

*Use of Simulations in Teaching U.S. History for Motivating in
Online and Blended Learners*

LeAnne J. Schmidt, Central Michigan University, United States

The IAFOR International Conference on Education in Hawaii 2023
Official Conference Proceedings

Abstract

Facing unmotivated and inattentive students, teachers turn to new methods to engage classes, such as video lessons and interactive content. A literature review of this nature benefits educators in providing a counterpoint of the disadvantages and best practices of simulations for classroom success. Simulations, including role-playing scenarios, video games, map exploration activities, and mock trials, actively involve students in either live or game-based learning, which improves test performance, interest, and openness to new learning experiences. Participation in active simulations improves critical-thinking and problem-solving skills. Utilizing best practices of purpose, active involvement, formative (not summative) assessment, affinity spaces, learning characteristics, failure as an option, emotion, and situated learning establishes an environment which promotes students' long-term comprehension and success. The power of simulation lies in its demand for active learning, whereas passively reading a textbook or completing answers on a worksheet of contrived questions which are not those of the student negatively impacts the inspiration (breathing in) of knowledge. Fueled by a better understanding of the available research, engagement is possible.

Keywords: Motivation, Simulation, Interactive, Role-Playing, Games, Trials

iafor

The International Academic Forum
www.iafor.org

Introduction

Educators employ many strategies to engage students in learning history, from fast-talking, popular video hosts like John Green and *Crash Course* to the “flipped classroom” model (Tucker, 2012). History teachers will go to great lengths to motivate students and step beyond the classroom lecture and dreaded worksheets. However, even flipping the classroom and assigning a *Crash Course* video through EdPuzzle, which requires student responses to keep attention in the at-home setting and convey analytics to the teacher, does not improve the pedagogy; it just offers a better mousetrap.

If the key to motivation is attention and the key to attention is activity while learning, then a hands-on, participatory learning experience is the solution. Simulations offer active learning in multiple ways, as described by David Ghere (2001, as cited in Gradwell & DiCamillo, 2013). Ghere characterizes simulations in four types: role-playing, game, map, and trial (as cited in Gradwell & DiCamillo, 2013).

Role-playing activities involve students assuming roles in an historical situation, usually facing a critical problem of this period, and working to find a solution or witness consequences unfold. Role-playing can involve scripting, research, collaborative groups, costuming, speeches, debates, and reflections. Whether they represent the “starving times” after the Mayflower landed just before winter, the Salem witch trials, the decision to declare war on Great Britain, or the passage of the Constitution, role-playing can bring historical individuals to life and create a situation of empathy for their plight.

Immersive games also provide learners with a virtual environment that simulates historical locations, with programmed characters who present an authentic panoply of participants in the setting with historically-accurate language, vocabulary, and costuming without the involved preparation. In a 2015 Pew Research study, 72% of teens played video games, though the rate was 84% for boys and 59% for girls (para. 9). Other demographic analyses did not demonstrate statistically-significant differences, as did the gender factor. Any task which engages 72% of the students is a method to be considered by educators, especially one particularly effective with boys. An American Psychological Association website article detailed a study of global data from 1914 to 2014 representing 30 countries and over a million students which demonstrated that girls' academic achievement was higher than boys' and that the difference increased, peaking by the end of middle school, but that the trend moved in the other direction in the years representing high school and college (Voyer & Voyer, 2014). Some games can be individual, online experiences, like *MissionUS* (www.mission-us.org). Others may be collaborative games, such as *Kahoot!* (www.kahoot.com). Even physical game simulations, either prepared or student-created options, can provide methods of active learning.

Ghere's (2001) third example of simulation was maps, which can be either physical, like in the game *Risk*, or digital, displaying territory, exploring it, or engaging in conquest, as in games like Microsoft's *Age of Empires*. These function through a series of unique situations, depending upon one's own decisions and those of other players or computer “players.” With the same opening choices, a user's experience can be different.

Ghere's fourth type of simulation is listed as a trial (2001). While actually a type of role-playing, the trial has a unique nature and style of participation. Trial simulations can be based on actual legal proceedings in history, such as 1803's *Marbury vs. Madison*, establishing the

precedent of judicial review, or 1954's *Brown vs. the Board of Education of Topeka, Kansas*, or 1966's *Miranda vs. Arizona*, reshaping the process of police arrests. Numerous courtroom simulations are available for educators at *USCourts.gov*. Learning from trials can also be based on organic topic material to address current events, understand the components of a court proceeding, or even learn about perspectives, analysis, interviews, listening skills, or persuasive argument preparation. Regardless of the type, simulations are the embodiment of active learning.

Advantages of Simulations

MissionUS is an interactive, immersive simulation game focused on key periods in U.S. history. The current offerings include five missions. In each experience, learners are introduced through a prologue, before engaging in five interactive episodes of the story, which take 15-20 minutes each to complete. Additional content is provided on the website for educators to use as classroom supplements to enhance the experience and incorporate it into the appropriate unit in American History. Receiving top rankings from organizations like Common Sense Media, accolades from historians, users, and teachers, and five out of five stars for quality and user-friendliness, MissionUS offers educators lessons with technical support for blended learning.

The Education Development Center conducted three studies of *MissionUS* simulations to assess the value of programs and impacts on students. In 2009, EDC surveyed 20 classrooms, involving 387 students in four states, which had played "For Crown or Colony?" Teachers reported *MissionUS* was engaging, supported struggling students, offered a more human picture of history, led to active discussions, and made them feel ambitious as educators (EDC, 2009). The teacher's guide was rated "excellent" (EDC, 2009). A strong majority of teachers would use the program again in the future (EDC, 2009). For students, 73% said they were interested in playing another *MissionUS* simulation (EDC, 2009). Learners were more interested in history taught with *MissionUS* than traditional methods, and it reduced boredom considerably (EDC, 2009). Most students enjoyed the simulation not because it was a game, but because it helped them learn history without depending upon reading, lectures, and tests, as well as the fact that the characters were interesting (EDC, 2009). At home, users stated they had shared the game with friends, siblings, and parents (EDC, 2009). Twenty-five percent played the game at home with parents, friends, and siblings (EDC, 2009). Students talked about the game with friends (51%), with parents (38%), and with siblings (20%) outside of school (EDC, 2009). Primarily, students improved their understanding of class content material after being exposed to *MissionUS*.

A second study applied more rigorous data collection methods and expanded the subject pool, still using the same software (EDC, 2011). Students scored significantly higher and improved more in the categories of "seeing multiple points of view on the past" and "analyzing cause and effect" (EDC, 2011, p.1). Another group performed better than peers regarding the analysis of historical images, which researchers suggested demonstrated a potential for this type of learning to increase close reading and writing skills (EDC, 2009, p. 2). Teachers surveyed indicated students "learned more history and were more engaged with the content" (EDC, 2011, p. 2). When asked if students developed a greater understanding of historical perspectives than peers, 95% of teachers agreed (EDC, 2011, p. 2). Furthermore, 93% reported better student performance with vocabulary, and 90% stated students were "deeply engaged in classroom activities and discussions" (EDC, 2011, p. 2). During observation and survey responses, researchers determined the game substituted for "textbook reading,

traditional board lectures, and writing in response to short-answer questions” (EDC, 2011, p. 1).

A third study addressed: 1) feasibility - “How effectively are teachers able to integrate the online and tablet versions of the game into their normal instruction?”; and 2) learning outcomes - “Do students who use the online or tablet game perform better on an assessment of Depression-related history knowledge than students who study the topic using typical materials and methods?” (EDC, 2006, p. 1). The study of 146 students in six classrooms with three teachers in New York public and parochial schools established within-teacher control groups at each school in which the curriculum presentation was the same for each class, with the exception that the treatment groups used either iPads or school computers to access the simulation (EDC, 2016, p. 1). Researchers tested students using the same fourteen-question assessment both before and after the unit (EDC, 2016, p. 2). The treatment group scored 8.7% higher than the control group on a comparison of the pretest versus the posttest (EDC, 2016, Table 1). Treatment students performed better on twelve of fourteen questions, with one question showing 41.3% higher scores and another at 35.8% higher (EDC, 2016, Table 3). Teachers stated the simulation was easy to implement and provided a strong curricular fit and that learning increased at statistically-significant levels (EDC, 2016, p. 1).

According to Cavanaugh (1975, as cited in Corbeil and Laveault, 2011), “the simulation game takes the student beyond any determinist approaches and allows him or her to understand the uncertainties of the past” (p. 463). When students recognize the path ahead was uncertain at the time of major events in history, they gain the historical understanding that decisions by leaders made the history that today’s students know. Therefore, they begin to recognize the importance of their own decisions and their impact on the future. For example, students who are called to participate in the *American Revolution: Experiences of Rebellion*, a unit in the CHOICES series produced by the Watson Institute of International Public Affairs at Brown University, engage in a role-playing scenario in which three groups present “options” to concerned citizens. At the close of the discussion, when a vote of the citizens is taken, there is no guarantee that they will follow the path of history. In several situations experienced by the author, students chose the safe alternative of remaining loyal British subjects because war against the biggest superpower in the world at the time was too risky. This supports the point that “the simulation game introduces other versions and shadings usually underrepresented in historical studies, like the loser’s point of view” (Cavanaugh, 1975, as cited in Corbeil and Laveault, 2011, p. 463). In the presentation of persuasive arguments, students consult primary source documents to build their cases, further supporting Cavanaugh’s principle that “the simulation game encourages self-thinking and the study of historical processes as well as data” (1975, as cited in Corbeil and Laveault, 2011, p. 464).

Corbeil and Laveault presented an experimental study of a simulation, with controls on three variables in the design: participant, activity, and material (2011). Simulation groups performed as well as their counterparts in lecture groups, though the majority were motivated to take another course in the future (64%), compared to a minority of the control group participants (Corbeil and Laveault, 2011, p. 469). Increasing student motivation for the topic material is a positive outcome of simulations. As the research was conducted on college students with an expectation of formal methods of coursework, the researchers theorized the method would present more significant results with younger learners, particularly those in a Piagetian preformal stage of cognition (Corbeil and Laveault, 2011, p. 473).

Since 2009, when retired Supreme Court Justice Sandra Day O'Connor founded *iCivics*, it has offered civics games, curriculum material, and document analysis activities. Baylor University researchers conducted a study analyzing the impact of *iCivics* games on 253 students in grades 4, 5, 6, 8, and 12 (LeCompte, Moore, & Blevins, 2011). The *iCivics* platform was selected because it was designed to align with state and national curriculum standards (LeCompte et al., p. 59). Students played "Executive Command" at the outset of the study, but were not required to use it exclusively (LeCompte et al., 2011, p. 61). First, participants were given a Scantron-based pretest on civics-related content material. Next, students were introduced to *iCivics* and the "Executive Command" game and required to use the platform for thirty minutes, twice a week for six weeks (LeCompte et al., 2011, p. 60). At the end of the six-week time period, students received the same test in the same manner as the pretest (LeCompte et al., 2011, p. 61). Students represented different demographics, ethnicities, races, and a balance of gender, but, when analyzed, none of these factors yielded statistically-significant variations in data (LeCompte et al., 2011, p. 65). Each grade level demonstrated increased scores from pre- to post-test, with the exception of 12th grade, which included a slight, though not significant, drop (LeCompte et al., 2011, Figure 3). Fourth grade participants showed the most dramatic increase at 9.53 on the 30-point test (LeCompte et al., 2011, Table 3). During this interval, students received no other civics instruction aside from the game. Therefore, researchers attributed the increased scores to use of the *iCivics* game platform, suggesting that the impact on 12th graders was reduced because the content is designed for grades 6 to 8 (LeCompte et al., 2011, p. 66). A control which did not play the game would be advised.

Disadvantages of Simulations

Discouraging

Drake and other critics of simulations suggest they can discourage interest in history by making it seem fictional through playing roles (as cited in Gradwell & DiCamillo, 2013). Gradwell and DiCamillo's subject demonstrates that students are motivated to participate in history and, therefore, to learn it, gaining personal insight through their experiences (2013).

Oversimplifying

According to the Anti-Defamation League, simulations present an oversimplified view of an historical situation by creating convenient storylines and offering surface-level understandings without depth (as cited in Gradwell & DiCamillo, 2013). In interview responses, Gradwell and DiCamillo (2013) presented that a survey course of history oversimplifies everything, but simulation allows teachers to magnify key points for greater depth than they would otherwise be allowed. The teacher attempted to "allow them to understand what actually happened at Ellis Island, and the larger issue there is to show the problems immigrants faced" (Gradwell & DiCamillo, 2013, p. 48).

Overemphasizing Past Struggles

Drake (as cited in Gradwell & DiCamillo, 2013, p. 49) suggests when an historical group is cast in a simulation based on struggles, participants do not understand their achievements, but focus on hardship and injustice. Barton and Levstik encourage teachers to "deemphasize heroes in history and to emphasize individuals' heroic actions" (as cited in Gradwell &

DiCamillo, 2013, p. 49) because students are offered a guide to opportunities for such actions for themselves, in real situations.

Impractical

According to DiCamillo and Gradwell (2013), some critics of simulations label them impractical when facing state or national testing and that the time needed does not balance the value of the learning experience. Jim Kramer, one of the teachers interviewed by the authors, indicated his classes had ample time for appropriate preparation and that integrating simulations led to improvement in state testing performance (DiCamillo & Gradwell, 2013, p. 157).

Not Taking it Seriously

Particularly in middle school, serious topics are not always taken seriously. This causes concern for in-class simulations (DiCamillo & Gradwell, 2013, p. 157). In any participatory performance, a ‘reasonable suspension of disbelief’ is required to advance the scenario. In such simulations, there is always a risk of someone who opts to mock the process, fail to participate, or protest. Petulance among teenagers is common. However, upon reflection, a skeptic should realize that the same petulant teens are likely to act in their own best interest. Since the primary alternative to a role-playing simulation or online game is textbook reading and in-class lecture, it is more likely that playing a part is preferable to dry reading and lecture.

Not for All Learners

Some cautious educators express concern about the applications of simulation lessons for a diverse student population. Bender and Kramer conducted their simulation for a population that included 25% special education students, where 27% of all students qualify for free and reduced-cost lunches. Other simulations have specifically addressed ethnic and racial diversity, with learning outcomes, which did not statistically differ from these groups (DiCamillo & Gradwell, 2013, p. 158).

Arduous to Create

Some educators question whether simulations are worth the effort to create. Crafting a detailed simulation can be difficult and time-consuming. A strategy for managing the load would be starting small and adding enhancements later, incrementally improving the module. *MissionUS*, *BeWashington*, or *iCivics* are existing simulation games which require nothing but creating a login to participate. Most schools have at least a computer lab for classes to use by arrangement. While simulations involve some special classroom logistics, they are manageable and have the value of eliciting learning gains which justify the extra time and effort involved in implementation.

Best Practices

Purpose

In the end, advantages outweigh disadvantages. However, a primer for optimal success in teaching history through simulation is a 2011 study by Gradwell and DiCamillo. Their

subject articulated the importance of purpose with his goal “to encourage students to learn about the past and inform the future” (Gradwell and DiCamillo, 2011, p. 44). These simulations got students ‘hooked’ on history and engaged in “learning to think critically and historically” (Gradwell and DiCamillo, 2011, p. 44) in the hope that they would become good citizens from their learning. With these goals, simulations were only one method which was logical, reasonable, engaging, and thought-provoking. By playing that role, either live or by assuming the avatar of a video game character, students walked the path of citizenship. By participating in the storyline, they became ‘hooked’ by the active learning. Students also needed to be effective critical thinkers, which cannot arise from a worksheet. While a lecture from the right presenter might include a hook to promote continued interest, such a response is not true for all participants or for the entire length of time the lecture is presented.

In 2010, the Association for Middle Level Education produced a statement of core beliefs, in which three of their six principles are supported by simulations for teaching because they: 1) equip students to be “a contributing citizen”; 2) elicit statistically-significant learning improvements; and 3) are “challenging, integrative, and exploratory” (AMLE, 2010).

All ten Common Core State Standards (CCSS) for English Language Arts strands which pertain to History can be achieved through a simulation by: 1) citing textual evidence; 2) determining central ideas; 3) following and explaining steps in processes; 4) utilizing vocabulary terms; 5) organizing research material and persuading an audience; 6) recognizing an author’s viewpoint and purpose; 7) using maps, flags, and other visual materials; 8) distinguishing between fact and opinion; 9) analyzing primary and secondary source material; and 10) comprehending at advanced levels beyond their standards. Products are ideal for older learners who use these activities in 10th grade for U.S. History survey courses or Advanced Placement U.S. History. Bearing in mind that if one activity can satisfy all CCSS strands for the middle grades, they become an integrative solution.

Formative, not Summative

The optimal role for simulations in the social studies classroom is as a formative activity. Because the simulation is experience-based, it provides a method for building understanding and making connections, which inform the learning process. While some educators might be tempted to view a larger activity or project as a summative assessment, the simulation itself is truly a demonstration of learning formation. Related activities, like a diary entry of the simulation experience, the development of another alternative, or a content test of the subject matter, could easily be summative assessments, but not the simulation itself. Debriefing is a critical aspect of live simulations (Ghere, 2001, p. 22) to avoid the illusion of playtime or fiction and to secure the learning lessons with students.

Active Involvement

One of the keys to the success experienced with simulations for learning is the active involvement of students. Whether they are physically moving within a simulated environment, engaging in a dialogue with unique role-playing circumstances, or directing their computer-based character through locations and experiences in the digital world, these are active, hands-on engagements. When the alternative is passive learning, the decision is clear. Deeper engagement from 90% of participants was reported with regard to *MissionUS: “For Crown or Colony?”* (EDC, 2011, p. 2). Shiloah and Shoham detailed a learning simulation that actively involved students in analyzing the situation of the Franco-Prussian

War by participating in Bismarck's decision-making process. They learned that there was more than one answer, worked together to find solutions, and demonstrated creativity and imagination, none of which would occur through reading or lecture (2002).

Affinity Spaces

Affinity spaces are defined as “loosely organized social and cultural settings in which the work of teaching tends to be shared by many people, in many locations, who are connected by a shared interest or passion” (Gee, 2007). Gaming in 2018 is not the same experience as gaming in 1978, when Atari and Pong were ‘the rage.’ Now, gamers have sophisticated keyboards for special features, headsets with extended microphones for talking to players on the other side of the world, and sometimes virtual reality headsets to become totally immersed. High-end video cards make the gaming experience emulate a movie theater screen. In this three-dimensional world, the gamer connects with others who share common interests. Learners can also share experiences in class, both through the class environment and effective use of games. Modern games transport learners to other realities, which makes the potential for learning history possible. In a classroom simulation, it is not possible to effectively display a battle at sea, but this is not challenging for a video game. Students in Nebraska can be instantly transported to Lexington and Concord for the start of the Revolutionary War.

People who share experiences with one another establish a bonded relationship. The bonds may be weak, especially if they are broken every 45 minutes to dash to another classroom, or they may be strong, like those described in the Helsinki Syndrome, in which kidnap victims identified with captors after establishing dependence under significant stress, creating a ‘pressure cooker’ which bonded unlikely individuals. The bonds of affinity spaces are based on a shared interest over an extended period. Once bonded, the collective functions as a social network, and base of knowledge and information. Not every classroom can be an affinity space, and not every affinity space can be a learning community.

Learning Characteristics

For activities to effectively deliver learning, each of the following characteristics must apply: 1) structure, with specific goals; 2) interpreting content and practicing critical thinking; 3) presenting immediate feedback; 4) opportunities for applying prior knowledge; and 5) learning from the experiences of others through social interaction (Gee, 2018, p. 21). Simulations provide coverage of all those learning characteristics. Simulations are structured environments embedded with specific goals. Students engage and interpret experiences, practicing many problem-solving skills in the process. Simulations provide immediate feedback like the real-world consequences for the situation. In a CHOICES simulation, prior knowledge becomes a key to success in the next iteration (Watson Institute for International Relations, 2016). When engaged in collaborative role-playing experiences, students learn from the activities of their peers. In digital games, participants learn from other active players and from non-playing characters embedded in the game to prompt users through the learning pathways. Therefore, simulations address all five of Gee's characteristics for learning.

Failure as an Option

Students who expect success as a routine face no challenge to motivate them to continue or to improve. The activity which serves best to build fortitude and motivation in students is the

experience of failure. Of course, this does not mean that a student should flunk a class to appreciate the experience, but he/she should face the possibility of experiencing setbacks and possibly losing. Games get children's attention because of the challenge that they face and the risk of failure. When students engage in a debate, one person or team will inevitably lose, but they want to try again with a different strategy. In the *MissionUS* module "Flight to Freedom," in which participants play a fourteen-year-old enslaved girl who strategizes to escape the plantation. However, several of the possible outcomes result in death or return to the plantation and punishment. While none of these are displayed, the failure is clear to students. Yet, they restart, learn from their mistakes, and make another attempt to reach freedom. Students playing *iCivics* "Executive Command" assume the role of a newly-elected President with a ticking timer moving toward the next election in four years. The actions that participants take in the game -- enforcing laws, meeting with foreign leaders, speaking to Congress, responding to citizen requests -- determine whether he/she will be re-elected for a second term, with no guarantees. Being voted out of office teaches students to manage the tasks of the Executive Branch well and make effective decisions.

While the game environment establishes situations of success and failure, school operates differently. Failure in a game is the loss of time or experience points, but failure in school can impact one's academic record and limit future options. "Competition in video games is seen by gamers as social" (Gee, 2008, p. 34). Games in school can be used in a way that becomes social learning, through leaderboards. Publishing the best is one thing; grading students on the game is different. For example, students may engage in the *iCivics* "Executive Command" game, but achieve their 'homework points' by completing it once and learning about the executive branch of government. However, they may continue to play to achieve a higher score, if they know that the leaderboard will be posted for the class, just because they want to be recognized socially for their skills, even if their class points will not change from the extra effort.

Emotion

Like vehicle accidents, emotional situations are embedded in our memories deeper than vocabulary words for a spelling test. "Memories are contextual. School activities that draw out emotions—simulations, role playing, and cooperative projects, for example—may provide important contextual memory prompts that will help students recall the information during closely related events in the real world" (Sylwester, 1994, para. 40). The more involved students are in role-playing simulations internalizing the biography of a 'concerned citizen,' the more students will remember the plight of Sarah Walker, the western Connecticut mother whose husband is called for the militia, leaving her alone to manage the farm with four young children (Watson Institute for International Relations, 2016). Contextual memories promote easy recall on unit tests or on APUSH tests which may be years away.

Live, role-playing simulations are not the only emotionally-charged school events. "Video games...are good at attaching emotions to problem-solving" (Gee, 2008, p. 35), such as timed situations, or when avoiding capture, or danger is nearby. Therefore, emotional experiences in games, like the situation previously described from *MissionUS* "Flight to Freedom," cause information to be deeply embedded in the student's memory. "Emotions can help us to both focus our attention ... and retrieve information from long-term memory" (Gee, 2008, p. 35). In the event of a stressful situation, like a high-stakes testing environment, these memories can be unlocked for using the information in response to question prompts.

Situated Meanings

Just as emotions can provide contextual settings for information, vocabulary terms are learned better through context and general connectedness with other material. Memorizing terms like militia, triangular trade, and mercantilism from a list using flash cards does little to embed them in long-term memory, but, when present in a simulation setting or game, used conversationally, they become part of a student's personal repertoire. "Situated meanings" like "dialogue, image, experience, and action are crucial if people are to...be able to relate words to actual experiences, actions, functions, and problem-solving" (Gee, 2008, p. 36). In short, students are less likely to remember the term *militia* and the definition "citizen soldier" than to remember the image of a patriot in ordinary clothing reaching for his hunting rifle over the fireplace mantle and grabbing his ammunition, hat, and coat in response to a call from outside that "the British are coming!"

Conclusion

Given the challenges faced by classroom teachers to provide motivating experiences to students, simulations provide an effective method for countering text-heavy courses and the likelihood of lectures. With evidence that the best tactics for motivating students are those involving active learning, simulations present an excellent option. Some historical settings may be challenging to recreate. Therefore, a video game-based simulation provides opportunities for classroom learning.

Numerous studies have demonstrated the statistical advantages of using simulations for learning, as presented through interviews of experienced teachers, survey results, and experiments with both control and treatment groups. Yields included increases on post-tests scores over pretests, strong improvements in specific problem-solving and critical-thinking tasks, interest in continuing and sharing the activity outside of class with others, interest in participating in future similar activities, and more interest in the subject matter.

A series of suggested disadvantages were proposed and answered. While others may be presented, these should be weighed against positive outcomes regarding content knowledge, problem-solving, critical thinking, empathic understanding, awareness of multiple perspectives, increased participation, and general curiosity as learners.

This exploration included the presentation of 'best practices' like establishing a *purpose*, emphasizing *active involvement*, using simulations as *formative* (not summative) assessments, fostering classroom *affinity spaces*, giving attention to *learning characteristics*, including *failure* as an option, embedding knowledge in long-term memory through *emotion*, and capitalizing upon *situated meanings* for deeper learning of contextual material. Succinctly, when teachers begin with a purpose and involve students in formative assessments in familiar surroundings which exemplify learning qualities, but involve reasonable risks, emotional experiences, and impactful situations, students are predisposed to learn the content effectively.

References

- Association for Middle School Education. (2010). This we believe. *AMLE.org*.
http://www.amle.org/portals/0/pdf/twb/TWB_Flyer.pdf
- Bradbury, N. (2016). Attention spans during lectures: 8 seconds, 10 minutes, or more?
Advances in Physiology Education, 40(1). <https://doi.org/10.1152/advan.00109.2016>
- Briggs, S. (2014). The science of attention: How to capture and hold the attention of easily distracted students. *InformedED*. 28 June 2014.
<https://www.opencolleges.edu.au/informed/features/30-tricks-for-capturing-students-attention/>
- Common Core State Standards. (2018). English Language Arts Standards >> History/Social Studies >> Grade 6-8. <http://www.corestandards.org/ELA-Literacy/RH/6-8/>
- Corbeil, P. & Laveault, D. (2011). Validity of a simulation game as a method for history teaching. *Simulation & Gaming*, 42(4), 462-475.
- Dede, C. (2011). Developing a research agenda for educational games and simulations. *Computer games and instruction*. Charlotte, NC: Information Age Publishing, pp. 233-250.
- Dicamillo, L. & Gradwell, J. (2013). To Simulate or Not To Simulate? Investigating Myths about Social Studies Simulations. *The Social Studies*, 104(4), 155-160.
- Dicamillo, L. & Gradwell, J. (2012). Using Simulations to Teach Middle Grades U.S. History in an Age of Accountability. *RMLE Online*, 35(7), 1-16.
- Education Development Center (2009). "For Crown or Colony?": Fall 2009 implementation study executive summary. https://cdn.mission-us.org/uploads/document/document_file/1065/MUS_2009_implementation_study_summary.pdf
- Education Development Center (2011). History games go to school: Results of a 2011 comparison group study of AHCI's *MissionUS*. https://cdn.mission-us.org/uploads/document/document_file/1064/AHCI_MUS_2011_study_summary.pdf
- Education Development Center (2016). *MissionUS*: "Up from the Dust" summary of results from a 2016 quasi-experimental classroom study. https://cdn.mission-us.org/uploads/document/document_file/1066/Up_from_the_Dust_study_summary.pdf
- Gee, J.P. (2007). *What video games have to teach us about learning and literacy*. (2nd ed). New York: NY; Palgrave/MacMillan.
- Gee, J.P. (2018). Affinity spaces: How young people live and learn online and out of school. *Phi Delta Kappan*. 99(6), 8-13.
- Ghere, D. (2001). 'You are members of a United Nations commission...' Recent world crises simulations. *Teaching History* (103), 22-25.

- Gonzalez, P.C. and Tally, W.J. (2012). Using historical role-playing games (RPGs) to teach history content and critical thinking skills, Presented at the International Society of Technology in Education annual conference, San Diego, CA. 30 June 2012.
<http://cct.edc.org/sites/cct.edc.org/files/publications/HistoricalRPGs.pdf>
- Gradwell, J. M. and DiCamillo, L. (2013). A means to an end: A middle level teacher's purposes for using historical simulations. *Middle Grades Research Journal*, 8(3), 39–59. <http://cmich.idm.oclc.org/login?url=http://search.ebscohost.com.cmich.idm.oclc.org/login.aspx?direct=true&db=eue&AN=93980611&site=ehost-live>
- Hartley, J. and Davies, I. (1978). Note-taking: A critical review. *Programmed learning and educational technology*, 15(3), p. 207-224.
<https://doi.org/10.1080/0033039780150305>
- Hernández-Ramos, P. & Paz, D. L. (2010). Learning history in middle school by designing multimedia in a project-based learning experience. *Journal of Research on Technology in Education*, 42(2), 151-173. <http://cmich.idm.oclc.org/login?url=https://search-proquest.com.cmich.idm.oclc.org/docview/274695986?accountid=10181>
- Jackson, M. (2004). Making visible: Using simulation and game environments across disciplines. *On the Horizon* 12 (1) pp. 22-25.
- LeCompte, K., Moore, B., & Blevins, B. (2011). The impact of iCivics on students' core civic knowledge. *Research in the Schools*. 18 (2), p. 57-73.
- Lo, J. (2018). PBL in Social Studies Classrooms: Teaching High Quality and Engaging Projects. *Social Education* 82(1) pp. 18-19.
- Maybin, S. (2017). Busting the attention span myth. *BBC World Service*. 10 Mar 2017. Retrieved at <https://www.bbc.com/news/health-38896790>
- Pew Research Center (2015). 72% of teens play video games; rises to 84% of teen boys. *Teens, Technology, and Friendships*. 4 Aug 2015.
http://www.pewinternet.org/2015/08/06/teens-technology-and-friendships/2015-08-06_teens-and-friendships_3-01/
- Robelon, E. (2013). Math viewed as 'Most Valuable' School Subject, Survey Finds. *Education Week*. Sept. 6. http://blogs.edweek.org/edweek/curriculum/2013/09/math_viewed_as_most_valuable_s.html
- Ruben, Brent D. (1999). Simulations, Games, and Experience-Based Learning: The Quest for a New Paradigm for Teaching and Learning. *Simulation & Gaming*, 30(4), 498-505.
- Schrier, K. (2018). Using games to solve real-world civic problems: Early insights and design principles. *Journal of Community Engagement and Higher Education*. 10(1), pp.21-35.

- Shiloah, N. & Shoham, E. (2002). The tenth grade tells Bismarck what to do: Using structured role-play to eliminate hindsight in assessing historical motivation. *Teaching History*, (107), 48-51.
- Sylwester, R. (1994). How emotions affect learning. *Educational Leadership* 52(2), pp. 60-65. <http://www.ascd.org/publications/educational-leadership/oct94/vol52/num02/How-Emotions-Affect-Learning.aspx>
- Tucker, B. (2012). The flipped classroom. *Education Next*. 12(1). <https://www.educationnext.org/the-flipped-classroom/>
- Voyer, D., and Voyer, S. Girls make higher grades than boys in all school subjects, analysis finds. *American Psychological Association*. 29 Apr 2014. <https://www.apa.org/news/press/releases/2014/04/girls-grades.aspx>
- Watson Institute for International Relations (2016). *CHOICES: The American Revolution: Experiences of rebellion*. Providence, RI: Brown University.

Resources

- Age of Empires* - video game released in 1997 with many editions and customized campaigns for empire-building with or against other players and/or the computer; by Microsoft Studios and available at <https://www.ageofempires.com/>
- BeWashington* - role-playing simulation of key events in the life of George Washington at <http://play.bewashington.org/>
- CHOICES* - curriculum resources including role-playing simulations for history and current issues content at <http://www.choices.edu/>
- Crash Course U.S. History* - instructional video series on U.S. History topics at <https://thecrashcourse.com/courses/ushistory>
- EdPuzzle* - customized video content with embedding features for interactivity at <https://edpuzzle.com/>
- HipHughes History* - instructional video series on U.S. History topics at <https://www.youtube.com/user/hughesDV/>
- iCivics* - game-based learning and curriculum resources at <https://www.icivics.org/>
- Kahoot!* - a classroom quiz-based resource which engenders competition at <https://kahoot.com>
- MissionUS* - game-based role-playing activities for U.S. History at <https://www.mission-us.org/>

Risk: The Game of Strategic Conquest - board game created in 1957 and licensed by Hasbro, Inc., also available online at <https://www.game-remakes.com/play.php?id=476> (also licensed by Hasbro)

United States Courts - simulation lessons and other educational material related to the federal judiciary system at <http://www.uscourts.gov/about-federal-courts/educational-resources>