

Web-Based Simulation Games in Social Studies: A Media Analysis

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Abstract

This article explored two complimentary frameworks for utilizing web-based simulation games in social studies classrooms and applied them in a media analysis of a popular web-based civics simulation. McCall's (2014) practical framework and Raphael, Bachen, Lynn, McKee, and Baldwin-Philippi's (2010) approach provided a thorough construct for effectively evaluating and utilizing simulation games in social studies classrooms. The Redistricting Game (USC Annenberg Center, n.d.) is detailed in light of these frameworks and analyzed for potential instructional use.

Keywords: *web-based simulations, social studies games, civics*

Utilizing games and simulations to enrich pedagogy in social studies instructions is a relevant and ongoing area of development in recent scholarship (e.g., Kee, 2014; Lenhart, Kahne, Macgill, Evans, & Vitak, 2008). Practical classroom implications of social studies gaming research, though still developing, are essential considerations when attempting to transfer theoretical assumptions to classroom activities. McCall's (2014) approach to outlining a practical framework for analyzing, preparing for, and using history simulation games as a key instructional practice was a significant step towards putting social studies gaming theory into action. Similarly, Raphael, Bachen, Lynn, McKee, and Baldwin-Philippi (2010) presented a conceptual framework for exploring specific game characteristics that relate to civic learning and potential real-world engagement through the application of civic knowledge. Taken together, these frameworks

provide theoretical and practical grounding for social studies teaching and learning with simulation games. The following media analysis will synthesize both frameworks and apply them to a popular web-based simulation game in order to better understand the theoretical and practical implications of using web-based games in the social studies classroom.

A Two-Pronged Approach to Instructional Gaming Decisions

Instructional gaming in social studies is an area of research characterized by a notable gap between research and practice. Multiple empirical and theoretical studies on the potential for digital gaming in the classroom permeate the field (e.g., Kee & Graham, 2014; Moore, Beshke, & Bohan, 2014) yet few studies explored game-based teaching practices built upon established theories in the social studies content area. This article utilizes a two-prong approach to analyze and examine the implementation of digital games in social studies instruction. First, attention is drawn to the pedagogical decisions involved in implementing digital games by vetting potential games and considering options for their use based on McCall's (2014) practical approach. Second, potential skill transfer from the gaming experience to real-world scenarios or experiences is assessed utilizing Raphael et al.'s (2010) conceptual framework. This provides insight into the particular advantages and disadvantages of digital game characteristics.

McCall's Practical Framework

In calling for a clearer and more practical approach to using history simulation games in the classroom, McCall (2014) emphasized the sharp contrast between utilizing games for learning and playing them for fun. As a classroom teacher and practicing historian, McCall found value in engaging games that lend themselves to analysis and provide unique vantage points for student learning. In his words, "simulation games have compelling features as educational tools; whether they are fun is not at issue" (McCall, 2014, p. 232). What then is the issue? What qualities make a historical game or simulation a sound instructional choice? How should teachers navigate the many decisions involved in utilizing games in social studies classrooms? McCall's framework, based on personal experience and action research in the field, provided guidelines to help teachers answer these questions and take practical steps to use games in their instruction.

First, teachers must assess the validity of the simulation game in terms of the underlying historical interpretation. McCall posited that a game should "offer defensible explanations of historical causes and systems" (2014, p. 233). Given the innumerable interpretations of historical phenomena, portraying a completely accurate view of history is not possible, nor is it desirable. After all, part of the students' analyses will focus on critiquing the historical interpretation present in simulation games. However, to be a viable instructional tool, simulation games should be built upon reasonable historical conventions of the past. Once this type of validity is established, teachers should turn their attention to the historical content framing the simulation game.

The second guideline involves the consideration of the historical issues or problems presented in the simulation game in order to better scaffold the

critique and questioning necessary for analysis (McCall, 2014). According to McCall, aspects such as the role of the game-player, the use of in-game resources, and the possible actions that can be taken by the player are important considerations for teachers as they prepare students for encountering game challenges. Understanding the position of the game-player in encountering the historical issues of the game is an important point of reference for learners. What power or agency do they hold within the game? What historical themes or problems will learners encounter in that role? Answering these questions helps to frame the simulation within real and virtual systems so learners can better navigate the game for learning purposes.

The final guideline for implementing instruction using simulation games is encountering the collection of pedagogical decisions necessary for success. McCall (2014) detailed these decisions as necessary for guiding student learning rather than dictating a specific learning path. Specifically, teachers should plan time for gameplay training, allocate time for observing and recording observation notes, construct analytical exercises related to the simulation game, and provide a culminating experience with opportunities to reflect and critique (McCall, 2014). Obviously, the planning and implementation described above is time consuming for both teachers and students. McCall admitted that many teachers, especially those bound to mandated curricula and/or high stakes testing, cannot feasibly implement these steps for complex games such as *Rome: Total War* or *CivCity: Rome* as described in his article. However, he noted the strong possibility of valuable instruction based on web-based simulation games that are simpler and played on a smaller, more manageable scale. Naturally, consideration of such games uncovers more questions for researchers and teachers alike.

Web-based games are numerous and vary greatly in their potential for learning and application. What types of games help build content knowledge and real-world skills? What aspects of social studies games are most important for student engagement? What values should social studies games promote, and how can these values be applied? Such questions require a theory-based conceptual model for evaluating games in specific content areas. Raphael et al. (2010) proposed a theoretical framework for evaluating the instructional value and pedagogical choices regarding gaming for civic learning. The following synthesis of their framework provides insight into the content-specific aspects of simulation games in social studies as well as the potential real-world civic applications.

A Civic Learning Framework

Raphael et al. (2010) advocated for the consideration of games with applicable civic content as opposed to games that merely include social interaction, such as fantasy role-playing games. In their words, “games foster civic learning when they help players to develop knowledge, skills, and dispositions that players then apply to public matters in the world outside the game” (2010, p. 229). Games with civic content, such as *Decisions, Decisions 5.0* (Tom Snyder Productions, 1997) or *SimCity 4* (Maxis Software, 2004) are hypothesized to have

more real-world connections regarding civic engagement (Raphael et al., 2010). Given this hypothesis, Raphael et al. designed a civic learning framework based on two overlapping continua on which game characteristics are placed (see Figure 1). Exploring the levels of agency, structure, expediency, and ethics within the game help gauge aspects of civic value.

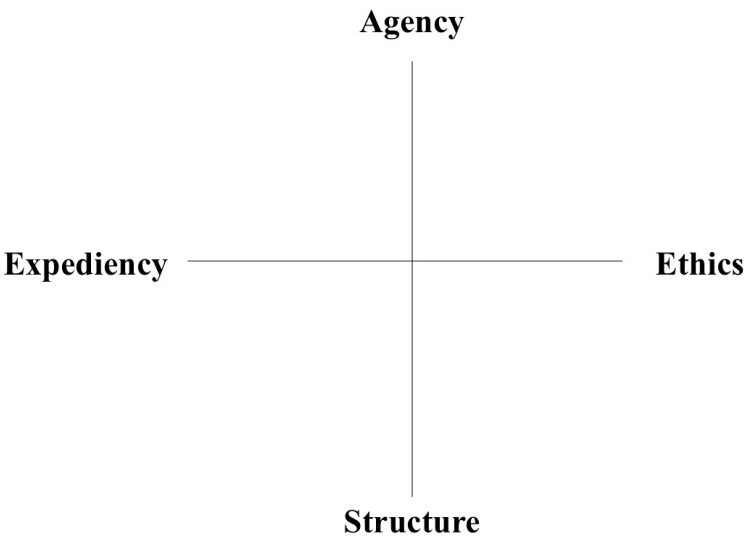


Figure 1. Raphael et al.'s (2010) proposed conceptual framework for civic game characteristics.

The overlapping continua illustrate both the role of the learner and the basis of civic values. According to Raphael et al. (2010), agency refers to the freedom to control and manipulate game mechanics. Games high in player agency often have less rigid gaming structures and allow for more personalized decisions. Raphael et al. described expediency as the utility of the means for achieving game goals with or without consideration of justice or ethics. Games high in expediency have less focus on ethical systems and principles; whereas games that focus on ethics often rely less on expedient or utilitarian gameplay. Raphael and colleagues were careful to note that some degree of expediency is inherent in all game play, but not all civic games have strong ethical foci. Therefore, the use of continua as depicted in Figure 1, rather than a dichotomy, is useful for understanding games for use in civic learning. Based on these four characteristics,

Raphael and colleagues extrapolated the potential transfer of skills for real-world civic engagement.

The Civic Learning framework provides a useful basis for predicting what civic skills could be transferred to real-world scenarios (Raphael et al., 2010). Specifically, the authors point to four types of citizenship promoted in civic games: citizenship of influence, citizenship of justice, citizenship of discipline, and citizenship of responsibility. These four types of citizenship correspond with the overlapping continua discussed above (see Figure 2).

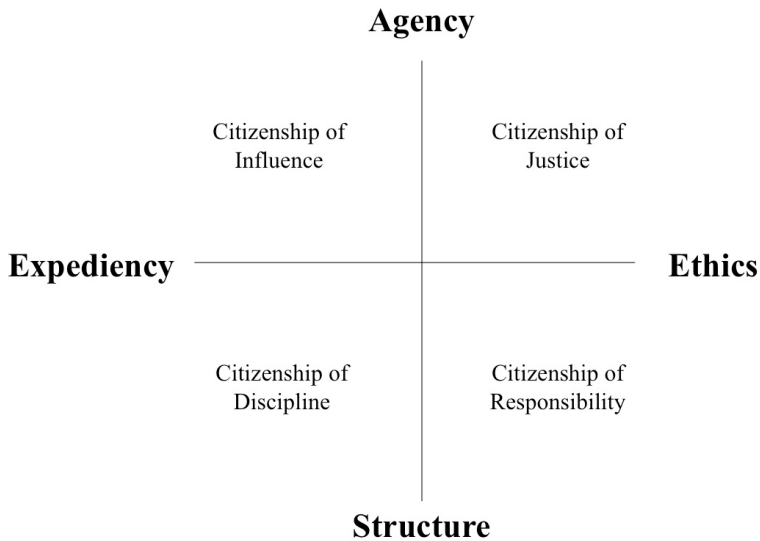


Figure 2. Types of Citizenship on the game characteristics continua (Raphael et al., 2010).

Utilizing the Civic Learning framework (Raphael et al., 2010) enables social studies educators to focus on potential real-world application of civic skills. This conceptual framework provides a useful avenue for evaluating civic games for instructional use during specific units of study or relevant topics. Coupled with the practical steps for game implementation outlined by McCall (2014), these frameworks provide a purposeful structure for evaluating and implementing games for instructional use in social studies classrooms. The remainder of this article will implement this two-prong structure through an analysis of *The Redistricting Game* (USC Annenberg Center, n.d.) and a discussion of its instructional potential.

The Redistricting Game

The stated purpose of The Redistricting Game (USC Annenberg Center, n.d.) is “to educate, engage, and empower citizens around the issue of political redistricting” (USC Annenberg Center, n.d., para. 1). The game design and objectives are built around historical trends of congressional redistricting and the multifaceted process by which districts are redrawn. This process includes political realities, population centers, government bureaucracy, media-rich maps, and more. The game is completely web-based and free for all users. There are basic and advanced levels within each “mission” the player chooses to complete. Additionally, there are multiple hyperlinks to other sections that further explain the redistricting process and guidelines (USC Annenberg Center, n.d.).

The Redistricting Game has received multiple accolades (accessible at <http://redistrictinggame.blogspot.com/>) from media outlets and educators for its ease of use and applicability to real-world content. Game-play is relatively simple and consists of players moving district boundaries on population/political maps in order to meet specific requirements, such as population equality. Additionally, players encounter increasingly difficult missions that require politically motivated redistricting and/or bipartisan gerrymandering in order to have a redistricting map approved by the legislative, judicial, and executive powers represented in the game. The game is a true simulation as it is based on real historical and governmental challenges involved with congressional districting, though the place names and political characters are fictitious. Overall the game is user friendly and information rich. However, through an application of McCall’s (2014) simulation game framework and Raphael et al.’s (2010) Civic Learning framework, the educative value is more precisely characterized in the following analysis. This analysis merges the frameworks in an effort to mirror the logical steps teachers may take when considering game implementation.

Validity of the Simulation

The key consideration for historical validity is whether or not the basic aspects of the game play offer “defensible explanations of historical causes and systems” (McCall, 2014, p. 233). This is perhaps the most significant strength of The Redistricting Game. The game design is built around the historical concepts as well as relevant aspects of the contemporary system. Redistricting is a complex and often convoluted process that has been debated by politicians and the judiciary for decades. The heart of the process is the political influence often noted in the shapes and locations of congressional districts. The Redistricting Game guides players through the effects of politics by starting the first mission with a focus on population equality, compactness, and contiguity; three foundational aspects of the redistricting process (Levitt, 2010). From there the missions become more complex as players attempt to overcome challenges such as gerrymandering, voting rights, and reform. The historical and political processes are extremely accurate and defensible based on well-documented and accessible evidence from our nation’s history, related election law cases, and basic civic competencies for understanding U.S. representative government (e.g., Center

for Civic Education, 1994). Overall, the simulation is valid and applicable for learners, especially those in U.S. history or civics courses.

Historical Problem and Necessary Scaffolding

This aspect of the framework calls for consideration of resources and supports necessary to facilitate students' analyses of the simulation game. McCall (2014) asserted that two general categories of resources are needed to effectively scaffold the use of history simulation games: knowledge of historical issues or content and awareness of historical interpretations. The first resource is the most obvious need for utilizing *The Redistricting Game*. Learners will need a basic knowledge of governmental processes as well as an understanding of the United States Congress, its makeup, and responsibilities. Furthermore, learners should be aware of the general history of political parties and their role in the state-level redistricting processes.

The second aspect of scaffolding is an awareness of the game's interpretation or point of view. McCall (2014) suggested guiding learners through analysis questions that establish the role of the player, the basic challenges and assumed problems within the game, and the essential strategies necessary to succeed in the game. The stated purpose of *The Redistricting Game* leads to a quick realization that the point of view is one of raising awareness regarding the complexity and politicization of redistricting. Moreover, a sense of representatives' political motives and the ambiguity concerning the ethical position of such motives are present throughout each mission within the game. If there is a clear agenda emanating from the game it is one of information and awareness, not political gain. As a result, there is ample room for exploring how the structure of the game may yield real-world applications as discussed by Raphael et al. (2010).

Agency and Structure

The *Redistricting Game* offers players substantial agency as they alter district boundaries according to their desires. Political influences are allowed as players determine which party would benefit from various boundary relocations. However, the structure of the game results in a substantial balance to agency. For example, the primary mode of structure is the mission-specific goals that players must meet in order to proceed through the game. Additionally, the scale and simplicity of the game is a type of built-in structure. Players can only alter certain political conditions and are not able to introduce new strategies for dealing with political stakeholders. Given this balance between agency and structure, *The Redistricting Game* is placed near the center, yet closer to structure, on the agency/structure continuum presented by Raphael et al. (2010).

Games for civic learning that are built around structure have potential for promoting a citizenship of discipline and responsibility (Raphael et al., 2010). As observed in *The Redistricting Game*, players experience the significant challenge of balancing congressional districts while considering the interests of multiple stakeholders. The discipline required to repeatedly submit district maps, obtain feedback, work with authorities, and reconsider previous work is certainly a

collection of skills with potential for application in real-world civic engagement. Furthermore, players gain experience in handling responsibility and the many possible effects of holding that responsibility in a complex electoral system. Once again, real-world civic applications are numerous, as players will potentially interact with other citizens as stakeholders in the electoral process. Governmental oversight, citizen involvement, and political realities are all areas of civic life that provide pathways for Redistricting Game players to extend their civic learning.

Expediency and Ethics

The Redistricting Game falls firmly on the ethics side of the proposed expediency/ethics continuum. According to Raphael et al. (2010), ethics in civic gaming refers to the “moral systems or principles that should guide individuals, but also institutional justice, including that of political and economic systems” (p. 207). Given the relative simplicity of The Redistricting Game, ethical reflections and complex decisions are not a point of specific concentration, yet ethical considerations frame the game concept. The purpose of congressional redistricting is equality and equal voice. However, as keenly applied in the game, political and geographic challenges inhibit players from easily attaining district equality. Guiding principles and a sense of justice certainly influence players throughout the various missions. Though player expediency is noted in the form of purposeful player actions and goal oriented missions, such expediency does not take away from the clear sense of ethics needed to succeed in the game.

Raphael et al. (2010) posited that games high in ethical considerations promote a citizenship of justice and a citizenship of responsibility. Justice is clearly observed in The Redistricting Game’s quest for congressional district equality and the goal of balancing concerns of the stakeholders. Perhaps more important is the notable focus on citizen responsibility. This overlap with the game’s placement toward structure on the continua magnifies the potential for fostering civic engagement focused on responsible citizens. Helping teach about the importance of character and responsibility in a democratic society is a powerful motivation for implementing simulations games such as The Redistricting Game. With this potential goal in mind, social studies educators can chart a clear path to move beyond instructional gaming as a classroom activity and seek to promote true civic learning and citizen engagement.

Pedagogical Decisions for Implementation

McCall (2014) argued that simulation games help students learn and think “flexibly” (p. 242). In other words, students can become more aware of how to learn in different ways when learning from varying sources. Many of the pedagogical decisions necessary for implementing a simulation game stem from this position as students take the lead in engaging with the simulation while teachers act as guides for directions and resources. In many high school social studies classrooms, decisions regarding the allocation of time are made out of necessity and the desire to move forward in the curriculum (McCall, 2014). Utilizing a simulation game like The Redistricting Game will require a somewhat

significant allotment of time to allow for training, observing, and analyzing at the level suggested by McCall.

According to McCall (2014), classroom time should be utilized for training on how to play and interact with the game, observe game mechanics and outcomes, as well as critique the simulation and reflect on the experience. The Redistricting Game is not difficult to learn to play, as most movements are drag-and-drop style movements and the interface is simple. However, navigating the various aspects of the political system, while maintaining an awareness of constitutional mandates and other requirements regarding the process, is a challenge. Learners will most likely need specific training in the content area and exposure to redistricting examples and/or related court cases.

Most learners will benefit from observing game-play and the movements and decisions of their peers. As suggested by McCall (2014), observation notes on decisions, successes, and failures will be an important part of the final critique and reflection. Given the various difficulty levels within the game, teachers may consider guiding the observation notes process with questions, prompts, and specific points of interest to be sure all students have the information needed for future reflection. Other instructional methods, such as whole class discussions, teacher modeling, or small group collaboration can be incorporated throughout this process and may be especially helpful on the advanced levels of the game.

The final pedagogical aspect of implementing a simulation game is the critique of the game's historical interpretation and a reflection on the gaming process. McCall (2014) recommended guiding learners through similar processes as those followed by historians as they evaluate evidence and interpretations in their field. Researching various sources, studying and perhaps challenging commonly held conventions, and drawing individual conclusions are all important aspects of the historical process. The Redistricting Game provides an excellent venue for such academic processes. Learners will find ample opportunities for questioning the assumptions of the simulation and critiquing the interpretation of the political processes depicted. For example, why is the focus primarily political? What place do popular sovereignty and democratic processes hold? What adverse effects of redistricting have been proven in history? These questions could provide the line of inquiry necessary for learners to make the vital connection between the game experience and the world in which they live.

The application of the Civic Learning conceptual framework (Raphael et al., 2010) to The Redistricting Game provides clear direction for real-world applications of civic skills and responsibilities. With this aim as a guiding force, educators can better utilize the game for civic learning and analysis. The Redistricting Game is an excellent example of gaming's potential in social studies classrooms. Undergirded by McCall's (2014) practical framework and Raphael et al.'s (2010) conceptual framework, social studies teachers can truly capitalize on this simple web-based resource and still expect significant opportunities for student engagement and real-world applications.

Conclusion and Implications for Further Application

This media analysis has applied two complimentary frameworks for simulation gaming in social studies to a specific web-based game. In doing so, practical applications of simulation gaming are more clearly illustrated but not fully encompassed. As simulation gaming becomes more prevalent in social studies classrooms, further analysis of potential games will help inform practitioners and advance the theory. McCall (2014) designed his framework to provide a better avenue for theoretical assumptions to become pedagogical practice. Raphael et al. (2010) contended their framework offers clear direction for applying game-based civic learning to real-world situations. Both approaches advocate authentic processes in order to cultivate thinking like a historian and/or engaged citizen. Wrestling with open-ended questions, critically evaluating the never-ending stream of available information, and understanding point of view are essential skills for success in a media-rich world. In McCall's words, "simulation games can help bridge the conceptual divide between humans and their systematic contexts because the games themselves are interactive systems" (2014, p. 230). Perhaps more conceptual bridges should be built in secondary social studies classrooms. With careful planning, analysis, and implementation of simulations like The Redistricting Game, teachers and learners alike can reach beyond textbooks and establish critical connections with content that is better to be experienced than merely observed.

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