CHAPTER 4

History and Social Studies

Using Digital Games to Teach History and Historical Thinking

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Key Summary Points

1. Consider your pedagogical goals when designing games for history—whether you are focused more on teaching facts and data, concepts and themes, and/or decision-making and resource management.
2. Carefully consider the balance between maintaining historical accuracy and fun and engaging gameplay and actions.
3. Well-designed games can provide effective learning opportunities for students to develop historical thinking and historical empathy skills.

Key Terms

Historiography
Historical thinking
Historical empathy
Situated cognition
Social studies games
History games
Communities of practice
Constructivism
Constructionism

Introduction

How do we define a game as being a history game? Would games from the *Civilization, Sim City,* or *Assassins Creed* series count as history games? Uricchio argues that, "historical simulations that are based upon manipulation of quantities of things like economic production, religious intensity, foreign trade, bureaucratic development, and literacy indeed fall more into the realm of sociology or anthropology than history" (Uricchio, 2005, p. 331). In this chapter, we will consider social studies games as those games that directly deal with history topics, and also those games related to politics, economics, resource management, and civics, as well. For the purposes of this chapter, I will mainly focus on the history/historical aspects of social studies games. In addition, while this chapter will focus on designing and using digital games for educational purposes, there are a number of analog games, including card, board, and role-playing games that may be relevant to history education. (A few analog examples are included in the Resources section).

There are three main types of social studies/history (digital) games. These include games that focus on the:

1. **Representation of the past.** This type of game enables the player to interact with a game representation of a particular historic or economic moment. This moment is recreated in the game and an aspect of this moment is re-performed by the player through the game. Typically, these games encourage "the player to engage in a speculative or "what if" encounter with a particular past…efforts are usually taken to maximize the accuracy of historical detail, allowing the setting and conditions to constrain and shape game play" (Uricchio, 2005, p. 328). Two examples are Muzzy Lane's *Making History* series and Channel 13/WNET's *Mission US*, a series of game modules that take players through different moments in history, such as during the Underground Railroad or the events leading up to the Revolutionary War in Boston (see Case Study One). In *Mission US*, for example, middle school players play as Nat, a printer's apprentice, and relive the Boston Massacre incident from a unique perspective.
2. **Interaction with historic themes, concepts, choices, or resources.** This type of game deals with social studies in a more abstract way, where the player may be working within historic themes, decisions, or resource deliberations, and acting like "a godlike player [who] makes strategic decisions and learns to cope with the consequences, freed from the constraints of historically specific conditions" (Uricchio, 2005, p. 328). This second type of game is typically less focused on maintaining the historical accuracy of moments or time periods, but more focused on allowing access to relevant historic questions, causes and effects, and/or systematic issues. For example, consider the *Civilization* series by Sid Meier, or *The Redistricting Game,* a game that enables players to "redistrict" based on voter constraints to understand the consequences of gerrymandering.

3. **Play within a historical or history-related setting.** This type of game may have elements of the other types of history games, but is less focused on maintaining historical accuracy or immersing players in specific historical moments or decisions. This type of game features a quasi-historical setting or themes, which may or may not be based on research or reality, and could involve alternative histories, alternative "presents," or an incorrect juxtaposition of historical events. Examples of this include the commercial off-the-shelf series *Assassins Creed* games, which features historic settings such as Italy and the Revolutionary War-era colonies. Even games such as Rockstar's *Grand Theft Auto* series and L.A. Noire could be seen as historical artifacts, in a sense. The game designers spent such attention to detail when recreating the cities represented in the games, such as Los Angeles in the 1940s, or New York City in the 2000s, that through playing the game you can, in essence, experience the city with the flavor of that time period (albeit still from the designers' perspectives).

There is an underlying question in history games as to what extent do they represent history accurately. This is a key tension when designing and using history games, as there is always a tradeoff between maintaining accuracy and representing details, and simulating themes, questions, and consequences, while also ensuring a fun, engaging experience. This tension in how to appropriately represent history in a game parallels some of the key tensions in history education.

One of the driving questions in history education is what types of content, skills, and practices it should include. On the one hand, there are a number of history teachers, researchers, and practitioners that feel that learning history facts—such as the dates of battles, the order of events in a war, or the major figures in a movement—is a solid foundation for history education. These teachers feel that learning these facts first will ground students in the topic so that they could then approach the broader themes. They view these facts as not debatable and "free from social context" (Squire & Barab, 2004, p. 506). Likewise, some social studies educators teach history as unmovable—in other words, history is not open to interpretation, but rather, there is an acceptable understanding of the past that should be provided to students. Students, in essence, are a blank slate who need learn the "better story" or the most appropriate and dominant narrative of the past (Downey & Levstick, 1991; Squire & Barab, 2004; Seixas, 2000).

On the other hand, Squire & Barab (2004) and Seixas (2000) argue that focusing only on facts and master narratives may be more akin to myth telling or heritage education than actual critical historiography (the practice of history). Rather than cultivating a love of history, these tactics may decrease students' overall interest in history and lead to misconceptions about how history is typically practiced (Seixas, 2000; Wineburg, 2001; Squire & Barab, 2004).

For these reasons and others, some history teachers, theorists, and practitioners, believe that it is more important for students to learn how to think like a historian—to sift through evidence, identify biases, and interpret perspectives—than it is to learn a litany of facts and figures.

> Whereas students read textbooks, memorize facts, and recite "ready-made" knowledge, academics, curators, journalists, and social activists do a lot more: They consider research topics of theoretical and/or practical importance, consult original sources, produce arguments, interpret data in dialogue with existing theory, and negotiate findings within social contexts.
> (Squire & Barab, 2004, pp. 505-6).

These educators argue history is open to interpretation, and is, at its core, a representation of the past, but not the past itself. They believe students who grapple with past moments, trends, or eras, should keep in mind that it is just one possible interpretation, and there may be many other ways to view the past. These educators encourage students to question not only other's interpretations of the past, but also how current issues and events are presented, whether in the media, via friends, or by teachers. In the history classroom, students can potentially rewrite or resist master narratives and reconcile their own or their community's interpretations with dominant interpretations, while also exploring their own identity in relation to history (Barnett et al., 2000; Squire & Barab, 2004).

There are many other pedagogical styles and strategies history educators use to express the past. Some history educators privilege the "people" part of history, such as the personal struggles, perspectives, and obstacles; whereas others emphasize how limited resources, geographies, or technologies interact, or how cultures collide, for example. Moreover, some history educators feel that to truly understand history, one needs to be in the shoes of its inhabitants, and empathize with the issues, problems, goals, trends, and perspectives of the time. They might argue that interpreting a historic moment with a more modern mindset could render any consideration of past events invalid. Or, they believe that at the very least, one's current biases should be reflected on when re-interpreting the past. These educators may be proponents of practicing historical empathy, which is the process of taking on another's perspective and cultural and social context so as to more properly understand his or her attitudes, feelings, actions, and decisions in the past.

Thus, there are many styles and approaches that history educators grapple with when deciding how to teach history. These lead to further questions when making history games. How much should the game incorporate alternative perspectives, such as from other cultures, countries, races, ethnicities or genders? How does a game explain human atrocities, such as genocide or slavery, in terms students will understand? Can place and location affect the player's understanding of history? Should the game focus mainly on historical and human crises, or should it also include role models, heroes/heroines, and positive advancements, which might be more inspiring to students? These are also the types of questions game designers regularly ask themselves as they design games for history education.

Another key question any game designer or game player should ask is the differences between playing a history digital game, versus experiencing history through another medium, such as a documentary video or textbook. Schut (2007) discusses the key differences. For example, history in games is played, rather than just presented or questioned. While other media can help people ask "what if" questions, games allow players to run with those questions and see varying outcomes (2007).

> This results in a very open-ended picture of history.…In a book, history is completed; the future work of the historian may change history, of course, but not the specific history that the reader is currently engaging. … In a digital game, however, history is never set: The player always has the ability to redo history. … Although the player has freedom to change the course of history, it is only to the degree that the game system allows.
> (Schut, 2007, p. 230)

As a result, games may not offer a clear and linear narrative of history, but instead typically center around historical systems and places (Schut, 2007), or through their play, question the standard versions of the past.

In the next sections, I will describe and annotate a few different learning and history education theories that may be useful to employ when designing and using games in history education. I will also present findings and best practices.

Case Study One: Mission US

Mission US is a series of free online browser-based adventure games that cover specific moments in United States history (such as the Boston Massacre/events leading up to the Revolutionary War in Boston, the Cheyenne Indians in the 1860s, and the Underground Railroad in 1848), and is geared toward middle school students. *Mission US* is in the process of being developed by WNET/Channel 13 (PBS) and Electric Funstuff, a game company, with content expertise from CUNY historians and assessment directed by Education Development Center (EDC). The game is funded by the Corporation for Public Broadcasting's "American History and Civics Initiative."

The goal of *Mission US* is to teach historical thinking skills and historical empathy, using as a backdrop specific moments from history. For example, module one, "For Crown or Colony," takes participants back in time to play as fictional Nathaniel Wheeler, a printer's apprentice, during the time of the American Revolution and Boston Massacre. In the 2014-released module three, "A Cheyenne Odyssey," players play as Little Fox, a boy living in the Northern Cheyenne tribe in 1866. The game is a point-and-click adventure game with a strong story foundation. Players are able to participate in tasks, such as helping Paul Revere (in module one), and making alliances with various NPCs (non-playing characters), who may be devoted to Loyalist or Patriot causes. One of the pivotal moments is when the player, as Nat, watches the Boston Massacre, and then makes decisions about what was seen. Each player gets a slightly different set of perspectives on the Massacre based on a randomized series of vignettes drawn from a database of possible perspectives on the Massacre (e.g., British soldiers wielding guns or colonists throwing snowballs). Students in a class are invited to deliberate what they saw, and to consider why each person saw the Massacre slightly differently. As a result of one's dialogue choices related to their interpretations of the Massacre, one's game ending and alliances may end up slightly differently.

As mentioned earlier, the team creating *Mission US* consisted of historians from CUNY, game designers (Electric Funstuff) and producers from PBS/Channel 13. History educators were also brought in as user testers. Each of these groups had different goals, needs, and requirements. The game designers wanted to make an effective, fun, engaging, and compelling game that also fit into any technological constraints; the historians wanted to maintain historical accuracy and represent the American Revolution appropriately; the history educators wanted an experience that fits into their classrooms, curriculum, and teaching style, which also meets core standards. To move forward in designing and executing the game, this meant that the team had to collectively balance these needs, address competing concerns, appropriately represent history for the target demographic, and still maintain an engaging and economically feasible game. The team regularly reflected on their decisions, and tested their assumptions with their users, which helped to create a more successful and effective game experience, as well as helped them to identify any problems with the game.

Key Frameworks

There are a few different theories of history and history education that can inform our design and use of games for social studies learning. While there are many possible theories, I have chosen to describe two different frameworks of history education, including Seixas's three history education frameworks, and Munslow's three approaches to historiography. I have also selected two frameworks specifically focused on designing games for history: McCall's five principles for designing history games and the History Multimedia Interactive Educational Game (HMIEG) framework. In addition, I chose four learning theories and concepts that may be useful to those creating games for history, including situated cognition, communities of practice, historical thinking, and historical empathy, and I briefly mention constructionism and constructivism.

Frameworks: History education

Seixas (2000) outlines three possible options for history education. This includes:

1. T**he "Best Possible Story" model:** Seixas (2000) explains that the aim of history education in the "Best Possible Story" model is to share the single most agreed-upon narrative of history. The purpose of this model is to enable a unified and collective view of history (Kee, 2011). Limits of this model are that there is a lack of agreement of what really happened in the past, making this type of "best fit" model practically impossible (Kee, 2011; Seixas, 2000; Lowenthal, 1996). It may also be difficult to use this approach when making a history game, because it may be hard to ensure all players receive the same, standardized narrative of the past.
2. **"Disciplinary History" model:** The "Disciplinary History" Model gives students the opportunity to weigh different perspectives on the past, which simulates more closely the typical practice of history by historians (Lowenthal, 1996; Kee, 2011).
3. **"Postmodern History" model:** The "Postmodern History" model questions whether historians can construct the past without subjectivity, and encourages the analysis of historical arguments, as well as reflection on the historian's own biases or choices (Jenkins, 2003; Kee, 2011). "Whereas History simulation games may give the player the impression that he or she has an accurate portrait of the past, in all of its complexity, …. [this model] highlights our distance from the past and the difficulty of reconstructing an 'accurate' picture of what has gone on before" (Kee, 2011, pp. 434-5).

Munslow (1997) breaks down three other frameworks for historiography in *Deconstructing History* (Munslow, 1997). The three approaches to how historians can represent the past are as follows:

1. **Reconstructionist history,** in which historians discover facts through empirical methods. This is similar to how a scientist might conduct science—historians would collect evidence, analyze it and uncover what really happened in the past (Schrier, 2005; Munslow, 1997).

2. **Constructionist history,** in which the historian incorporates his/her own present and past experiences when judging the past. This approach contends that one's own sociocultural frames and personal values can affect interpretations of the past (Schrier, 2005; Munslow, 1997).
3. **Deconstructionist history.** The third approach is Deconstructionist, which is not focused on empiricism but considers how information is interpreted, and seeks to put the personal back into history. In this approach, all evidence, such as transcripts, diaries, amateur videos, notes, images, or films are considered texts and are interpretable (Schrier, 2005; Munslow, 1997). These documents are a "representation of the past rather than the objective access to the reality of the past" (Munslow, 1997, pp. 17-35). How we revise and rewrite the past is influenced by our present position, and all interpretations are relative and individual.

Frameworks: History game design, use, and evaluation

One possible framework for using and evaluating games for history education is by McCall (2011), who lists five driving principles in his book, *Gaming the Past*.

1. **Principle I, "Introduce the Purpose of Simulation Gaming and the Characteristics of the Medium"** (McCall, 2011, p. 24) involves introducing students to the critical analysis of games, and help them consider the limits and potentials of the medium, while also helping them think through how history is constructed, rather than set in stone.
2. **Principle II, "Play Reflectively and Attentively; Observe and Engage in the Problem Space"** (McCall, 2011, p. 24) explains that students should first play the game without having to engage in higher-level history analysis. Students should have opportunities to closely attend to the game's goals, choices, and consequences, as well as any biases embedded in the game.
3. **Principle III, "Study Independent Historical Evidence on the Historical Problem Space"** (McCall, 2011, p. 24) suggests that designers, educators and their students should spend time with primary and secondary sources on the historical topic, and use this to help question assumptions in the game, and within the historical evidence.
4. **Principle IV, "Discuss, Debrief, Evaluate, Extend"** (McCall, 2011, p. 24) explains that time should be spent deliberating how the game was designed to support a possible version of the past, and to compare it to available evidence. He explains that educators should encourage the analysis of how and why the game presents the historical issues as it does, and the extent to which the choices available in the game mimicked the available choices historically.
5. **Finally, Principle V, "Critique, Critique, Critique"** (McCall, 2011, p. 25) encourages educators to question the validity of the game, while trying to avoid comparisons to "reality" or "how it really was" (McCall, 2011, p. 25).

Another possible framework to use for evaluating and designing history games is called the History Multimedia Interactive Educational Game (HMIEG), which is a "design model for teaching history" (Zin, Yue, & Azizah, 2009) and drawn from their interpretation of research on learning and game design. There are eight features in the pedagogical component of HMIEG, including "engagement, learning goal determination, motivation, critical thinking, psychological needs, explorations, challenge and competition" (Zin et al., 2009). According to Zin et al. (2009), these eight features specifically help support the learning goals (2009). "Constructivism theory, information processing model and Tolman Learning Theory are used in HMIEG design to enable students to remember historical facts and thus enhance learning" (Zin et al., 2009). There are 15 features in the game design component of HMIEG, or "feedback, fantasy, fun, rules, security, entertainment, immersive, active participation, control path, track and manage progress, interaction, task, narrative, control and imagination" (Zin et al., 2009). While Zin et al. (2009) have some useful observations and have connected research to their design principles, it is unclear the extent to which each of these principles directly affects history learning, as their model as a whole, and as components, has not been tested empirically.

Finally, while this is not a framework, per se, the *Mission US* team (Schrier & Channel 13, 2009) made the following specific design choices, which they explain contributed to the effectiveness of designing and using *Mission US* to meet specific pedagogical goals. These include:

1. **Simplification of animation:** The team simplified the animation so they did not distract the player from any text or audio happening concurrently.
2. **Modular play:** They developed short segments (25-45 minutes long) that could be integrated into a classroom class period.
3. **Balanced control and freedom:** They allowed for a number of mini-tasks and mini-decisions (such as choosing among dialogue choices), but also had enough constraints in the narrative as well.
4. **Goals and mini-tasks:** They designed a clear, overall goal to follow, and also designed a number of mini-tasks to complete in the game.
5. **Integration in curricula and standards:** The game included many points where a teacher could connect it to different social studies curricula, and it was tied to state and national history standards.
6. **Pivotal climax and resolution:** The game builds toward a climax (the Boston Massacre), which everyone experiences slightly differently. The deposition scene also shows the possible consequences to one's interpretations.

Frameworks: Related learning theories and concepts

There are also a number of more general learning theories that can help us consider how to better use games to support history learning and historical thinking, specifically.

One theory is situated cognition. In this approach, "context and learning, knowing and doing, are seen as intertwined and interdependent" (Schrier, 2006). The authentic tools and resources, as well as problems, situations, and contexts needed to complete an activity are mixed with the thinking, learning, and necessary actions (Klopfer et al., 2003; Brown, Collins, & Duguid, 1989; Dede et al., 2002). The learners' environment, context, and situation are seen as essential to the learning process (Schrier, 2006). In other words, learners wanting to understand history could practice authentic historic problems and goals within a relevant context, using realistic tools, data, texts, evidence or people. For example, a game based on this framework might situate authentic historical evidence, such as first-person testimonials, in a virtual version of a historic site or location. For example, one game, *Reliving the Revolution*, situates historic evidence, testimonials of the Battle of Lexington, within in a real and authentic location, the site of the Battle or Lexington, Massachusetts (See Case Study Two).

Bruner's (2009) work on situated cultural contexts also may be useful when designing games, as he argues that learning is additionally situated in a cultural context—"learning and thinking are always situated in a cultural setting and always dependent upon the utilization of cultural resources" (Bruner, 2009, p. 162). A related concept is the "Community of practice," (Lave & Wenger, 1991) where learners collaborate to apply knowledge to solve authentic problems, while learning the vocabulary, taxonomies, epistemic frames, and rules of a specific community, vocation, or culture (Shaffer, 2005). A community of learners could be online, in an environment such as *iCivics* (see Case Study Three) or in person with a shared activity, game, or virtual experience, such as in the case of Mission US (see Case Study One).

Finally, historical empathy and historical thinking are also compelling concepts. Historical thinking is "History as a way of knowing" (Schrier et al., 2010, p. 258) and involves mimicking the activities of actual historians (e.g., analysis of evidence, interpreting causality, explaining change, bias identification, reflecting on one's role in the narrative formation) (Lee, 1983; Seixas, 1996, 2006; Wineburg, 2001). One major component of this is called historical empathy, which is defined as "…where we get to when we have successfully reconstructed other people's beliefs, values, goals, and attendant feelings" (Ashby & Lee, 1987, p. 63). Oftentimes students may judge the past in light of present-day norms and values, rather than activating prior factors, frames, and points of view (Wineburg, 1991, 2001; Schrier et al., 2010). Instead of deciding that other's perspectives are the "result of ignorance, stupidity, or delusion" (Barton & Levstik, 2004, pg. 211), we need to consider whether they make sense in the context of past moral codes or social values. In other words, attaining historical empathy "suggests that one can contextualize these perspectives from within a historical frame of reference or put oneself in the mindset of someone in history" (Schrier et al., 2010, p. 258). A game that helps students try on someone else's perspective and understand their cultural context, mindset, and obstacles, may be able to help them better interpret the past.

Other relevant frameworks are constructivism and constructionism, as well as social learning theory. Piaget's theory of constructivism focuses on how people learn through actively constructing ideas and knowledge. Constructionism, developed by Papert (1980) builds on this theory in *Mindstorms: Children, Computers, and Powerful Ideas,* and focuses on learning by making or constructing, particularly with

others. For example, a game that enables participants to collaboratively construct historic artifacts using authentic materials may be useful for understanding how materials may have contributed to its look, feel, and function.

Finally, briefly, social learning theory suggests that people learn from observing other people's experiences, rather than needing to experience something directly (Bandura, 1977). This theory supports learning from games where the player may observe an avatar's or NPC's experience with an event, but may not directly interact with the historic incident.

Case Study Two: *Reliving the Revolution*

Schrier designed one of the first location-based games to teach children about history and to practice historical thinking skills. The game, *Reliving the Revolution (RtR)* (2005), invited participants to explore the physical location of the Battle of Lexington (Lexington, Massachusetts) and access virtual information about the Battle using GPS-enabled Palm Pilots (this was before iphones existed and GPS was integrated into phones). The game was tailored to students in middle and high school, and provided numerous mini-narratives based on first-person testimonials written by minutemen soldiers, British (regular) soldiers, local loyalists, and other townspeople, which would automatically appear on the players' phones depending on where they were standing at the physical Battle of Lexington site. To complete the game, students needed to interpret and weave together the first-person narratives about the historic moment of the Battle and create a meta-narrative about who fired the first shot at the Battle.

During the game, students worked together in pairs and played as a specific role based on a real historic figure (e.g., a minuteman solider, a female loyalist). Each role received slightly different information; for example, if a player was playing as a minuteman soldier and "talking" to a British Regular, they may have been receiving false or biased information. If they were "talking" to Paul Revere, the information might have been more accurate. This necessarily affected their reading of the evidence, and they needed to interpret and use the evidence they found accordingly. This also meant that they needed to compare evidence found with the evidence received by players in other roles to see where there were differences, if any.

RtR was tested with three separate groups of students, including college students and middle school/high school students. RtR was suggested to support and motivate historical thinking, 21st century skills, such as collaboration and media fluency, as well as civic literacy. While the game itself was engaging because of its story, its encouragement of physical exploration of a site, and its use of technology, the experience was also effective because of the factors outside of the game. For example, a guide/mentor posed questions during the student deliberations; encouraged students to consider other perspectives, and provided necessary context to the history mission.

Key Findings

There are few empirical studies that have investigated the use of history games in classroom and informal settings. In this section I will consider some recent studies and their limitations.

Squire & Barab (2004) describe the use of *Civilization III* to explore the potential of using games to teach history by modifying the game and testing it with kids in social studies classrooms. They explain how "world history and geography became tools for playing [*Civilization III*] a stark contrast to how history is frequently taught. Failure to understand basic facts (such as where the Celts originated) drove them to Learn" (Squire & Barab, 2004, p. 512). Their study suggests that students did develop "systemic-level understandings" (Squire & Barab, 2004, p. 512) of history, through their gameplay, whereas incorporating more "historical texts as resources" (Squire & Barab, 2004, p. 512) might have further connected the game to history, such that the students were effectively replaying history and not just gaming the system (Squire & Barab, 2004, p. 512; Durga & Squire, 2008). One possible limitation of the study is that so much of the students' involvement and engagement with the game, and understanding of its connection to history, may be predicated on the teacher/mentor role. (For more about this research, see Squire's (2005) dissertation.)

Corbeil & Laveault (2011) tested a simulation game in a History of International Relations course. They found that those in the experimental group (those who received a game) had higher comprehension on a history test. Those students who were able to more formally reason (based on a Piagetian framework, and tested prior to the study) were able to attain significantly higher scores on the exam (Corbeil & Laveault, 2011).

> [They] also noted a favorable reaction to the game of those students preferring more social styles of learning… active involvement was the only affective factor significantly linked to learning. We might generalize this by saying that simulation games can help motivate social-minded students…. We must try to give students mobile and tactile instruments, which they can manipulate themselves as tools to study and understand ideas and abstract concepts. Games must also allow participants to discuss among themselves hypotheses, methods, and lines of approach in terms of situation analysis and choice of strategy. A game with predetermined results and behavior is no longer, in our sense, a game.
> (Corbeil & Laveault, 2011, p. 474)

One possible limitation of this study is that it seemed the students' prior knowledge, personality, learning style, and ability may have affected their comprehension as a result of the game intervention. While this would be expected, it makes it difficult to narrow down what exactly the game helps do to support comprehension.

Schrier (2005, 2006) created a location-based GPS-enabled game, *Reliving the Revolution (RtR)* to teach and motivate historical thinking, historical empathy, and the critical thinking of history (Schrier, 2005, 2006). The game takes place in the historic site of the Battle of Lexington, an event during the (American) Revolutionary War. In the game, participants needed to explore the Lexington battle site and access historical testimonials about the Battle, which were triggered to appear on a Palm Pilot mobile device, depending on where the participant was located in the town. The goal of the game was to try to understand who fired the first shot at Lexington, based on the interpretations of the evidence, a history mystery that is still unsolved. A pilot study of the game, using middle and high school students, suggested that the participants employed a variety of skills through the playing of the game, such as problem solving, community and global awareness skills, and the consideration of multiple perspectives (Schrier, 2005, 2006) (See more in Case Study Two). Limitations of this study include no empirically testing, no control group, and a limited sample size. The study was ethnographic, descriptive, and anecdotal, rather than tested using experimental conditions.

Anecdotal results on two other location-based experiences, *Jewish Time Jump* and *Dow Day*, have suggested they are effective in helping participants relive a historic moment. *Dow Day* is a situated documentary created using ARIS, a platform, which helps participants relive the moment of the 1967 Dow Chemical Corporation protest on the University of Madison-Wisconsin campus. For more about *Jewish Time Jump*, see Chapter 11, Case Study Two.

Assessment Considerations

To properly design or use (and then assess) the efficacy of a game for history education, one must be very clear as to the approach and learning goals. It follows that if the goal is to teach battle facts about the Civil War, then it would be more useful to have a pre- and post-game assessment that addresses students about these facts. Likewise, if the game focuses on teaching students historical empathy, a pre- and post-game task should help the educator assess whether historical empathy skills are being employed differently before, during and/or after the intervention. For example, with *Mission US*, students were invited to investigate a photo of the Boston Massacre before and after the game. Based on their evaluations, questions, and interpretations of this photo, they were rated in their practice of historical empathy.

The game itself should also be considered as a potential site of effective assessment, rather than having assessments that are only external to the game experience. In other words, assessment should be built into the game, and integrated in a way that it does not feel arduous or separate, but that part and parcel of the gameplay is achieving something or performing something that in and of itself shows that the player has learned what they need to learn, and also reveals what the player still needs to learn.

Moreover, the actual design of the game should be tested and re-tested throughout the process, such that the educational and design goals are being met. In *Mission US*, there were a number of design principles implemented to guide the creation of the game. These included using an authentic context and content, social context and collaboration, and engaging story, building an avatar/player relationship, and

scaffolding vocabulary acquisition. These principles were tested (in terms of their efficacy in supporting the goals for the target audience, and also in their presence in the design) informally during playtesting, as well as through formative and summative assessments, throughout the design and implementation process. Testing should be built into the entire process as an integral part of design and assessment (see more in Case Study One).

Future Needs

There are many tensions and questions in how to better articulate history and social studies concepts and ideas through a game system. Empirical analysis, coupled with descriptive and ethnographic accounts, could support the endeavors of those educators, designers, and developers looking to make games for social studies learning. In addition, we should search for new techniques and assessment tools that can help us understand what students are actually learning and doing in these games and outside of the games in the long term, and which game elements or external elements are supporting it. We should also consider the teacher's role in supporting these games and any learning, and we should be open to considering alternative views of history pedagogy and practice.

Case Study Three: iCivics

iCivics.org is online education project with a suite of games related to civics, social studies, government, and justice. It is managed by iCivics, a non-profit organization that was started by Justice Sandra Day O'Connor, who observed that students did not understand even the basic civics concepts, such as the answer to "Which are the branches of government?" but they knew who the judges were on *American Idol,* for instance. The website includes lesson plans for educators and a teacher guide, along with dozens of games aimed to teach a variety of government and civics concepts.

In the mini-game, *Argument Wars*, created by Filament Games, you play as a lawyer who is arguing a case that is being presented to the Supreme Court. The player, playing as a lawyer avatar, argues real historic cases, such as *Brown vs. Board of Education.* The game uses clever mechanics to support argument formulation. For example, at one point in the game, the player can choose from a set of cards to "pitch" an argument. The opponent then chooses cards to "pitch" his or her own argument and the player can choose to object to any of the opponent's statements, mimicking lawyers in a courtroom. The judge has a limited number of "ruling points" that s/he can disperse depending on the validity of either side's arguments. The winning side is the one who has the most points at the end of the mini-game. At the end of the case, the game also explains which side actually won when the real case went to trial.

Other mini-games include *Branches of Power,* where the player can manage and balance the three branches of government, while trying to pass new laws, and *Do I Have a Right,* where the player runs a law firm that specializes in constitutional law and needs to judge whether possible clients "have a right" based on authentic constitutional rights.

The iCivics games also provide different achievements based on progress. For example, the "Rain Maker" achievement is for players who finish a game and do not lose any cases. iCivics also has weekly and monthly leaderboards. The website explains that three million students play the iCivics games each year and is used by over 40,000 educators. iCivics games have been evaluated in a number of studies, including LeCompte et al. (2011) and Kawashima & Ginsburg (2012). For example, LeCompte et al. (2011) researched students who played any iCivics games for one hour per week for six weeks and found a 19% increase in test scores on a pre- to post-test on civic knowledge. Qualitatively, they also found that the students seemed highly motivated to play the game and seemed to look forward to their social studies classes.

Best Practices

There are a number of best practices that have emerged in designing and using digital games for social studies and history education.

1. **Clearly identify your pedagogical approach.** When designing or using a game to teach history, questions of pedagogical and historiographic approach should be answered as quickly as possible and communicated effectively within the team. The questions and tensions listed in this chapter—whether to maintain the highest accuracy to details or to focus on broader trends, whether to highlight personal obstacles or macro-level scale economic issues, or whether to include uncomfortable issues like the Holocaust, human trafficking, or slavery—are all present as well when designing history education games. It is problematic when designers and educators do not, up front, define their pedagogical approach and the skills and practices they want the game to enable, as well as reflect on the implications of these choices. Instead, many designers and educators try to make a one-size-fits all solution, which ends up being overwhelming or confusing; or, they use an off-the-shelf game without considering its implications.
2. **Understand the limits and potentials of games.** Games should not just be used to further engage students in the boring topic of history. Rather, each individual game's what potentials and limits should be considered, as well as the factors under which the game will be used and the curricular goals.
3. **Understand the values and biases embedded in the game's design and performance.** As such, and with any representation of the past, games can therefore embed a number of biases and oversimplifications (McCall, 2011). No piece of media, whether a game or a different medium, can fully represent history and all of its complexity. "No imaginable set of "historical" representations can do justice to the fullness of "history" as past" (Uricchio, 2005, p. 331). Moreover, Schut argues that "history games are predisposed toward presentations of history that are stereotypically masculine, highly systematic, and focused on spatially oriented interactivity" (Schut, 2007, pg. 230). This often requires a teacher or other educator to be involved in supporting, critiquing, reflecting, and questioning of the

designers' choices and decisions in how they represented the past, its people, systems, and places, its boundaries and constraints, and the choices it allows or disallows, as well as what it did not represent. After all, there may have been infinite other ways a game could have been designed.

4. **Consider the role of the teacher, guide, or mentor.** The teacher or guide is an integral part of the *Reliving the Revolution (RtR)* experience, and research has shown that this role is essential (McCall, 2011; Schrier et al., 2010). *RtR* itself was just one part of the learning experience. Other aspects of the curriculum, such as worksheets, in-class debates around the game, reflection exercises, diaries, and dramatic tasks, were related to the game but not the game itself. Designing not only the game, but the curriculum and mentorship around the game, seemed to add up to a more holistic educational experience for the players, which was anecdotally effective. More research should consider the extent to which the activities and guidance around the game contribute to its educational efficacy.
5. **Consider the differences between games and other media.** It is also important to consider the differences between how history is presented in other media, versus how it can be presented in games.

Table 1 may be useful as initial questions to ask when designing a game for history/social studies learning.

Table 1. Initial questions to consider when designing and using games for history education

Initial Questions to Consider When Designing and Using Games for History Education
1. What is the approach to history education—are skills such as inquiry, bias identification, or perspective-taking more important, or is memorizing facts and figures more essential?
2. To what extent does the historical place, people, and items need to be accurate and what does "accuracy" mean in the context of the game?
3. What are the learning goals and how will those be communicated and achieved through the game?
4. Are students experiencing alternate approaches to a historical moment, or even interpreting it themselves, or are they learning how others have interpreted it and then applying that to new situations?
5. Are students playing the game immersing themselves in a historical figure's shoes, or are they playing as themselves and thinking about differences between today and yesterday?
6. If you are using an off-the-shelf game, look under the hood and consider the designers' perspectives and biases—how are their approaches to history or values integrated into the game's design and how will this affect any learning that results?

Resources

Books and publications

Akkerman, S., Admiraal, W., & Huizenga, J. (2009). Storification in history education: A mobile game in and about medieval Amsterdam. *Computers & Education. 52*(2): 449-459.

López, J.M.C. & Cáceres, M.J.M. (2010). Virtual games in social science education. *Computers & Education. 55*(3): 1336-1345.

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Vansledright, B. (1997/8). "On the importance of historical positionality to thinking about and teaching history." *The International Journal of Social Education. 12*(2), 1-18.

Games and websites

ARIS (http://arisgames.org/)
Assassins Creed
Axis and Allies
Battle of Lexington Reenactment
(every Patriot's Day morning in Lexington, Massachusetts) (http://www.battleroad.org/)
Carcassonne
Civilization
Cruel Necessity: The English Civil Wars, 1640-1653
Democracy 3
Diplomacy
Dow Day
Frequentie 1550 (<http://freq1550.waag.or)
Gaming the Past blog (http://gamingthepast.net/)
Grand Theft Auto
Historical board games
(https://www.facebook.com/HistoricalBoardGames and http://en.wikipedia.org/wiki/Category:Historical_board_games)
History Channel games (http://www.history.com/games/)
Historypin (http://www.historypin.com)
iCivics (www.icivics.org)
Jewish Time Jump
LA Noire
Making History
Mission US (www.mission-us.org)
Muzzy Lane (http://muzzylane.com/project/making_history/edu)
National Council for the Social Studies (NCSS) (http://www.socialstudies.org/standards)
Play it Again Project (history of games) (http://playitagainproject.org/)

Play the Past (http://www.playthepast.org/)
Puerto Rico
Red Dead Redemption
Redistricting Game (http://www.redistrictinggame.org/)
Reliving the Revolution
Revolutions
Risk
River City
SimCityEdu (www.simcityedu.org)
Smart History (http://www.yourcommonwealth.org/)
The Migrant Trail (http://theundocumented.com/)
The Republica Times
Tiki-Toki (http://www.tiki-toki.com/)
Your Commonwealth (http://www.yourcommonwealth.org/)

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