the Use of a Social Studies Video Game Affect Student Learning?." Dissertation, Georgia State University, 2021.
doi: https://doi.org/10.57709/22768564

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This dissertation, How Does the Use of a Social Studies Video Game Affect Student Learning?, by John Stevens Crumb II, was prepared under the direction of the candidate's Dissertation Advisory Committee. It is accepted by the committee members in partial fulfillment of the requirements for the degree, Doctor of Philosophy, in the College of Education and Human Development, Georgia State University. The Dissertation Advisory Committee and the student's Department Chairperson, as representatives of the faculty, certify that this dissertation has met all standards of excellence and scholarship as determined by the faculty.

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## ABSTRACT

In normal times, middle school social studies teachers are challenged to provide their students with curriculum that is both relevant and engaging in the 21st century. Unfortunately, the COVID-19 pandemic has forced teachers across the United States to utilize remote instruction and an unprecedented integration of technology to engage and communicate with students. Long after the pandemic when teachers adjust to a new normal, technology will continue to play an integral role to help middle school students become active citizens and leaders. Although video games may not be the first choice for teachers, many middle school children already regularly use games to socialize, communicate, and learn. While video games are not a panacea for student engagement and learning, they provide opportunities to reinforce and enhance learning while engaging students with a technological tool that many students prefer. In this study, purposefully selected 7$^{th}$ grade middle school students from a southeastern state in the United States were interviewed prior to and after playing the video game "Do I Have a Right?" during the COVID-19 pandemic. *NVivo* software was used for coding and data analytics. Findings showed that learning on multiple levels occurred for the participants while highilighting the relevance of a constructivist philosophy in teaching. This research demonstrated the importance of reflection to reinforce learning and to promote higher levels of thinking.



INDEX WORDS: civics, educational games, engagement, online games, learning technology, video games, social studies, student learning

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A Dissertation

Presented in Partial Fulfillment of Requirements for the

Degree of

Doctor in Philosophy

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Teaching and Learning Social Studies

in

the Department of Middle and Secondary Education

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the College of Education and Human Development

Georgia State University

Atlanta, GA

**2021**

**Acknowledgement**

With each milestone that we approach, we are often given the opportunity to reflect. The reflection is not upon the accomplishments we have earned or the failures that we faced but the people that have been there to accompany us on the journey. I thank you, my beloved wife, Zhou Fan, for the never-ending love that you have given and the patience you have shown, you have my unending love, gratitude, and deepest admiration. 妈妈和爸爸，我很钦佩你们一生所表现出的执着和牺牲 (To my mother-in-law and father-in law, I very much admire your life-long perseverance and sacrifice). Alton, Karen, Frank, and Shelly, thank you my friends for the continual prayers and support that were truly inspirational. Dr. Bohan and Dr. Feinberg, thank you for setting the bar high and never accepting anything that was less than my best. Finally, Mom and Dad, thank you for the love and respect that you instilled in me. I miss you and want you to know that you are always in my heart.

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# CHAPTER 1: THE PROBLEM

How Does the Use of a Social Studies Video Game Affect Student Learning?

The social studies curriculum is a complex and often controversial issue. Stakeholders dispute what should be taught. Often no real agreement as to how the various subjects that fall under the umbrella of social studies should be taught (Evans, 2004; Fitchett & VanFossen, 2013). Studies into the status of social studies education have examined instructional rationale, curriculum implementation and teacher practices to discover if a possible consensus could be reached (Fitchett & VanFossen, 2013; Gradwell, 2006; van Hover, 2006). The Association for Middle Level Education (AMLE) identified some areas of potential concurrence (Homana & Passe, 2013). The AMLE postulated that the social studies curriculum should be challenging and relevant while learning is both purposeful and engaging for middle school students (Homana & Passe, 2013). It would thus be important to introduce student incentive into the social studies curriculum that is an impetus for student learning.

One potential area of agreement is the integration of technology into the social studies classroom. Incorporation of technology into the social studies curriculum is a practice that has been deemed as essential for helping students maneuver through the intricacies of a global economy (Patil, 2015; Zhao, 2007). With ever increasing use of technology, teachers may wish to include advanced technology in their classrooms that meets student interests and needs, to advance student learning and to help students prepare for the digital age (Diacopoulos, & Crompton, 2020; Zhao, 2007). According to the Department of Education (2017), teachers must utilize technology to provide engaging and powerful learning experiences. The Department of Education emphasized that to “provide authentic learning experiences, educators need to use technology effectively in their practice.” (2017, p. 3). Based on their research, the Department of

Education (2017) recommended that social studies teachers should use advanced technology in the classroom. A wide variety of technologies exist that can be easily embedded into the curriculum by social studies teachers. For example, communication technologies, such as the internet and "smart" phones, have created the ability to communicate instantaneously around the world. Obviously the 21st century has ushered in the need for developing new skill sets that allow students to communicate and interact with others almost instantly (Galarneau & Zibit, 2007; Yu et al., 2017). These skill sets would include critical thinking, problem solving, collaboration, familiarity with technology, and information literacy (Galarneau & Zebit, 2007; Yu et al., 2017). Oddly enough, those skills are not being learned in the classroom; instead, they are being learned through leisure activities like playing video games (Johnson, 2005). While technology integration is already part of the lives of many students, social studies teachers encounter various barriers in incorporating technology into their curriculum.

Various reasons exist for social studies teachers' limited use of technology in the classroom. They include but are not limited to: amount of experience and or training in the use of technology for instructional use; limited knowledge of appropriate software; and limited access to computers (Becker, 2001; Thieman, O'Brien, VanFossen & Berson, 2013; VanFossen, 2001; Zhao, 2007). According to national surveys, teachers of the social studies will be among the least likely users of instructional technology (Becker, 2001; Thieman, O'Brien, VanFossen & Berson, 2013). While technology has changed the educational landscape of American schools, the social studies curricula remain stagnant in its use of technology in comparison to other subject areas (Anderson & Becker, 2001; Cuban, Kirkpatrick & Peck, 2001; Hyndman, 2018; Swan & Hofer, 2008; Zhao, 2007). If teachers want to make the social studies more relevant to their students

who embrace technology already, then those same teachers must incorporate more technology into the curriculum.

In many classrooms, the use of technology is limited to accessing an abundant number of websites to gather information (Broekhuizen, 2015; Lee, Doolittle, & Hicks, 2006). According to surveys, many students are using Web 1.0 to access digital primary sources (Thieman et al., 2013). Web 1.0 refers to online information that are "read only" or solely for disseminating information (Getting, 2007; Sharma, 2018). However, Web 2.0 sites such as blogs, social networking or other online tools in which the reader can interact with the information presented (Getting, 2007; Sharma, 2018) is utilized far less frequently (Thieman et al., 2013). In essence, many social studies teachers are limiting their students' ability to critically analyze social studies content by not incorporating technological avenues for students to express their perceptions or exchange ideas with their learning community.

As the amount of time invested in social studies instruction in elementary grades has eroded (NCSS, 2007; Singer, 2014), it is imperative for teachers of the social studies to demonstrate its relevance to students. If social studies teachers were to increase their use of Web 2.0, they may be able to position social studies so that it is viewed as an integral part of the school curriculum (Holcomb, Beal, & Lee, 2011). By creating an environment where users can interact with the information, various modes of learning could be supported and could lead to learning ecosystems in which students openly participate (Benedicks, 2018; Brown & Adler, 2008). By utilizing learner-centered strategies that allow students to interact with information, social studies educators could help students develop critical thinking skills.

Because students are often engaged by technology, (computers, smart phones, etcetera), social studies teachers may wish to find ways to utilize that same technology in the classroom.

With student achievement under the microscope of public opinion and accountability measures, teachers would benefit from methods that engage their students. As technological advancements continue to carry us further into the 21st century, how will they be utilized in the classroom? One area of recent technological development in education is the use of digital, video or computer games.

Why would a computer game influence learning? For some students, the answer is self-motivation. Learners are motivated to take responsibility for their own learning when playing games, which in turn leads to intrinsic motivation (Hartmann & Gommer, 2018; Rieber, 1996). Some of the characteristics that lead to this motivation are challenge, curiosity, control, and fantasy (Akilli, 2007; West & Witt, 2020). As a teacher, I have observed many students playing video games in the classroom before school starts. Students do not need to be told to play video games because of the intrinsic motivation associated with the activity of playing. The question that arises is: how can simulation games be incorporated into the classroom (Akilli, 2007; West & Witt, 2020)?

Through simulation gaming, students can examine systems that were in place for a people during the past and how they could be affected if that system were changed (Wright-Maley, 2015). Unlike other teaching strategies, simulation gaming enables students to manipulate these historical systems and interpret what transpired contextually. In conjunction with primary sources, students can dynamically recreate the roles and situations of the past (Wright-Maley, 2015). In short, simulation games offer analogies to the actual world they represent by providing an environment for student engagement (McCall, 2011).

The optimum environment for learning to take place when high levels of engagement are present can be found in video game play (Alsawaier, 2017; Prensky, 2001). Play is an important

part of learning as denoted in research in anthropology, education, and psychology (Hartmann & Gommer, 2018; Rieber, 1996). In my own classes, students reflect favorably on experiences in which high engagement was present. For example, students often display enthusiasm for review games that allow them to prepare for a quiz or unit test.

Engagement and motivation seem to be closely linked for both players and learners (Garris et al., 2002; Iten & Petko, 2014). Motivated learners can be described as enthusiastic, focused, and engaged (Garris et al., 2002; Iten & Petko, 2014). "Motivated learners are interested in and enjoy what they are doing, they try hard, and they persist over time. Their behavior is self-determined, driven by their own volition rather than external forces" (Garris et al., 2002, p. 444). Thus, if a learner is both engaged and motivated, acquisition and the utilization of knowledge may be more likely to occur.

## Working Definitions

While various concepts will be postulated in this research, it is important for the reader to understand the intended concepts that are discussed. Randel et al. (1992) define *games* as interactions that have specific goals and may involve chance, and/or competition. Tobias et al. (2011) view all games as simulations, and that computer games form a subset of games. A *simulation* is a model of a set of complex issues that may or may not occur in real life (e.g., a sporting event vs. the use of magic). McCall (2011) defines a simulation game as one "that functions as a dynamic model of one or more aspects of the real world" (p. 4). Many students are attracted to the multimodal appeal that simulation games bring along with their challenges in problem solving (McCall, 2011). Wright-Malley (2015) concluded that there are elements of simulations and games which overlap. For this research, I define a *simulation game* as one that

involves human interaction with computer technology to reach a specific goal. Video or computer games will be used as synonyms for simulation games.

For simulation games to be discussed in the context of education, engagement shall be defined as "the situation of having attention fully focused on a particular task" (Quinn, 2005, p. 3). Engagement may result purely from entertainment or can be a result of active *learning.* Active learning occurs when a person experiences the world in a new or different way, develops new affiliations with others and acquires new methods or resources for problem solving and future learning (Gee, 2003; Kalamas Hedden, 2017). Therefore, it is presupposed that the entertainment value of video games can be integrated into social studies education.

While most video games are produced for entertainment purposes, some video games are produced to help students learn. *Edutainment* refers to computer games that are produced specifically for educational purposes (Jarvin, 2015). Producers of edutainment products seek to offer their products to schools, universities, and other educational institutions. Often these games are viewed as inferior by players when compared to games that are produced for entertainment purposes (Bakar, 2006). Video games produced for entertainment purposes tend to have higher quality visual and sound graphics and may contain content that is considered mature.

## Going Past Engagement

Researchers have postulated that when student interest in a subject matter is high, they are more likely to reach higher levels of expectations (Juckett & Feinberg, 2010; Tobias et al., 2011). Conversely, students with little or no interest in a particular subject matter may reach only the lowest levels of expectations or worse. For example, in political affairs, the ramifications of student interest (or the lack thereof) have been made evident in the political realm. Voter turnout for recent elections has declined in Western Europe, Canada, and the U.S. (with the exception of

the election of President Barack Obama) (Dostie-Goulet, 2009). Much of this decline is attributed to fewer young people participating in elections (Dostie-Goulet, 2009). Possibly by increasing student interest in political elections, more young people would vote. Student engagement plays a key role in student learning.

Teachers recognize that students' engagement plays a key role in their success in the classroom. By introducing relevant video games into the classroom, student engagement increases (Meyer, 2015). Students are able connect their classroom experiences with the world outside of the classroom through simulation games. For example, in *Civilization* (1991), students are faced with the multi-faceted and complex nature of scarcity (McCall, 2011). Students are provided opportunities to learn how to judiciously allocate their finite resources to provide the greatest returns while also learning about world history.

McCall (2011) encourages teachers and their students to view simulation games as an interpretation of the past so that students can further their ability to analytically critique all such interpretations. This critical analysis can in turn lead to further inquiry. Research shows that students will normally accept what they read in textbooks at face value (Jansen, 2005). Students must realize that the history that is presented in the classroom is simply an interpretation of what transpired and that other interpretations may also exist. The realization that multiple perspectives exist throughout history just as they do today may lead students into developing a wider array of meaningful questions. Students must be able to "question sources, seek out and manage differing viewpoints, and develop their own interpretations of the information they receive" (Schrier, 2007, p. 250). Through the process of viewing history and social problems from multiple perspectives, students can understand that both historical events and social problems "require the complex consideration of multiple possibilities, prior knowledge sets and rubrics" (Schrier, 2007,

p. 250). Historical video games can be added to the teacher's "toolbox" as another method for conveying that history should be viewed by students from multiple perspectives.

Video games have obvious selling points. They provide "interactivity, engaging challenges, eye-catching graphics and sounds and compelling gameplay" (McCall, 2011, p. 19). Video games utilize multi-modalities including auditory, tactile, and visual stimuli (Gee, 2003; Mukhtar, 2020). Students remain engaged through the challenges that they present as well as continuous feedback of the students' progress. When students actively participate in lessons by interacting with sources of information, critiquing them, and constructing their own meaning, student learning is dramatically improved (McCall, 2011). Video games should not be used in isolation to teach history or any other educational content. However, video games can be used as learning tools that could be highly effective when combined with other teaching methods.

One caveat should be emphasized. While video games are appealing to some, they are not for everyone. Not every child enjoys video gaming and teachers should remember this fact. However, these children can develop other areas of expertise, such as collaboration, presentation, critical thinking, etcetera.

## Theoretical Perspective

Several learning theories may shed light on the efficacy of using a videogame as an instructional tool. According to Gardener (1983) in his Theory of Multiple Intelligences, students utilize different strategies for learning based on our strengths and abilities (Armstrong, 2017). These different "intelligences" or modalities mean that students learn in different ways. Therefore, teachers should utilize different learning styles when delivering content. One of the engaging features about video games is their ability to address various modalities (e.g.,

linguistic, musical, logical-mathematical, spatial, and kinesthetic) (Becker, 2007; Mukhtar, 2020).

Gagne′’s Nine Events of Instruction posits five categories of learning: (1) verbal information, (2) intellectual skills used in problem solving, (3) cognitive strategies, (4) motor skills, and (5) attitudes involved in personal choice (Becker, 2007; Gagne′, 1985). According to Becker (2007), players utilize: intellectual skills to problem solve; cognition strategies to win games; and motor skills to execute player decisions. Gagne’s Nine Events are: reception, expectancy, retrieval (stimulating recall of prior learning), selective perception, semantic encoding, responding, reinforcement, retrieval (assessing performance) and generalization (Gagne, 1985). Players of videogames are often attracted to a game because of graphics and/or sound (reception) or their novelty when being used in the classroom (Becker, 2007). Once engaged, players are quick to learn the objective of the game (expectancy) (Becker, 2007). Retrieval of prior learning aids players in accomplishing their goals while receiving feedback (reinforcement) (Becker, 2007). Players can transfer knowledge as they move through various levels (Becker, 2007). Within each game, a player employs knowledge, skills and strategies learned in previous levels to help them “on a small scale, moving through levels within a single game requires players to remember skills, knowledge, and strategies learned in the previous level and use them to surmount obstacles and solve problems” (Becker, 2007).

Bruner’s (1996) psycho-cultural approach to education states that narratives play a vital role in developing and maintaining culture. Bruner’s (1996) theoretical tenets can also be applied to the playing of video games. For example, Bruner (1996) states that meaning is derived from frame of reference. Often, well designed video games incorporate story lines which capture the player’s imagination. Video games often allow players to play from multiple perspectives thus

increasing their understanding of various viewpoints. Unfortunately, most computer software being utilized in classrooms are of the drill and skill types that severely limit the potential learning environment that computer games can offer (Beedle & Wright, 2007). Higher level learning is much more than recall; it requires using and developing critical thinking skills.

Reigeluth et al. (1980) hypothesize in the Elaboration Theory that learning is sequential, and summative. Additionally, the Elaboration Theory posits that learners: synthesize ideas; use analogies and cognitive strategies; and control their own learning (Reigeluth, et al., 1980). According to Becker (2007), well devised games incorporate all the afore mentioned elements in their designs. If a game or other method of instruction is properly sequenced, then learner motivation is increased (Reigeluth et al., 1980). Thus, when motivation and learning are increased, students are presented with more opportunities to feel better about themselves and the subject matter that they are studying.

Perhaps one of the most important arguments for utilizing video games as an instructional tool comes from Bruner's (1996) concept of identity and self-esteem. Teachers often ignore the perception of self through agency and self-evaluation when assessing students (Becker, 2007). Wright (2003) defines agency as the human ability to change the world around us or at the very least our current situation. It is our actions that make a difference (Wright, 2003). By and large, agency is an area that formal education has failed to encourage in students (Becker, 2007). Games provide opportunities for students to exercise agency that is not normally encountered in the classroom (Becker, 2007). Through games, players can make choices and alter situations, while encountering the resulting consequences for those choices (Becker, 2007). If students can feel more in control of their own learning, then that learning has the potential to become meaningful for them. Students may view what happens in the classroom as relevant to their lives.

Along with the relevancy of the subject matter being studied, students also prefer active methods of learning as opposed to more passive methods (e.g., lecture) that their instructors may prefer to utilize (Levine & Cureton, 1998). One such active method, experiential learning, has been an important concept in education for some 20th century scholars including John Dewey, Paulo Freire and others (Kolb & Kolb 2005). Dewey believed that to be motivated to learn, students must first be interested in the topic being taught (Dewey, 1938; Kalkbrenner & Horton-Parker, 2016). Once interest in the topic has been established, students become more actively engaged in the learning process (Dewey, 1973). Dewey further theorized that students who are actively involved in the education process (experiential learning) are more likely to learn than they would be through passive reception of information (Dewey, 1938; Kalkbrenner & Horton-Parker, 2016). Paulo Freire echoed these beliefs when he rejected the “banking model” of education where teachers deposited knowledge into student minds (Breunig, 2005; Freire, 1970). According to Dewey (1938), teachers must relinquish their role as the gate keeper of information and become facilitators of educational experiences. "The teacher loses the position of external boss or dictator but takes on that of leader of group activities" (Dewey, 1938, p.59). Dewey was interested in providing an environment which connected students with the world outside of the classroom and tested his theories of experiential learning at his lab school associated with the University of Chicago (Dewey, 1973).

Unfortunately, public education continues to experience an ongoing dichotomy which hinders and, in many cases, stifles the learning of students. The traditional education systems continue to compartmentalize subject matter that are teacher centered and learning is based on memorization of content material (Wurdinger, 2005). The subject matter is often taught in isolation and will have minimal relevance for students other than passing tests (Levine and

Cureton, 1998). Dewey (1916) identified the stifling of children's curiosity to be one of the major failings of systemic education. A possible answer to this conundrum is experiential learning (Dewey, 1938). To release their natural inquisitiveness, students thrive when they are given the opportunity to develop autonomy and competency within an environment that provides both structure and guidance (Dewey, 1938; Goldman et al., 2018). According to Reeves. those who play video games do so in part because they provide the player with autonomy and control within the environment created within the game (2012).

Depending on the video game, students can potentially see a connection between what is taught in the classroom and what happens outside of the classroom. One such game is Do I have a Right? (n. d.). This simulation depicts the activities that surround a newly formed law office. The player must make decisions on what court cases he/she will handle and how to dispense them. The purpose of this study is to determine what kind of effect(s) Do I Have a Right? has on students. More specifically, does the use of this simulation game (Do I Have a Right?) encourage student critical thinking?

On Constitution Day in 2011, I introduced my students to the video game Do I Have a Right?. I had been introduced to the game at a workshop and thought that it had the potential to engage my students in learning about the United States Bill of Rights. Once students began playing the game, their engagement astonished me. Some students would ask for help and receive it, not from me, but from their fellow classmates. Students appeared to be enjoying themselves. At the end of the class period, I had the students reflect on their experience. Throughout each of my classes, most students echoed the same sentiment. They had fun! Yet, this postulates the question: Does fun impact learning? (Gee, 2003).

On the average, when I tell my classes that they can access the website at home, about 40% of my students report that they actively play the game the same night. These students reflect on their scores, the strategies that they used, and begin to grasp the importance of the United States Bill of Rights. The amazing part about the game is that students will ask me months later "When are we going to play *that* game [Do I Have a Right?] again?" While the game Do I Have a Right? was used in conjunction with Constitution Day, the class was unable to continue discussion, as standardized testing for our school system precludes questions on the United States Constitution.

What is it about game technology that many students find so fascinating? Students can literally play video games for hours upon hours without taking any breaks. And when many of these students interact with one another, they actively converse about tactics they use to solve problems! Helping students understand how to solve problems is an important skill that students continue to develop. For example, students and teachers often passively view history, and teach it as no more than established events of the past (McCall, 2011). But history is so much more. History is critically examining interpretations of the past based on stimuli, actions, and the effects of those actions (Bolgatz, 2007; McCall, 2011). Students must likewise be able to examine evidence from the past and enter into discussions from their own perspectives (McCall, 2011; Sardone, & Devlin-Scherer, 2005). Yet most K-12 teachers of social studies are not providing their students opportunities to examine history from multiple perspectives. According to Schrier (2007):

> K – 12 social studies students typically receive a litany of facts, events, names, along with one master narrative: they are rarely encouraged to empathize with alternative views or question the so-called authoritative versions of history. Teaching as though there is

> only one right way to view history is problematic because students are not practicing the skills necessary for historic inquiry and because they are not learning how to unravel the complexity of social problems, nor evaluated the world as an engaged citizen (p. 251).

In response to this practice, certain simulation games have been developed to help students incorporate experiential learning as well as expand their critical thinking skills (Schrier, 2007). For example, by using simulation gaming as well as historical research, students benefit from conducting research, reconstructing the past and defending their own hypotheses, or critically examining those of others (McCall, 2011). Another advantage that some video games have is a customizing tool that allows students to create a historical simulation (Beedle & Wright, 2007). Given the ability to manipulate historical settings or events, students can experiment and evaluate various alternatives to the original outcome.

Through simulation games students may be able to logically examine the conjectures and motives of a historical figure (McCall, 2011). Through this evaluative process that students can develop their own ability to critique the sources that they are examining. Students of the 21st century need to be able to develop questions, collaborate, and acquire a thorough knowledge base from which to synthesize effective decisions (McCall, 2011). Through simulation gaming, students can more effectively develop their ability to critique digital as well as textual sources, "analyze systems, construct defensible explanations of how and why human societies function the way they do and evaluate interpretations and models" (McCall, 2011, p. 12).

## Anecdotal Evidence of Engagement

I had the privilege of presenting Do I Have a Right? at the 2013 state conference. Social studies teachers from all over the state attended the conference. It was my first experience as a conference presenter and quite frankly, I was very nervous. About 25 people came to my

presentation. While some of the attendees seemed interested in my explanation about Do I Have a Right?, it was not until I demonstrated the game, and showed them that other games were also available on the iCivics.org website that they became more actively involved. As members of the audience were increasingly involved in the decision-making process, e.g., what cases to choose, within the game, they became more engaged.

As I listened, watched, and responded to their suggestions, I realized that these fellow educators were just like my own students. Members of the audience did not come to hear me lecture on the positive attributes of a piece of technology; they came to actively participate in a learning experience. Like me, they found that they could use content related video games, as another set of tools, to engage student interest.

**Personal Interest**

I regrettably do not remember any content that was taught in social studies in middle school. I read sections out of a textbook and answered questions at the end of the chapter. I studied what I thought would be on the test the night before in preparation, took the test and then forgot what I studied after the test was over. Frankly, middle school instruction was perceived to be both irrelevant and quite boring.

Video games were a different story. I remember playing my first game of "Pong" when I was in fifth grade. Through the years, games became more sophisticated with technological improvements. Story lines gradually became interwoven into video games, so that I felt like I was part of the story. It was through my actions that kingdoms would rise or fall. Perhaps that is why I think there is such great potential for the use of video games in the classroom.

I play video games because I know my actions will have a direct impact on the outcome. My failures are disheartening, and I learn from my mistakes. In various historical games, such as

Civilization (Meier, 1991), Railroad Tycoons (Meier, 1990), and others, I have learned more about the past than information printed from most textbooks that I read as a student in elementary and secondary education.

One of the most interesting aspects about game play for me is when I finally win or "beat the game." The time it takes to beat a game depends upon the complexity of the game and may take several weeks or possibly months to complete. Ironically, while a sense of satisfaction arises within me at the end of the game, so too does some sadness as I realize the experience has now come to an end.

Experiential learning is what sets video games apart from other learning tools. I have control over my own learning. Within the game parameters, I can proceed at any pace that enables me to move ahead. I can also walk away from the game when I become frustrated and return when my mind has cleared. Video games enable the player to develop a sense of autonomy (Gee, 2003; Tobias et al., 2011). I want my students to feel this sense of autonomous learning. It is very difficult, nevertheless, to establish this autonomy within a classroom setting given various learning styles, class sizes, parental and administrative involvement. Research may provide answers as to the degree of efficacy for students by exercising autonomy while playing Do I Have a Right?.

## Research Questions

The purpose of this study is to ascertain the answers to the following questions:

1. What impact does *Do I Have a Right?* have on student learning?
2. To what extent is student voice vocalized when students are given the option of playing Do I Have a Right?.

## Delimitations

### Epistemology

Teachers attempt to make subject matter meaningful to their students. Middle school social studies teachers ought to help students make meaning of a complex world. Often the subject matter is not intuitive for the student, thus the teacher must act as a bridge between the student's world and the world that lays beyond his/her present reality. Teachers must construct meaningful lessons to engage their students in active learning (Harel & Papert, 1991). Because meaning is constructed through social interaction between the student's and the teacher's perception of the world (Crotty, 2010), each student chooses whether to: accept the knowledge being taught because it appears to be meaningful, reject it because it adds no meaning, or sets it aside for further investigation.

Knowledge is socially constructed because it is based on social interaction. By its very nature, my work deals with the construction of knowledge from what is known in part but not in total. What I present to my students is premised on my own limited knowledge and understanding of facts. That knowledge and understanding is predicated on "the politics of knowledge of a particular time and place" (Lather, 2009, p. 342), and it will continue to change through social interaction. Through this project, I seek to expand that knowledge---that intentionality through "intimate and very active relationship[s] between the conscious subject and the object of the subject's consciousness" (Crotty, 2010, p. 44). It is through a constructionist epistemology that I seek to understand how a social studies video game impacts student learning. It is the ""building [of] knowledge structures… a context where the learner is consciously engaged in constructing a public entity" (Harel & Papert, 1991, p.1). In this case, can a video game help some students view history from multiple perspectives?

Using video games as an instructional tool affords learners the ability to construct their own world within the realms of various virtual worlds (Becker, 2007).

> The realities that can be constructed in virtual worlds can be both dreamlike and fantastic, but also a hybrid of societies and relationships that exist partly in a game-world but anchored to real people and bolstered by real relationships and real sharing (Becker, 2007, p. 32).

The educator can provide the parameters for these virtual worlds by choosing video games consistent with the curriculum.

**Subjectivity Statement**

Holding an educational specialist degree in middle school social studies, with 19 years of teaching experience in middle school social studies and mathematics and three years of elementary school teaching have helped me explore and expand on my understanding of Dewey's student inquiry. This experience has led to deeper insight of how to guide my students' learning opportunities. Having obtained certification to teach Talented and Gifted (TAG) students, I have gained insight into strategies that are enabling me to further differentiate educational instruction.

Differentiating is by no means an easy task, but one that is challenging, and through teacher collaboration, I have developed additional skills that have helped in meeting some of the needs of my students. Other facets of my life like my ethnicity and family background may also affect my research.

Gender, ethnicity, and my workplace all potentially position me as etic to my research. As a male Caucasian presently working in an upper middle-class suburban school, I could be viewed with suspicion which in turn may impede gaining the trust of the study participants who are from different backgrounds. Deep meaningful information might not be forthcoming. The

task will be to circumvent these biases, (as well as my own if possible), to further the research. The differences in school cultures will also be taken into consideration.

My parents instilled within me a strong work ethic. They taught me that anything of worth came through labor. I carried this concept internally, as I acquired both a bachelor's degree in marketing and a master's degree in business administration. I spent the following ten years of my life in retail sales and management. Though I met with some success, I discovered that my life was not fulfilling, and that I wanted something more. During my years working in retail, I recognized my passion for teaching and working with children.

One of the advantages that I had while growing up was a mother who taught me not to judge anyone by their outward appearance but what was on the inside. In elementary and middle school, my best friend was Japanese/Chinese. My best friend in high school and the best man at my wedding was African American, as was my roommate for over 10 years. I include this to say that though there are many differences among people, what is on the inside does indeed count. My friends have given me a glimpse into their cultures and their worlds. My first teaching position was at a school where 99 percent of the student population was African American. I have seen the beauty of a multicultural microcosm and want all my students to know the joy that I have experienced in knowing that diversity can be wonderful.

Yet where there is diversity, there also exists degrees of stereotyping. Both students and adults have preconceived ideas about those from other backgrounds (socioeconomic status, belief system, ethnicity, etcetera). Only through respectful and open dialogue can my students and I look past our own typecasts and see fragile wonderful people.

The axiom that opposites attract is true to form for my wife and I. Western and Eastern hemispheres come together while our tastes in food and fashion diverge, sometimes intensely,

sometimes comically. She, the orderly one, ever strives to rein in the chaos which I call "comfortable." Yet through our many differences, comes a distinct blending of two who love each other without question.

My faith is extremely important in defining my character as an individual and a teacher. It is not like an article of clothing that I can put on and take off, but something that is woven into the fabric of my being. As a result, much of what I believe is conveyed to my students as I seek to earn their trust. For example, I convey to my students the significance of embracing truth and the importance of helping others. As I help my students, I seek to build a rapport with them. There is much that my students teach me as they share their life experiences, thoughts, and perspectives. The research study that I propose will afford opportunities to gain fresh perspectives of my students and their fascination for video games so that I may be of greater service to them. Based on some preliminary observations, I acknowledge that some students demonstrate engagement when playing video games.

**Significance of the Study**

While much of the literature on using video games in the classroom contains theoretical suppositions, the amount of empirical data that has been accumulated is relatively small. The research that I am proposing will provide empirical data that will help lend credence or refute current views on the efficacy of using video games as part of the social studies curriculum. While games may be engaging to some students, the question arises: will engagement lead to learning social studies content, or the further development of critical thinking skills? According to Tobias et al. (2011):

> Transfer of knowledge, skills, and attitudes from games to task in school or training contexts, or to activities in life generally, is of central significance for the effectiveness of

> games in delivering instruction. If there is no evidence of transfer to these settings, games may be entertaining but can only be minimally useful for instructional purposes in either education or training (pp.161).

I hope to discover if transfer of knowledge does occur because of students' interaction with a social studies-based simulation game.

Another area of significance is giving audience to the *voice* of students. Bogden and Biklen (2011) use the expression "giving voice" to refer to "empower[ing] people who have not had a chance to tell about their lives, to speak out so as to bring about social change" (p.214). While I am interested in discovering the kind of effects playing Do I Have a Right? will have on student learning, I am also interested in understanding what students have to say about their gaming experience. What impact does the game have on student attitudes towards learning social studies content?

**Overview of the Study**

The goal of my research is to examine the effects of using a simulation game on the views of some middle school social studies students towards social studies content. I am particularly interested in the impact of the video game Do I Have a Right? in leading students beyond engagement and encouraging active learning of social studies content and the further development of higher-level thinking skills. In Chapter Two, I present literature on simulation games, and teacher attitudes towards the use of video games to aid in student learning. Chapter Three discusses the methodology (case study), method of data collection (interview) and method of data interpretation (coding) in my research and the impact of the pandemic on this study. In Chapter Four, the data collected from the interviews and coding are presented. In Chapter Five, I disclose the findings and points of discussion generated by the research.

# CHAPTER 2: REVIEW OF THE LITERATURE

With student achievement still under the microscope of public opinion, many teachers have been diligently seeking methods for engaging their students. One convention of thought has been to integrate more technology into the classroom. As technological advancements continue to be made in the 21st century, how will those advancements be utilized in the classroom? One area of recent development in education is the use of video games to foster learning.

While some teachers may be quick to use this new technology in the classroom, others may be more resistant to the idea. Some instructors may consider the reported negative effects video games have on those who play them as reason enough to discourage their use. Indeed, certain games do promote anti-social behavior such as committing violent acts or stereotyping (Fergusson, 2007; Gabbiadini et al., 2016). For some teachers, part of the problem may be a lack of familiarity with technology. Another reason for resistance to using video games in the classroom may be a lack of knowledge among some teachers of any games that are connected to the content that they teach. However, there are those who seek to demonstrate that video games not only have a place in the classroom, but also have a positive impact on student learning through student engagement (Moore, 2015; Wood, 2011). It is suggested that, depending on the video game, students can see a connection between what is taught in the classroom and what happens outside of the classroom. But can video games aid student learning of social studies information? Can video games foster the learning of facts on state standards?

While much of the current literature seems to support the use of video games in the classroom in a positive light, it also gives the impression that a deficiency persists in empirical data to support the theoretical hypotheses. The purpose of this research is to obtain empirical

data which supports or refutes the claim that video games can have a positive impact on student learning of social studies related information.

## Literature Review

Board games have been used for 150 years to teach character education (Brown, 2008). Video games may provide a new avenue to reach students. Children today are playing video games far more readily than doing homework or talking about social studies related material (Pagnotti & Russell, 2011). Learning based on play has been examined and debated by educators including Piaget, Vygotsky & Plato (Hunnicutt, 1990; Piaget 1964; Vygotsky, 1978). Much educational research has been dedicated to examining how children learn through playing games (Belkin, 2004; Bird & Edwards, 2015; McNeill, & Fry, 2003; Oz, 2010; Whitebread et al., 2009). In educational research, a close association has been made between children learning through play and learning through experience (Bruner 1972; Squire, 2006; Whitehead, 2012). The American psychologist and education reformer John Dewey (1938) wrote extensively on the importance of connecting the classroom to the child's experiences and interests such as play. Yet play is often relegated to the physical education department or activities that occur during recess (Games & Squire, 2006; Stevens, 2020).

Today, children and young adults in the United States have been called the Net Generation or Net Gen, a name derived from having technology interwoven throughout their lives (Muhammad et al., 2016; Oblinger & Oblinger, 2005). Net Gen children and young adults have grown up using computers, accessing the internet, and utilizing various digital media devices such as smart phones and other mobile devices. Current research indicates that many Net Gen children and young adults will become more engaged with online games than they will interact in face-to-face learning environments (Anetta et al., 2012). For Net Gen students this

interaction that comes from gaming is a social activity involving conversation, collaboration, and creativity (Squire, 2013).

Digital technology has made it possible for educators to make elements of instruction more engaging for students. If more teachers would focus on designing learning experiences instead of delivering content, students may become more engaged (Licorish et al., 2018: Quinn, 2005). Learners become more engaged when they "have to make decisions, understand why those decisions are important, want to make those decisions and know that there are consequences of those decisions" (Quinn, 2005, p. 10). When students feel in control of their situation, they are more likely to be engaged and as a result, learning is more likely to occur (Quinn, 2005; Taub et al., 2020). Games often provide motivation to players to take responsibility for their own learning which in turn leads to intrinsic motivation (Akilli, 2007; Firat, 2018).

Using video games in the classroom could be one path for educators to increase student engagement. Players who once followed static story lines like those found in textbooks are now presented with open ended problems that affect the outcome of the game (Blanco-Herrera, 2019: Shaffer et al., 2005). In essence, players can "alter history" through the choices they make and open discussions centering on multiple perspectives.

One of the problems with commercially developed video games is that the heart of the game is on entertainment, and not on learning. Many video game companies focus on producing first person shooter and sports games instead of educational ones (Gong, 2020; Keim, 2013; Stahl, 2005). Another problem with using video games for instructional purposes is educator perceptions. Game developers sometimes have difficulty balancing the need of creating an engaging game with academic learning goals (Barko & Sadler, 2013). While some educators are

concerned about video games that can promote violent and anti-social behavior (Ferguson, 2007; Keim, 2013), other educators view video games as either a waste of time or solely for entertainment with no other intrinsic values (Schaffhauser, 2013). Perhaps these educators are unaware that many video games promote and inspire creative thinking, motivation, communication, problem solving, and teamwork (Beedle & Wright, 2007; Tang, 2020). "Creativity helps users develop characters more deeply in role-playing adventures and solve problems that are sometimes built around the uniqueness of the game's premise" (Beedle & Wright, 2007, p. 165). Indeed, problem solving is a critical skill that students should develop as part of their education.

## Using Video Games in Education

Net Gen children seem to spend more time exploring, questioning and problem solving outside of the classroom than within the classroom (Simpson, 2005). Students who have been labeled as lazy, apathetic, or disengaged in the classroom may in fact be bored because they are not challenged or see no relevancy between the subject matter and their personal lives (Muhammad et al., 2016; Simpson, 2005). Many of these same kids make decisions every day that are based on their experiences, desires, interests, and strengths because they are required to interact with the digital world in which they live (Muhammad et al., 2016; Simpson, 2005). These children are bright, energetic, inquisitive, and often able to accomplish tasks with a computer that many of their teachers would not even attempt (Muhammad et al., 2016; Simpson, 2005).

Many technologically advanced students in today's classrooms are attracted to video games for various reasons. "Games expose players to deeply engaging, visually dynamic, rapidly paced, and highly gratifying pictorial experiences that make almost any sort of conventional

schoolwork (especially when mediated by a lecture or text) seem boring by comparison" (Foreman, 2003, p. 15). Video games pose challenges that have personally meaningful goals that can be achieved through a variety of methods to reach those goals and often include opportunities for immediate feedback (Malone, 1981; Panoutsopoulos & Sampson, 2012). In addition, video games provide incremental difficulty based on the player's skills (Malone, 1981; Panoutsopoulos & Sampson, 2012). When players learn a skill, that skill becomes meaningful because they can use it immediately within the game's fantasy world (Malone, 1981; Panoutsopoulos & Sampson, 2012).

Today's video games contain many of the same characteristics Net Generation students possess including multitasking, distributive cognition, networking, and negotiation (Annetta et al., 2013). Video games offer players many features that they find attractive. A problem (or set of problems) is established that has a solution (or set of solutions) and often has various alternative paths that the player can use in achieving the goal (Prensky, 2004). When answering questions within the game, the answers are not always obvious but are relevant for the player to reach the destination (Prensky, 2004). In contrast, teachers often provide answers which are frequently irrelevant to the student.

In video games, the player is in control of his/her own destiny and is often motivated by competition with other players or with the computer. Competition often leads to collaboration as players help one another in reaching their goal(s) (Prensky, 2004). According to Simpson:

> Compared to the classroom, games are empowering, motivating, individualized, differentiated learning environments with set rules which value the efforts of the individual child. Games are challenging and motivating. They offer the child a shared experience with their peers in a collaborative environment. They are a platform for

> problem solving. The structure is apparent, the rules are clear and unambiguous, and your role in the game is well defined. The goal is always attainable (2005, p. 480).

Video games provide students opportunities and relevance that they may not receive in the traditional classroom setting.

Research in the field has recognized several features of video games that teachers should be aware of when employing video games in the classroom (All, 2016; McFarlane, Sparrowhawk, & Herald 2002). Many of the games developed for classrooms offer learning experiences which are different from traditional methods of instruction in the classroom (Barko & Sadler, 2013). Video game technology continues to afford vibrant and motivating learning opportunities (All, 2016; Gee, 2007). According to Lopez and Caceres (2010), "video games train cognitive skills such as deduction, recognition of visual models, hierarchal structuring of priorities and swift decision making… (and) develops mental agility and visual coordination" (p. 1337). Although this technology presents students with the opportunity to interact with multimedia devices and software, it has not been integrated into the classroom on a large-scale basis (Barko & Sadler, 2013). While debates over the use of video games in the classroom persist, opportunities for student engagement and learning may be lost.

The technology that has been generally developed for classrooms is nothing more than glorified flashcards to aid student recall (Squire, 2003). "Instead of engaging learners in rich environments that challenge learners to make decisions and solve complex problems, educational video games have tended to create new venues for drill and grill tasks" (Barko & Sadler, 2013, p. 125). Teachers who do want to bring video game technology into the classroom due to the complexity of the technology, may utilize these "drill and skill" digital games because they are easier to use and are more acceptable to non-gamers than more advanced games (Rice, 2007).

However, these types of digital games focus on lower-order learning, with the emphasis on recalling facts (Rice, 2007).

For higher order thinking to occur, students need to be provided with games that place the learners within immersive, interactive environments that provide deep and meaningful experiences. Ideally, these experiences should help learners understand discipline-relevant principles and practices and provide opportunities to use those principles and practices in ways that transcend what is possible in traditional classrooms (Barko & Sadler, 2013, p. 126). For video games to have a larger impact on learners, teachers must use them in conjunction with pedagogical skills that focus on higher order thinking.

As curriculum gatekeepers, teachers must be aware that their responsibilities are greatly increased when utilizing video games as part of their instruction. The social sciences are theoretically problematic as they are influenced by various value systems (Lopez & Caceres, 2010; Evans, 2004). Thus, when utilizing video games or any other method of instruction, teachers must present and define the initial problem; provide information relevant to understanding the problem; encourage and provide venues for student interaction; and afford students opportunities for reflection on both the content and process (Lopez & Caceres, 2010).

Teachers must take care when selecting video games to be employed in the classroom. Many games are unsuitable for students due to the negative messages being transmitted (violence, discrimination, etcetera) and due to the lack of academic rigor in information (Lopez & Caceres, 2010). As with any video/movie shown within the classroom, games need to be thoroughly reviewed by the teacher before employing them. Additionally, the teacher should be familiar enough with the game so that he/she can deal with any problems that the student may encounter. Student who are “digital natives” often have a deeper understanding of video games

than their teachers who are “digital immigrants” (Prensky, 2009). Lopez and Caceres suggest that “it is necessary to know the games perfectly and relate them to the contents of the educational proposal that is being developed at that specific time and in subsequent periods” (2010, p. 1344). Other obstacles that teachers may encounter are class size and limited resources (number of working computers available, internet access, time, etcetera).

Video games can have motivational effects for students because they afford students control over the environment in which the students are interacting (Barko & Sadler, 2013). For example, if a student is feeling overwhelmed he may leave the game or overcome his fears and face the challenges at hand. Evidence of success is reflected in attaining a new high score or moving on to the next level (Barko & Sadler, 2013). Success in video games comes through reflection. Players who learn from their mistakes can advance to the next stage of the game. Players are constantly receiving feedback in the form of “deaths” (defeats), advancements, or other parameters such as personal scores or time limitations (Barko & Sadler, 2013). The ability to take risks without significant repercussions in a game provides the player with a sense of freedom. The game becomes a venue where the player is unconfined and can overcome perceived limitations (Lucasa et al., 2008; Taub et al., 2020). Students can theorize experiment, reflect, and modify their ideas through video games (Lunetta et al., 2007; Taub et al., 2020).

“Games also offer intrinsic motivational factors realized through personal feelings of success in conquering progressively more difficult levels of the game. As gaming technology has advanced, games have also developed deeper and more engaging stories” (Barko & Sadler, 2013, p. 127). Video games can provide a level of engagement that may not be found in a traditional classroom (Bowman, 1982). According to Bowman (1982), both video games and classrooms have the potential to motivate students. They have the possibility of providing:

> a) clarity of task; b) clear awareness of participant roles and responsibilities; c) choice in the selection and execution of problem-solving strategies; d) potentially balanced systems of skills and challenges; and e) a progressive hierarchy of challenges that sustain interest" (Bowman, 1982, p. 16).

These motivational factors are important for providing students with a successful learning environment and helps them to meet course standards (Bransford et al., 2000).

While student engagement is important, video games can also provide an extension to the world outside of the classroom. Certain video games can be classified as simulation games. McCall defines a simulation game as "a game that functions as a dynamic model of one or more aspects of the real world" (2011, p. 4).

Transfer of knowledge, skills, and attitudes from games to tasks in school or training contexts or to activities in life generally is of central significance for the effectiveness of games in delivering instruction. If there is no evidence of transfer to these settings, games may be entertaining but can only be minimally useful for instructional purposes in either education or training (Tobias et al., 2011, p. 161). The connection between what is taught in the classroom and what the students may experience outside of the classroom is vital for student engagement.

By focusing on experiences that transcend memorization and recall, students engage in ideas that challenge the way they think (Lunetta et al., 2007). Students now can employ the information they have acquired in more practical ways (Lunetta et al., 2007). Advances in both gaming software and computer hardware have given teachers and students affordances to obtain meaning through their experiences (Barko & Sadler, 2013). The characteristics that are found in video games (complexity, cognitively challenging and emotionally engaging) provide keys to

understanding why they have been utilized by both government and industry (Squire et al., 2005).

New technologies also help promote differentiation in the classroom as many video games allow variation of participant interaction (Lopez & Caceres, 2010). Advances in technology such as the internet, personal computer (PCs), gaming consoles (X-box, PlayStation III, etcetera), and mobile devices enable the delivery of formal education in informal or non-traditional venues, increasing the opportunities for student engagement with the content (Lopez & Caceres, 2010). Obviously, video game usage is having an impact on society and is becoming progressively more relevant (Lopez & Caceres, 2010).

Video game technology provides teachers and students an improved ability to examine complex social phenomenon from multiple perspectives (Lopez & Cacres, 2010; Tobias & Fletcher, 2011). As students develop and implement various strategies in their decision making, they should give an account of the resources and variables provided by the game, in order to attain a solution (Forcier & Descy, 2007).

According to Lopez and Cacres (2010), social content, especially of a historical nature, normally rejected by students in a formal setting, are being demanded in computer games, e.g., Assassins' Creed (De′sillets & Raymond, 2007) and Civilization (Meier, 1991). They hypothesize that this is mainly due to:

> …increased motivation inspired by the simple use of a computer by students and to the co-creation of aspects which, without the support of IT technology, are tremendously abstract, providing dynamism and capacity for interaction with socio-historical facts in the simulation processes that would be impossible to achieve any other way (Lopez & Cacres, 2010, p. 1344).

In Civilization (Meier, 1991), players can direct Roman armies against Barbarians, or they can design and develop the infrastructure and policies of a given civilization because of advances in digital technology (Pagnotti & Russell, 2011). While in Assassins' Creed (De′sillets & Raymond, 2007), players can explore one perspective of the Middle East during the Crusades. The elevated interest that many players exhibit may be owing to the multi-modal appeal of video games as well as the interaction that players experience.

Lacasa et al. (2008) observed that video games could be used as an effective means of introducing content and structure, as it promotes reflection as a method of developing digital literacy. Looking beyond the video game technology, strategies for implementation must also be considered. Such strategies hinge on collaboration between students, teachers, families, and video game industries (Lacasa et al., 2008). By combining game play with other digital media (blogs, boards, etcetera), students can reflect and discuss key concepts (Lucasa et al., 2008).

As part of an ever-growing community, players are conscious that they are looking for innovative ways of thinking and doing (Lucasa et al., 2008; Muhammad et al., 2016). This sense of community leads many children into the role of citizenship. They experience "relatively low barriers to artistic expression and civic engagement, strong support for creating and sharing one's creations, and some type of informal mentorship whereby what is known by the most experienced is passed along to novices" (Jenkins et al., 2006, p. 3).

Lucasa et al. (2008) submit that video games, unlike traditional learning methods, promote the use of non-linear strategies. Players are constantly manipulating pieces of data as to affect a positive outcome (Lucasa et al., 2008). This manipulation of the data affords students the opportunity to not only learn the content but also employ the data in various ways (synthesis). Society is not static but ever changing, and this reality should be reflected in teacher pedagogy.

Game players often have emotional attachments associated with the outcome of video games. Players become happy or elated when they are successful, or they become unhappy or angry when they lose (Juul, 2003). These emotional responses occur as players meet or fail to meet goals that they have often set for themselves. Players can identify goals found in video games, but in the classroom they may be unsure of what the goals are or how to attain them (Simpson, 2005).

One important attribute that video games bring is the ability to cross cultural, ethnic and gender boundaries (Simpson, 2005). Gamers can interact with other gamers based on shared experiences. Teachers who do not share these experiences are at a disadvantage when attempting to communicate with an accrescent section of their students who engage in video game playing (Simpson, 2005; Muhammad et al., 2016).

While social studies educators can use various methods for immersing students in social studies content, video games provide unique methods where students are actively involved in the outcome (Squire, 2006). By using video games, students can place themselves in various environments that allow them to think and act in new ways within certain situated contexts (Shaffer et al., 2005). Video games can both motivate students as well as provide opportunities to learn social studies content (Bowman, 1982; Lee & Probert, 2010).

Video games such as those found in the Civilization series (Meier, 2010; Meier, 2005; Meier, 2001; Meier, 1996; Meier,1991) not only allow students to explore historical events but also have a secondary effect involving economic concepts. These economic concepts include production capacity, distribution, and resource allocation (Pagnotti & Russell, 2011). Thus, there seems to be a positive correlation between video games and student engagement (Bowman, 1982; Lee & Probert, 2010). Yet while the question of whether engagement leads to learning,

many teachers concede that without engagement, students are less likely to learn what is being intentionally taught in the classroom (Lewis et al., 2015). One way to increase student engagement may be found in an environment that fosters student choice.

## Student Choice

The act of choosing is a fascinating multifaceted phenomenon (Katz & Assor, 2007). When students are involved in determining what will be learned and how it will be learned, (student choice), student engagement in the curriculum is increased (Parker et al., 2017). Provided that students have input in the process of determining what they will learn and how they will learn it, students will be able to further establish their educational autonomy, competency and relatedness as outlined in the Self-Determination Theory of motivation (SDT) (Ryan & Deci, 2000). "SDT is a macro theory of human motivation concerned with the development and functioning of personality within social contexts" (Katz & Assor, 2007, p. 430). In SDT, autonomy can be defined as the meaningfulness of a choice to the student. While competency is the student's perception of his own ability to master challenges that the student faces (Ryan & Deci, 2000). Relatedness refers to the need to feel closely related to other people in a group, class, clique, etcetera (Ryan & Deci, 2000).

Katz and Assor (2007) posit that for a choice to have beneficial effects, autonomy, competency, and relatedness must each provide a degree of meaning to the student. However, if a choice involves only one or two of the three characteristics (autonomy, competency, relatedness) a negative association may result (Katz & Assor, 2007). For example, Joy, a middle school student, chooses to research a career in pathology as a project because of her fascination in human anatomy (autonomy). Joy knows that the educational pathway will be rigorous but very rewarding (competency). However, several of Joy's friends have expressed a strong dislike for

pursuing a career in the medical profession, especially pathology. As Joy does not wish to lose the connection she has with her friends, Joy opts to research another field for her project. Conversely, Joy's friends may demonstrate an appreciation for pathology and agree to work on the project with Joy.

There is a strong belief among some teachers that when students are provided choices, student interest, engagement, and learning are enhanced (Patall, & Wynn, 2010). "Students spend more time and effort on the learning task if they are offered choices; and that giving students choices helps build other important skills, such as self-regulation" (Patall, & Wynn, 2010, p. 896). If students gain autonomy, competence, and relatedness through student choice, it can be extrapolated that by providing students with the choice of learning social studies content through video game technology, learning may be enhanced (Patall & Wynn, 2010; Ryan & Deci, 2000).

## Problems with Implementation

While video games and other digital technologies have become a significant part of the American culture, resistance to using them in the classroom still seems pervasive. Teacher disinterest and ignorance are key factors in not bringing video game usage into the classroom (Lucasa et al., 2008; Okumuş et al., 2016; Stols, & Kriek, 2011). While traditional teaching methods are still heavily entrenched in the educational system, many teachers are reluctant to explore and utilize options other than books, textbooks, etcetera (Lucasa et al., 2008; Okumuş et al., 2016; Stols, & Kriek, 2011). Little has been done to convince teachers to incorporate video games in their curriculum (Kenny & McDaniel, 2011). Some of the hindrances to teacher acceptance is due to a lack of support in the infrastructure and poor (or no) teacher training (Kenny & McDaniel, 2011). As a result, only a small percentage of teachers have included video

games in their craft (Egenfeldt-Nielsen, 2004). To break with tradition requires new methods of teaching which encourage students to be active learners by using technology that they employ everyday outside of the classroom (Lucasa et al., 2008).

Another inhibiting factor for teachers is a lack of familiarity with gaming technology in comparison to other entertainment media. For teachers who are unacquainted with gaming, the initial integration of video games as part of instruction could be a lengthy process in the beginning (Beedle & Wright, 2007). As with any tool, when a teacher becomes more familiar with a video game, an increased feeling of security can result which in turn leads to more effectiveness (Lucasa et al., 2008; Muhammad et al., 2016). According to Kenny and McDaniel (2011), providing teachers with new technology has little value without professional development and training. This professional development and subsequent training does not simply mean introducing teachers to the new technology during a three-hour after school meeting. When teachers do have access to new technology, only a small percentage change their practices (Kenny & McDaniel, 2011). Much of the failure to integrate technology into classroom practices is due to lack of planning/preparation time, outdated technology, few opportunities for collaboration, limited instruction time and poor technical support (Kenny & McDaniel, 2011; Cuban, Kirkpatrick & Peck, 2001).

To correct these problems, ongoing collaboration between policymakers and teachers must take place to establish a clearly perceived value/benefit of products being introduced (Rivkin et al., 2005). Policymakers' jobs are particularly difficult as they not only include solving infrastructural problems, but also establishing and maintaining optimism among teachers (Kenny & McDaniel, 2011). For the integration of gaming technology to work, teachers must believe that the investment they are making is worthwhile. If teachers see little or no value in the

intervention or they are unfamiliar with how it is used, then the intervention likely will fail (Barche, 2008).

All in all, teacher attitude plays a vital role in the implementation of any strategy or intervention. If teachers harbor either neutral or negative attitudes towards the use of video games in their classroom, the chances of effectively implementing their usage is significantly reduced. Those involved in teacher training must consider whether their teachers are "digital natives" or "digital immigrants". Even if the teachers have been brought up during the digital age, it does not mean that they are predisposed to using video games or are even familiar with them (Kenny & McDaniel, 2011).

Teachers may not use video games if they do not see the value in using them or perceive that video games will make their traditional methods of instruction obsolete (Kenny & McDaniel, 2011). Video games could be seen as a fad or having a negative effect upon the student (Kenny & McDaniel, 2011). If utilizing video games in the classroom is to move forward, proponents will have to overcome objections of teachers with either neutral or negative attitudes by demonstrating their significance and applicability.

One answer to change this negative attitude is in teacher professional development. In a study conducted by Kenny and McDaniel (2011), participant teacher's attitudes towards game playing changed in a positive direction after they had played the video games themselves. As a result, they recommended that teacher professional development programs: integrate more gaming activities, provide additional courses exploring the theoretical basis of gaming and evaluation tools, and include gaming technologies (Kenny & McDaniel, 2011).

The underlying mistrust of games seems to reside in unfamiliarity. Teachers who are unfamiliar with gaming may be apprehensive about employing it in the classroom (Gerber &

Price, 2013). It can be quite discomfiting for a teacher to admit that the student is more knowledgeable than the teacher. Other teachers may be apprehensive that their colleagues would perceive the use of video games as invalid pedagogy (Gerber & Price, 2013). Through further education, teachers with neutral or negative attitudes could be convinced to integrate video games into their curriculum. Of course, teacher integration of the video game is predicated on the game itself. Without sound pedagogical principles entrenched within the game, video games will be relegated to entertainment (Gunter et al., 2008). Video game producers need to provide games which have content and instruction for successfully integrating them into the classroom (Kenny & McDaniel, 2011).

Annetta et al. site several reasons for not using video games in the classroom: lack of experience with video games, a perception of a generation gap between students and teachers, and a negative attitude towards games (2013). Gerber and Price found during their research that while teachers were eager to engage their students by using video games, they expressed concern over inaccessibility of equipment, lack of funds and a perception that little support would be given by administrators (2013). Herein lies a major hurdle for using video game pedagogy in the classroom, cost. To implement game-based technology, outlays for software (the game(s)), access to equipment, technological upgrades to the equipment, and teacher training must all be considered (Gerber & Price, 2013).

Teachers who were born prior to the emergence of video games during the 1970's may have been aware of the research on movies and television which demonstrated that both could influence children's propensity for violence and aggression (Gibson et al., 2007). The public in like fashion has viewed video games, lending support for the belief that video games also promote violence among children and young people (Gibson et al., 2007).

Another factor that could adversely affect the use of games-based pedagogy in the classroom is coverage. Often teachers are mandated or required to "cover" a certain amount of content by the time high stakes tests are administered. "Teachers are given a scope and sequence to which they must adhere. It does not allow much time for horizontal learning" (Gerber & Price, 2013, p. 58). Thus, the opportunity to pursue in-depth knowledge of the content afforded by video games is limited.

When teachers do bring technology into the classroom, it is technology with which the teacher is familiar. Integration of technology into the curriculum may take the form of word processors, search engines, digital cameras, or other sources of multimedia. Video games are different because they are often not perceived to be learning tools by teachers (Simpson, 2005). The environment that teachers operate in daily, is often slow to accept change due to a lack of economic resources or there are large amounts of bureaucracy involved, whereas students live in an environment where change is quick and consistent (Simpson, 2005). School construction can also be a problem. Teachers may be faced with limited physical facilities that can only accommodate a few students at a time. Additionally, a school computer lab may not have a site license for an educational game.

## Reconciling Teacher Perceptions and Student Digital Literacy

Video technology continues to expand the parameters of interactivity, quality of simulations and introduces students into literacies and applications that are at the heart of the information age (Gee, 2003). While research into the effects of video games is still in its early stages, it has so far demonstrated some positive effects of game play (higher intelligence test scores, improved non-verbal skills, long-term memory, and dexterity) on children when "developmentally appropriate software" was used (Gibson, Halverson, & Riedel, 2007, p. 178).

Literacy skills can also be further developed because children are able to read and visualize images (Gibson, Halverson, & Riedel, 2007).

Digital technology continues to become more and more ubiquitous among students as the digital era advances (Gerber & Price, 2013). As children continue to freely navigate from one device to the next, employing various platforms with apparent ease, teachers must analyze their own perceptions of their students' world. Student learning takes place in part in virtual worlds and through video games (Gerber & Price, 2013). Relationships among players are often formed and expanded due to shared experiences (Gee, 2007; Gee & Hayes, 2011). These relationships are forged because players invest themselves in game play with others in common virtual worlds and often against common opponents (Gerber & Price, 2013).

Just as players collaborate to improve their skills, teacher collaboration is a major contributor to the integration of technology into the classroom (Glazer et al., 2009). When teachers believe that their colleagues actively integrate technology in the classroom, they are also more likely to integrate technology, especially when they feel they are supported in the endeavor (Gerber & Price, 2013).

Teachers are now being encouraged to meet the needs of the individual learner through differentiation, yet they often lack the knowledge of how to achieve differentiation (O'Connor, n.d.). Yet for Generation Net, differentiation is intrinsic to their world where they make choices on the food they eat, the products they buy, the shows and movies they watch, etcetera (Simpson, 2005). Video games can provide one method of differentiation where the student can move at his or her own pace because the environment of the video game is individualized (Simpson, 2005).

## "Old-School" is No Longer an Option

Whether educators are willing to embrace technology, or they continue to reject it, Net Gens will still utilize technology as part of their learning environments. There is a general agreement among those who advocate for educational reform that students need to develop a skill set that includes: "creative, imaginative, flexible and innovative thought; effective collaboration; the discipline and motivation to acquire deep knowledge of a domain; [and] the ability to synthesize effectively from a variety of sources and materials" (McCall, 2011, p. 11). If teachers desire to "reach" students where they are, they will have to reconsider "the role of teaching, learning, content and interaction" (Jones & Bronack, 2007, p. 111). For example, teachers who utilize didactic methods of teaching should help students take responsibility for their own learning by guiding them rather than telling them what to do and how to do it (Jones & Bronack, 2007).

Video games immerse players in unique experiences where knowledge that is learned is also used (Gee, 2003). Players can build on prior knowledge to further develop their problem-solving abilities (Bransford et al., 1999; Gee, 2003, Squire, 2003, Squire et al., 2005). According to Squire et al. "After 40 hours, game players learn not only new vocabulary and concepts, but also systems of thinking, ways of seeing the world which could be applied toward academic domains" (2005, p. 34). Players also increase the amount of reading they do because of the self-motivation to improve their status in the game (Steinkuehler, 2006). Game players will often immerse themselves in an activity system that requires navigating a wide variety of information sources which may include gaming magazines, websites, manuals, and game reviews (Squire et al., 2005).

With the use of the internet and accompanying search engines to retrieve information, certain theorists would contend that the educational system requiring memorization and recall has become obsolete (Perkins, 1994). Standardized tests that focus on information are also not constructed to assess student abilities to use digital tools or their abilities to work in concert with others in a community (Squire et al., 2005).

**The "Reality" of It**

The Net Generation has arrived whether teachers are ready for them or not. Students in general are not content to simply sit and absorb information from teachers only to regurgitate it on a quiz or test. Students expect their life experiences to be engaging and interactive. While many apathetic students attend school because they are compelled to by their parents or by the law, they are not engaged (Simpson, 2005). Gamers see the world from a different perspective than their parents or teachers, especially if the parents and teachers are non-gamers (Simpson, 2005).

The teaching profession must reconsider how to conduct the craft of education. In previous generations, teachers were considered the repository of information. With the advent of the internet, teachers are no longer the gate keepers of knowledge, their role has changed significantly. The good news is that educational video games do exist on the market; some are produced commercially while others are available "free of charge". Teachers who are familiar with video games can more readily establish rapport with their students because they are providing an environment that may already be recognizable to the student (Prensky, 2002). One of the shortcomings of educational games is the level of quality when compared to games produced for commercial and entertainment purposes. Students who consume various commercial games may find educational games as "lame" or unappealing because they lack the

sophisticated graphic and sound effects of the commercial games. Here again, the teacher needs to remind the students (and themselves) that the video game is only part of the learning process. The teacher might even ask students to include their complaints in their reflections. The reflective process might include specific suggestions by the students for improvements to submit to the game creator/producer. Squire (2013) recommends that game developers, educators and programmers work in concert to develop games that are fun, motivational, and educational.

A possible avenue for transition from not using video games in the classroom at all to integrating them into the curriculum might include using video games in after-school programs (Squire et al., 2005). Having been exposed to traditional teaching methods throughout the school day, students may find video games a welcome alternative method of learning content. When used in an after-school game-based learning environment, students can explore the positive aspects of participating in a gaming community (Squire et al., 2005). Teachers need to recognize that a game by itself is no substitute for a well-designed learning environment. A video game is but one of many tools that the social studies teacher can use in helping students learn about the complex society in which we all live. If a teacher does use a particular video game, he must consider:

> …the methods students will use to play and analyze games; the opportunities for reflection, analysis, and discussion that will be provided; the types of historical resources to provide students and the timing for introducing them; [and] the products students can create to demonstrate their learning, (McCall, 2011, p. 60).

When considering all these factors, social studies teachers need to keep student needs as paramount.

**Video Games and the Social Studies**

While much of the literature reviewed has applied to the use of computer or video games in general education, there is research that focuses more specifically on incorporating video games into the social studies curriculum. “Many students operate according to a belief that history is no more than the established record of past events and their causes, fixed by the professional, and received by everyone else. Viewing history this way can only lead to an unfortunate habit of intellectual passivity” (McCall, 2011, p. 9). Yet history can be viewed as a method of constructing meaning from well researched and validated interpretations of the past based on the motivations and actions of humans (McCall, 2011). Teachers of the social studies should help students evaluate evidence, discuss their interpretations with their peers, and critique the criticisms of others (McCall, 2011). Students often take what they read at face value especially in textbooks but if students understand that games are interpretations, they can develop a sense of skepticism so that they can practice critiquing various forms of interpretations (McCall, 2011).

Video games can provide a way for students to view history (and the rest of social studies) from a wide array of perspectives. Depending on the game, players can view various scenarios from multiple viewpoints through role-playing (Dormann et al., 2006). Gaming communities can be formed around historical and other social studies related games where players collaborate on studying historical perspectives. These gaming communities can discuss creating societies from their own points of view through games like Civilization 3 (Meiers, 2001). In these communities, players are introduced to historical terminology and show an increased interest in history (Squire, & Giovanetto, 2008).

Civilization (Meiers, 1996), Sim City (Wright, 1989) and many other video games deal with economic concepts especially scarcity of resources. "*Civilization* suggests that geography, particularly the allocation of resources, is a major factor in international conflict and a major reason why some civilizations in world history have grown to be more militarily and politically powerful than others" (McCall, 2011, p. 24). Access to resources is a key concept in helping students of the social studies understand the importance of studying geography and the impact that geography plays on human development. Video games afford players opportunities to make decisions based on a finite set of resources.

Game researchers and producers have devoted much time, thought, hard work and economic investment in video games that focus on social studies related concepts. The games vary in both price and quality just like any other marketable product. They appeal to today's students' desire for challenge and interactivity. Yet, to successfully integrate video games into the classroom, social studies teachers are an indispensable and integral component. Social studies teachers possess content knowledge which can help guide students in their awareness of factual inaccuracies within the game (McCall, 2011).

Despite the familiarity that Net Gen students may have, not all students will embrace video games as a learning method. Even expert gamers may not be familiar with historical video games played on personal computers (McCall, 2011). Teachers can make no assumptions but should help guide the students as they learn how to play the simulation game being utilized as well as provide any resources that the students may need (McCall, 2011).

## The Next Step

As the debate over video games continues, for better or worse, they have increasingly become an active part of the lives of students. The question that arises should not be whether to

use video game technology in the classroom. The technology is here and is an essential part of the lives of an ever-increasing number of students. The question should be: How will educators meet the expectations of a generation of students that desire interactive experiences (Squire, 2002)? Video games provide a concrete method by which students can take control of their own learning. The multi-modality of the games offers students stimulations and quick feedback of their decisions. According to Gibson et al. (2007) "The research on teaching with games and simulations should pay attention to the values and attitude of the teacher concerning games and simulations in order to more fully understand the context of implementation" (p. 187).

The important considerations for teachers to ponder when choosing a video game include whether it meets the content standards, and how teachers can integrate the game into the curriculum. How will the game enhance the content? As the game should not be used as a "stand-alone" method, how will it be introduced? How will student understanding be assessed? What format will the instruction take? What steps will the students take to meet objectives? Another factor to contemplate is access to technology. Are there enough computers for each student? How long in advance does the computer lab have to be scheduled? What happens if access to the program is interrupted due to fire drills, internet problems, etcetera?

All these questions must be evaluated prior to introducing the game into the classroom and integrated into the lesson plans. However, the effort should prove rewarding to student and teacher alike.

## Summary of the Literature Review

The Net Generation is utilizing technology as if it were second nature. Video gaming is not simply a diversion for many Net Gen students, but a social activity. Part of the reason may be student affinity for technology. Another reason could be that children learn through experience

during game play. They learn to communicate, collaborate, and solve problems through critical inquiry. In classrooms where traditional didactic methods are used to "pour" information into the minds of students, the students are not engaged because they see no relevance in the material they are expected to learn.

Content specific video games may be part of the answer for student engagement. Video games provide an engaging, visually appealing, and challenging alternative to either the textbook or lecture. Video games may also lead to intrinsic motivation for players because within the game, students are able to take responsibility for their own learning as they now have a voice in what they are learning. Skills learned within the game are viewed as relevant because they lead to success for the student. Unlike their normal classroom experiences, students discover that there is usually more than one path that they can take to reach their destination in video games. Students are well acquainted with their goal(s) in video games, whereas the goal is not often apparent in a classroom lesson.

Social studies teachers can benefit from integrating video game technology into the curriculum. Through video games, history students can develop skepticism and utilize critical inquiry when analyzing historical accounts. With teacher guidance, students can evaluate human motivations and actions. Students are also able to view historical events from a wide array of perspectives. Geographically, students can gain an understanding that conflict often results from the allocation of resources. The acquisition of resources allows students opportunities to learn and experience economic concepts that are imbedded in a broad variety of video games. Understanding these economic concepts allows players to make more informed decisions within the confines of limited resources.

If video game technology can inspire student learning, why is it not being used in the classroom? Part of the answer may reside in the classroom gatekeeper, the teacher. Some teachers may view video games negatively, seeing them as irrelevant to student learning or a waste of time. Others may question their own ability in using games because of their inexperience. For others, using video games may be regarded as an inappropriate form of pedagogy by colleagues. Schools may also lack the infrastructure, long term professional development or the finances to support the introduction and continued maintenance necessary for the successful integration of video games in the classroom.

While there has been extensive theoretical research to support why video games should be used, there is a definitive lack of empirical data to support the conjectures set forth. The purpose of this research is to obtain additional data that can help support or refute the broadening body of work that focuses on utilizing video game technology in the classroom.

# CHAPTER 3: METHODOLOGY

In this chapter, the theoretical framework for researching student learning with simulation games is first discussed, followed by the research methods for this study. The theoretical framework that the researcher utilized, began with his own experiences as both student and educator. Often, information is gathered and memorized by students for the purpose of performing well on an assessment instrument, most often a test (Nehring et al., 2019; Towler, 2014). If the information is used to further the education purposes of the student, it is retained. If the information is not used again, it will be gradually forgotten (Macrae & MacLeod; Towler, 2014; Wheeler et al., 2003). For example, mathematical algorithms or foreign languages are often forgotten if there is no application in the student's life to maintain their significance (de Groot, & Keijzer, 2000).

To discover that which is significant to the student, an educator could look to the intrinsic motivation which guides the interest(s) of the student. Ryan and Deci, (2000) in Self-Determination Theory, posit that for each individual there is a continuum between intrinsic and extrinsic motivation. The more intrinsic a perceived value resonates within an individual, the more likely the individual will pursue that value independent of external forces (Goldman et al., 2018). "Further internalized motivations provide more benefits, such as engagement, greater persistence, and personal well-being" (Ryan & Deci, 2000, p. 68). The lives of students are complex and often filled with competing obligations which include various academic courses (Chasteen, 2017). Thus, a student will consciously engage in educational activities that they perceive to be intrinsically motivating rather than those that are extrinsically motivating (Chasteen, 2017). For example, a student in a math class may choose to draw a picture of their favorite manga character instead of practicing algorithms because their love for art is

intrinsically motivating while parental pressure to earn a higher grade in math is extrinsically (and thus less) motivating. It is only when students care to some degree about the content being taught, that their motivation is engaged (Kerssen-Griep, 2001; Pintrich, 2003). As motivations become more extrinsic, students are less likely to actively pursue learning (Chasteen, 2017). Chasteen (2017) posits that students are often motivated to avoid poor grades by undertaking what their instructor asks them to do.

Students are frequently inundated by tests which promotes the recording of lecture notes (extrinsic motivation) which in turn promotes memorization as the primary method of learning (Wurdinger, 2005). “Traditional education, which consists of compartmentalized subject matter and short class periods, relies heavily on lecture and memorization. Knowledge should not be defined as one’s ability to retain large amounts of information or receive high scores on tests” (Wurdinger, 2005, p. 3). Dewey considered this kind of education as “remote and dead” (1916, p. 8). To counter the tradition of passive learning, Dewey (1938) promoted the expansion of environments that encouraged experiential learning so that students would develop their ability to solve problems. One method of bringing experiential learning into the classroom to help students develop problem solving skills is through educational simulation games (Bauman, 2013). Simulation games are being utilized to prepare students meet the demands of everchanging environments in nursing, engineering, and infrastructure planning (Bauman, 2013; McBurnett et al., 2018).

Wurdinger (2005) observes that society needs active learners for the purpose of solving societal problems and that schools should reflect those same expectations in the students who attend. In addition to developing problem-solving skills, students gain and retain far more knowledge and understanding of the world that they live in through experiential learning than

they do through traditional educational approaches (Boud et al., 1993; Warner-Weil & McGill, 1989). One of the major components of experiential learning is the process of reflection, we learn from our experiences only after we have reflected on them (Wurdinger, 2005). For the purpose of this study, the researcher gathered data on experiential learning involving video-game play through qualitative research.

Creswell (2009) defines qualitative research as "a means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem" (p. 4). Using a case study method, the researcher collected data from participants, analyzed the data and attempted to expand what is known about the effects of video games on students based on the process (Creswell, 2009). To collect the data prior to the pandemic, the researcher utilized a room connected to the middle school's media center to record the first participant's interview in a natural setting. Researchers using qualitative methods study phenomena in their natural settings (Denzen & Lincoln, 2000; Creswell, 2009). The purpose for the researcher choice of a qualitative methodology is an interpretive one, which involves conversing with participants in their community and conveys their perspectives to the external world (Creswell, 2009). The degree of difficulty in making and interpreting conversations with students is often related to how familiar the researcher is to the community being examined. For example, an experienced middle school teacher may have more insight as to how middle school students respond to certain situations than would an inexperienced teacher. Moreover, an experienced teacher may recognize that middle school students are often trying to balance educational goals, parental expectations, extracurricular activities, and socialization.

Qualitative researchers attempt to convey the perspectives of their participants to the reader with a thorough description of the participants' words, and actions (von Wright, 1971).

These interpretations attempt to convey empathetic understanding to the reader if possible (Stake, 1995). By providing student narratives of their experiences with video games, the researcher desired to contribute to the literature, greater understanding of student perspectives regarding video games.

Video game research continues to expand as do the number of methodologies used to carry on this research (Bainbridge & Bainbridge, 2007; Gampell et al., 2019; Hendrix et al., 2015). Case studies, ethnographies, natural language processing, and content analysis have been utilized in exploration of various aspects of videogame usage among students (Bainbridge & Bainbridge, 2007; Gampell et al., 2019; Hendrix et al., 2015). Not all these experiences have been positive. King et al. (2009) posit that various methodologies have been utilized in determining the addictive effects of gambling and video gaming. Research has suggested that video game addiction is now recognized as one of the newest mental disorders by the medical field (Steffens, 2019). The World Health Organization estimates that approximately 77 million people around the world are addicted to playing video games (Steffens, 2019, p. 7). Other studies have demonstrated a direct correlation between videogames and their attempts to objectify females for sexual exploitation (Farokhmanesh, 2014). It should be noted that video games like other forms of multimedia, can be used for different intents and purposes. The purpose of this research was to explore possible connections between social studies-based videogames and student learning, specifically through qualitative methods.

While qualitative researchers try to give voice to those being observed, it also has several shortcomings. By its very nature, qualitative research is subjective. Personal experiences and knowledge can be misunderstood or misinterpreted by either the researcher or the reader (Phillips, 1990). “The misunderstandings occur because the researcher-interpreters are unaware

of their own intellectual shortcomings and because of the weaknesses in methods that fail to purge misinterpretations" (Stake, 1995, pp. 45). Although qualitative research is designed to provide richer and deeper understanding, the nature of research prohibits generalizing the results. Teachers are frequently reminded that one size does not fit all when it comes to increasing their students' knowledge base. Not all learning opportunities are going to be accessed by all students because of differences in learning styles, experiences, and interests. One of the keys to advancing any research is gathering data for analysis.

**Case Study**

Data gathering begins not with commitment to do the study but with the initial curiosity of why something is happening (Stake, 1995). Data gathering can be initially informal and impressionistic later to be processed, refined and/or replaced (Stake, 1995). One method for gathering qualitative data is a case study. Case studies are used to examine a specific place, group and/or activity in a particular setting (Bogdan & Biklen, 2007). One of the advantages that a case study afforded was the ability to gather data over a short period of time, as opposed to other studies that would have required long-term commitment such as an ethnography. More specifically, the researcher chose to utilize an instrumental case study by analyzing how students responded to a given treatment (a videogame) within a given set of parameters (Stake, 1995). One of the drawbacks to conducting a case study was the difficulty in defending the representation of a small sample in comparison to a quantitative study (Stake, 1995). For the purposes of this case study, the researcher sought to establish if a cause-and-effect relationship between students playing a videogame and student learning existed.

Student interviews provided the key component to the research. Interviews helped the researcher record the perspectives of the research participants (Mahoney, 1997). In-depth (semi-

structured) interviews helped encourage participants to provide free and open responses that provided rich and detailed data for current and future analysis (Mahoney, 1997; Lofland & Lofland, 1995). In-depth interviews allowed the respondents to give voice to their perceptions. Based on participant interpretations, and other data, researchers can reach their own conclusions or assertions (Erickson, 1986). The researcher believed that perspectives of the participants contained knowledge that was made explicit through the interview process (Mahoney, 1997). Thus, it was vital that the researcher conveyed the interpretations of both the participants and the researcher. The researcher designed and asked research questions which conveyed the participants' thoughts about the subject matter. According to Stake, "The design of all research requires conceptual organization, ideas to express needed understanding, conceptual bridges from what is already known, cognitive structures to guide data gathering, and outlines for presenting interpretations to others" (1995, p. 15). The primary research question that this study attempted to answer was whether a cause-and-effect relationship exists between learning and the playing of video games.

Between coded data and direct interpretations, the interviews supported the conceptual load of the research (Stake, 1995). The degree to which a video game influences a student was determined in part by the appeal of the game to that student. For example, students who play video games routinely welcomed the opportunity to play in a classroom setting as opposed to a student who is either neutral towards or dislikes video game play. During the interview process, the researcher asked participants what aspects of the game they found appealing. The researcher interviewed nine students (with parent permission) based on their willingness to convey their thoughts about the video game, Do I Have a Right?. Direct interpretations were also used as a source for much of the data collected.

**Data gathering plan**

The initial site for this study was a suburban middle school in the southeastern portion of the United States. The site was chosen as a matter of convenience for the researcher. According to Stake (1995), "we need to pick cases which are easy to get to and hospitable to our inquiry, perhaps for which a prospective informant can be identified and with actors (the people studied) willing to comment on certain draft materials" (p. 4). Participants for this study were seventh grade students in study skills classes in a public school. The participants were selected from study skills classes for several reasons. Students in this class received no grade for the class therefore eliminating potential conflicts of interest. Of notable importance was the fact that the research process did not interfere with any of the participants' core classes (math, science, English/language arts or social studies). Neither incentive nor penalty was given to students who agreed or declined to participate in the study. Following approved IRB requirements from Georgia State University and the school system that the participants attended, the students who agreed to voluntarily participate in the study signed a participant consent form and returned it to the researcher. In addition, parents of those students involved in the study also signed parent permission forms which were also returned to the researcher. Participation in the study was not based on race, gender, sexual orientation, ethnicity, or socioeconomic status. While not used in the selection process, the most recent available school demographics that was available to the researcher was for the 2017-2018 school year. According to the National Center for Educational Statistics (2017), the demographic information for the school at which the study was conducted included the following data:

Table 1 *Demographic Information*

| |
|---|
| Asian/Hawaiian Native/Pacific Islander 4% |
| Black, non-Hispanic 8% |
| Hispanic 4% |
| White, non-Hispanic 80% |
| Other 4% |
| In Talented and Gifted Program 38% |
| Free or Reduced Lunch 7% |
| Male / Female 49% / 51% |

To evaluate the effects of the game on student learning, participants were interviewed via Microsoft Teams™ video conference platform to evaluate the depth of knowledge the students possessed on the amendments to the United States Constitution from 15 to 25 minutes. Microsoft Teams™ was chosen as the electronic platform to conduct participant interviews during the COVID-19 pandemic because the program had already been installed on the participants' tablets and the researcher's laptop prior to the onset of the pandemic. Students were then asked to play the video game for approximately 30 to 45 minutes. The game could be paused and continued if the participants chose to continue the game at a different time. Following the game, students were given a second interview from 10 to 15 minutes to ascertain what was learned.

**Method**

The primary method for gathering data was through semi-structured participant interviews. Interviews are purposeful conversations designed to obtain information (Bogden & Biklen 2007). Interviews provide descriptive data through the participants' words so that the researcher can develop insight into the participants' worldview (Bogden & Biklen, 2007). It is

critical for the researcher to truly listen to the interviewee and accurately relate the interviewee's story and feelings to the audience (Livingstone, 2010). A semi-structured interview format was chosen because it permitted for flexibility in the order of questions being asked. Semi-structured interviews allowed participants the ability to express their perspective and clarify the meaning of their words through follow-up questions. (A list of the pre-determined questions asked can be found in Appendix A). Because the researcher was a middle school social studies teacher at the same school that the participants attended, there was some rapport established with some of the participants (e.g., name recognition / facial recognition / previous conversations) prior to the study. Pre-game interviews lasted between 15 to 25 minutes. Post-game interviews lasted between 10 to 15 minutes.

**Ethical Considerations and Participant Recruitment**

The researcher initially conducted the study at the school of the researcher's employment as a study of convenience. To protect the rights and welfare of the study participants, the following protocol was put into place (World Health Organization, 2019). Initial IRB approval was sought and provided by Georgia State University and the school system that the participants attended. Once the approvals of both organizations were obtained, the researcher recruited seventh grade middle school students from study skills classes other than his own. The study skills class was specifically chosen so this research would not interfere with instruction in the content areas of social studies, math, language arts, science, reading or world languages. However, the simulation game used for this study is commonly used in schools and contains relevant content for social studies curriculum. The researcher received permission from the school principal and teachers of the study skills classes to recruit student volunteers.

Each study skills class was 25 minutes in length as opposed to other content classes that typically lasted for 48 minutes. The time limitation for each study skills class required that multiple interview sessions be conducted over different days for data gathering purposes. One parent declined to allow their child to participate due to the amount of time required to participate in the study. The time between pre-game, game play, and post-game also varied among the participants to accommodate their schedules during the pandemic. Participant recall may have been impacted by the length of time between gameplay and the interview. Table 2 shows the number of days between the pre- and post-game interviews. Only five of the participants self-reported the number of times that they played the game prior to giving their post-game interviews.

Table 2 *Intervals between pre- and post- games*

| Participant | Belle | Crayola | River | Walter | Wonder Woman | X-Rider |
|---|---|---|---|---|---|---|
| Number of days between pre- and post-game interviews | 14 | 7 | 1 | 12 | 1 | 6 |

The COVID-19 pandemic restricted contact with the participants and severely limited any potential opportunities for participant observations of game play. The social distancing restrictions instituted to reduce the spread of the COVID-19 virus necessitated the use of video conferencing. To ensure participant confidentiality, recordings of participants were limited to audio recording only, so facial expressions and body language could not be observed by the researcher. Figure 1 is what the researcher was able to see during most of the interviews. According to many communication experts, most interpersonal communication occurs non-verbally (Zeki, 2009). Often, people will disclose their emotions and what really matters to them through facial expressions (Santrock, 2001). Thus, participants could have been revealing more information, than was perceived by the researcher.

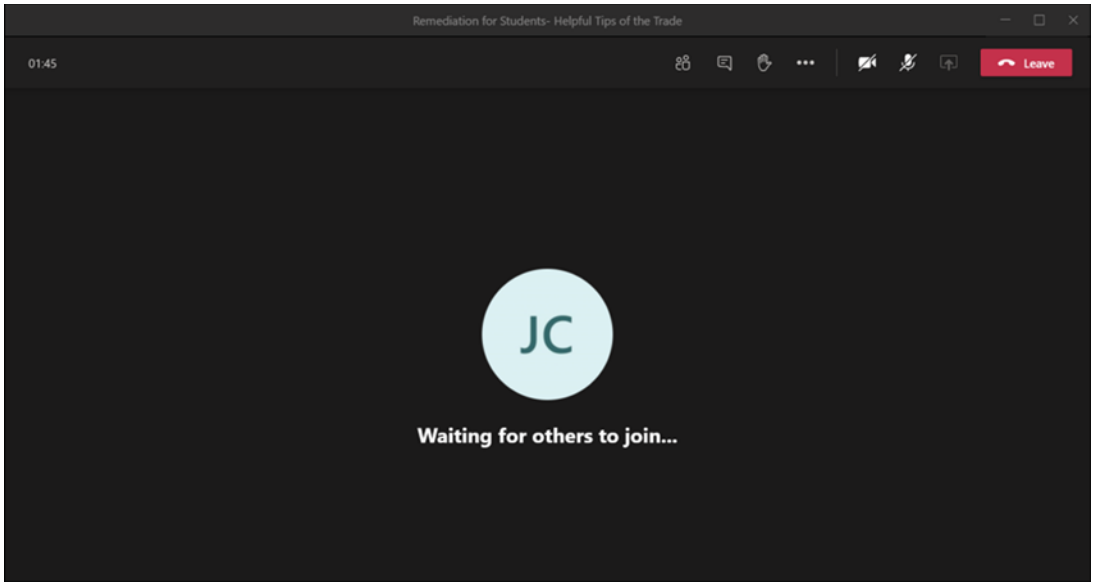



Figure 1 *Screen shot of video conference when the participant camera is disabled*

Potential participants were recruited initially in February of 2020 after IRB permission from both Georgia State University and the participating school system was given. Initially, flyers were given to two cooperating teachers who read the contents to students in their study skills classes, two weeks prior to when the initial interviews were scheduled to take place (Appendix B). After one week, no initial inquiries had been received, so the researcher went to the two classrooms of the cooperating teachers and personally invited students to volunteer for the study during the study skills class period. One student approached the researcher in the hallway during class change and inquired about the study mentioned in the flyer that had been posted on the researcher's door. The researcher explained to the student the process that would be involved in the study. The student asked for and was given both the parent/guardian permission and student consent forms and agreed to return them. The forms were taken home in the student's backpack. Parent/guardian permission forms were given to the student's parent(s) and were signed and returned with the signed student consent forms to the researcher.

Due to the lack of responses to the researcher's initial attempts to recruit student volunteers, the researcher asked and received permission from the school principal to post a digital copy of the flyer in the school's digital newspaper. In addition to placing the recruitment flyer in the school newspaper, the researcher asked three other seventh grade teachers to read the flyer to students in their study skills classes to increase the awareness among seventh grade students about the study. Four additional inquiries from parents of seventh graders were received by the researcher via email. After the researcher responded to the four inquiries, the researcher received three requests for the parent permission and student consent forms. The appropriate forms were emailed to the respective parents and students and later returned to the researcher prior to the school board's decision to suspend all face-to-face classes and conduct all classes remotely via digital methods due to the COVID-19 pandemic. The researcher contacted the parents of the four students who had submitted the consent and permission forms via email and the student that had met with the researcher in person to ascertain if the students would be able to conduct the study during the last week of school after all academic obligations had been fulfilled. Four of the students and their respective parents gave permission for the students to take part in the study by video conference. One of the students withdrew from the study due to a family emergency.

During the fall semester of 2020, students attended classes remotely from home via Microsoft Teams™. The researcher asked seven seventh grade teachers to email the digital flyer to students in their study skills classes. Seven inquiries were emailed to the researcher concerning the study from interested students and or parents. After the researcher responded to the inquiries by emails, six sets of student consent forms and parental permission forms to participate in the study via video conferences were requested. Six sets of signed parent permission forms and student consent forms were emailed to the researcher.

The researcher agreed to keep consent and permission forms in a locked filing cabinet to protect participant confidentiality for a period of six years to satisfy any legal requirements. After the six-year period, all parent permission forms, and consent forms will be destroyed.

Interviews were scheduled for each student individually during the time allotted for study skills classes. The administration of the participants' school moved the study skills class to the last period of the school day for the first quarter of the fall semester of 2020. Study skill students attended class via Microsoft Teams™. When no direct instruction was given by the study skills teacher, students could choose to work asynchronously on their assignments. In the researcher's study skills class, all study skills students chose to work asynchronously on the days that no direct instruction was given.

In the first meeting with the participants, the researcher verbally read the consent forms they signed while emphasizing that the participants could withdraw from the study at any time without any consequence. The researcher also verbally informed the participants about the game and potential participation in pre- and post-game interviews.

Participants chose their own pseudonyms to protect their anonymity. Both pre- and post-game interviews and game play occurred when students were free from instructional obligations. During the initial interview, the observer asked permission to make an audio recording of all interviews. When permission was given, the observer conducted the interview and recorded student responses digitally. When the researcher was unable to make a digital recording in one post-game interview, detailed field notes were made.

Prior to the onset of the COVID-19 pandemic, the interviewer was able to conduct one student pre-game interview, which was digitally recorded by the researcher in an open and safe

environment in a room connected to the media center. The pre-game interview was then transcribed. The digital recording is being kept on a flash drive that will be kept in a locked cabinet and will be destroyed after six years. The researcher offered to provide a copy of the transcription to the participant to verify or edit so that the participant's true meaning is conveyed (Bogden & Biklen, 2007). The participant said that he did not want to verify the transcript. The transcript was coded and analyzed (Bogdan & Biklen, 2007; Ezzy, 2002; Glasser & Strauss, 1967). When not in use, all transcripts collected by the researcher are kept in a locked filing cabinet.

With the advent of COVID-19, school systems across the state and country made a universal decision to conduct "remote learning". Teachers sent academic lessons digitally to their students often by email. Students were supposed to work on the assigned instructions and return their work digitally to their respective teachers. The interviewer was able to continue the study on video games by conducting digital interviews via video conference calls through Microsoft Teams™. Participants were able to maintain anonymity by disabling the camera of the Microsoft Teams™ electronic platform. Thus, interviews were conducted using audio only. After all interviews were concluded, the researcher offered to send a copy of his interpretation of the interview back to the participants to verify that what was written was accurate (Bogdan & Biklen, 2007). The intent to offer the participants the researcher's interpretations was to determine if an error occurred or if data could not be verified, the researcher and participant could confer to determine the participant's intended meaning (Bogdan & Biklen, 2007). Seven participants declined the opportunity to review the transcripts. One participant said that he reviewed the transcript, and no changes were required.

Any information other than the parent permission forms and the participant consent forms linking participant identity with the research will be destroyed after the data is analyzed. This is

expected within one year, following the data collection. The researcher had to make changes in the data gathering procedures because of COVID-19 pandemic. Originally, the researcher envisioned implementing the study in three stages. The first stage involved conducting pre-game interviews with the participants. During the second stage, the researcher was to observe the participants playing the video game. In the third stage, the researcher was to conduct the post-game interviews. However, with the onset of the pandemic, school systems were unprepared to deal with a lengthy student quarantine. Teachers provided assignments to students, often via email. Student instructional time in the spring of 2020 became unstructured. When students returned in the fall of 2020, the school system in which the study was conducted, was better equipped to support student learning via Microsoft Teams™ video conferencing. Students were now able to attend online classes on a regular schedule.

As a result, the interview procedures were altered, and two groups emerged. The interviewer was able to observe (but not record) the first group of participants (Group 1), comprised of Harry, Alabama, and Morocco (students chose their own pseudonyms), during the last week of school of the spring semester of 2020. This group of participants completed all their school-related assignments, so the game play and post-game interview could be conducted consecutively. The second group (Group 2), comprised of Belle, Crayola, River, Wonder Woman, Walter, and X-Rider (students chose their pseudonyms), were given their pre-and post-game interviews in the fall of 2020. The participants played the game asynchronously without the researcher present. In summary, the data collection process was affected by the COVID-19 pandemic. One pre-game interview was conducted prior to the pandemic. Eight of nine pre-game and nine post-game interviews were conducted via video conferences.

**Data Management and Analysis**

Once the interview was conducted and recorded, the researcher recorded initial reflections and ideas in the field notes discussing what was heard, seen, and experienced (Bogdan & Biklen, 2007). Afterward, transcription and coding of the recorded interview took place (Bogdan & Biklen, 2007; Ezzy, 2002; Glasser & Strauss, 1967). A code is defined as "a short word or phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data" (Saldaña, pp. 3). Coding afforded the researcher the ability to organize the data into categories and then interpret the data (Bogdan & Biklen, 2007; Ezzy, 2002; Glasser & Strauss, 1967).

Using line by line coding, the researcher identified key words and phrases that emerged from the interviews. Line by line coding is a technique that is useful in extracting as much information from the data as possible (Charmaz, 2011). Eighty codes were used in analyzing the pre- and post-game interviews. "Attitudes" was the most widely used code (67 occurrences), followed by "video-game" (51 occurrences) and technology (41occurences). These codes emerged most frequently as a result of the structure of the pre- and post-game questions. For example, participants were asked about their perceptions towards social studies and video games. After coding was completed, the data was assembled (grouped according to category), and analyzed (Bogdan & Biklen), 2007; Ezzy 2002). NVivo$^{Tm}$ analysis software was used to help organize and code text-based interview data.

**iCivics**

iCivics is an organization that provides a free web-based education program. iCivics was founded by Sandra Day O'Connor in 2009 with the purpose of revitalizing civic education in public and private schools in the United States (icivics.org/our-story). O'Connor was the first

woman to serve on the Supreme Court in 1981 (History.org Staff, 2009). Nominated by President Ronald Reagan, O'Connor served as an associate justice for 24 years on the Supreme Court. O'Connor believes that understanding civics must be taught to each new generation (Krache, 2012). "O'Connor advocates an analytical approach to an understanding of government that includes defining the problem or issue, identifying the government entity that is best able to address it, then determining a course of citizen action to effect change" (Krache, 2012). O'Connor's purpose or goal is demonstrated throughout the various games that icivics.org has made available to students and teachers free of charge. Students can take on various roles and learn disparate skills to engage in civic education (icivics.org/our story). Experience-based civics curricula are not commonly used in today's classrooms (LeCompte, Moore & Blevins, 2011). The reasons for the absence may stem from a lack of "high quality civics curricula that appropriately engage their students in relevant ways" (LeCompte, Moore & Blevins, 2011, pp. 60). O'Connor desired to halt and reverse the trend of declining civics knowledge among students (Carnesi, 2014).

The games found on icivics.org were developed in collaboration with educators, volunteers, and Filament Games. Filament Games is a web-based company located in Madison, WI, which has developed over 100 games that promote game-based learning across several content areas including social studies, math, science, and English/language arts. According to its website, Filament Games combines practices of both commercial game development and learning concepts, so that students can achieve specific learning objectives through game play (Filament).

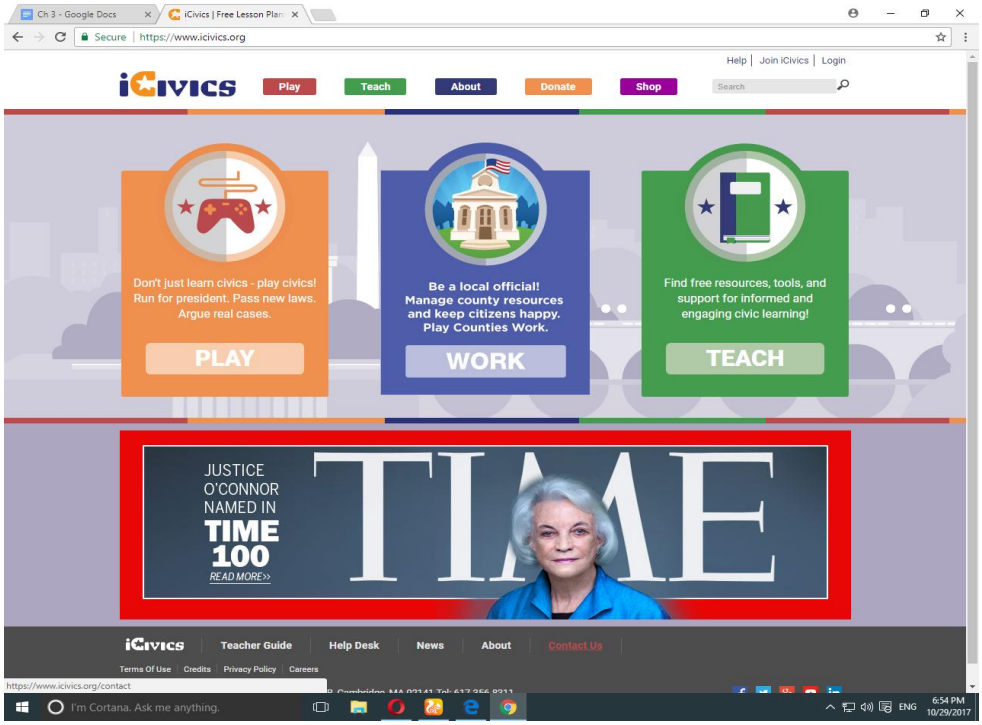



Figure 2: iCivics.org Website

Commercial games have traditionally had the advantage over learning-based games because commercially based companies are able to infuse large capital investments into game development and production with state-of-the-art programming and technology. Utilizing commercial-based practices in conjunction with learning objectives helps iCivics overcome one of the shortcomings to first generation learning games that lack high quality game play. Icivics.org has received large contributions (over $100,000) from various patrons, such as the Bill and Melinda Gates Foundation, the Draper Richards Kaplan Foundation, the Library of Congress and twenty-two other contributors (iCivics.org). According to their website, in addition to providing players with quality products, iCivics.org also provides teachers with free resources that incorporate lesson plans (iCivics.org). Each lesson plan provides an overview, lesson objective, procedures, and recommendations for the next lesson (Carnessi, 2014).

iCivics games take 15 to 45 minutes to play and allow students to simulate decision making on issues that may be of importance to them (LeCompte, et al., 2011). Modules provide players a variety of topics and multiple perspectives from which to choose and then solve an assortment of problems depending on the module chosen. Teachers can set up accounts for their classes which allow them to track student progress. Students can be assigned tasks based on state social studies standards, subject areas or by grade level (LeCompte et al., 2011). Besides civics-based units, iCivics.org provides curriculum that addresses a variety of aspects, including economics, foreign affairs policy, national state and local government decisions, and persuasive writing (LeCompte et al., 2011).

By producing products that engage players, iCivics.org has created a learning community that spans all 50 states, over 5 million students, making it the largest provider of civics curriculum in the nation (iCivics.org). iCivics.org curriculum units and lesson plans focus on areas dealing with the United States federal government, state and local governments, citizen participation, and the United States Constitution. Additionally, students can further develop their skills in persuasive writing and primary source analysis. The question which appears yet again is whether a social studies-based video game can spark engagement and lead to student learning?

Several studies have been undertaken which may shed some light on student learning (icivics.org). In a quantitative study of 3,740 students, those students who used *Drafting Board* (iCivics.org) scored higher in writing argumentative essays than those in the control group that did not use the program (Kawashima-Ginsberg, 2012). In a study of 94 students, Blevins et al. (2016) found an increase in both student knowledge of civics and engagement in civic activities. Blevins et al. (2016) do concede that while iCivics.org games afford players opportunities to increase their civic knowledge and engage in initial civic action, they are not however, to be used

in isolation as “iCivic.org games alone certainly cannot teach students to be critically minded, active citizens” (p. 5).

**The Game**

Do I Have a Right? is a game in which players run their own law firm. Players can staff their firm with up to six lawyers who specialize in Constitutional law. Players make decisions on which lawyer(s) to hire, which clients he or she serves, and match each client with the most effective lawyer. Two versions of the game are available for play. In Do I Have a Right, twelve of the twenty-seven amendments to the United States Constitution in the game are represented. In Do I Have a Right? Bill of Rights, players are limited to seven of the ten amendments in the Bill of Rights. Players can track their progress when they register an account on the website. Players do not have to register to play the game.

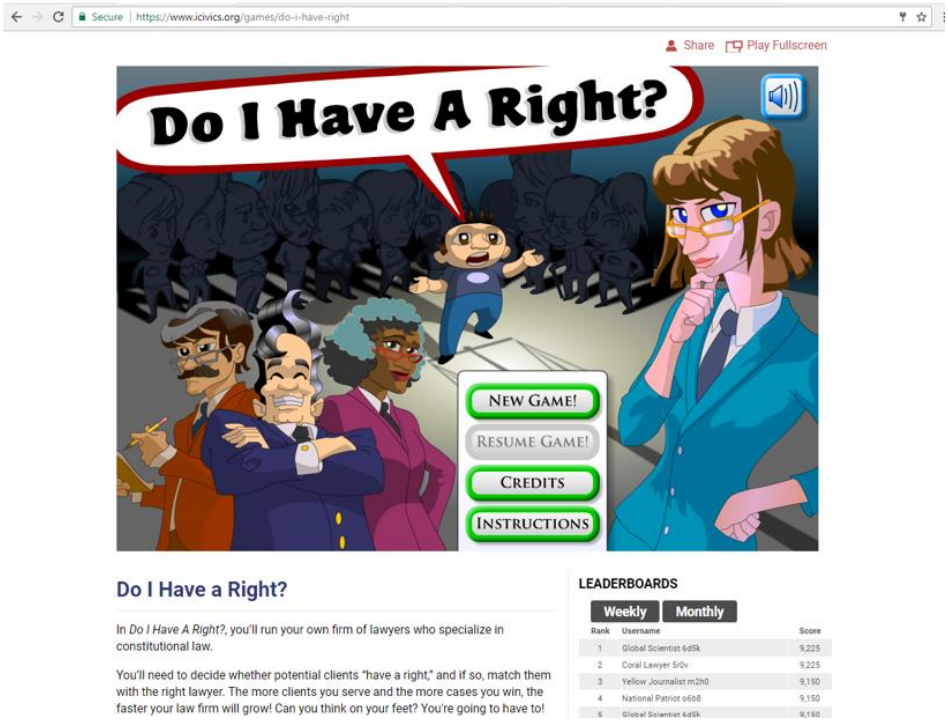



Figure 3 *Do I Have a Right? Website*

Whether the student chooses to register or not (students may use pseudonyms for purposes of anonymity), players are given a menu that allows them to start a new game. If a student has registered, that student can continue a previously saved game. First-time players can click the instructions button, which provides a step-by-step process of how the game works, choices the player can make and options that will help the player to earn Prestige (points in the game). A list of "Prestige Leaders" for the month is given on this screen so that the player may compare his or her score with that of other players. In transitioning to the next screen, the player is given the option of enabling or disabling "auto hints" (suggestions made by the software program when a player delays decision making) during game play. The player then chooses an avatar or character that will represent that player. Next, the player will name the avatar and choose a partner for the firm. Each partner specializes in one of the United States Constitutional Amendments. For example, Sally Fourth specializes in cases dealing with illegal government searches, while Chuck Freepress handles cases concerning freedom of expression. Once the player's partner is chosen, more information is provided about the amendment that the partner practices.

The player is then shown the law office. The law office is initially populated by the player's and his or her partner's avatars. Potential clients arrive and the player must decide, based on their lawyer's specialties, if the client's problem can be handled by the law firm or not. If the case is taken, the player directs the client to the appropriate lawyer. Initially, there is only one lawyer but as the law firm grows, the player can hire new lawyers up to a maximum of 6. Players must strategize which lawyers the firm will need to meet the needs of potential clients. Humor is interjected throughout the game in the form of puns, unrealistic court cases, and client caricatures.

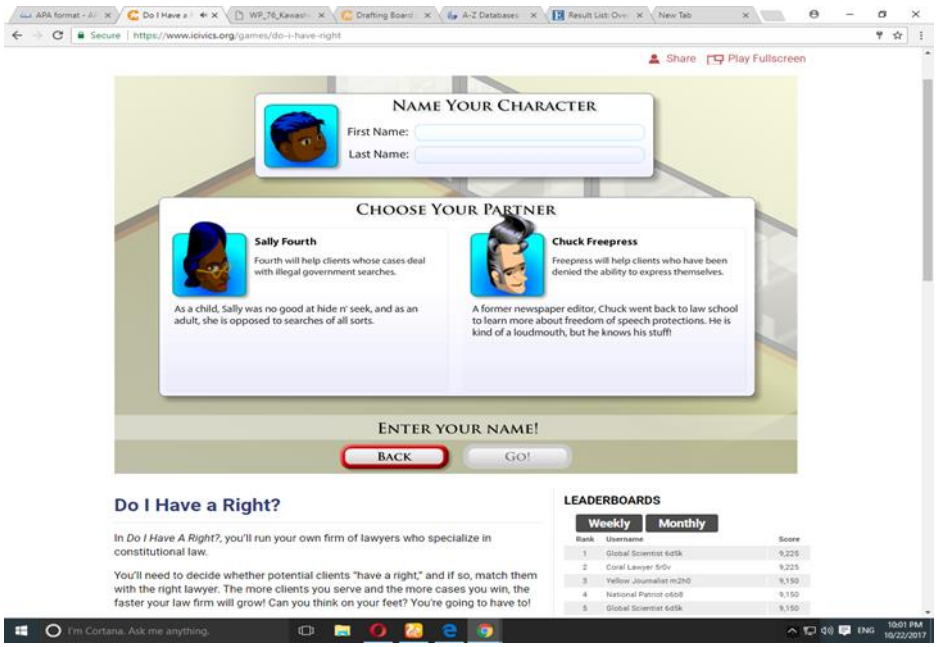



Figure 4 Choosing a partner

Throughout the game, players can earn or lose Prestige Points based on their decisions. Prestige Points are earned when the client is paired with the correct amendment that adequately addresses the client's case or by rejecting potential clients that do not have valid cases. Prestige Points are lost when clients are paired with the incorrect amendment, accepting an invalid case, or allowing a potential client to leave because they were kept waiting too long.

In addition to increasing the number of staff employees, the player can also help his or her staff work more efficiently by buying office supplies, furnishing the office, and purchasing advertising, etcetera. In essence, the game provides the player with opportunities to make economic decisions through capital good and human capital investments. At the end of each game day or turn, players are presented with a summary of their legal decisions in the form of a newspaper. Partners also have the potential of "learning new skills" by adding new amendments to their specialization list.

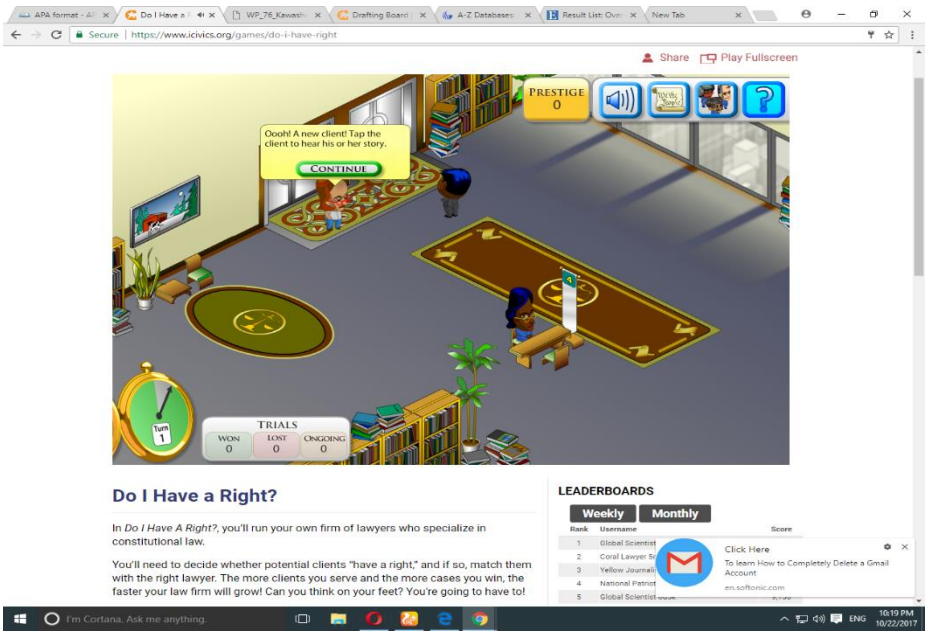



Figure 5 *Law Firm's Office*

Players have 7 turns to win as many trials as they can. At the end of the game, the results are tabulated. Thus, players can identify any amendments that were misunderstood and review them. Based on the result of the player's game, the player is awarded "Impact Points". Impact Points can be donated to various community service projects. The service project receiving the most points receives a $1000 donation from iCivics. The main purpose of these service projects is to promote awareness of community challenges around the country and provide a way for students to participate in social justice causes. Some projects allow people to purchase lunches for students in their community and provide clothing for foster girls. Other programs identify and map areas of crime, homelessness, and poverty within a specific community. These activities aim to support elected officials in their efforts to alleviate/solve social ills by effectively utilizing resources. While Do I Have a Right? offers a pathway to advance social justice, do students become aware of this option by navigating the website on their own or are they teacher directed? Once aware of the potential advancement, how do students respond?

**Personal Insight**

During the initial introduction to Do I Have a Right?, the researcher was intrigued by the idea that a video game had the potential to interest players into learning more about the United States Constitution. As a game player, the researcher was drawn into the game because it was visually appealing and often humorous. The researcher also enjoyed the challenge of matching clients to the correct Constitutional amendment and was disappointed when there was a mismatch.

As a business school graduate, the researcher was delighted to use elements of entrepreneurship to build a virtual legal firm. As a middle school social studies teacher, the researcher was able to use economic concepts that are taught in the classroom. Students are afforded the opportunity to hire new employees and help these virtual employees develop their skills (investment in human capital), as well as optimizing the working environment of those employees (investment in capital goods). Two questions emerge from the economic aspect of the game. Are students aware of the connection between the game and entrepreneurial opportunities? To what degree does the game provide incentive for students to deepen their understanding of economic concepts?

Most of all, the researcher envisioned how the game had the potential of engaging students with the United States Constitution. Middle school students might even want to learn about a subject that they had previously considered boring, as they are now able to have fun as they learn via a more stimulating platform (video games) in a simulation environment, or perhaps they learn as they have fun.

## Summary

The intrinsic motivation of students can be encouraged when the content being studied is both meaningful and relevant to them. Dewey (1938) promoted active learning through experiential learning through discovery of the world. Educators can encourage the further development of their students by providing an environment that promotes exploration and meaningfulness to the students.

For this study, the researcher wanted to find what was meaningful to the participants by seeking to know the perspective of the participants, so a qualitative methodology was chosen, and a case study was chosen as the method of data collection. Case studies allow the researcher to focus on a few facets of a question or group of questions in a short amount of time. For this study, the researcher was interested in expanding the research on the use of video games in the field of social studies education. Participants were chosen from a middle school in the southeastern, United States as a matter of convenience for the researcher. The primary means of recruitment were "word of mouth" from the researcher's colleagues and the distribution of flyers. Nine participants volunteered for the study.

In choosing to analyze the learning effects of iCivics.'s, Do I Have a Right? (a social studies-based video game) on middle school student learning, the researcher has expanded the research that will help determine the future role of video games in education. The researcher chose Do I Have a Right? for several reasons: it had some relevancy to the social studies; the researcher teaches to middle school students; it is visually appealing and simple to play; and it utilizes several elements from the researcher's personal and professional life.

# CHAPTER 4: RESULTS

Over a course of six months (interrupted by the COVID-19 pandemic), nine middle school students from a suburban middle school in the southeastern region of the United States voluntarily participated in this study on video games. Eight participants were 12 years old and one student participant was 13 years old. Four of the participants were female and five were male. As previously noted, eight of the nine pre-game interviews and all nine post-game interviews were conducted across Microsoft Teams™ using only the audio capability to protect the anonymity of the participants, so ethnicity could not be deduced, except for one Caucasian participant. One pre-game interview was conducted in person prior to in-person school closures from COVID-19.

## Pre-game Interview Information on the Use of Technology

During the pre-game interviews, participants were asked about their use of technology outside of the classroom (see Table 3). Eight of the nine participants stated that they owned a smart phone, while one participant did not have a smart phone. Participants with smart phones used their phones to play games, communicate with others (verbally or by texting), watch videos, and access information. Laptops and PCs were also used to play games, watch videos, and access information.

After verifying with the researcher that televisions were considered technology, two participants said that they each had a television. It should be noted that the three participants, who said they had a gaming console, did not mention having a television. While it is possible to use a gaming console with a computer monitor, the three participants may not have considered that televisions are pieces of technology. All participants noted that they used at least one device

to play games. All participants conveyed a strong attraction to playing video games while expressing that video games were “fun.”

Table 3 *Participants’ Use of Technology*

| | Smart Phone | Computer - laptop or PC | X-box / PlayStation | TV | Kindle |
|---|---|---|---|---|---|
| Playing Games | 4 | 6 | 3 | | 1 |
| Watching Videos | 3 | 2 | | 2 | |
| Communication (texting) | 4 | | | | |
| Communication (verbal) | 7 | | | | |
| Accessing Information | 3 | 5 | | 1 | |
| Data Storage | | | 1 | | |
| Artistic Design (photo editing, drawing) | | 3 | | | |
| Reading for Enjoyment | | | | | 1 |

**Use of Technology in Social Studies**

As stated in Chapter 1, technology used in the social studies classroom has been used primarily to access information (Thieman et al., 2013). For comparative purposes, participants were asked about the types of technology that they used in their social studies classes. The school system provides a Microsoft Surface™ (computer tablet) to all students, including the participants. Five participants stated that they used their own devices because they were faster (in

performance) than their Surfaces. One participant said that she did not use the Surface because it did not work.

Apps (applications) used in social studies classes included a variety of Microsoft ™ products including: Word ™, PowerPoint ™, One Note ™, and Teams ™. Teams was utilized as the communications platform between teachers and students who stayed at home during the pandemic. Participants also stated that they had access to an electronic version of their textbook produced by Gallopade™. Four of the participants said that they used Google Classroom to access content information and submit their assignments. Morocco admitted that he used his smart phone to text in class. “Not to cheat but like when I need to respond to something. You know?” When asked to explain what he meant, he would not elaborate any further.

Table 4 *Participant Use of Technology in Social Studies Class*

| Microsoft Surface (tablet) | I pad (personal) | MacBook Air (personal) | Laptop (personal) | Phone (personal) |
|---|---|---|---|---|
| 7 | 1 | 1 | 4 | 1 |

**Time Playing Video Games**

Participants indicated that video gaming played a significant role in their lives. Crayola communicated, “I do play a lot of mobile games, but I [also] play very many games on a computer. I am a big video game person.” Morocco said, “I play them pretty much every day, so I like them.” All participants reported that they enjoyed playing video games “a lot.” The researcher asked the participants to quantify how much time they played video games on weekdays. Participants self-reported an average of about two hours per weekday playing video games (Table 5). Participants estimated their playing time, as no records were kept for the actual

amount of time spent playing video games. When asked if he played more or less time since the COVID-19 pandemic, X-Rider responded:

> I actually don't know 'cause I mean, I don't really keep track of how long I play video games. I just play at home until I realize, "Oh, I have to this or I have to get outside." So, I really don't keep track of how long I play the game.

Hence the amount of time spent playing videogames could have been over- or under-reported.

Table 5 *Participant Self-Reporting Time of Gameplay During Weekdays*

| 1 Hour | 2 Hours | 2-3 Hours |
|---|---|---|
| 1 Participant | 6 Participants | 2 Participants |

Seven of the nine participants stated that they were spending more time playing video games since the onset of the pandemic. Participants cited there was less to do as the pandemic had restricted other activities in which they were involved. In the following excerpt from Crayola's pre-game interview, she explained why she believed that she had more time since the beginning of the pandemic.

> Interviewer: Do you play more or less than you did last spring before schools closed?
>
> Crayola: I would say more because I have more time to spare. I have more free time.
>
> Interviewer: Why do you think you have more free time?
>
> Crayola: Umm probably, well I do have school. But before school started, there was more time [in the summer] and considering that we were quarantined [during COVID-19]. Usually if we weren't quarantined, I would be at more camps or I would be with friends. But with the quarantine, there's more time to spare.

> Interviewer: So, correct me if I am wrong, I am hearing you say that you have more time to play video games because of the pandemic.
>
> Crayola: uh yes

For Crayola, the COVID-19 pandemic eliminated opportunities to go to camp or spend time with her friends.

Wonder Woman said that she was spending less time playing video games since the beginning of the pandemic. According to Wonder Woman,

> [I have] definitely less [time] because school has got quite a bit harder now. My mom has tightened up on the restrictions a little bit because I have to focus on schoolwork and stuff like that. But yeah, it's pretty restricted.

Wonder Woman did not elaborate on why she said that school was harder.

X-Rider said he did not know if he was spending more or less time playing video games since the beginning of the pandemic. X-Rider explained that he did not keep track of the amount of time that he played. "I just play at home until I realize I have to do [something]."

**Reasons to Play**

Participants provided several reasons to explain why they found playing video games appealing. Some participants shared that they were fascinated by video games because they contained a storyline, plot, or theme. Participants said that some digital games involved players in performing repetitive actions to accumulate points. However, the participants found those kinds of games tedious and lacking in purpose (other than to score points). Alabama, Harry, and X-Rider explained that they were often drawn to a specific video game because they were interested in the plot or storyline found within the game. According to X-Rider,

> …if there is not story to a game, it makes no sense. It's like reading a book. You can't just jump into the middle of the page and not know what the rest of the book is about. Same as video games, can't just jump into a game not know[ing] what it's about…You have to know why this character [in the game] is doing this, just like a book.

Belle not only enjoyed video game storylines, but also relished the ability to interact with characters she met in the game, as well as control her avatar's actions in the games.

Crayola had a different view of the video games that she liked playing. Crayola expressed that she enjoyed the novelty that she found in some video games. According to Crayola,

> I like things that are a little more cartoony or things that are new and different. Like things that you would not find in a normal video game. So, there are some video games that look very realistic, that have humans as your main character. But there are also games that are totally different, such as Animal Crossing where you yourself are human but people around you are animals.

Crayola went on to say that she enjoyed the ability to demonstrate her own creativity in video games like Minecraft where players had the freedom to digitally build anything. In fact, both Crayola and Harry seemed to value opportunities that allowed them to display their creative abilities within the parameters of the games that they played. Harry reported that besides playing video games, he also created complex mazes and explored creating a virtual game utilizing Microsoft PowerPoint™.

According to five of the participants, one of the main enjoyable attributes of video games was the gaming communities that grew around specific video games. According to Wonder Woman, "Playing video games is a good way to communicate with people and interact with friends." Wonder Woman mentioned being able to role play with people that she did not know in

a game called Roblox. Crayola relayed that she was attracted to video games "… if I can play them with friends. That's a big one, I'm a very social person." Other participants like Alabama and Harry said that they liked playing video games online with their friends.

Three of the participants mentioned that they liked the ability to set their own goals within the game and often achieve those goals. Wonder Woman related: "I guess I like that it [video game] has the ability for you to level up or gain more points or something. I like that because it gives me like a goal." Crayola likewise asserted that a game had to have some kind of objective that the player tried to accomplish. Crayola explained:

> [A video game] has a purpose. So, in Minecraft, your purpose is to create. In Animal Crossing, it's to make friends with other people. As long as there is a thing, a goal that you have to get to or something that you have to accomplish, then I would classify it as a video game.

Morocco's goal in video games was to win the game. While goal acquisition was important to some participants, other participants appreciated experiencing new and different stimuli embedded in video games. Participants shared a variety of reasons for playing video games. When Morocco was asked why he liked Fortnite, he responded: "You can like build [things] and dance. It's pretty fun." Alabama and Walter both said that they liked facing the unknown, whether it was a derivation in the pace of the game or the exhilaration of dealing with a challenge. Walter explained, "I like stuff that gets your heart beating and something that would get me intrigued to do more stuff like that."

During the interviews, some of the participants indicated that video games were important to them and provided variety to their lives. Harry shared that he enjoyed the variety of

choices and the ability to experiment with new challenges that video games offered. In the following statement, Harry explains that he is not wed to any particular game:

> Sometimes I focus on one video game and then I switch to another. There's nothing that I'm really hooked on. If I were playing one video game and on the [same] website there is a list of other video games, I would just click on it and think this is cool, let me try this.

Harry related that he would choose another game when the game he was playing became boring from repetitive actions.

Harry was one of five participants in the study who cited alleviation of boredom as a major reason for playing video games. Wonder Woman conveyed: "I also think that they [video games] are a good way to waste time. Well, not really waste time, but kind of spend time." Crayola said that playing video games helped her to wake up in the morning.

Participants listed challenge and excitement that some video games presented to players as important qualities of the video games. Wonder Woman conveyed that "a bunch of games that I play, you have to run away from something. You have to do things to get out [of the challenging situation] … it's really fun." Video games can also alter the tempo as a method of stimulation. Alabama communicated a preference for games that afforded altering the pace which made game play "kind of interesting 'cause you don't really know what you're getting yourself into."

While participants were engaged by the stimulation that video games bring, they conveyed that they also wanted games to be educational. Harry lamented, "I wish the games [that I played] would be educational though because then I could be learning and not be bored at the same time." X-Rider notably claimed that players, while engaged in playing video games for entertainment, could also learn educational content without being cognizant that they were learning

something valuable. X-Rider gave several examples of how math computation, reading, and using scientific concepts are often interwoven into the games that he played. Wonder Woman hypothesized that skills could be learned through video game play.

> There's this one game that I play that I really like. It's kind of like this puzzle game where you have to get a bunch of keys and unlock doors and I think that has really improved my memory because you have to remember where all that's gone…I really like those kinds of games 'cause I feel like I feel a little bit smarter when I play them.

Wonder Woman went on to say that she believed that having video games in the classroom would have a positive effect on students by providing them with the opportunity to learn new skills.

Four participants mentioned that game mechanics (visually appealing, sound effects, et cetera) were of some importance to them. Harry and Walter indicated that they preferred video games which had good graphics (visual), easy to use controls (tactile), and did not lag.

**Electronic Games Used in the Classroom**

When asked about video games that were used in the classroom, participants often referenced digital review tools, such as Quizizz and Quizlet. Both platforms are web-based programs that incorporate gaming components, such as goals, rules, and feedback, that can be utilized by teachers as a multiple-choice formative assessment of student knowledge prior to starting a new unit, or as a formative assessment to identify possible gaps in student learning. Both games can be played either individually or against other players. A collaborative team mode in Quizlet allows students to work together. Alternatively, the instructor may use a second mode in optional settings that allows players to compete individually. River said that she liked the ability to work

collaboratively while incorporating games and learning together. Meanwhile, River said that she liked both Quizlet and Quizizz because the games could be played individually, allowing players to proceed at their own pace. River also expressed that she preferred to record her responses digitally, an option on electronic games, to using "paper and pencil". In addition, River revealed that games like Quizlet and Quizizz gave her opportunities to move at her own pace and investigate content that was of interest to her. However, these online quiz games are not video games because they are used to help students recall information as discussed in Chapter 1.

Crayola, Harry, and X-Rider concluded that review games like Quizlet and Quizizz are not video games. As previously mentioned, Crayola defined a video game as having a story line or purpose to it. Harry and X-Rider both suggested similar criteria for characterizing video games. According to Harry, "[a video game] has to have some sort of character, [and] some sort of plot. Actually, it can't be too easy, but it can't be impossible to beat." X-Rider provided a more in-depth analysis of what constituted a video game in the following excerpt of his pre-game interview.

> Interviewer: Let's go with your opinion. Would you consider any of the games that you mentioned [Quizizz, Quizlet, or Kahoot] a video game or would you consider them something else?
>
> X-Rider: Well, I mean, Kahoot and Quizizz, I feel like those are educational [games], but like I said, video games…some video games are educational. But if I had to say, I mean I feel like if as long as it [game] has like a graphic, a main character and some story to it, then I feel like it'd be more of a video game or at least like you're doing something. 'Cause you can't include Quizlet, and Kahoot [as a video game], all you're really doing is

> answering questions based on what you know or what you've learned. So yeah, it sounds to me like because those games don't have any kind of, um, have any kind of characters or anything like that. Then they would not be classified as a video game. I mean, if it doesn't have a story, then there would be a lot of games that wouldn't be a video game.

For Crayola, Harry, and X-Rider, a game must incorporate a story line or plot to be considered a video game.

**Student Critiques of Social Studies**

The seventh-grade social studies course is the second year of a two-year world study for students. The class focusses on the geography, history, government, and economies of several countries in both Asia and Africa. Participants expressed an appreciation for what is taught in their social studies classes. Alabama, X-Rider, Morocco, and Harry said that they preferred the historical element of social studies. X-Rider observed that the study of history is important, as students can learn from mistakes made in the past and make improvements in society for the future. Morocco said that he enjoyed history because he liked to discover the causal relationships of domestic and world events.

Other participants like Belle and Wonder Woman said that they preferred learning about geography. Wonder Woman's desire to learn more about world geography was due in part to her personal experiences. "I like learning about different cultures and places around [the world] because I travel." Belle and River also said that she liked the mathematical aspects of economics. It is relevant to note that none of the participants mentioned that they enjoyed studying about governments, especially since the focus of this study is a civics game. However, three participants conveyed that they enjoyed learning about issues from multiple perspectives.

Crayola relayed that she liked that, throughout the world, there are often no right or wrong answers, just differences of opinion.

Though the participants said that they enjoyed social studies in general, there were aspects that they did not like. Alabama and Harry both conveyed that there were elements of social studies that they did not like because they found them uninteresting or did not understand them. Alabama explained that one of the units that had been taught seemed to "go really slow" and he did not understand the necessity of including the environmental concerns of any region. Harry mentioned that he did not like being exposed to information that he already knew. Harry added that another aspect of social studies classes that he disliked was working on group projects because he normally did a disproportionately larger amount of the work, while others in the group received credit for his work. Crayola related that occasionally she was confused about what was being presented in her sixth-grade social studies class. For example, Crayola admitted that she did not expect to learn about absolute location in her class. Crayola went on to say that the concept still confused her to some extent, but that eventually she improved her understanding of the concept of latitude and longitude.

**Suggestions for Improvements in Social Studies Classes**

Participants were asked for suggestions of apps or software that they would like used in social studies. Most of the participants were like Morocco. "I really can't think of any that I would like. I mean, I think everything is good right now." Alabama on the other hand suggested: "It would be kind of cool if like we could have the (Microsoft) Whiteboard and we can go on Google Maps or something and you could kind of go to like the places we are talking about in class." Alabama's suggestion possibly indicated that students want to make a personal connection with the subject matter that they are studying.

When asked what they thought about characteristics that they would like to see in a social studies-based video game, most of the participants indicated that they had not considered the idea before the interviews. However, some of the participants, after a few moments, began offering suggestions of what they envisioned in a hypothetical video game. Walter offered the notion that such a game should be fun, multi-modal, and quick to load onto the player's device. Alabama suggested that such a game should be interesting and instructional and should be helpful to students who may struggle in social studies. Alabama also said the game should be based on the content that was being studied by the student and allow the player the option of choosing what they wanted to learn.

Crayola agreed that the proposed video game should be interesting and added that it should include a story that is related to history. Crayola suggested "…it would be fun if you could play as different characters or [from] different perspectives and if you could play with your friends or classmates." Crayola recommended that the game should be unique, and original. Harry and Wonder Woman believed that the video game should be challenging, while Morocco emphasized that the game should be exciting to play.

### Data from Playing Do I Have a Right?

Prior to conducting the post-game interviews for Group 1, the researcher observed that after finishing playing the game, Harry and Morocco displayed excitement and said that they wanted to play the game again. Morocco added that he intended to improve his score and that he might be interested in playing the other version of Do I Have a Right? that incorporated additional amendments. Alabama reacted more nonchalantly when he finished the game and said that he might play the game again if he did not have anything else to do.

In the second group, all participants reported that they played the game at least one time prior to the post-game interview. River, X-Rider, and Crayola reported playing the game twice and Belle reported playing the game three times. All participants said that they wanted to play the game again after the post-game interview because “it was fun.”

**Providing Participants with Feedback**

Do I Have a Right? incorporated two major components for feedback. The first feedback component for players was the addition or subtraction of prestige points for making micro-decisions involving their choice of lawyers. When a player successfully matched a client with a lawyer who specializes in the needed amendment, the player earned prestige points. Conversely, if the player chose the wrong lawyer for the client, the player lost prestige points. More comprehensive feedback was given to participants at the end of each round in the form of a one page “newspaper” which provided a summary of the players’ decisions. Figure 6 is an example of a “newspaper.”

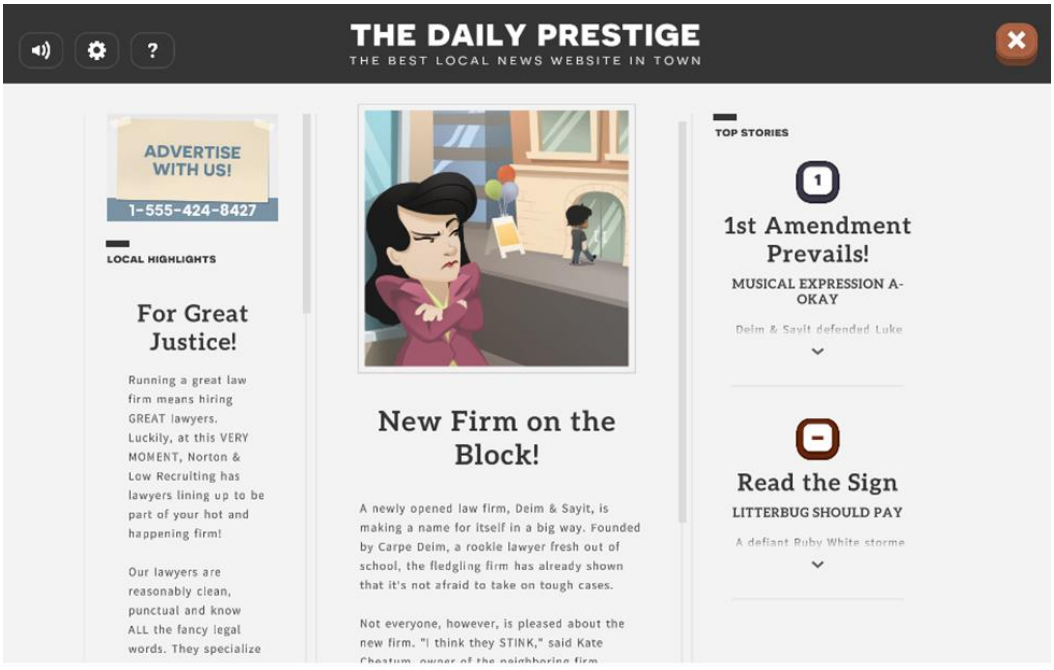



Figure 6 *Newspaper summary page*

Morocco, Walter, X-Rider and Harry commented that they liked receiving feedback during the game so that they could make better decisions. X-Rider was particularly interested in receiving feedback about his performance in the game. X-Rider related, "I like how it added the news ratings. Like every time you're doing something wrong, the news ratings tell you about [it]. So that's pretty cool. And I like how it [the game] shows the [client] dialogue."

However, not all participants made use of all the feedback available. While Harry shared that he enjoyed getting points for making good decisions in the game (e.g., matching the client with the correct lawyer), he admitted that he only read the newspaper headlines but not the story which provided more detailed feedback. Alabama and Walter admitted that they each only used the newspaper for two rounds.

**The Constitution and the Bill of Rights**

During the pre-game interview, participants were asked what they knew of the United States Constitution and more specifically the Bill of Rights. All participants said that they had heard of both and that they had been introduced to the Constitution in the fourth grade. Some of the participants, such as River and Belle, admitted that while they knew that the Constitution and the Bill of Rights were important, they could only recall that it was a set of rules to keep order. Alabama, said that the Constitution was a method for establishing a formal United States government for the people after gaining independence from England. Alabama went on to convey that the Constitution was what United States citizens have used to govern themselves until the present. However, even though Alabama had heard of the Bill of Rights, he could not recall anything about them, saying that he had not revisited the topic since fourth grade. It is worth noting that the other eight participants seemed to confuse the Constitution and the Declaration of Independence as the same document.

Harry and Crayola said that the Constitution was written by the Founding Fathers of the United States, but they did not remember much else about the Constitution. For example, Crayola knew that the Preamble was the first part of the Constitution and that the document is on display in Washington, D.C. Crayola added that she thought the Bill of Rights contained the rights of U.S. citizens and believed there were 13 rights listed. Wonder Woman said that the Constitution was written by the Founding Fathers as a set of rights all Americans have and that the Bill of Rights was a series of 25 amendments to the Constitution.

Initially, Morocco recalled that the Constitution was written by the Founding Fathers and that it was mentioned in the musical, Alexander Hamilton. Morocco said that the Bill of Rights was made of 5 or 10 amendments and that the Constitution had 24 amendments altogether. River stated that the Constitution was a set of laws to maintain order, but she could not remember anything else about it. She explained that she had heard about it in fourth grade. Walter likewise did not recall too much about the Constitution.

**Recalling the Amendments Before and After the Game**

To test the effects of Do I Have a Right? on participant recall, the researcher asked the participants which amendments they felt that they understood better after playing the game. Before playing the game, Wonder Woman conveyed that the amendments in the Bill of Rights included the Right to Bear Arms (Second Amendment), Freedom of Speech (First Amendment), Freedom of Religion (First Amendment), “and all that stuff like that.” After playing the game, Wonder Woman was initially unable to recall any of the amendments. The following is an excerpt from the post-game interview with Wonder Woman.

Interviewer: What did you learn from the videogame?

> Wonder Woman: I definitely got a refresher on the rights. Um, I also learned that, um, how different rights are kind of connected a little bit.
>
> Interviewer: How so?
>
> Wonder Woman: Like for example. I'm sorry I'm blanking. OK, I completely forgot I was gonna answer that. I'm sorry,

Later in the interview, Wonder Woman revealed that she now had a better understanding of the complexity of the First Amendment by relating that the First Amendment had several parts to it, including the "Freedom of Expression and the Freedom of Religion." After this exchange, Wonder Woman described several changes that she had made to her firm's office for the purpose of meeting the needs of her customers.

While Wonder Woman was not able to recall any additional amendments during the post-game interview, she said that she correctly identified a scenario that should not have gone to trial. In the game, not every client that comes to the firm has a case supported by the Constitution. Wonder Woman recounted that "someone wanted to hold their court case in an amusement park, and they were like [asked] 'can I do that?' And I was like [said] no." Wonder Woman's comments indicated that she could differentiate between cases that should and should not be tried based on their constitutionality.

Wonder Woman conveyed that during the game, she used in-game hints that included drawings and descriptions of the amendments to help her in her decision-making process. In a case similar to the one that involved the amusement park, Wonder Woman explained:

> I thought that [in-game hints] was really helpful and like if you read the description, you would see that they had like keywords in it that would pop up in people's [word bubbles] like what they wanted to do. Like, for example, someone said: "Do I have a right to ask

> for fair legal proceeding" and I'm pretty sure it was…not due process… one of them… It said fair legal proceeding and I remembered that and then that actually helped me 'cause I paired it [correctly]. I matched the dude with the right lawyer.

Similarly, X-Rider was able to recall the right to bear arms and the freedom of speech as being part of the Bill of Rights prior to playing the game. However, after playing the game, X-Rider said that he could only recall that the freedom of speech was part of the First Amendment. The researcher was unable to explain why Wonder Woman and X-Rider, recalled fewer amendments after playing the game than before playing the game.

Prior to playing the game, Harry was able to name three rights granted by the Bill of Rights. Those rights were the Freedom of Speech (First Amendment), the right to remain silent in a court of law (Fifth Amendment), and the right to carry arms (Second Amendment). After playing the game, Harry identified the Right to Bear Arms as the Second Amendment and that the First Amendment protected free speech and religious beliefs. Harry also said that he understood the need for law enforcement officers to obtain a warrant to search someone's property (Fourth Amendment). Harry related that the scenarios that were presented in the game helped him to remember the differences between the various amendments (experiential application). Harry earlier related that lawyers not only specialized in specific amendments, but also specialized in the parts of the First Amendment (Freedom of Speech, Freedom of the Press, Freedom of Religion) and that he sometimes sent his client to the wrong lawyer. Harry's voice sounded confident as he recounted that "there's one situation where Morgana and her friends quietly prayed before lunch and the teacher got mad. So, I was like, hey we got to do it, so I sent her straight to the [correct] First Amendment lawyer." Harry commented that the First Amendment gave people the right to say what they wanted to say even if it is controversial.

While Morocco thought that the Bill of Rights consisted of five or ten amendments, he did not mention any of those amendments by name or intent during the pre-game interview. After the game, Morocco believed that he understood the Freedom of Assembly much better through trial and error. Morocco recounted how he failed to correctly identify the Freedom of Assembly several times before he finally understood how to correctly match his client with the right lawyer. Morocco also shared that he better understood the Right to Bear Arms (Second Amendment) and the "no soldiers" (Third Amendment) amendments better after playing the game.

River was unable to recall any of the freedoms granted under the Bill of Rights prior to playing the game. After the game, River identified that the military could not stay in a person's home without their permission under the Third Amendment. River also recalled the following: the right to bear arms (Second Amendment); freedoms of religion, speech, and assembly (First Amendment); and the protection of individuals from excessive bails and fines (Eighth Amendment).

Prior to playing the game, Walter correctly associated the freedom of speech as part of the First Amendment. Walter also recalled that the Second Amendment conveyed the right to bear arms to citizens within the United States. Walter thought that the right to vote was also provided for in the Bill of Rights. He reasoned "…one of them [amendments] is that everybody can vote. They actually split them into two sections. Women can vote and black people can vote." After playing the game, Walter correctly identified the Third, Fourth, and Sixth Amendments by title and application. For example, Walter stated that the Sixth Amendment was about "getting a fair trial and getting a jury."

Table 6 *Bill of Rights Components Correctly Recalled*

| *Participant Name* | *Pre-Game* | *Post-Game* |
|---|---|---|
| Alabama | --- | Search of property requires search warrant |
| Belle | --- | Freedom of Speech and<br>Freedom of Religion |
| Crayola | --- | Freedom of Speech,<br>Freedom of Religion<br>Freedom to peacefully protest |
| Harry | Freedom of Speech,<br>Right to Bear Arms,<br>Right to remain silent in a court of law | Freedom of Speech<br>Right to Bear Arms<br>Freedom of Religion<br>Freedom of the Press<br>Search of personal property requires a search warrant. |
| Morocco | --- | Freedom of Assembly<br>Right to Bear Arms<br>The military cannot quarter in a person's home without permission. |
| River | --- | Freedom of Speech<br>Right to Bear Arms<br>Freedom of Religion<br>Freedom of Assembly<br>The military cannot quarter in a person's home without permission.<br>The protection of individuals from excessive bails and fines |
| Walter | Freedom of Speech<br>Right to Bear Arms | Right to a Fair Trial and Trial by Jury,<br>Search of personal property requires a search warrant,<br>The military cannot quarter in a person's home without permission |
| Wonder Woman | Right to Bear Arms,<br>Freedom of Speech,<br>Freedom of Religion | Freedom of Expression,<br>Freedom of Speech |
| X-Rider | Right to Bear Arms<br>Freedom of Speech | Freedom of Speech |

Alabama was unable to recall any information about the Bill of Rights prior to playing the game. After playing the game, Alabama incorrectly associated the Fifth Amendment with the provision that any search of private property, such as a home or automobile, required a warrant. Interestingly, Alabama said that the First Amendment "means you can provide common defense almost like welfare and stuff." Alabama's statement indicated that he had confused the First Amendment with a portion of the Preamble of the United States Constitution.

Crayola, like Alabama, was also unable to recall any information about the Bill of Rights. However, after playing the game, Crayola related that the First Amendment contained several rights including freedom of speech, freedom of religion, and the right to peacefully protest. Crayola expressed that the various rights found within the First Amendment made it confusing to match the correct lawyer with the client, as the firm's lawyers tended to focus on only one of the First Amendment rights.

Belle was also unable to recall any of the amendments contained in the Bill of Rights during the pre-game interview. During the post-game interview, Belle admitted that she was unable to remember the correct number associated with the amendments, but she believed that she better understood the "right of speech and the right of religion and the military ones."

One of the questions posed to the participants during the post-game interviews asked players to reflect upon what helped them to remember the amendments that they were able to recall. Each one of the participants mentioned repetition as the primary reason they were able to recall the various amendments. According to River, "You do them so much in the course of seven in-game days [rounds] that it just kind of gets stuck in your brain."

**Investments in Human Capital and Capital Goods**

Another element of learning that is introduced to players in Do I have a Right?, involves application of economic concepts. While not using the terms human capital or capital goods, participants saw the cause and effects of making investments in their firms. Participants could hire new lawyers (investment in human capital). Participants could also purchase equipment which would make their current staff more efficient (investment in capital goods). As participants won court cases, they were given prestige points. Conversely, if participants lost court cases, they lost prestige points. Through the progression of the game, participants discovered that they could make investments in their firms' equipment or improve their standings in the game by improving the abilities of the firms' employees. For example, in the game, there is a direct correlation between the time a client has spent to wait to see a lawyer and the likelihood of the client leaving the firm to take their business to another firm. Harry discovered that by buying furniture and equipment such as a turntable for the waiting room, he could retain his clients for a longer period.

One aspect of the game that some participants found unsettling involved the wait-time of potential clients. When clients first enter the participants' law firms, the player has limited time to match the participant with the correct lawyer. If the player fails to find the correct match in time, the client will leave the firm. Morocco revealed that he became frustrated when his potential clients left. However, using self-directed learning (Piaget, 1964; Papert, 1993; Bruner, 1996), Morocco was able to solve this dilemma. He explained, "I didn't realize until the last [game] day that you can upgrade the chairs so there's more seats, or you can upgrade them [the seats] so that they [clients] sit there longer." Morocco's discovery indicated that although it was

towards the latter part of the game, he identified and implemented a solution to a problem that he was experiencing.

Belle likewise made purchases to enhance the waiting area of her firm, so that her clients would stay longer. In her interview, Belle also revealed that she used her prestige points to hire additional lawyers who specialized in amendments that her present staff was previously unable to try in court. Belle also purchased items, such as laptops, desk lamps and brief cases in the game using prestige points to improve her staff's efficiency.

In addition to providing feedback, newspapers (see Feedback) provided other aids to players. Crayola and Harry discovered that they would increase the number of prospective clients by buying advertisements in the newspaper. Crayola used the newspaper to identify beneficial pieces of equipment that would help her firm to grow.

> After seeing the article in the newspaper about the paperweight [that makes the lawyer(s) more efficient], I went and got everyone [of my lawyers] a paper weight. I also got things like the water refreshments or the coffee refreshments. I also got a better couch and small chairs so that I could sit more people. But I also got a dog and a cat. I thought, that was one of the coolest features in the game that you can get for your law firm. I'm an animal person, so I thought that was really cool.

Crayola learned about the effects of making capital good investments while having fun as she customized her office. Crayola raised an interesting point. While the lawyers were "working" for the law firm, there was no mention of compensation for their time as would occur in real life. Wonder Woman may have provided an explanation citing that this was the grand opening of the law firm and that cases would be taken for free during the first week of operations for the purposes of publicity.

Interestingly, Crayola identified competition between rivaling firms as economic in nature, but she did not recognize the connection between the investments she had made in her office as the concept of investing in either capital goods or human capital. River agreed that while she thought she recognized a small portion of economic concepts, she said frankly that she did not know how to explain the ideas involved.

**Aspects that Participants Liked about the Game**

Participants provided several aspects about Do I Have a Right? that they liked. River, Walter, and X-Rider found the game visually appealing because of the graphics. Participants found the game engaging because of the challenges that were presented. Harry said that he liked that the game kept him busy and that his favorite part of the game was trying to match his clients' problems with the correct lawyer. River observed that "Sometimes, it [the game] gets super-fast paced and that's pretty fun when you have way too many people in your office at the same time." River, Wonder Woman, and Belle said that they appreciated being able to upgrade their offices with new equipment and new lawyers to help them manage all of the new clients that their firms were attracting.

Another positive attribute about the Do I Have a Right? that participants mentioned was the humor interwoven into the game. Harry related the following anecdote:

> People [in the game] can be clueless. There was this guy and he said "I wanna make an awesome pillow fortress in the capital, do I have a right to do that?" And then I'm like "Dude, are you three [years old]? Why would you want to build a pillow fort in the capitol and then ask if you have a right to do that?" People just don't do that you know. I know that they're all digital but it's there [in the game].

Harry's anecdote demonstrated that he was able to recall scenarios from the game (self-reflection), as well as his reactions to the statements made (criticism). Harry related that he refused to accept the case based on the illogicality of the situation (decision making).

Morocco echoed Harry's appreciation for some elements of humor that are woven into the game. "[ I liked] all of the funny voices the characters [clients] had." Morocco revealed that besides creating his game avatar, he enjoyed associating meaning with various amendments. "Some of the laws were confusing, but as it kept going, I continued to catch on to what they were meaning. So, I think the game kind of served its purpose and was fun." Morocco went on to explain that he thought the purpose of the game was "to educate [players] about the laws."

Another characteristic that Walter, X-Rider and Crayola found appealing was the inclusion of stories in the game. Walter said that he liked the diversity of his clients' background stories. X-Rider echoed some of the comments that he made during his pre-game interview. X-Rider said that he liked that the game had a plot line. "[I liked] that there is a reason behind it [the game]…why they're opening the business [law firm]." Crayola shared a similar sentiment: "I thought it [the game] had a cool storyline and it was very unique. I hadn't seen anything like it before. I played the game twice…I thought it was a great game and it had a great storyline. And really, I thought it was a game that I would play more often."

## Summary

The participants of the study indicated that technology played an important part in their lives, using it to access information, play games and communicate with family and friends. In social studies, participants indicated that they used technology in their social studies classes primarily to access and record information. Video game play comprised a significant part of the participants' time, with participants self-reporting playing video games from one to three hours

per school day. Seven of the nine participants reported that their video game play had increased since the beginning of the COVID-19 pandemic.

Participants reported that they enjoyed playing games for several reasons. Participants said that they liked following the storylines imbedded in video games and the ability to interact with characters within the games. Video games also provided participants with environments that allowed them to "hang out" with their friends. Some participants liked the chance to demonstrate their creativity that video games afforded them. Some of the participants expressed that video games gave them opportunities to set their own goals. Participants also appreciated the variety of environments and choices that could be made in games like Minecraft and Roblox. Video games also provided a variety of ways to alleviate boredom.

Like their attitudes towards video games, participants generally projected positive attitudes towards various elements of the social studies. Yet, while the participants were familiar with the use of digital games like Quizizz and Quizlet, neither one was considered a video game because neither one had an imbedded story line. Participants had not considered the use of a social studies-based video game in their classes. However, after some introspection, participants thought that a social studies-based video game should have the following attributes: fun, multimodal, interesting, and instructional. Participants also conjectured that a social studies-based video game should be helpful to struggling students and offer a variety of options so that students could choose what they wanted to learn.

When asked to recall what they knew about the United States Constitution and the Bill of Rights, participants shared that they had been taught about the Constitution and the Bill of Rights in fourth grade social studies. Participants confused the United States Constitution with the Declaration of Independence and only four of the participants recalled any elements about the Bill of

Rights. After playing Do I Have a Right?, seven of the nine participants demonstrated an increase in the number of rights that they were able to recall from the Bill of Rights. Two of the nine participants recalled fewer rights after playing the game. Participants indicated that they understood some aspects of the Bill of Rights better because they had to match each right with the correct lawyer. Participants, while not able to recognize the economic terms capital goods and human capital, nevertheless were able to employ the concepts within the parameters of the game. In the next chapter, the findings are situated within the literature with suggestions for future research as well as limitations of the study and the researcher's reflections.

# CHAPTER 5: DISCUSSION

Although COVID-19 changed the data collection and interview format for this study, the results provided interesting and relevant findings. In this chapter, the findings will be discussed and connected to current literature. Later in the chapter, limitations of the study, additional findings, and possible opportunities for future research are shared. Some participant interview excerpts are also presented in this chapter for the purpose of summarizing these important findings. Finally, personal reflections are shared on the findings of the study in terms of the research process and the use of video games for student engagement and learning.

## The Impact of Do I Have a Right? on Student Learning

As shared in chapter two, contemporary middle school students are regularly using electronic devices for many purposes, such as communication, entertainment, and education. This use of electronic devices increased with COVID-19 quarantines, especially in online gaming (King & Delfabbro, 2020). The experiences of seven of the participants confirmed these findings as they self-reported an increase in video game playing time. In addition, with the advent of the COVID-19 pandemic, teachers across the United States were forced to utilize remote instruction that required more technology integration than ever before in the profession. Hamari et al. (2016) found that student engagement can lead to student learning. Conversely, if a student is not engaged in the content being presented in the classroom, apathy, and boredom may result with less learning (Hamari et al., 2016). Student attitudes towards the educational content plays a key role in how much or little the student may learn.

Students may think that educational games are not enjoyable, but all nine participants in this study indicated that they had had positive experiences from playing Do I Have a Right?. Participants expressed that they liked the game and thought it was interesting, fun or a

combination of both. For example, Wonder Woman said that the game "was really fun. It [the game] was kind of addicting." Participants conveyed that they were challenged by the game and they enjoyed always having something to do. X-Rider conveyed that the game "had a lot of action, like things to do in it." When Harry was asked what he liked about the game he replied "…a lot of people [clients] were coming in [to the firm]. There was always something to do. There was never nothing to do in the game." Based on their positive experiences with the game, the participants said that they probably would play the game again after the post-game interviews were finished.

The primary research question for this study focused on the impact of the video game Do I Have a Right? on the engagement and learning of middle school student participants. After playing the video game, seven out of the nine participants were able to recall more constitutional rights than before they played the game. Participant learning extended beyond rote memorization and recall of facts as outlined in Bloom's Taxonomy (Hamada et al., 2020). The game challenged players to understand concepts embedded within the Bill of Rights. Most of the participants were able to paraphrase portions of the Bill of Rights so that those rights became more meaningful and relevant to them while reflecting a greater awareness of their rights as United States citizens. For example, although Alabama incorrectly named the unreasonable search and seizure clause (Fourth Amendment) as the Fifth Amendment, he correctly stated that government officials do not have the right to search a person's home or car without a warrant. Alabama's response demonstrated that he understood some of the facets of the Fourth Amendment and was able to apply the concept to at least one given situation within the game.

Harry not only paraphrased amendments to demonstrate his understanding of them, but also conveyed that he knew how to apply those amendments to various scenarios presented in the

game. For example, when he recounted how he was able to recall the Freedom of Religion clause, Harry described the following, "…there's one situation where Morgana and her friends quietly prayed before lunch and the teacher got mad…hey, we gotta do it [try the case]. So, I sent him [the client] strait to the first amendment lawyer." Harry's application of the Freedom of Religion clause for Morgana and her friends, is an important illustration of how video games can help students learn to use critical thinking skills to problem solve (Bauman, 2013; Tang & Erickson, 2020). Through Do I Have a Right?, Harry and other participants engendered hypotheses about their clients' dilemmas, formulated strategies to help their clients, analyzed the results and when necessary, adjusted their hypotheses (Cappuccio, 2013; Gee, 2003). Through this video game, participants were not just recalling information but employing it to ascertain the results of their hypotheses (Gee, 2003).

While seven of the participants demonstrated an increase in the number of Constitutional concepts, they were able to recall after playing the game, Wonder Woman and X-Rider recalled fewer concepts after playing the game. An excerpt from X-Rider's transcript may provide a partial explanation as to why he did not recall any additional amendments.

> Interviewer: What do you think helped you remember the first amendment?
>
> X-Rider: Uh, things. They had all the glossary things that told me about all of that. All the amendments, so that really helps me memorize them all, if I forgot something.
>
> Interviewer: Ok, so you say there was a glossary?
>
> X-Rider: Yeah, it was like a little tab that you could open up and it would show you like all the amendments and stuff like that…all the rights.

Wonder Woman, like X-Rider, observed that she could access descriptions of the amendments in the game. Wonder Woman and X-Rider could have rationalized that it was unnecessary to memorize any of the amendments because they could access the information that they wanted at any time (Figure 7). For many students and adults, easy access to information via technology has changed what is important to recall or memorize. For example, prior to the emergence of smart phones, phone numbers were either accessed via a phone book or were either committed to a person's memory. Now phone numbers are stored on computer chips imbedded on smart phones or can be accessed via the internet. The advent of the Internet has given people constant access to information resulting in recalling lower levels of information (Firth et al., 2020; Sparrow et al., 2011). According to Sparrow et al. "We are becoming symbiotic with our computer tools, growing into interconnected systems that remember less by knowing information than knowing where the information can be found," (2011, p. 778). This ability to find where information is located, may lead students to the conclusion that they may not need to memorize information if they know how to access it and employ it to solve problems.

Another explanation for the inability of Wonder Woman and X-Rider to recall more amendments may have been a lack of interest in learning about the Bill of Rights. While neither participant recalled much about the various amendments, both participants provided an ample amount of feedback about other aspects of the game. In X-Rider's post-game interview, he provided a considerable amount of feedback about game elements such as the ability to customize his avatar, character dialogues, and newspaper summaries. X-Rider even suggested that the game developers should improve the animation used in the game to make the game more realistic. X-Rider's interest seemed to point to the game mechanics.

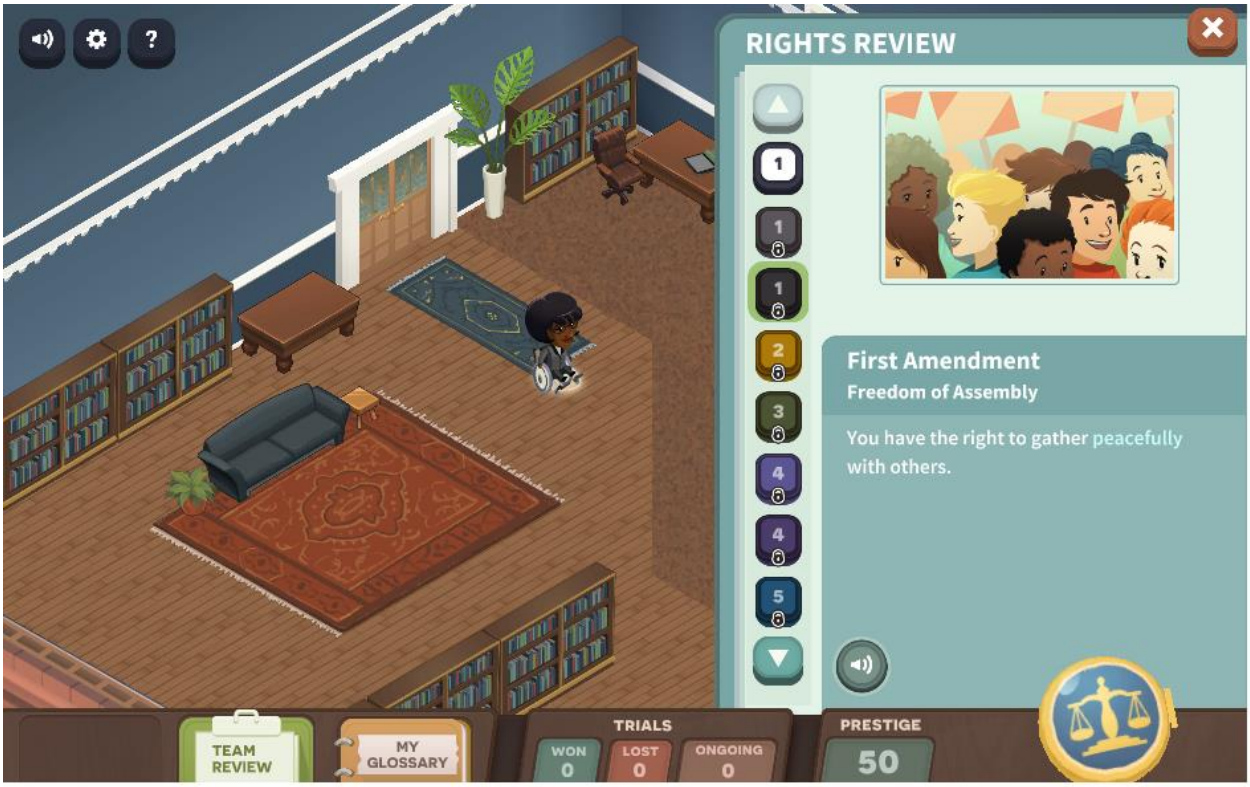



Figure 7 *Players can review rights*.

During her interview, Wonder Woman provided numerous details about the decisions that she had made during the game and the rationale for those decisions. For example, Wonder Woman identified the need to placate her clients while they waited for extended periods of time, so she invested in items like a turntable or water cooler for her firm's waiting room to make their delay less taxing. Wonder Woman also chose to improve her lawyers' abilities to try cases and she also purchased advertising. The following post-game excerpt provides a clearer picture of Wonder Woman's decision-making process.

> I used them [prestige points] to upgrade my first lawyer. I started with the lawyers 'cause I thought that would be the most important to like help everyone get the right court [ruling]. I get the right lawyer for them [the clients], to help them. I [also] upgraded the office because that helped make them [the clients] stay longer and make them a little bit

> more happy [while] waiting a little longer. And then I did [purchased] the ads and I wasn't super big on an ad because I already was getting a lot of customers and I don't know but I like using the professional add 'cause I thought it made us look more professional even though it gave us like three more customers.

While she was facing the challenge of meeting the demands of her numerous clients, Wonder Woman still made the decision to purchase advertising. The decision to improve the firm's image was more important to Wonder Woman than contending with an already overwhelming case load. Wonder Woman's reflection, demonstrates the use of higher-level thinking skills in negotiating a real-world situation.

While the participants did not display learning the same Constitutional amendments during their interviews, each participant revealed that they did learn *something* because of their gaming experience. These learning experiences connect with the constructivist theory that learners attempt to construct meaning or makes sense of their experiences (Driscoll, 1994; Obikwelu & Read, 2012). As the participants recounted their gaming experiences, their reflections demonstrated different participant learning experiences (Table 7). For example, X-Rider discussed how he would change his strategy to get another lawyer for his firm during his post-game interview. "If I play the game again…maybe I can unlock like an immediate lawyer or something like that…I think I saw a feature where you could buy like another lawyer to help you out." Crayola conveyed a different learning experience as she spoke about gender equality. The following is an excerpt from Crayola's post-game interview.

> When you first start the game, you choose between two lawyers [to be your partner]…I

> was pleasantly surprised when I saw that there were multiple female lawyers, [that could join the law firm] cause I'm very much into the women's rights kind of thing and that made me happy.

During their gameplay, each learner reshaped their mental models based upon their interests and experiences in conjunction with constructivism (Obikwelu, 2012). As an educator, the researcher is reminded that learning does not always occur in pre-set patterns. Based on the data provided by the participants, the findings affirm that learning did occur for each of the participants involved in this study. The participants' ability to apply what they learned was based in part on their interests and previous experiences (Dewey, 1938).

Table 7 *Participant Learning Experience(s)*

| **Participant** | **Participant's Self-Reported Learning Experience(s)** |
|---|---|
| Alabama | Enjoyed learning how to play the game |
| Belle | Able to buy new accommodations for the law office |
| Crayola | Avatar creation that allowed for gender equality |
| Harry | Engaging-always something to do; Humor |
| Morocco | Avatar creation; client voices and stories |
| River | Buying upgrades to improve game outcomes |
| Walter | Game mechanics |
| Wonder Woman | Buying upgrades to improve game outcomes |
| X-Rider | Game mechanics and gaming strategies |

**Student Voice**

Through the participants' interviews, the topic of student voice emerged. Student

voice can be defined as the recognition of a student's freedom to choose, pursue, and invest in their own education (Byker et al., 2017). Harry expressed that some of the reasons that he disliked certain aspects of his social studies classes stemmed from not being able to choose the content and the investigation method that he wanted to pursue. The following is an excerpt from Harry's pre-game interview.

> Harry: I don't like learning about things I know about, cause it's really boring you know…I don't like it when we have to do these long projects and I only have like two weeks to do them….and sometimes I partner up with people and they don't do any work and I have to do all of the work. It's one of those things anyway.
>
> Interviewer: So, let me get this straight, you don't like working on projects by yourself?
>
> Harry: Well, no, actually I do like working by myself because when I work with other people, it's either like they're not doing any work and I'm doing all of it or like I'm doing most of it and their doing a little bit of work. Stuff like that.

Harry's reflection indicated that he was willing to work on a project but did not want to share the credit with others that did not contribute to the project's completion. Would Harry's views have changed if he were able to choose the students who worked with him or if he could have chosen something that he truly found interesting? During Harry's post-game interview, he conveyed how much he enjoyed playing Do I Have a Right?. Harry's demonstration of applying First Amendment principles to various scenarios indicated that the video game was engaging for him.

In Harry's critique of his social studies classes, he articulated his preference for independence because he felt that other group members did not show the same diligence in completing group projects as he did. When possible, it is important for educators to listen to the voices of their students so that they can create an environment that is both relevant and

meaningful for the student. For example, Harry's social studies teacher could have alleviated Harry's frustration by requiring individual accountability for each group member.

River also expressed how much she valued the ability to work independently because it allowed her to pursue her interests. According to River,

> …doing things by yourself is like one of the best ways, 'cause you can like really think for yourself and stuff…[you] can be creative with it. So [you] don't feel like you are forced to do something or have to do the same thing as everybody [else].

Crayola echoed Harry and River's appreciation for autonomy saying that she wanted to be able to express her creativity by "doing her own thing." Dewey (1915) promoted child autonomy in learning because it allows the opportunity to construct meaning from their own experiences. Montessori (1949) concurred that children will teach themselves when given both freedom and choice. By utilizing content-based video games, teachers may provide more opportunities to pursue something that is of interest to their students.

The large number of students who are typically taught in public school classrooms creates challenges for teachers when creating lessons that incorporate freedom, choice, reflection, or other strategies that individualize instruction. Denton (2011) posits that secondary teachers engage in direct instruction, as opposed to individual instruction, because of the high student to teacher ratios that are prevalent in middle and high school classes. According to Hansen et al. (2018), secondary education social studies teachers (grades 7-12) taught an average of 121 students every day. When students make connections to their personal experience, they can make meaningful and lasting connections between new information and existing knowledge (Byker et al, 2017). Technology, like content-based video games, may hold some of the answers by giving some students the autonomy to pursue learning and make meaningful and personal

connections. When students are engaged and learning the content on their own through content-based video games, they receive instantaneous feedback that can inspire participants to be more reflective in their decision making.

The nine participants in this study viewed social studies in a positive light even though they disagreed on the different aspects of social studies. For example, Crayola enjoyed the stories interwoven in history but River disliked history. To implement student choice, middle school social studies instructors are challenged with discovering areas that their students find relevant to their lives. Ladson-Billings (2014) extols educators to employ more culturally relevant pedagogy to experience academic success. Ladson-Billings defines academic success as

> …the intellectual growth that students experience as a result of classroom instruction and learning experiences. Cultural competence refers to the ability to help students appreciate and celebrate their cultures of origin while gaining knowledge of and fluency in at least one other culture (2014, pp. 74).

Do I Have a Right? provided a point of relevancy for the participants by connecting their interest in video gaming to the Bill of Rights.

The limitations of Do I Have a Right? will be discussed later in this chapter, but it is important to share that the game is not designed to solve student choice curricular problems. A curriculum that provides for student choice would integrate several characteristics, such as being relevant, learner-directed, reflective, and technologically rich (Byker et al., 2017). Byker et al. defined relevancy of a curriculum as being "relevant to learners' lives and can be built upon prior experience and that a meaningful linkage is formed when new information is added to existing knowledge" (2017, p. 120). Byker et al. (2017) posited that students' motivation to learn is influenced by their beliefs and interests and is connected to students' background, creativity, and

curiosity. A curriculum that promoted student voice should be facilitated by teachers or peers and allow for both collaboration and assessment (Byker et al., 2017). Other opportunities for learning can also extend from social interactions, and interpersonal relations (Byker et al., 2017).

**Summary of the Findings**

In summarizing the study findings, student attitude is a key component in learning. The participants in the study were engaged by the video game, Do I Have a Right? because it was both fun and challenging. This engagement acted as a bridge to learning for the participants. The learning outcomes varied because each participant found something different in the game that was relevant. Seven of nine participants recalled more Constitutional rights during the post-game interview than the pre-game interviews. Participants engaged in critical thinking and problem solving by applying knowledge of Constitutional rights that were either recalled or accessed in the glossary of the game. Learning for the participants also occurred because they were able to combine their love of video gaming with a learning experience.

Participants demonstrated their use of student voice through their voluntary contribution to this study. Participation occurred primarily from the participants' interest in video games. exercised by the participants by taking part in this study. While the study revealed rich data in the areas of student learning and student voice, several obstacles developed during the research process. The next section discusses limitations encountered throughout the research process.

## Limitations

As with all research, several limitations of the study existed and are noted in the following discussion. The researcher used a sample of convenience, thus eliminating the opportunity for random sampling. In addition, as the researcher conducted a case study, the number of participants were small in comparison to a quantitative study; therefore, the results of

this study cannot be generalized for a larger population. However, quantitative results do not provide the rich and textured findings that were displayed in this case study. In addition, the findings from this study could lead to further investigations, possibly at multiple sites across a school system, various states, or across the country.

All of the participants were geographically part of a suburban area in the southeastern region of the United States, which may have caused their perspectives to differ from either rural or urban communities or if the study had taken place in another geographic location within the United States. The use of smart phones by eight of the participants could indicate, but not confirm, that the students resided in socio-economically affluent neighborhoods. According to Common Sense Media, 53% of eleven-year-old, 69% of 12-year-old and 72% of 13-year-old children own a smartphone (2019, pp 5). The participants' school has a predominantly Caucasian (80%) student population and does not reflect a diverse student body. The ages (12 and 13) and grade level (seventh) of the participants were also limiting factors. Other age groups or grade levels may have evoked different responses to the questions posed in the interviews.

Do I Have a Right? as a video game has several limitations. Like other educational games, the budget for game development is limited to volunteer contributions. As a result, game mechanics (such as graphics, sound, etcetera) may not be considered as appealing as commercially produced games (Bakar, 2006). Commercial games also incorporate a chat mode that allows players to communicate with one another. The purpose of the ability to chat in-game is to help create a better experience for the player (Zapal, 2019,). However, Do I Have a Right? does not have a chat mode. While this may be viewed as a disadvantage for players, the absence of a built-in chat may be for the protection of children from "cyberbullying, online predators, sextortion, inappropriate content and more" (Zapal, 2019, para. 2). Do I Have a Right? is limited

to seven rounds of game play possibly to fit within the time parameters of social studies classes. An option for game extension, for example, providing more rounds to play, may provide players more learning opportunities.

Another limitation of the game is that it omits the Seventh, Ninth, and Tenth Amendments from the list of amendments used in the game. In an email from an iCivics representative, the omission of these three amendments was due to their subjectivity.

> …these amendments proved pretty challenging to create cases that people could bring, and that kids could wrap their heads around in a game setting. We tried! But playtesting proved that these were just not the best for this particular context (February 23, 2021).

The Seventh Amendment applies to civil cases that involve trial by juries (Learner & Thomas, 2021). The Ninth Amendment cites that all the rights guaranteed by the United States Constitution are not enumerated (Barnett & Seidman, 2021). Barnett and Seidman (2021) state that the meaning and applicability of the Ninth Amendment are disputed among Constitutional Scholars. The Tenth Amendment limits the powers of the Federal government to those specifically enumerated in the Constitution (Lawson & Schapiro, 2021). In addition to the complexity of these three amendments, the purpose of the Ninth and Tenth Amendments was to limit the power of the Federal government while the game focused on the rights of the people.

To assist students in remembering the rights granted by the Bill of Rights, the developers of Do I Have a Right? could include memorization tips throughout the game to help players (students) correctly match the content of the Bill of Rights with the correct numerical number of each amendment. For example, a person who wishes to avoid self-incrimination in a court of law, can invoke or plead the Fifth Amendment. Another example could focus on the

controversial nature of gun rights under the Second Amendment. Both are examples of real-life applications of Constitutional amendments.

While Do I Have a Right? was considered fun to play by the participants (volunteers for this case study), would students still consider it fun to play if it were an assignment that constituted a grade? All participants self-identified as video game players, self-reporting at least one hour of game play per weekday, with eight of the participants self-reporting a minimum of 2 hours of game play per weekday. These figures align with nationally reported statistics that 66% of children, ages 8 to 12, play video game on the average of 2 hours per day, while 56% of children, ages 13-17, play video games for an average of 2.5 hours per day. According to Barclay (2018), 90 percent of children in the United States play video games. With so much student interest in video games, educators need to consider the viability of using the power of content-based video games in the classroom for instructional purposes. However, the views of the participants towards using video games in the classroom may be different from non-video game players or those students who play video games less frequently.

Another limitation of this study stems from the video game's subject matter. The researcher originally introduced Do I Have a Right? on Constitution Day at his school and received positive feedback from his students based on their experiences. While the Bill of Rights is not specifically addressed in the state standards for social studies middle school, the Bill of Rights connects with other middle-school standards. For example, students may compare the United States Bill of Rights with the rights granted to the citizens of other countries. Other video games exist that align with the state standards for social studies, but those games are not free, and the price makes purchasing them prohibitive for most teachers or schools. One of the

advantages to using Do I Have a Right? is that it is free for anyone to use and can be played anywhere that has a computer and internet access.

The researcher acknowledges at least two areas in the study that could have been improved. First, the questionnaire should have incorporated more probing questions, which would have led to richer responses from the participants, and possibly lent more insight into the participants' perspectives. As an example, an excerpt from Crayola's post-game interview is provided here.

> **Interviewer**: Ok, so what were some of the things that you learned from the video game?
>
> **Crayola**: Um, I learned that the amendments, well, most of them…I learned there are different parts to each amendment. So, the 1st Amendment is not just free, no speech, religion, or it's like not just freedom of speech, it's also…Trying to remember, I haven't played it in a couple of days. It's freedom of speech. It's peaceful protesting. It's a bunch of [rights] it's not just one [right]. One thing was the way they broke up the amendments into different categories, [with different lawyers]. I guess that in a way, that made it confusing, but I also thought it was a good way to present the game.
>
> Interviewer: OK, what are the amendments that you think you understand better now that you play the game?

The researcher should have asked more probing questions to clarify Crayola's contradictory statement about an aspect of the game being both "confusing" and "a good way to present the game" before moving on to the next scripted question.

A second area for improvement is for the researcher to review the pre-game participant interviews prior to conducting the post-game interviews. To ensure the trustworthiness of the transcripts, the interviewee can validate the transcript by making corrections and clarifying

vague or unclear issues (Mero-Jaffe, 2011). A review of the pre-game transcripts would have helped the researcher to discover information that could have been further clarified during the post-game interview and provided more comprehensive data. An excerpt of Walter's pre-game interview serves as an example of the need to review participant responses prior to moving onto the next stage of the interview.

Interviewer: Thanks for narrowing it down. What are your thoughts about video games?

Walter: They're pretty fun. They are cool.

Interviewer: What types of video games do you like to play?

A review of Walter's pre-game interview would have reminded the researcher to ask the participant to define what he meant by "fun" and "cool" as well as what qualities about video games made them "fun" and "cool" in the post-game interview. By member checking, participants could have made corrections of errors in the transcripts or could have clarified the intended meaning of their statements, if they agreed to review the interview transcripts when the researcher requested (Birt, 2016). More participant involvement in the case study would present another possibility for the researcher to obtain more data or more accurate data.

## Further Research Opportunities

As the researcher navigated through the waters of this study, he discovered several possible directions that would benefit future research. The study on the effects of the use of a social studies-based video game, showed promising results involving student engagement, student learning, student reflection, and student voice. As noted earlier, the study met with several obstacles caused by the COVID-19 pandemic. A future study on the effects of a content-based video game could be expanded to incorporate multiple schools and grade levels for a comparative anal-

ysis. In addition to broadening the base of participants, multiple research techniques such as participant observations, or participant surveys could be used for the purposes of triangulation to strengthen the findings (Denizen & Lincoln, 2000; Cunningham, 2006, 2009). Another avenue of pursuit could be to use a mixed-methods or quantitative approach if the sample size could be sufficiently expanded.

**Is the Learning Enhanced by the Sharing of Ideas with Other Players?**

In the world of MMORPGs (massively multiplayer online role-playing games), players often communicate with one another either through in-game texting, or by voice through a secondary platform. Communication can occur for the express purpose of congeniality among players but communication between players is often used in strategy games to coordinate tactical moves to obtain the players' objective(s). The pre-pandemic and original research question pertaining to a possible connection between player interaction and learning envisioned a classroom setting similar to Figure 8. In this configuration, participants could have worked independently or collaboratively if they wanted to do so. However, due to the COVID-19 pandemic, participants could only play the game independently, at their own homes without the ability to interact with other participants during gameplay.

Yet, collaboration sometimes occurred between the participants and the researcher. The following excerpt is taken from X-Rider's post- game interview. X-Rider was describing a problem of not having enough lawyers to accommodate all his clients at the beginning of the game.

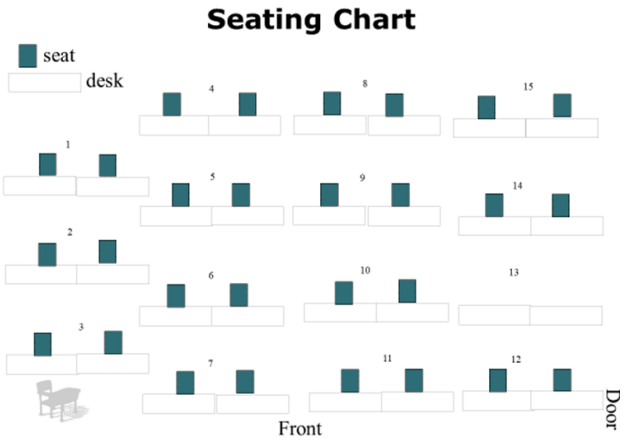



Figure 8 *Envisioned classroom setting*

X-Rider: …I know how we can just start off with just one lawyer. Especially with all the clients coming in. It would be nice to start us with two [lawyers] instead of just one so that we don't have to worry about if another client does come in the office. He's [the lawyer] already working with one client and can't take care of other clients because the character you play can only really take care of that person and talk about the case and you can't take the people to other lawyers.

Interviewer: Oh, I see. So, you are suggesting that they operate with two lawyers at the beginning of the game.

X-Rider: Yes

Interviewer: I'm wondering if there's a strategy that you could use that may deal with that problem.

X-Rider: Maybe I'll see, if I play the game again, I'll play the game again and going to see if I can get enough points. Maybe I can unlock like an immediate lawyer or something like that. But I know like that I think I saw a feature where you could buy like another lawyer to help you out…if you could hire them.

Interviewer: How many lawyers did you finish the game with?

X-Rider: Two maybe three.

Interviewer: Ok so maybe there's a way that you can get more lawyers the next time you play.

X-Rider: Yeah, I'm gonna play this time and see if I can get more too.

Through his conversation with the researcher, X-Rider formulated a different strategy to deal with the problem of inadequate staffing of his firm.

Crayola discussed the difficulty that she faced from having too many clients in the waiting room at one time similar to a situation that X-Rider experienced. Feeling pressured to satisfy all the clients with their court cases, Crayola accidentally matched some of the clients with the wrong lawyer(s). Crayola admitted "I would assign the wrong person to the wrong lawyer because I was so focused on getting everyone to a lawyer as fast as possible. Which in hindsight, probably wasn't the best idea." Crayola's candidness with the researcher allowed her to reflect on her choices during the game, and how she would change her strategy (critical thinking) the next time that she played the game.

X-Rider's and Crayola's post-game interviews gave them opportunities to reflect on their experiences and adjust the strategies that they would implement in the future should they play the game again. Dewey (1933) extolled the benefits of reflection in learning, as it allows people to connect ideas from past experience(s) to solve problems. According to Denton, the construct of "reflection represents the human capacity for higher-order thinking, specifically, our ability to make connections between thoughts and ideas" (2011, p. 838). While there is no widely estab-

lished definition for reflection (Denton, 2011; Rodgers, 2002), reflection is defined for the purpose of this study as thinking about experience(s) to the extent that the thoughts affect future actions.

Wonder Woman admitted that despite learning about the Bill of Rights in fourth grade, she could not remember much of what she was taught. According to Wonder Woman "I really did need a refresher on the amendments 'cause I really couldn't remember. I thought about it and I really couldn't remember anything." Wonder Woman's reflection on her inability to remember the amendments, provided her with an incentive to play the game. While some participants like Wonder Woman took the time to reflect on the game, others like Belle did not provide as many in-depth responses, often limiting their answers to either yes or no. This lack of participant reflection was due in part to the questionnaire design which was discussed in the limitations of the study earlier in this chapter.

The opportunity for students to reflect on their learning is often viewed by educators with mixed emotions (Denton, 2009). While educators acknowledge the significance of using a wide assortment of teaching strategies, such as reflection, they will often limit their instructional strategies to discussion, lecture, and worksheets (Faulkner & Cook, 2006). This study has demonstrated that some participants, when given an opportunity to discuss Do I Have a Right? with the researcher, were open and able to reflect upon their experiences, thus enhancing their learning. Other participants did not provide responses that indicated self-reflection. Perhaps some of the participants were more introverted and would have felt more at ease in sharing their gaming experiences with other players or recording their experiences in a journal if time had allowed.

Research currently indicates that the learning benefits of game-based learning are short term, but more studies are needed (All, 2016; Tobias et al., 2014). A longitudinal study could be

conducted to pursue other research questions. For example, how many amendments will the participants recall six months or a year from now? Another question of such a study may involve student engagement. For example, how many times did the participants play the game after the study concluded? Did any of the participants become more interested in areas related to the game (e.g., Constitutional law, entrepreneurship or even video game design)?

The efficacy of video games on student learning could also be tested and possibly confirmed beyond just one video game by incorporating the use of other video games for the same content. For example, the iCivics.org website lists 14 civics-oriented games, and all are available for play. Alternatively, research could help locate video games that are in alignment with the standards of each grade level within a school system, for example, an economic game utilizing various monetary systems from Africa or Asia in seventh grade social studies. The use of Do I Have a Right? could also be examined where the Bill of Rights is specifically addressed in the curriculum standards as a method of introduction or remediation.

Further inquiry could be conducted from the perspective of students to determine what attributes of video games lead to student engagement. For example, game-based learning environments promote higher levels of student engagement by fostering student agency (Taub et al., 2020). Martin (2004) defines student agency as "the capability of individual human beings to make choices and act on these choices in a way that makes a difference in their lives" (Martin, 2004, p. 135). Students engage with the learning environment because the learning is both meaningful and relevant to the learner (Taub et al., 2020). The research could then ascertain the transferability of attributes like student agency into content delivery. For example, if students enjoy a video game because they can change the destiny of their favorite character within the game, then create situations in the classroom where students could change the destiny of a favorite historical

figure. What if George Washington had become king of the United States? What would the political landscape look like in the United States were that change to occur?

Other student perceptions should also be researched further. As some students, like the participants in this study, had a favorable view of the social studies, other students have a different perspective of the social studies. Moore (2015) describes the social studies "haters" as those students who do not perceive the relevancy of the social studies to their lives. A comparative research study could be conducted which documents the effects on student perception of the social studies utilizing social studies-based video games.

During the interview process, the researcher gained a deeper understanding of the participants perspective based on a common interest in video gaming. Sethi and Scales (2020) cite the benefits that the student receives in academic motivation. It would be interesting to observe the kind of changes that would occur in education if middle school teachers had the more opportunities to interact with their students individually outside of the classroom to better understand their students' point of view.

Another potential area for further examination could come from investigating the decision-making processes that participants use in playing content-based video games. Participants could be asked to keep a reflective journal of their actions and their rationale for those actions. The benefits for the student in keeping a reflective journal are multi-faceted because it promotes insight as well as complex learning (Costa & Kallick, 2008). For educators, student journals can provide insight into student cognition, attitudes, and beliefs (Portman, 2020). The reflective journal could be kept in a variety of methods including written, audio, or video formats.

Research could also be conducted in collaborative learning from video game play. According to del Pozo et al. (2017), collaborative learning,

> … refers to the implementation of educational activities in which students work together in pairs or groups, sharing responsibilities, negotiating, discussing, and contributing their ideas to achieve an objective (e.g., a project, a task, or to solve a problem) and the main resource of the activity is a video game. In other words, 'collaborative learning with video games' refers to the use of video games in collaborative learning activities, in which the collaboration between peers can occur inside the game, outside the game or both, depending on the activity or the methodological strategy used by the teacher, (p. 4).

Do I Have a Right? could be played where participants form teams to direct the actions of their law firms. How do participants work together to reach a common goal? How do participants overcome differences of opinions?

Do I Have a Right? could be used in a cross-content lesson between social studies and language arts. A study of this nature may examine the effects of video game play on participant writing techniques. Gee argues that "humans understand [educational] content…when they can relate that content to possible activities, decisions, talk and dialogue" (2004, p. 35). Gee goes on to say that all educational content subject like the social studies, science, math, and language arts all use highly technical languages (2004). It is when students connect the content language to an experience, that the language becomes meaningful (Gee, 2004). For example, how is student verbal or written vocabulary affected by playing Do I Have a Right??

Another technical subject with highly specialized vocabulary is computer coding. Harry said that he had explored creating his own video game using Microsoft PowerPoint slides. In a case study by Cakir et al. (2017), 21 participants were given the opportunity to design their own

video games. Further research could be conducted in video games created by middle school students. Provided with the right technology, what kind of learning could occur when students create their own video games?

There are numerous possibilities for future research into the effects of Do I Have a Right? and other social studies-based video games on student learning. Video games have been around for several decades and apparently will continue to capture the attention of generations of people to come. The potential of future research into video games that inspire student engagement could reveal methods for attracting student interest (or keeping students engaged) in and expand learning.

## Importance of the Study

The design of this study was to determine if a social studies-based video game had the potential to impact student learning of seventh grade students. The study demonstrated that Do I Have a Right? was able to help some students recall more amendments after playing the game than they could before playing the game. More importantly, the study revealed that some participants were able to apply the knowledge they learned to solve problems in hypothetical situations to show that knowledge was transferable and relevant to the participants, which connects with previous research (Tobias et al., 2011).

Beyond the engagement and apparent learning that took place among the participants, student metacognitive processes were explored among some of the participants. Harry's reflective explanation during his post-game interview bears repeating. "But basically, I'm learning it by going into it by accident. So, I'm learning it by making mistakes is how I'm learning it." The value of reflection should be revisited by educators and ideally integrated into their classrooms.

Besides creating an environment where students think about how they learn, teachers must listen to their students. Students want to learn about what intrigues and excites them. As educators, we must find out what interests our students and incorporate those interests into the curriculum. This begs the question, to what degree is our curriculum serving our students? As teachers, we must allocate the time to find out what fascinates our students by altering our curriculum, lest we lose our students to boredom and apathy.

## Reflections

Due the nature of research, investigators have been taught to distance themselves from the subject of their research so that they do not influence the outcomes. For this portion of the study, however, the researcher chooses to step out of the role of a researcher and step into the roles of a participant observer, a student, a teacher, and a citizen.

First, let me thank you, the reader, for investing your time to survey, analyze and critique this study. What good are the author's words if there is no one that will read them? My hope is that you will walk away from this study with a new perspective of the world in which our children are learning and developing. One of those areas is the necessity for student engagement in the classroom.

Student engagement is vital in the role of continuous learning. When students are engaged in the learning process, they will intrinsically desire to learn more about that subject. Our students should be allowed to explore those concepts that engage them when it leads to learning, whether it is playing a video game about the Bill of Rights, acting out a skit about water pollution in the Niger River or building a model of the Sydney Opera House. Yet, student engagement must be tempered with awareness on the part of peers and adults.

As educators, we must be cautious of the perils that our students face. It troubles me that the children in this study averaged approximately two hours of video game play each school day. It also worries me that at least one child in this study mentioned role playing with strangers across a gaming platform. It is said that the price for freedom is vigilance (Curran, 1790). How do we as researchers approach such information given to us in confidence?

On a more personal note, this study has been a roller coaster ride for me. At times, the course was painfully slow, writing and rewriting, exerting patience and perseverance through the IRB processes of two institutions, and always looking for another citation to support a thought, word, or deed. At other times, it was agonizing to reiterate that the activities that my wife wanted us to do together would have to wait, because it seemed that I always had more to write. As with most roller coaster rides, there was an element of fear. For me it was the fear of not knowing if there would be any participants for the study. Then there was the COVID-19 pandemic. Yet not all was gloom and doom. Exhilaration was experienced as one-by-one, students took part in a process that had literally been years in the making. Then there were the discoveries! Students were enjoying the learning process and they discovered insights about themselves. I was able to see them in a different light, not as teacher, but as co-learners…and it was fun!

The movement towards the use educational or "serious games" has grown over the past two decades, prompting partnerships between educators, video game designers and corporations and continues to grow (Murray, 2006). Today's students are asking educators to provide them with opportunities that transcend listening and memorization of lectures (Murray, 2006). Students desire to actively engage and learn from the environments and activities created by educators in all areas of education (Licorish, 2018). Content based video games can be a tool to engage

and help students learn but should never be considered a replacement for the curriculum nor the pedagogy of the teacher (Jones, 2018).

## Memorable Research Moments

I will close this part of the study with the following excerpts from the post-game interviews. While these quotes did not seem to coincide with the direction of the study, I believed that they were worth sharing.

Morocco was asked why he bought a dog and cat for his firm's waiting room. "They were just there, so I was like 'Ok, why not?'" As human beings, sometimes we do something simply because it is fun.

At the end of Walter's post-game interview, Walter left, only to return a minute or two later asking "Can I show this [the video game] to my parents?" Walter's inquiry brought a smile, to my face as I realized that Walter wanted to share his gaming experience with his parents. Walter's question was an affirmation that something positive from the study had occurred. My response to Walter was "Of course."

## References

Aboulafia, M. (2020). "George Herbert Mead", The Stanford Encyclopedia of Philosophy, Edward N. Zalta (ed.). https://plato.stanford.edu/archives/spr2020/entries/mead/

Akilli, G. (2007). Games and simulations: A new approach in education? In D. Gibson, C. Aldrich, & M. Prensky (Eds.) *Games and simulations in online learning: Research and development frameworks.* (1-20). Information Science Publishing.

All, A., Castellar, E.., & Van Looy, J. (2016). Digital game-based learning effectiveness assessment: Reflections on study design. *Computers & Education, 92-93,* 90-103. https://doi.org/10.1016/j.compedu.2015.10.007

Alsawaier, R. (2017). The effect of gamification on motivation and engagement. *International Journal of Information and Learning Technology, 35*(1), 56-79 https://doi.org/10.1108/IJILT-02-2017-0009

Anderson, R., & Becker, H. (2001). *School investment in instructional technology. Teaching, learning and computing: 1998 national survey of schools and teachers.* Report #8. Irvine, California: Center for Research on Information Technology and Organizations.

Annetta, L., Frazier, W., Folta, E., Holmes, S., Lamb, R., & Cheng., M. (2013). Science teacher efficacy and extrinsic factors toward professional development using video games in a design-based research model: The next generation of stem learning. *Journal of Science Education Technology, 22*, 47–61. https://doi.org/10.1007/s10956-012-9375-y

Armstrong, T., (2017). The foundations of mi theory. In T. Armstrong (Ed.). *Multiple intelligences in the classroom* (4th ed., 5-20). Association for Supervision and Curriculum Development.

Bainbridge, W., & Bainbridge, W. (2007). Electronic game research methodologies: studying

religious implications. *Review of Religious Research*, 49(1), 35-53.

Bakar, Y., Inal, Y., & Cagiltay, K. (2006). Use of commercial games for educational purposes: Will today's teacher candidates use them in the future? *ED-MEDIA 2006--World Conference on Educational Multimedia, Hypermedia & Telecommunications.* (1757-1762). Association for the Advancement of Computing in Education (AACE). https://www.learntechlib.org/p/23243/

Barche, C. (2008). *The living classroom: Teaching and collective consciousness.* State University of New York Press.

Barclay, R. (2018). *Do video games make kids saints or psychopaths (and why is it so hard to find out)?* Healthline Media. https://www.healthline.com/health-news/video-games-saints-or-psychopaths-082814

Barko, T., Sadler, T. (2013). Practicality in virtuality: Finding student meaning in video game education. *Journal of Science Education and Technology, 22*(99), 124-132.

Barnett, R., & Seidman, L. (2021). *Common interpretation: The ninth amendment.* National Constitution Center. https://constitutioncenter.org/interactive-constitution/interpretation/amendment-ix/interps/131

Baszucki, D., & Cassel, E. (2006). Roblox [video game] Roblox Corporation.

Bauman, E. (2013). *Game-based teaching and simulation in nursing and health care.* Springer Publishing Company.

Becker, H. (2001). *How are teachers using technology in instruction?* Paper presented at the meeting of the American Educational Research Association. http://www.crito.uci.edu/tlc/FINDINGS/special3/How_Are_Teachers_Using.pdf.

Becker, H. & Geer, B. (1960). The analysis of qualitative field data. In Richard A. Adams &

Jack J. Preiss (Eds.), *Human organization research* (267-289). Dorsey Press.

Becker, K. (2007). Pedagogy in commercial video games. In D. Gibson, C. Aldrich, & M. Prensky (Eds.) *Games and simulations in online learning: Research and development frameworks.* (21-47). Information Science Publishing.

Beedle, J., & Wright, V. (2007). Perspectives from multiplayer video gamers. In D. Gibson, C. Aldrich, & M. Prensky (Eds.) *Games and simulations in online learning: Research and development frameworks.* (150-174). Information Science Publishing.

Benedicks, R. (2018). *Learning ecosystems: What are they, and what can they do for you?* Training Industry. https://trainingindustry.com/articles/strategy-alignment-and-planning/learning-ecosystems-what-are-they-and-what-can-they-do-for-you/

Birt, L., Scott, S., Cavers, D., Campbell, C., & Walter, F. (2016). Member checking: A tool to enhance trustworthiness or merely a nod to validation? *Qualitative Health Research*. *26*(13), 1802-1811. doi:10.1177/1049732316654870

Blanco-Herrera, J., Gentile, D., & Rokkum, J. (2019). Video games can increase creativity, but with caveats. *Creativity Research Journal, 31*(2), 119–131. https://doi.org/10.1080/10400419.2019.1594524

Blevins, B., LeCompte, K., & Wells, S. (2016). Innovations in civic education: Developing civic agency through action civics. *Theory and Research in Social Education*, 44(3), 344-384.

Blumer, H. (1969). *Symbolic interactionism*. Prentice Hall.

Bogdan, R. and Biklen, S. (2007). *Qualitative Research for education: An introduction to theories and methods*. Pearson.

Bolgatz, J. (2007). Exploring complexity within a "best story" of u. s. history: Kernels of

inquiry in a fifth-grade class. *International Journal of Social Education*, 22(1), 1-23.

Boud, D., Cohen, R., & Walker, D. (1993). *Using experience for learning.* Open University Press.

Bowman, R. (1982). A pac-man theory of motivation: Tactical implications for classroom instruction. *Educational Technology 22*(9), 14-17.

Bransford, J., Brown, A., Cocking, R. (1999*). How people learn.* National Academy Press.

Bransford, J., Brown, A., Cocking, R. (2000*). How people learn: Brain, mind, experience and school.* National Academy Press.

Breunig, M. (2005). Turning experiential education and critical pedagogy theory into praxis. *Journal of Experiential Education 28*(2), 106-122.

Brown, A. (1992). Design experiments: Theoretical and methodological challenges in creating complex interventions in classroom settings. *Journal of the Learning Sciences, 2(*2), 141-178.

Brown, H. (2008). *Video games and education.* M.E. Sharpe Inc.

Brown, J., & Adler, R. (2008). Minds on fire: Open education, the long tail, and learning 2.0. *EDUCAUSE Review, 43*(1), 16-32. http://net.educause.edu/ir/library/pdf/ERM0811.pdf.

Broekhuizen, L. (2015). *The paradox of classroom technology: Despite proliferation and access, students not using technology for learning.* AdvancED. https://www.advanc-ed.org/sites/default/files/AdvancED_eleot_Classroom_Tech_Report.pdf

Bruner, J. (1996). *The culture of education.* Harvard University Press.

Byker, E., Putman, S., Handler, L., & Polly, D. (2017). Educational technology and student

voice: Examining teacher candidates' perceptions. *World Journal on Educational Technology: Current Issues. 9*(3), 119- 129.

Cakir, N., Gass, A., Foster, A., & Lee, F. (2017). Development of a game-design workshop to promote young girls' interest towards computing through identity exploration. Computers *& Education, 108,* 115-130. https://doi.org/10.1016/j.compedu.2017.02.002

Cappuccio, G. (2013). Analyzing videogames to learn how to think critically. *ICERI2013 Research and Innovation Proceedings,* Seville, Spain. 18-20 November 2013. IATED, (2216-2226).

Carnesi, S. (2014). "iCivics--a fun way to enhance learning". *Knowledge Quest,* 42(5), 72.

Center on Media and Child Health. (2020). *Video games.* Boston Children's Hospital. https://cmch.tv/parents/video-games/

Chasteen, S. (2017). How can I help students feel intrinsically motivated to engage in active learning? https://www.physport.org/recommendations/Entry.cfm?ID=101220

Charmaz, K. (2011). *Constructing grounded theory: A practical guide through qualitative analysis.* SAGE Publications.

Common Sense Media. (2019). *The common sense census: Media use by tweens and teens.* https://www.commonsensemedia.org/sites/default/files/uploads/research/2019-census-8-to-18-full-report-updated.pdf

Coser, L. (1971). *Masters of sociological thought: Ideas in historical and social context*. Harcourt Brace.

Costa, A. & Kallick, B. (2008). Learning through reflection. In A. Costa & B. Kallick (Eds.)

*Learning and leading with habits of mind: 16 essential characteristics for success.* (pp. 221-235). ASCD.

Coyne, I., & Cowley, S. (2006). Using grounded theory to research parent participation. *Journal of Research in Nursing, 11*(6), 501–515.

Creswell, J. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches.* SAGE Publications.

Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process.* SAGE Publications.

Cuban, L., Kirkpatrick, H., & Peck, C. (2001). High access and low use of technologies in high school classrooms: Explaining an apparent paradox. *American Educational Research Journal*, 38(4), 813-834.

Cunningham, D. (2006). *Professional practice and perspectives in the teaching of historical empathy.* Unpublished doctoral dissertation. University of Oxford.

Cunningham, D. (2009). An empirical framework for understanding how teachers conceptualize and cultivate historical empathy in students. *Journal of Curriculum Studies, 41*(5), 679-709. https://doi.org/10.1080/00220270902947376

Curley, J. (2012). Wave II grantees: iCivics inc. The iCivics Inc.: NextGen Learning website. http://www.nextgenlearning.org/grantee/icivics-inc.

Curran, J. (1790). “Speech before privy council, dublin.” https://wist.info/curran-john-philpot/411/

de Groot, A., & Keijzer, R. (2000). What is hard to learn is easy to forget: The roles of word concreteness, cognate status, and word frequency in foreign-language vocabulary learning and forgetting. *Language Learning, 50*(1), 1-56.

de Simone, J. J. (2013). What is good can also be bad: The prosocial and antisocial in-game behaviors of young video game players. *Atlantic Journal of Communication*, 21(3), 149-163.

Deci, E., & Ryan, R. (1985). *Intrinsic motivation and self-determination in human behavior.* Plenum.

del Pozo, M., Gómez-Pablos, V., & Muñoz-Repiso, A. (2017). A quantitative approach to pre-service primary school teachers' attitudes towards collaborative learning with video games: previous experience with video games can make the difference. *International Journal of Educational Technology in Higher Education, 14*(1), 1–18. https://doi.org/10.1186/s41239-017-0050-5

Denton, D. (2011). Reflection and learning: Characteristics, obstacles, and implications. *Educational Philosophy and Theory*, *43*(8), 838-852. https://doi.org/10.1111/j.1469-5812.2009.00600.x

Denzin, N., & Lincoln, Y. (2000). Introduction: The discipline and practice of qualitative research. In Norman K. Denzin & Yvonna S. Lincoln (Eds.) *Handbook of qualitative research,* (1-29). SAGE Publications.

De′sillets, P., & Raymond, J. (2007). *Assassin's creed.* [video game]. Ubisoft.

Department of Education, E. O. of E. T. (2017). Reimagining the Role of Technology in Education: 2017 National Education Technology Plan Update. In *Office of Educational Technology, US Department of Education*. Office of Educational Technology, U.S. Department of Education. https://tech.ed.gov/files/2017/01/NETP17.pdf

Dewey, J. (1915). *The school and society and the child and the curriculum*. University of Chicago Press.

Dewey, J. (1916). *Democracy and education.* Free Press.

Dewey, J. (1933). *How we think: A restatement of the relation of reflective thinking to the educative process*. D.C. Health.

Dewey, J. (1938). *Experience & education.* New York, NY: The Macmillan Co..

Dewey, J. (1944). *Democracy and education*. New York: The Free Press

Dewey, J. (1973). Experience and philosophic method and interest in relation to the training of the will. In J. McDermott (Ed.), *The philosophy of John Dewey.* University of Chicago Press.

Diacopoulos, M. M., & Crompton, H. (2020). A systematic review of mobile learning in social studies. *Computers & Education, 154*. https://doi.org/10.1016/j.compedu.2020.103911

Dormann, C., Caquard, S., Woods, B. & Biddle, R. (2006). Role-playing games in cybercartography: Multiple perspectives and critical thinking. *Cartographica, 41*(1), 47-58.

Dostie-Goulet, E. (2009). Social networks and the development of political interest. *Journal of Youth Studies, 12*(4), 405-421.

Driscoll, M. (1994). *Psychology of learning for instruction*. Boston: Allyn and Bacon.

Egenfeldt-Nielsen, S. (2004). Practical barriers in using educational computer games. *On the Horizon, 12(*1), 18-21.

Elhay, A., & Hershkovitz, A. (2019). Teachers' perceptions of out-of-class communication, teacher-student relationship, and classroom environment. *Educ Inf Technol, 24*, 385–406. https://doi.org/10.1007/s10639-018-9782-7

Erickson, F. (1986). Qualitative methods in research on teaching. In M. Wittrock (Ed.), *Handbook of research on teaching* (p. 119-161). Macmillan.

Evans, R. (2004). *The social studies wars: What should we teach the children*? Teachers College Press.

Ezzy, D. (2002). *Qualitative analysis: Practice and innovation.* Routledge.

Farokhmanesh, M. (2014). Tropes vs. women in video games explores women as sexual playthings, violence victims. *Polygon.* https://www.polygon.com/2014/8/25/6066825/tropes-vs-women-in-video-games-women-as-background-decoration-2.

Faulkner, S. & Cook, C. (2006). Testing vs. teaching: The perceived impact of assessment demands on middle grades instructional practices, *RMLE Online: Research in Middle Level Education, 29*(7), 1–13.

Ferguson, C. (2007). The good, the bad and the ugly: A meta-analytic review of positive and negative effects of violent video games. *Psychiatric Quarterly, 78*(4), 309-316. https://doi.org/10.1007/s11126-007-9056-9

Filament Games. (2017). "About filament games." https://www.youtube.com/user/FilamentGames/about.

Firat, M., Kilinc, H., & Yuzer, T. (2018). Level of intrinsic motivation of distance education students in e-learning environments. *Journal of Computer Assisted Learning, 34*(1), 63-70.

Firth, J., Torous, J., & Firth, J. (2020) Exploring the impact of internet use on memory and attention processes. *International Journal of Environmental Research and Public Health 17*(24), 9481.

Fitchett, P., & VanFossen, P. (2013). Survey on the status of social studies (s4): An

instrumentation description. In J. Passe & P. Fitchett (Eds.), *The status of social studies: Views from the field.* (19-39). Information Age Publishing, Inc.

Forcier, R. & Descy, D. (2007). *The computer as an educational tool: Productivity and problem solving.* Prentice Hall.

Foreman, J. (2003). Next-generation educational technology versus the lecture. *Educause 38(*4), 12-22.

Freire, P. (1970). *Pedagogy of the oppressed.* Continuum.

Gagne′, R. (1985). *The conditions of learning and theory of instruction* (4th ed.). Holt, Rinehart and Winston.

Galarneau, L., & Zibit, M. (2007). Online games for 21st century skills. In D Gibson, C. Aldrich, & M. Prensky (Eds.) *Games and simulations in online learning: Research and development frameworks.* (59–88). Information Science Publishing.

Games, A. & Squire, K. (2011). Searching for the fun in learning: A historical perspective on the evolution of educational video games. In S. Tobias. & J. Fletcher (Eds) *Computer games and instruction*, (p. 127-221). Information Age Publishers Inc.

Gampell, A., Gaillard, J., & Parsons, M. (2019). On the use of participatory methodologies for video game research: Exploring disaster risk reduction in video games. *Methodological Innovations*, 12. https://doi.org/10.1177/2059799119884277

Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences.* Basic Books.

Garmire, E. & Pearson, G. (eds.). (2006). *Tech tally: Approaches to assessing technological literacy.* National Academy Press.

Garris, R., Ahlers, R., & Dirskell, J. (2002). Games, motivation, and learning: A research and practice model. *Simulation & Gaming, 33*(4), 441-467.

Garner, A., & Bonds-Raacke, J. (2013). Influence of university level direct instruction on educators' use of technology in the classroom. *Reading Improvement*, 50(4), 145-157.

Gee, J. (2003). *What video games have to teach us about learning and literacy.* Palgrave Macmillan.

Gee, J. (2004). *Situated language and learning: A critique of traditional schooling*. Routledge.

Gee, J. (2007). *What video games have to teach us about learning and literacy (*2nd ed.). Palgrave Macmillan.

Gee, J. & Hayes, E. (2011). *Women and gaming: The sims and the 21st century learning.* Palgrave Macmillan.

Georgia Department of Education (a). (2011). Grade 6 social studies standards. https://www.georgiastandards.org/Standards/Georgia%20Performance%20Standards/Gr6-Social-Studies-Standards.pdf.

Georgia Department of Education (b). (2011). Grade 7 social studies standards. : https://www.georgiastandards.org/Standards/Georgia%20Performance%20Standards/Gr6-Social-Studies-Standards.pdf.

Gerber, H. & Price, D. (2013). Fighting baddies and collecting bananas: Teachers' perceptions of games-based literacy learning. *Educational Media International, 50*(1), 51-65. https://doi.org/10.1080/09523987.2013.777182

Gibson, D., Halverson, W. & Riedel, E. (2007). Gamer teachers. In D. Gibson, C. Aldrich & M. Prensky (Eds.). *Games and Simulations in Online Learning: Research and Development Frameworks* (pp. 89-114). Information Science Publishing.

Getting, B. (2007). *Basic definitions: Web 1.0, web. 2.0, web 3.0*.

http://www.practicalecommerce.com/articles/464-Basic-Definitions-Web-1-0-Web-2-0-Web-3-0.

Girod, G., Girod, M., & Denton, J. (2007). Lessons learned modeling "connecting teaching and learning." In D Gibson, C. Aldrich, & M. Prensky (Eds.) *Games and simulations in online learning: Research and development frameworks.* (1-20). Information Science Publishing.

Glazer, E., Hannafin, M., Polly, D. & Rich, P. (2009). Factors and interactions influencing technology integration during situated professional development in an elementary school. *Computers in School, 26*(1), 21-39.

Goldman, J., Heddy, B. & Laird, S. (2018). An interdisciplinary discourse between Dewey and self-determination theory: Motivation in the wake of monetizing education. *Education and Culture, 34*(2), 89-94.

Gong, H. (2020). Multi-scalar legitimation of a contested industry: a case study of the Hamburg Video industry. *Geoforum, 114,* 1-9. https://doi.org/10.1016/j.geoforum.2020.05.005

Gonzalez-Gonzalez, C., & Blanco-Izquierdo, F. (2012). Designing social videogames for educational uses. *Computers & Education, 58*(1), 250-262.

Gradwell, J. (2006). Teaching in spite of, rather than because of, the test. In S. Grant (Ed.), *Measuring history: Cases of state-level testing across states* (157-176). Information Age Publishing.

Granic, I., Loel, A., & Engels, R. (2014). The benefits of playing video games. *American Psychologist, 69*(1), 66-78. https://www.apa.org/pubs/journals/releases/amp-a0034857.pdf

Greenwood, J. (1994). Action research and action researchers: Some introductory considerations. *Contemporary Nurse, 3*(2), 84-92.

Gunter, G., Kenny, R. & Vick, E. (2008). Taking serious games seriously: Immersing academic content through endogenous fantasy. *Educational Technology Research and Development Journal, 56(*6), 511-537. DOI: 10.1007/s11423-007-9073-2

Hamada, S., Hamada, S. & Biello, K. (2020). "Bloom's Taxonomy." *BTAX*. https://www.bloomstaxonomy.us/

Hamari, J., Shernoff, D., Rowe, E., Coller, B., Asbell-Clarke, J. & Edwards, T. (2016). Challenging games help students learn: An empirical study on engagement, flow, and immersion in game-based learning. *Computers in Human Behavior 54*, 170-179. https://doi.org/10.1016/j.chb.2015.07.045

Hansen, M., Levesque, E., Valant, J., & Quintero, D. (2018). 2018 brown center report on American education: Understanding the social studies teacher workforce. *Brookings Institution.* https://www.brookings.edu/research/2018-brown-center-report-on-american-education-understanding-the-social-studies-teacher-workforce/

Harel, I. (Ed.), & Papert, S. (Ed.). (1991). *Constructionism*. Ablex Publishing.

Hartmann, A., & Gommer, L. (2019). To play or not to play: on the motivational effects of games in engineering education. *European Journal of Engineering Education*. https://doi.org/10.1080/03043797.2019.1690430

Kalamas Hedden, M., Worthy, R., Akins, E., Slinger-Friedman, V., & Paul, R. (2017). Teaching sustainability using an active learning constructivist approach: Discipline-specific case studies in higher education. *Sustainability*, *9*(8), 1320. doi:10.3390/su9081320

Helms, M.M. and Nixon, J. (2010), Exploring SWOT analysis – where are we now? A review of academic research from the last decade. *Journal of Strategy and Management, 3*(3), 215-251. https://doi.org/10.1108/17554251011064837

Hendrix, M., Backlund, P., & Vampula, B. (2015). A Rating Tool for Sharing Experiences with Serious Games. In Management Association, I. (Ed.), *Gamification: Concepts, Methodologies, Tools, and Applications* (866-882). IGI Global. http://doi:10.4018/978-1-4666-8200-9.ch043

Henry, E., Hinshaw, R., Al-Bataineh, A., & Bataineh, M. (2020). Exploring teacher and student perceptions on the use of digital conferencing tools when providing feedback in writing workshop. *Turkish Online Journal of Educational Technology - TOJET*, *19*(3), 41–50.

History.com Staff. (2009). "Sandra Day O'Connor." *A+E Networks.* http://www.history.com/topics/sandra-day-oconnor.

Holcomb, L., Beal, C., & Lee, J. (2011). Supersizing social studies through the use of Web 2.0 technologies. *Social Studies Research and Practice, 6*(3), 102-111. http://www.socstrpr.org/wp-content/uploads/2011/12/MS06357_Holcomb-8.pdf

Homana, G., & Passe, J. (2013). Not too hot, not too cold: Social studies in today's middle schools. In J. Passe & P. Fitchett (Eds.), *The status of social studies: Views from the Field.* (19-39). Charlotte, NC: Information Age Publishing, Inc.

Hunnicutt, B. (1990). Leisure and play in Plato's teaching and philosophy of learning. *Leisure Sciences, 12*, 211-227. https://doi.org/10.1080/01490409009513101

Hyndman, B. (2018). *Ten reasons teachers can struggle to use technology in the classroom.* The Conversation. https://theconversation.com/ten-reasons-teachers-can-struggle-to-use-technology-in-the-classroom-101114

iCivics.org. (n.d.). "*Do I Have a Right?* (n.d.)." https://www.icivics.org/games/do-i-have-right

iCivics.org. (n.d.). "*Drafting board.*" (n.d.). https://www.icivics.org/products/drafting-board

iCivics.org. (n.d.). "*iCivics.org/our-story.*" (n.d.). https://www.icivics.org/our-story

iCivics.org. (n.d.). "*iCivics.org/our-story.*" (n.d.). https://www.icivics.org/our-supporters

International Society for Technology in Education. (2011). *National education technology standards.* https://www.iste.org/standards

Iten, N., & Petko, D. (2014). Learning with serious games: Is fun playing the game a predictor of learning success? *British Journal of Educational Technology*, *47*(1), 151-163. https://bera-journals.onlinelibrary.wiley.com/doi/full/10.1111/bjet.12226

Jarvin, L. (2015). Edutainment, games, and the future of education in a digital world. *New Directions for Child and Adolescent Development*, (147), 33-40. https://doi.org/10.1002/cad.20082

Jenkins, H., Clinton, K., Purushotma, R., Robison, A., & Weigel, M. (2006). Confronting challenges of participatory culture: Media education for the 21st century. *MacArthur Foundation. https://www.macfound.org/media/article_pdfs/jenkins_white_paper.pdf*

Johnson, S. (2005). *Everything bad is good for you.* Touchstone.

Jones, C. (2018). A new venue for video games: K-12 classrooms. EdSource. https://edsource.org/2018/a-new-venue-for-video-games-k-12-classrooms/597100

Jones, J. & Bronack, S. (2007). Rethinking cognition, representations, and processes in 3d online social learning environments. In D. Gibson, C. Aldrich & M. Prensky. *Games and Simulations in Online Learning: Research and Development Frameworks* (pp. 89-114). Hershey, PA: Information Science Publishing.

Juckett, E., & Feinberg, J. R. (2010). The Redistricting game: Teaching congressional

gerrymandering through an online simulation game. *Social Education,* 74(5), 274-278. https://scholarworks.gsu.edu/mse_facpub/42/

Juul, J. (2003). *The game, the player, the world: Looking for a heart of gameness.* In the Level Up: Digital Games Research Conference Proceedings. Ultrecht, the Netherlands: Universiteit Utrecht. https://www.researchgate.net/publication/221217301_The_Game_the_Player_the_World_Looking_for_a_Heart_of_Gameness

Kalkbrenner, M., & Horton-Parker, R. (2016). Applying John Dewey's theory of education to infuse experiential learning in an introduction to human services course. *Journal of Human Services*, *36*(1), 65–68. https://digitalcommons.odu.edu/chs_pubs/20/

Katz, I., & Assor, A. (2007). When choice motivates and when it does not. *Educational Psychology Review*, *19*(4), 429-442. https://psycnet.apa.org/doi/10.1007/s10648-006-9027-y

Keim, B. (2013). *What science knows about video games and violence.* NOVA https://www.pbs.org/wgbh/nova/article/what-science-knows-about-video-games-and-violence/

Kerssen-Griep, J. (2001). Teacher communication activities relevant to student motivation: Classroom facework and instructional communication competence. *Communication Education 50*(3), 256-273. https://doi.org/10.1080/03634520109379252

Kenny, R. & McDaniel, K. (2011). The role teachers' expectations and value assessments of video games play in their adopting and integrating them into their classroom. *British Journal of Educational Technology 42(2),* 197-213. https://www.researchgate.net/deref/http%3A%2F%2Fdx.doi.org%2F10.1111%2Fj.1467-8535.2009.01007.x

Khalili, N., Sheridan, K., Williams, A., Clark, K., & Stegman M. (2011). Students designing video games about immunology: Insights for science learning. Computers in the Schools, 28(3), 228-240. DOI: 10.1080/07380569.2011.594988

Kidipede-History and Science for Kids. (2013). "*Bill of rights (1791).*" http://www.historyforkids.org/learn/northamerica/after1500/government/billofrights.htm

King, D., & Delfabbro, P. (2020). Problematic online gaming and the covid-19 pandemic. *Journal of Behavioral Addictions, 9*(2), 184-186. https://doi.org/10.1556/2006.2020.00016

Kolb, A., & Kolb, D. (2005). Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning & Education, 4*(2), 193–212. https://doi.org/10.5465/AMLE.2005.17268566

Ladson-Billings, G. (2003). Lies my teacher still tells: Developing a critical race perspective toward the social studies. In G. Ladson-Billings (Ed.), *Critical race theory perspectives on the social studies* (1-14), Greenwich, CT: Information Age Press.

Ladson-Billings, G. (2014). Culturally relevant pedagogy 2.0: a.k.a the remix. *Harvard Educational Review, 84*(1), 74-84, 135. https://doi.org/10.17763/haer.84.1.p2rj131485484751

Lather, P. (2009). 2007 kneller lecture, aesa getting lost: Social science and/as philosophy. *Educational Studies 45*(4), 342–357. DOI: 10.1080/00131940903066248

Lawson, G., & Schapiro, R. (2021). *Common interpretation: The tenth amendment*. National Constitution Center. https://constitutioncenter.org/interactive-constitution/interpretation/amendment-x/interps/129

LeCompte, K. l., Moore, B., & Blevins, B. (2011). 'The impact of iCivics on students' core civic

knowledge. *Research in The Schools",* 18(2), 58-70. https://www.researchgate.net/publication/264346878_The_Impact_of_iCivics_on_Students'_Core_Civic_Knowledge

Lee, J., Doolittle, P., & Hicks, D. (2006). Social studies and history teachers' uses of non-digital and digital historical resources. *Social Studies Research and Practice, 1*(3), 291-311. https://www.researchgate.net/publication/251735787_Social_Studies_and_History_Teachers'_Uses_of_NonDigital_and_Digital_Historical_Resources

Lee, J., & Probert, J. (2010). Civilization iii and whole-class play in social studies. *The Journal of Social Studies Research, 34*(1), 1-28. https://www.researchgate.net/publication/262960261_Civilization_III_and_whole-class_play_in_high_school_social_studies

Lerner, R., & Thomas, J. (2021). *Common interpretation: The seventh amendment.* National Constitution Center. https://constitutioncenter.org/interactive-constitution/interpretation/amendment-vii/interps/125#:~:text=The%20Seventh%20Amendment%20requires%20civil%20jury%20trials%20only%20in%20federal%20courts.&text=The%20U.S.%20Supreme%20Court%20has,to%20hold%20civil%20jury%20trials.

Levine, A., & Cureton, J. S. (1998). What we know about today's college students. *About Campus*, *3*(1), 4. https://doi-org.ezproxy.gsu.edu/10.1177/108648229800300103

Lewis, S. E., Freed, R., Heller, N. A., & Burch, G. F. (2015). Does student engagement affect learning? An empirical investigation of student involvement theory. *Academy of Business Research Journal*, *2*, 8–16.

Licorish, S., Owen, H., Daniel, B., & George, J. (2018). Students' perception of Kahoot!'s

influence on teaching and learning. Research and Practice in Technology Enhanced Learning 13(9). https://doi.org/10.1186/s41039-018-0078-8

Livingstone, S. (2010). Giving people a voice: On the critical role of the interview in the history of audience research. *Communication, Culture & Critique*, *3*(4), 566–571. https://doi.org/10.1111/j.1753-9137.2010.01086.x

Lofland, J., & Lofland, L. (1995). *Analyzing social settings: A guide to qualitative observation and analysis*, (3rd Ed.). Wadsworth.

Lopez, J. & Caceres, M. (2010). Virtual games in social science education. *Computers and Education, 55*(3), 1336-1345. https://doi.org/10.1016/j.compedu.2010.05.028

Lucasa, P., Mendez, L., & Martinez, R. (2008). Bringing commercial games into the classroom. *ScienceDirect Computers and Composition 25(3)*, 341-358. https://doi.org/10.1016/j.compcom.2008.04.009

Lunetta, V., Hofstein, A., & Clough, M. (2007*).* Learning and teaching in the school science laboratory; an analysis of research theory, and practice. In S. Abell, & N. Lederman (Eds) *Handbook of research on science education*, (p. 393-441). Lawrence Erlbaum Associates.

Macrae, C. N., & MacLeod, M. D. (1999). On recollections lost: When practice makes imperfect. *Journal of Personality and Social Psychology, 77*(3), 463-473. http://dx.doi.org/10.1037/0022-3514.77.3.463

Mahoney, C. (1997). Part ii. Overview of qualitative methods and analytic techniques: Common qualitative methods. In Frechtling, J. and Westat, L. S. (Ed.). *User-Friendly Handbook for Mixed Method Evaluations*. National Science Foundation. https://www.nsf.gov/pubs/1997/nsf97153/chap_3.htm

Malone, T. (1981). Toward a theory of intrinsically motivating instruction. *Cognitive Science,*

*5*(4), 333-369. https://doi.org/10.1207/s15516709cog0504_2

Marone, V. (2016). Playful constructivism: Making sense of digital games for learning and creativity through play, design, and participation. *Journal of Virtual Worlds Research*, *9*(3), 1–18. Retrieved from: https://doi.org/10.4101/jvwr.v9i3.7244

Martin, J. (2004). Self-Regulated Learning, Social Cognitive Theory, and Agency. Educational Psychologist, 39(2), 135–145. https://doi.org/10.1207/s15326985ep3902_4

Mason, C., Berson, M., Diem, R., Hicks, D., Lee, J., & Dralle, T. (2000). Guidelines for using technology to prepare social studies teachers. *Contemporary Issues in Technology and Teacher Education, 1*(1), 107-116.

McBurnett, L., Hinrichs, M., Seager, T., & Clark, S. (2018). Simulation gaming can strengthen experiential education in complex infrastructure systems. *Simulation & Gaming, 49(6),* 620-641. https://doi.org/10.1177/1046878118767729

McCall, J. (2011). *Gaming the past: Using video games to teach secondary history.* New York: NY. Routledge.

McFarlane, A. Sparrowhawk. A. & Heald, Y. (2002). *Report on the educational use of games: An exploration by teem of the contribution video games can make to the educational process.* www.teem.org.uk/publications/teem_gamesined_full.pdf

Mead, G. (1997). Mind, self & society from the standpoint of a social behaviorist: Works of George Herbert Mead. Charles W. Morris (ed.). University of Chicago Press.

Meier, S. (1991). Civilization [video game]. MicroProse.

Meier, S. (1990). Railroad Tycoon [video game]. MicroProse.

Meier, S. (1991). Civilization [video game]. Baltimore, MD: MicroProse.

Meier, S. (1996). Civilization II [video game]. Bristol, UK: MicroProse.

Meier, S. (2001). Civilization III [video game]. Paris, FR: Informs.

Meier, S. (2005). Civilization IV [video game]. Novata, CA: 2K Games & Aspyr.

Meier, S. (2010). Civilization V [video game]. Novata, CA: 2K Games & Aspyr.

Mero-Jaffe, I. (2011). 'Is that what i said?' Interview transcript approval by participants: An aspect of ethics in qualitative research. *International Journal of Qualitative Methods, 10* (3), 231–247. https://doi.org/10.1177/160940691101000304

Meyer, L. (2015). 4 innovative ways to teach with video games. *T H E Journal*, 42(5), 20-24.

Molins-Ruano, P., Sevilla, C., Santini, S., Haya, P., Rodriguez, P., & Sacha, G. (2014). Designing videogames to improve students' motivation. *Computers in Human Behavior, 31*(1), 571-579. DOI: 10.1016/j.chb.2013.06.013

Montessori, M. (1949). *The absorbent mind.* (C.A. Claremont Trans.). Kalakshetra Press.

Moore, C. D. (2015). *Back away from the lecture notes: Using a simulation game to engage social studies haters.* (Doctoral Dissertation). https://scholarworks.gsu.edu/mse_diss/4

Mouza, C. (2002). Learning to teach with new technology: Implications for professional development. *Journal of Research on Technology in education 35(2),* 272-289. https://doi.org/10.1080/15391523.2002.10782386

Muhammad, A., Mitova, M., & Wooldridge, D. (2016). Utilizing technology to enhance learning environments: The Net Gen Student. *Journal of Family & Consumer Sciences, 108*(2), 61–63. https://doi.org/10.14307/JFCS108.2.61

Mukhtar, Q. (2020). A multimodal approach to video games and the player experience. *Social Semiotics, 30*(5), 743-745. DOI: 10.1080/10350330.2019.1629524

Murray, M., Laird, S., Bohr, S., & Park, J. (2006). *Serious games: Incorporating video games*

*in the classroom.* Educause Review. https://er.educause.edu/articles/2006/1/serious-games-incorporating-video-games-in-the-classroom

National Council for the Social Studies. (2006). *Technology position statement and guidelines.* http://www.socialstudies.org/positions/technology.

National Council for the Social Studies. (2007). *Social studies in the era of no child left behind.* http://www.socialstudies.org/positions/nclbera.

Nehring, J., Charner-Laird, M., & Szczesiul, S. (2019). Redefining excellence: Teaching in transition, from test performance to 21st century skills. *NASSP Bulletin*, *103*(1), 5–31. http://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,shib&db=eric&AN=EJ1210729&site=ehost-live&scope=site

New York University. (2013). Policy: Academic conflict of interest and conflict commitment. https://www.nyu.edu/about/policies-guidelines-compliance/policies-and-guidelines/academic-conflict-of-interest-and-conflict-of-commitment.html

Ngugi, D., Borden-King, L., Markovic, D., & Bertsch, A. (2020). Measuring students' perception of learning: The systematic development of an instrument. *Alberta Journal of Educational Research, 66*(4), 435–453.

Nintendo of America Inc. (2002). Animal crossing. Nintendo of America.

NPD Group. (2011). The video game industry is adding 2-17-year-old gamers at a rate higher than that age groups population growth. Https://www.npd.com/wps/portal/npd/us/news/pressreleases/pr_111011

Obikwelu, C., & Read, J. (2012). The serious game constructivist framework for children's learning. *Procedia Computer Science*, *15*(2012), 32-37. Retrieved from: https://doi.org/10.1016/j.procs.2012.10.055

Oblinger, D. & Oblinger, J. (2005). *Educating the next generation.* https://net.educause.edu/ir/library/pdf/pub7101.pdf

O'Connor, P. (n.d.). Responding to the needs of diverse learners. *Prentice Hall Teach.* http://www.phschool.com/eteach/social_studies/2001_10/essay.html

Okumuş, S., Lewis, L., Wiebe, E., & Hollebrands, K. (2016). Utility and usability as factors influencing teacher decisions about software integration. *Educational Technology Research & Development*, *64*(6), 1227–1249. https://doi.org/10.1007/s11423-016-9455-4

Pagnotti, J. & Russell III, W. (2011). Teaching history content with video games. *The International Society for the Social Studies Annual Conference Proceedings, 2011*(1).

Panoutsopoulos, H. & Sampson, D. (2012). A study on exploiting commercial digital games into school context. *Journal of Educational Technology & Society*, *15*(1), 15–27. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,shib&db=eue&AN=72954718&site=ehost-live&scope=site

Papert, S. (1993). The children's machine: Rethinking school in the age of the computer. Basic Books.

Parker, F., Novak, J., & Bartell, T. (2017). To engage students, give them meaningful choices in the classroom. *Phi Delta Kappan, 99*(2), 37–41. http://ezproxy.gsu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1155622&site=ehost-live&scope=site

Persson, M. (2011). Minecraft [video game]. Stockholm, SE. Mojang and Sony Interac tive Entertainment.

Perkins, D. (1994). Do students understand understanding? *The Education Digest, 59*(5), 21-25.

Pew Research Center. (2007). *How young people view their lives, futures and politics: A portrait of "generation next".* http://www.people-press.org/2007/01/09/a-portrait-of-generation-next/

Patil, L., Dutta, D., Bement, A. L., University of Illinois at Urbana-Champaign, & National Academy of Engineering. (2015). *Educate to innovate: Factors that influence innovation: Based on input from innovators and stakeholders*. National Academies Press.

Piaget, J. (1964). Development and learning. In R. Ripple & V. Rockcastle (Eds.), *Piaget Rediscovered*, (p. 7-20). Ann Arbor, MI: University of Michigan Press.

Phillips, D. (1990). Subjectivity and objectivity; An objective inquiry. In E. Eisner & A. Peshkin (Eds.). *Qualitative inquiry in education* (p. 19-37). Teachers College Press.

Pintrich, P., A motivational science perspective on the role of student motivation in learning and teaching contexts. *Journal of Educational Psychology*, *95*(4), 667-686.

Portman, S. (2020). Reflective journaling: A portal into the virtues of daily writing. *The Reading Teacher 73*(5), 597-602. https://doi.org/10.1002/trtr.1877

Prensky, M. (2001). *Digital game-based learning.* McGraw-Hill.

Prensky, M. (2004). The motivation of gameplay: The real 21st century learning revolution. *On the Horizon, 10*(1), 5-11. DOI: 10.1108/10748120210431349

Prensky, M. (2009). H. sapiens digital: from digital immigrants and digital natives to digital wisdom. *Innovate: Journal of Online Education, 5:*3. http://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf.

Quinn, C. (2005). *Engaging learning: Designing e-learning simulation games.* Pfeiffer.

Randel, J., Morris, B., Wetzle, D., & Whitehead, B. (1992). The effectiveness of games for

educational purposes: A review of recent research. *Simulation and Gaming, 23*(3), 261-276. https://apps.dtic.mil/dtic/tr/fulltext/u2/a259666.pdf

Reeves, B. (2012). Why we play: How our desire for games shapes our world. *Game Informer Magazine,* 235. https://www.gameinformer.com/b/features/archive/2012/11/20/why-we-play-how-our-desire-for-games-shapes-our-world.aspx

Reigeluth, C., Merrill, MJ., Wilson, B., & Spiller, R. (1980). The elaboration theory of instruction: A model of sequencing and synthesizing instruction. *Instructional Science, 9*(3), 195-219. https://www.jstor.org/stable/23368860?seq=1

Rice, J. (2007). Assessing higher order thinking in video games. *Journal of Technology and Teacher Education, 15*(1), 87-100. https://historytech.files.wordpress.com/2008/02/assessing-higher-order-thinking-in-video-games.pdf

Rieber, L. (1996). Seriously considering play: Designing interactive learning environments based on the blending of microworlds, simulations and games. *Educational Technology Research and Development, 44*(2), 43-58. https://doi.org/10.1007/BF02300540

Ritzer, G. & Smart, B. (2001) Handbook of social theory. In Sandstrom, K., Martin, D. & Fine, G. *Symbolic interactionism at the end of the century* (pp. 217-231). SAGE Publications.

Rivken, S., Hanusheck, E., & Kain, J. (2005). Teachers, schools and academic achievement. *Econometrica, 73*(2), 417-458.

Rodgers, Carol. (2002). Defining reflection: Another look at john dewey and reflective thinking. Teachers College Record. DOI: 10.1111/1467-9620.00181

Ryan, R. & Deci, E. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development and well-being. *American psychologist, 55:*(1), 68. https://self-determinationtheory.org/SDT/documents/2000_RyanDeci_SDT.pdf

Saldaña, J. (2012). *The coding manual for qualitative research,* (2nd ed.). SAGE.

Santrock, J., (2001). Educational Psychology. McGraw Hill

Sardone, N. & Devlin-Scherer, R. (2015). Exploring sensitive subjects with adolescents: using media and technology to teach about genocide. *American Secondary Education*, 43(2), 4. https://www.jstor.org/stable/43694207?seq=1

Schaffhauser, D. (2013). Will gaming save education or just waste time? *The Journal* http://thejournal.com/articles/2013/09/02/will-gaming-save-education-or-just-waste-time.aspx.

Schrier, K. (2007). Reliving history with "reliving the revolution": Designing augmented reality games to teach the critical thinking of history. In D. Gibson, C. Aldrich, & M. Prensky (Eds.), *Games and Simulations in Online Learning: Research and Development Frameworks.* (pp. 250-269). Information Science Publishing.

Sethi, J., & Scales, P. (2020). Developmental relationships and school success: How teachers, parents and friends affect educational outcomes and what actions students say matter most. *Contemporary Educational Psychology, 63*. https://doi.org/10.1016/j.cedpsych.2020.101904

Shaffer, E., Squire, K., Halverson, R., & Gee, J. (2005). Video games and the future of learning. *Phi Delta Kappan, 87(*2), 104-111. https://www.researchgate.net/deref/http%3A%2F%2Fdx.doi.org%2F10.1177%2F003172170508700205

Sharma, M. (2018). *Web 1.0, Web 2.0 and Web 3.0 with their difference.* GeeksforGeeks. https://www.geeksforgeeks.org/web-1-0-web-2-0-and-web-3-0-with-their-difference/

Simpson, E. (2005). Evolution in the classroom: What teachers need to know about the video game generation. *Tech Trends. 49*(5), 17-22. DOI: 10.1007/BF02763685

Singer, A. (2014). *How the ncss sold out social studies and history.* History News Network. https://historynewsnetwork.org/article/157845

Singh, K. (2019). Lecturer's feedback and its impact on student learning: A study of a public university in sarawak, malaysia. *Asian Journal of University Education*, *15*(3), 83–91. https://files.eric.ed.gov/fulltext/EJ1238719.pdf

Skinner, E., & Belmont, M. (1993). Motivation in the classroom: Reciprocal effects of teacher behavior and student engagement across the school year. *Journal of Education Psychology*, *85*(4), 571-581. https://files.eric.ed.gov/fulltext/EJ1238719.pdf

Sparrow, B., Liu, J., & Wegner, D. (2011). Google effects on memory: Cognitive consequences of having information at our fingertips. *Science*, *333*(6043), 776-778. https://science.sciencemag.org/content/333/6043/776

Squire, K. (2002). Cultural framing of computer/video games: Games studies. *The International Journal of Computer Game Research*, *2*(1). https://www.researchgate.net/publication/220200744_Cultural_Framing_of_ComputerVideo_Gmes

Squire, K. (2003). Video games in education. *International Journal of Intelligent Simulations and Gaming 2(*1), 49-62. http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.100.8500

Squire, K. (2006). From content to context: Video games as designed experience. *Educational Researcher, 35(*8), 19-29. https://doi.org/10.3102%2F0013189X035008019

Squire, K. & Giovanetto, L. (2008). The higher education of gaming. *ELearning, 5*(8), 2-28. https://doi.org/10.2304%2Felea.2008.5.1.2

Squire, K., Giovanetto, L., Devane, B., & Durga, S. (2005). From users to designers: Building a self-organizing game-based learning environment. *TechTrends, 49*(5), 34-43.

https://eric.ed.gov/?id=EJ737695

Stahl, T. (2005). *Video game genres*. http://www.thocp.net/software/games/reference/genres.htm.

Stake, R. (1995). *The art of case study research.* SAGE publications, Inc.

Steffens, B. (2019). *Addicted to Video Games*. ReferencePoint Press.

Steinkuehler, C. (2006). Massively multiplayer online videogaming as participation in discourse. *Mind, Culture and Activity 13*(1), 38–52. https://psycnet.apa.org/doi/10.1207/s15327884mca1301_4

Stevens, T. (2020). *Physical activity and student learning.* Routledge.

Stols, G., & Kriek, J. (2011). Why don't all math teachers use dynamic geometry software in their classrooms? *Australasian Journal of Educational Technology*, *27*(1), 137–151. DOI: https://doi.org/10.14742/ajet.988

Swan, K., & Hofer, M. (2008). Technology and social studies. In I. S. Levstik & C. A. Tyson (Eds.), *Handbook of research in social studies education* (307-328), Routledge.

Tang, T., Vezzani, V., & Eriksson, V. (2020). Developing critical thinking, collective creativity skills and problem solving through playful design jams. *Thinking Skills and Creativity, 37*. https://doi.org/10.1016/j.tsc.2020.100696

Taub, M., Sawyer, R., Smith, A., Rowe, J., Azevedo, R., & James, L. (2020). The agency effect: The impact of student agency on learning, emotions, and problem-solving behaviors in a game-based learning environment. *Computers and Education 147* https://doi.org/10.1016/j.compedu.2019.103781

The Political Machine. (2004). [video game]. Ubisoft.

Thieman, G., O'Brien, J., VanFossen, P., & Berson, M. (2013). Characteristics of high

frequency technology users. In J. Passe & J. Fitchett (Eds.) *The status of social studies: Views from the field* (233-246). Charlotte, NC: Information Age Publishing, Inc.

Tobias, S., Fletcher, J., Dai, D., & Wind, A. (2011). Review of research on computer games. In S. Tobias & J. Fletcher (Eds.) *Computer games and instruction* (127-221). Information Age Publishing, Inc.

Tobias, S., Fletcher J., & Wind A. (2014). Game-based learning. In: Spector, J., Merrill, M., Elen, J., Bishop, M. (Eds.) *Handbook of Research on Educational Communications and Technology.* (485-503). Springer. https://doi.org/10.1007/978-1-4614-3185-5_38

Towler, L. (2014). Deeper learning: Moving students beyond memorization. *neaToday.* http://neatoday.org/2014/11/25/deeper-learning-moving-students-beyond-memorization-2/

Turner, R. (1953). "The quest for universals in sociological research". *American Sociological Review,* 18(6). 604-611.

Vanderstaay, S. (2005). One hundred dollars and a dead man. *The Journal of Contemporary Ethnography* 34(4), 371-409. https://doi.org/10.1177%2F0891241605275478

VanFossen, P. (2001). Degree of internet/www use and barriers to use among secondary social studies teachers. International Journal of Instructional Media, 28(1), 57-74. https://www.learntechlib.org/p/92928/

VanFossen, P. (2005). "Reading and math take so much of the time…" An overview of social studies instruction in elementary classrooms in Indiana. *Theory and Research in Social Education, 33*(3), 376-403. https://www.rsearchgate.net/deref/http%3A%2F%2Fdx.doi.org%2F10.1080%2F00933104.2005.10473287

van Hover, S. (2006). Teaching in the old dominion. In S. Grant (Ed.), *Measuring history: Cases of state-level testing across the united states* (19 –219), Greenwich, CT: Information Age Publishing.

Video games created by middle school students to be played on led array of cira centre sky scraper to open new park, drexel square. (2019). *Drexel Now.* https://drexel.edu/now/archive/2019/May/middle-schoolers-design-video-games-for-sky-scraper/

von Wright, G. (1971). Explanation and understanding. Routledge & Kegan Paul.

Vygotsky, L. (1978). Interaction between learning and development. In M. Cole (trans.), V. John-Steiner, S. Scribner, & E. Souberman (Eds), Mind in society (pp79-91). Harvard University Press.

Warner-Weil, S., & McGill, I. (1989). *Making sense of experiential learning: Diversity in theory and practice.* Open University Press.

West, B. & Witt, A. (2020). *Challenge, fantasy, and curiosity: Activating students' intrinsic motivation within information literacy sessions.* Milne Library Faculty/Staff Works. 6. https://knightscholar.geneseo.edu/library-research/6

Wheeler, M., Ewers, M., & Buonanno, J. (2003) Different rates of forgetting following study versus test trials. *Memory, 11*:6, 571-580. DOI: 10.1080/09658210244000414

Whitebead, D., Coltman, P., Jameson, H. & Lander, R. (2009). Play, cognition and self-regulation: What exactly are children learning when they learn through play? *Educational & Child Psychology, 26:*2, 40-52.

https://www.semanticscholar.org/paper/Play%2C-cognition-and-self-regulation%3A-What-exactly-Whitebread-Coltman/3a6310c1a5b9daa1bc48bfc8da1c5dad04af17f1

Wisniewski, B., Zierer, K., & Hattie, J. (2020). The power of feedback revisited: A `meta-analysis of educational feedback research. *Frontiers in Psychology, 10.* https://doi.org/10.3389/fpsyg.2019.03087

World Health Organization. (2019). Recommended format for a 'research protocol': Research protocol: part 1. https://www.who.int/ethics/review-committee/format-research-protocol/en/

Wright, W. (1989). Simcity [video game]. Maxis.

Wright, W. (2003). Forward. In D. Freeman (Ed.), *Creating emotion in games: The craft and art of emotioneering* p. xxxi – xxxiii). New Riders Games.

Wright-Maley, C. C. (2015). Beyond the "Babel problem": Defining simulations for the social studies. *Journal of Social Studies Research,* 39(2), 63-77. doi: 10.1016/j.jssr.2014.10.001

Yu, T., Lin, M., & Liao, Y. (2017). Understanding factors influencing information communication technology adoption behavior: The moderators of information literacy and digital skills. *Computers in Human Behavior, 71,* 196-208. https://psycnet.apa.org/doi/10.1016/j.chb.2017.02.005

Zapal, H. (2019). *The ultimate guide to gaming and chatroom safety*. The Bark Blog for the connected family. https://www.bark.us/blog/ultimate-guide-gaming-chatroom-safety/

Zeki, C. (2009). The importance of non-verbal communication in classroom management. *Procedia-Social and Behavioral Sciences 1*(1), 1443-1449. https://www.sciencedirect.com/science/article/pii/S1877042809002572

Zhao, Y. (2007). Social studies teachers' perspectives of technology integration. Journal Of

Technology & Teacher Education, 15(3), 311-333.

https://www.learntechlib.org/primary/p/20005/

# APPENDIXES

## Appendix A:

## Interview Questions

Pre-game questions:

1. What pseudonym or made-up name would you like me to use?
2. How old are you?
3. What are some things that you like about social studies?
4. What are some things that you don't like about social studies?
5. What forms of technology do you use outside of the classroom?
6. What forms of technology have you used in social studies?
7. What type of technology would you like to have in social studies?
8. What apps or software programs would you like to use in social studies?
9. What are your thoughts about video games?
10. Are you familiar with any video games that are related to social studies instruction? If so, please describe them.
11. Let's say that a video game for social studies did exist, what characteristics or qualities would it have to possess for you to want to use it?

Post-game questions:

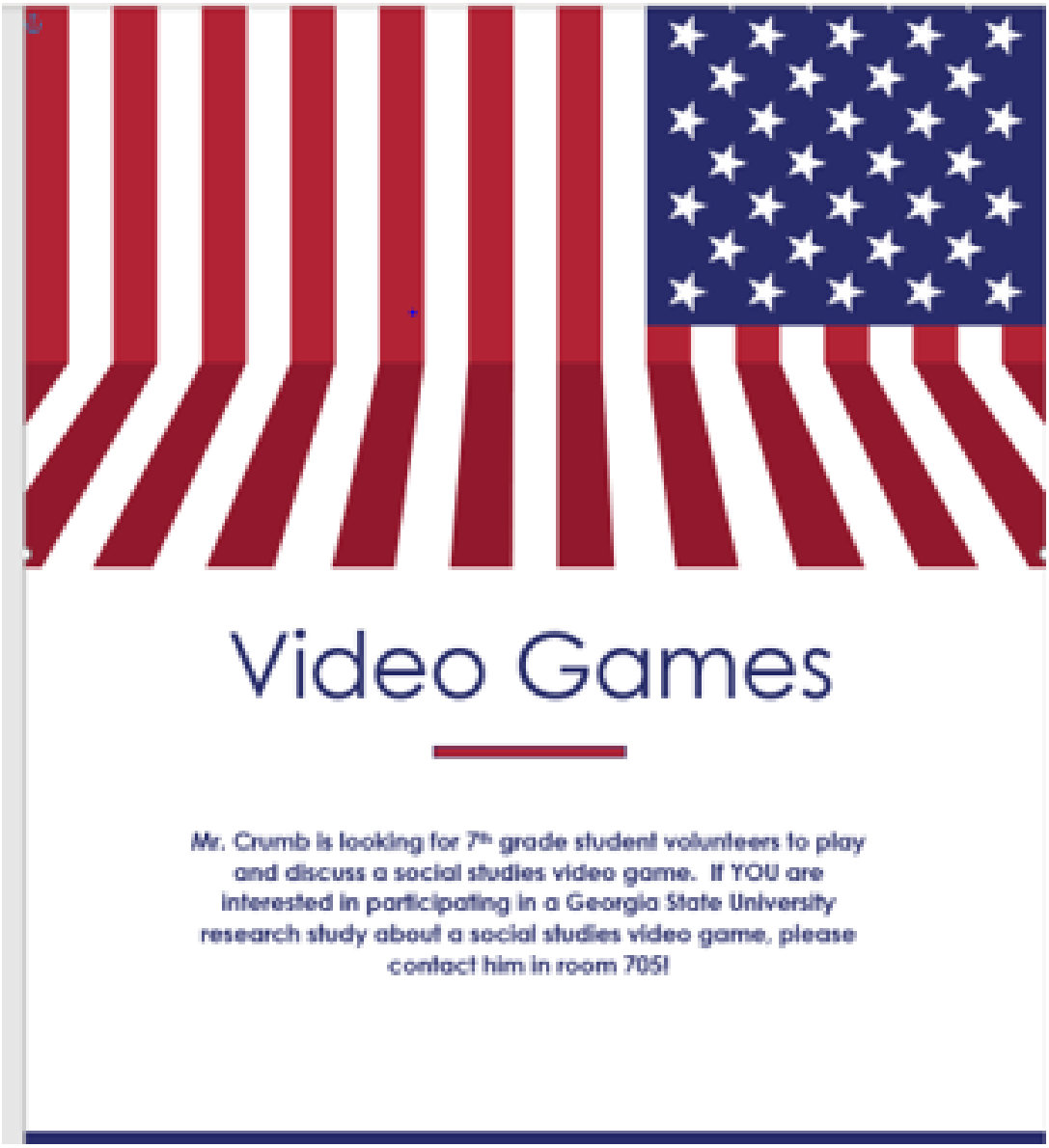
1. What did you find appealing or like about the videogame?
2. What did you dislike about the videogame?
3. Was the time we spent in class the only time that you played Do I have a Right?? If not, how many other times did you play?
4. What are the amendments that you think you understand better now that you have played the game?
5. What do you think helped you remember that (those) amendment(s)?
6. Was there anything that distracted you during the game?
7. How much did you use the newspaper review at the end of your turn?

| Did not use<br>1 | Scanned review for 1or 2 turns<br>2 | Scanned review for 3 to 5 turns<br>3 | Scanned review for 6 or 7 turns<br>4 | Read each review and used the information to help make decisions for the next turn<br>5 |
|---|---|---|---|---|

8. Would you please tell me what you thought about the Impact Points?
9. What organization did you help with your Impact Points? Why did you choose that organization?
10. What economic concepts did you recognize in the game? How did the game improve your understanding of those concepts?

Appendix B

Participant Recruitment Flyer



Appendix C

Student Consent Form

Georgia State University
Department of Education & Human Development
Student Consent Form

Title: How Does the Use of a Social Studies Video Game Affect Student Recall?
Principal Investigator: Dr. Joseph Feinberg
Student Principal Investigator: John Stevens Crumb II

**Introduction and Key Information**

You are invited to join in a research study. It is up to you to decide if you would like to take part in the study. The purpose of the study is to find out if video games can affect student learning. Your part in the study includes answering questions and playing a video game. The game is based on the U.S. Constitution. You will take part over the course of 4 study skills class periods. Taking part in this study will not expose you to any more risks than you would experience in a normal day. Taking part in this study may help you learn more about the U.S. Constitution. We hope to gain information about how video games can affect student learning.

**Purpose**

The purpose of the study is to find out if video games affect student learning. You are invited to take part in this study because you are a middle school student. A total of 60 people will be invited to take part in this study.

**Procedures**

If you decide to take part, it will be over 4 study skills classes. Each session will last about 30 minutes each. The study will last one month at Northwestern Middle School. Up to 60 students may take part in the study.

- You will be interviewed during the first session. The interview will be audio recorded.
- You will play the video game during the second and third sessions.
- You will be interviewed during the fourth session. The interview will be audio recorded.

**Future Research**

Mr. Crumb will remove data that may identify you.

**Risks**

In this study, you will not have any more risks than you would in a normal day of life. No injury is expected from this study. If you believe you have been harmed, contact the research team as soon as possible. Georgia State University and the research team have not set aside funds to reimburse for any injury.

**Alternatives**

The alternative to taking part in this study is to not take part in the study.

**Benefits**

You may gain a better understanding of the U.S. Constitution. Overall, we hope to gain information about the possible effects of using video games in the classroom.

**Voluntary Participation and Withdrawal**

You do not have to be in this study. If you decide to be in the study and change your mind, you have the right to drop out at any time. No one will be mad or upset with you if you do not take part in the study. You may skip questions or stop participating at any time.

**Confidentiality**

We will keep your records private to the extent allowed by law. The following people and entities will have access to the information that you provide:

- John S. Crumb II
- Dr. Joseph Feinberg
- GSU Institutional Review Board
- Office for Human Research Protection (OHRP)

We will use your made-up name rather than your real name on study records. The information you provide will be stored digitally. Mr. Crumb will be the only one with access to the recordings. Information will be stored on a flash drive and kept in a locked container when not in use. Any audio recordings will be destroyed after the study is over. When we present or publish the results of this study, we will not use your name or other information that may identify you.

**Contact Information**

Contact Dr. Joseph Feinberg at 770-855-0212 and jfeinberg@gsu.edu or John Crumb @ 678-234-5310 and crumb@fultonschools.org

- If you have questions about this study or your part in it
- If you have questions, concerns, or complaints about the study. You can also call if you think you have been harmed by the study.
- The IRB at Georgia State University reviews all research that involves human participants. You can contact the IRB if you would like to speak to someone who is not involved directly with the study. You can contact the IRB for questions, concerns, problems, information, input, or questions about your rights as a research participant. Contact the IRB at 404-413-3500 or irb@gsu.edu.

**Consent**

We will give you a copy of this consent form to keep.

If You are willing to volunteer for this research and be audio recorded, please sign below.

_____

Print Name of Student

_____ _____

Signature of Student Date

John S. Crumb II 7/26/19

Principal Investigator or Researcher Obtaining Consent Date

Appendix D

Parent/Guardian Permission Form

Georgia State University
Department of Education & Human Development
Parental/Guardian Permission Form

Title: How Does the Use of a Social Studies Video Game Affect Student Recall?
Principal Investigator: Dr. Joseph Feinberg
Student Principal Investigator: John Stevens Crumb II

**Introduction and Key Information**

Your child is invited to join in a research study. It is up to you to decide if your child is allowed to take part in the study. The purpose of the study is to find out if video games can affect student learning. Your child's part in the study includes answering questions and playing a video game. The game is based on the U.S. Constitution. Your child will take part over 4 study class periods. Taking part in this study will not expose your child to any more risks than your child would experience in a normal day. Taking part in this study may help your child learn more about the U.S. Constitution. We hope to gain information about how video games can affect student learning.

**Purpose**

The purpose of the study is to find out if video games affect student learning. Your child is invited to take part in this study because your child is a $7^{th}$ grade student in middle school. A total of 60 people will be invited to take part in this study.

**Procedures**

If your child decides to take part, it will be over the course of 4 study skills classes. Each session will last about 30 minutes each. The study will last one month at Northwestern Middle School. Up to 60 students may take part in the study.

- Your child will be interviewed during the first session. The interview will be audio recorded.
- Your child will play the video game during the second and third sessions.
- Your child will be interviewed during the fourth session. The interview will be audio recorded.

**Future Research**

Mr. Crumb will remove data that may identify your child.

**Alternatives**

The alternative to taking part in this study is to not take part in the study.

**Risks**

In this study, your child will not have any more risks than your child would experience in a normal day of life. No injury is expected from this study. If your child believes he/she has been harmed, contact the research team as soon as possible. Georgia State University and the research team have not set aside funds to reimburse you or your child for any injury.

**Benefits**

Your child may gain a better understanding of the U.S. Constitution. Overall, we hope to gain information about the possible effects of using video games in the classroom.

**Voluntary Participation and Withdrawal**

Your child does not have to be in this study. If your child decides to be in the study and changes his/her mind, your child has the right to drop out at any time. Your child may skip questions or stop participating at any time.

**Confidentiality**

We will keep your child's records private to the extent allowed by law. The following people and entities will have access to the information that your child provides:

- John S. Crumb II
- Dr. Joseph Feinberg
- GSU Institutional Review Board
- Office for Human Research Protection (OHRP)

We will use a made-up name for your child on study records. The information your child provides will be stored digitally. Mr. Crumb will be the only one with access to the recordings. Information will be stored on a flash drive and kept in a locked container when not in use. Any audio recordings will be destroyed after the study is over. When we present or publish the results of this study, we will not use your child's name or other information that may identify your child.

**Contact Information**

Contact Dr. Joseph Feinberg at 770-855-0212 and jfeinberg@gsu.edu or John Crumb @ 678-234-5310 and crumb@fultonschools.org

- If you have questions about this study or your child's part in it
- If you have questions, concerns, or complaints about the study. You can also call if you think your child have been harmed by the study.

- The IRB at Georgia State University reviews all research that involves human participants. You can contact the IRB if you would like to speak to someone who is not involved directly with the study. You can contact the IRB for questions, concerns, problems, information, input, or questions about your rights as a research participant. Contact the IRB at 404-413-3500 or irb@gsu.edu.

**Consent**

We will give you a copy of this consent form to keep.

If you are willing for your child to take part in this research and be audio recorded, , please sign below.

_____

Print Name of Student

_____

Printed Name of Parent or Guardian

| | |
|---|---|
| _____ | _____ |
| Signature of Parent or Guardian | Date |
| John S. Crumb II | 7/26/19 |
| Principal Investigator or Researcher Obtaining Consent | Date |