

Teaching Social Studies with Video Games

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Today's youth have grown up immersed in technology and are increasingly relying on video games to solve problems, engage socially, and find entertainment. Yet research and vignettes of teachers actually using video games to advance student learning in social studies is scarce (Hutchinson 2007). This article showcases how social studies teachers used the *Age of Empires II: The Age of Kings* in a seventh-grade world history class. On the basis of our experiences, we believe video games provide students with a digitally relevant world in which to explore abstract concepts and theories that are all too common in social studies. Outside of providing strategies and advice to teachers when integrating video games in the social studies, we identify challenges and issues inherent in their classroom use.

Keywords: video games, technology, world history, middle school

In the mid-1980s, through an educational partnership with Apple, many schools had a full lab of brand new Apple II's. These "top-of-the-line" computers provided teachers with new opportunities to engage, reach, and teach students. At the forefront of this effort was the ability to integrate interactive educational video games, in particular, games like *Oregon Trail*. Never before had Western Migration come to life so seamlessly, as when students began playing *Oregon Trail* and were thrust into making decisions that would impact the success of their voyage from Missouri to Oregon.

These educational games live on in the memories of many 1980s youth and illustrate the allure and opportunities of using video games in schools. Knowing that the graphics, capabilities, and interactivity of today's video games have grown leaps and bounds since the 1980s and today's students are as digitally connected as ever, we turned to explore how we could better harness the educative potential of video games in social studies classrooms. In this article we set out to shed light on this question and showcase how we integrated the video game *Age of Empires II* in a seventh-grade World History class to advance student learning.

History of Video Games

A video game is a game that is played by using a video device, such as a console, computer, smartphone, tablet, or smart TV ("Video Game" 2014). Modern video games stem from the development of the coin operated arcade game in the early 1970s (Computer History Museum n.d.). The success of the arcade in the 1970s led to the development of consoles for home use. Among these early gaming consoles were the Colecovision, Atari 2600, and even the Apple and Commodore personal home computers (Aamoht 2014; Barton and Loguidice 2008). Through a series of ups and downs, video games have migrated from simple blocks moving around a screen to modern marvels of interactive storytelling (Aamoht 2014; Barton and Loguidice 2008; Cunningham 2013). In the past, social studies teachers had a slim selection of video game titles, with popular titles like *Carmen Sandiego* and *Oregon Trail* dominating. Today, teachers have a wide variety of titles from which to choose, ranging from content specific, Web-based, or sandbox games. Content-specific games have a direct connection to teaching content (think *Oregon Trail* for *Sid Meier's Civilization*). Web-based games may or may not be content specific, but they are only accessible online and require users to be connected to the Internet (e.g., *Gen i Revolution*). Finally, sandbox games offer users open game play, are far less structured, and put users in control (e.g., *Minecraft*).

Many popular video games have a set of specific objectives and tasks that must be completed. These games are referred to as linear games, because players usually go

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from point A to point B. Linear games are not without challenges or educative value, but games that offer open game play allow for adaptation to a given curriculum (Squire 2008a). Open game play is the opposite of linear game play; there are no goals or objectives specifically set by the game, and users are left to their own imaginations to decide what they will do and how they will do it. As with all dichotomies, few things fall within either extreme; most games either trend in one direction or the other, being more linear or more open. In some instances, linear game play works best for pedagogical purposes; in others, an open game better serves the teacher's goals.

Why Use Video Games?

The National Council for the Social Studies' Technology Position Statement (2013) recommends social studies teachers better translate students' informal, socially oriented experiences into a more academic, civically oriented curriculum. Today's youth have grown up immersed in technology and are increasingly relying on video games to solve problems, engage socially, and find entertainment. In a recent study, 97 percent of all U.S. teens identified as video game players, and nearly 50 percent of those surveyed had played a video game in the past 24 hours (Lenhart, Kahne, Middaugh, Macgill, Evans, and Vitak 2008). Access to video games is proliferate, because almost every U.S. household has a dedicated game console, computer, or smartphone. According to Bronkhorst (2012), because of an increase in consumer demand for video games, game industry sales in 2011 overtook Hollywood movie box office sales (\$17 billion versus \$9.42 billion).

We contest that the use of video games in the social studies classroom presents educators with an opportunity to engage the growing digital interests of students. Student use of video games can reinforce what we know about how students learn. Good video games require students to problem-solve, to adapt to new environments and conditions, and to stay engaged for a prolonged period of time (Gee 2003; Gee 2005). Every good game presents students with a mission and problem to be solved and the opportunity to make strategic decisions and adaptations that have real consequences on the overall success or failure of the mission (Squire 2008).

Outside of promoting inquiry, interactivity, and problem solving, video games allow students the opportunity to apply and demonstrate their learning through play. Sociocultural theorists like Vygotsky and Piaget view play as a significant mechanism to learn rules, to experiment with identity, to learn from the consequences of actions, and to help youth make sense of their world. Kurt Squire (2008b) points out that "...historically speaking, it is not the notion of learning through playing that is strange; it is the notion of sitting in rows of chairs, faced forward, everyone locked on to a fixed speaker or content provider that is strange" (3).

Vignettes on the successful use of video games in the social studies classroom and their ability to promote student learning are still scarce (Cabiness and Donovan, 2013; Hutchinson 2007). However, Squire, DeVane, and Durga (2008) used video games among at-risk fifth and sixth graders to successfully advance student interest in social studies. Additional research in the area of video games and education showcase how senior citizens who played "Rise of Nations" improved memory, reasoning, and multitasking (Basak, Book, Voss, and Kramer 2008), and the use of online games promoted vocabulary acquisition among third graders, which improved student test scores and motivation (McDonald and Hannafin 2003).

Theory into Practice: *Age of Empires II* in Seventh-Grade World History

"I learned about this in Metal Gear Solid. It was us against the Soviet Union."

—Malcolm, seventh-grader's response when asked, "What was the Cold War"?

As a teacher, it is common for students to reference historical facts and information picked up while watching television. However, in the past four years, we've noticed a growing trend for students to draw from their experiences playing video games during class discussions. While the accuracy of historical facts shared varies among students, it prompted us to think about the impact of video games on students' historical understandings and thinking. Could the classroom use of video games be used to engage students in historical inquiry? Furthermore, because an increasing number of students play video games, could the integration of video games enliven the social studies classroom and get students excited about doing history?

After reviewing a host of different video games for potential use, we decided to work together to plan the best way to integrate the use of video games in Matt's seventh-grade Ancient World History class. After a few meetings, we decided to use the video games *Age of Empires II: The Age of Kings*. We selected this video game because of three very specific considerations:

- Everyone felt this video game was best aligned to our state's academic content standards dealing with ancient civilizations. For instance, the game portrayed how previous civilizations had an enduring impact on later civilizations, and it depicts the impact of exploration, trade, conquest, and colonization and civilizations;
- The game had an easy user interface;
- And the graphics, while not the best, were good enough to keep middle school students' attention.

Age of Kingdoms simulates interactions between kingdoms and truly plays out the idea that when two cultures meet, neither side remains the same. This game serves as a powerful educational tool to introduce and highlight important concepts in geography, perspective taking, cultural diffusion, and economics.

Age of Empires II: The Age of Kings is set in the medieval period (fifth to fifteenth century) and contains thirteen playable civilizations. These civilizations are the Britons, Byzantines, Celts, Chinese, Franks, Goths, Japanese, Mongols, Persians, Saracens, Teutons, Turks, and the Vikings. Players gather resources, which they use to build kingdoms, create armies, and defeat their enemies. The ultimate goal is for players to expand their kingdom through conquering their opponents. As players set out to build the most powerful kingdom of all, they encounter and interact with kingdoms that are friendly, neutral, and enemies. As players advance in the game, their selected civilization (one of thirteen) progresses through four different historical “Ages”: the Dark Age, the Feudal Age, the Castle Age, and the Imperial Age. When players advance to a new age, they access new technologies and unlock new structures and units. Throughout the game, players have to make critical decisions about how best to locate and allocate scarce resources and how best to interact with neighboring kingdoms. These decisions and interactions ultimately impact how well their civilization performs.

Before integrating *Age of Empires II* into the curriculum, Matt presented the idea to his Department Chair and School Principal. He assured them the video game was age appropriate, presented no explicit graphic content, and was thoroughly aligned to the state content standards. He also reiterated these points in a letter sent home to parents that described how the video game was going to be used in class. Despite video games and simulations being used to train nurses, firefighters, doctors, soldiers, and a host of other professionals, there is a tendency for non-gamers to perceive video gaming as “immature” and unacademic. Being proactive seemed to work best because we received total support from school administrators, fellow teachers, and parents.

Initially, we struggled with whether we should seek out funding for thirty copies of the video game (one per student) or if we should play the game and make decisions as one large class. If we could not get each student their own individual copy of the game, we planned to project the video game to the entire class and engage and poll students with what moves should be made and why. We would have presented an overview of the situation to students and allow them to discuss and deliberate any moves that should be made and why. Our plan was to use the video game for the last ten minutes of each class to reinforce concepts discussed in class. Either way, we planned to have students journal about our game play and to reflect on how it connected with social studies topics discussed in class.

While we see the prospects of playing the game as a large class, we decided to seek out external funding to purchase



Figure 1. Mr. Matt Wunderle working with a seventh-grader playing *Age of Empire II*.

thirty copies so students could play individually. Each copy of the PC game cost \$8 (total of \$240) and to cover the expenses we worked together to write a grant, which was approved and funded for the entire amount. With only twenty-six students in the class, each student received his or her own copy for classroom use. To provide students with the opportunity for individual game play and decision making, we decided to dedicate one day a week in the computer lab to students playing the game in class (Figure 1).

To get students to build connections between class content and what they experienced in the video game, we created a wiki with ten different modules that students progressed through, all of which are based around different stages of game play. Mr. Wunderle’s wiki, including all modules and assignments, is available at <http://goo.gl/lquhJn>. As students progressed through the game, they were required to complete and submit written reflections and tasks embedded within each module. Below, we include a screenshot (Figure 2) to showcase how we organized modules and set up the wiki.

While space does not allow us to review all ten modules students were required to complete, we do want to highlight three of the more successful modules that required students to reflect on social studies concepts within their game play.

- In module three, students were asked to take a PC screenshot (Press Alt+PrtScrn) at the start of the quest and again at the end of the quest. Drawing from their game play and their screenshots, students were required to describe in a written reflection how their civilization had developed over time. In particular, they responded to “What trade and transportation networks have emerged in the game and what impact has this had on the region? How does the impact of these networks compare to the impact of the Silk Road on trade and the exchange of ideas?”
- In module seven, students were asked to reflect on the varying character perspectives within the game. Students were asked to provide a written reflection, based on their

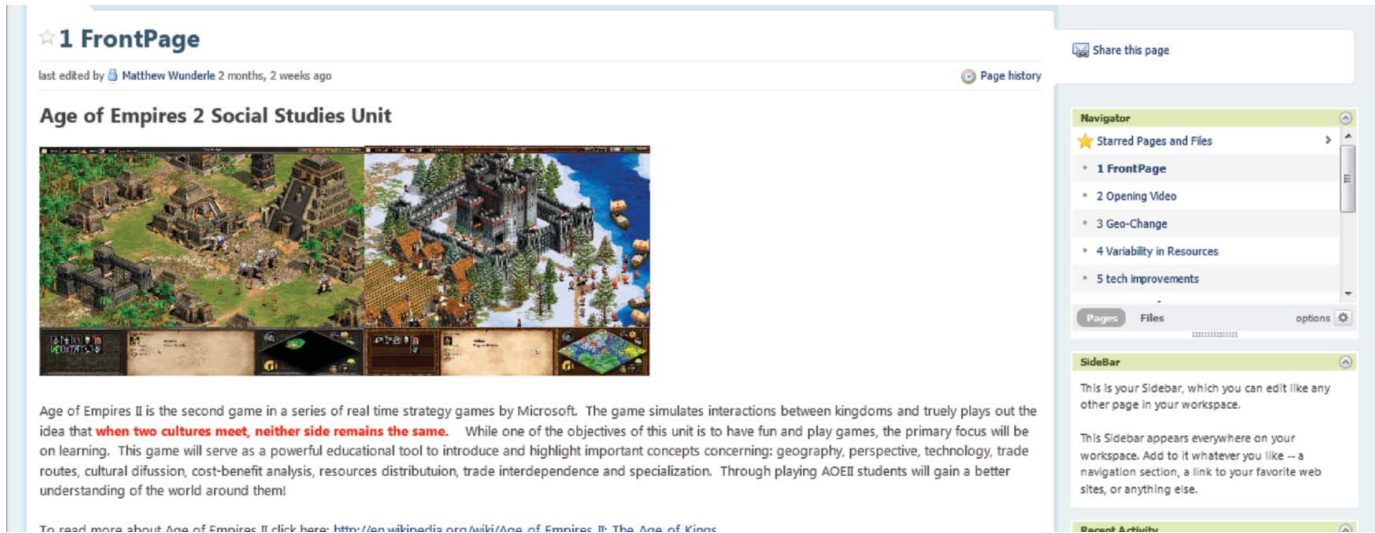


Figure 2. Screen shot of module set up in wiki.

game play experiences, on how one's perspective of war and conflict varies between governmental leaders and those warriors and their families actually entrenched in these conflicts. This included students thinking about how the decisions they made affected characters, families, and communities represented in the game. Finally, students were asked to describe the perspective of their enemy and to identify areas in which they were similar and different.

- In module ten, students were asked to provide a written reflection on "How have you used diplomacy and war to build your civilization? Has one approach been more beneficial than the other in the game? How did the preferred approach selected compare to the approach used by the Monguls?"

By answering these questions, students were required to connect their game play with concepts and issues discussed in class (i.e., Silk Road, Monguls, foreign policy, war versus diplomacy, trade, etc.). Outside of enjoying the opportunity to "game" in class, students felt as if the video game provided them with a concrete venue in which to think about, tinker with, apply, and evaluate content discussed in class. We felt as if this game served as a virtual playground whereby students could look for and experiment with topics, issues, and philosophies discussed in social studies class. In many regards, it brought world history, its issues, and people to life for students.

Conclusion

In general, teachers can integrate video games into their curriculum as long as the game can be clearly related to the core curriculum of the course. The teacher must clearly outline how the game fits within the course and how the

game will be used as a method of delivering content. Mr. Wunderle's wiki is a good example of how this can be done, as he explicitly identifies the state content standards and objectives at play in each module. One easy way for teachers to discover which video games may best suit their needs is to search the Internet for the concepts being taught and include the words "video game." This often yields results that have linear game play and specific content objectives and provides a good starting point for learning about video games that might be useful in the classroom. Teachers should also not shy away for discussing potential video game titles with school/district technology coordinators and even students.

When looking for resources to plan and use video games in teaching social studies, we were blown away at how few resources existed for teachers. Even though the number of video game titles, platforms, and possibilities has grown exponentially, this seemed to be an underdeveloped area of study. Thus, we decided to create a wiki to assist teachers looking to use video games in the social studies. This wiki identifies different types of video games for use in the social studies. The games listed have been vetted and used by social studies teachers and in no way encompass a comprehensive list but more of a representative sample. For convenience, video games have been sorted on the basis of grade level, subject area, and type (content, Web-based, and sandbox). To view these titles or to suggest the inclusion of new titles, see www.socialstudiesvideogames.com.

We must note that, like when using many other forms of nontraditional instruction, there are limitations and challenges teachers may face when using video games to teach the social studies. The lack of equipment, resources, and training, along with a narrowing of the curriculum, may make this difficult for teachers (Baek 2008). Teachers also may have to reeducate administrators, teachers, and parents about the educational value of video games. Of

course, other issues may include how characters are represented, the game's historical accuracy, and depiction of violence.

However, our experience in using video games to teach the social studies leads us to believe that their use presents educators with an underutilized opportunity to engage the growing digital gaming interests of students. When used meaningfully video games require students to problem solve, inquire, adapt, and reflect on how their decisions impact the mission and goal. Video games also provide students an online venue to apply ideas, theories, and topics discussed in the classrooms. By interacting in these digital worlds, students are provided with concrete experiences that make abstract concepts and theories that are all too common in social studies come to life.

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