

Fostering Perspective-Taking in History Students Through Board Games

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Abstract: Greek History Through Games was an undergraduate history course where students learned by playing an instructor-designed semester-long strategy board game, *Cities on the Edge of War*. The course was designed to foster perspective-taking in the student players, and thus help them connect to and more deeply appreciate the historical content being studied. This study looks at five perspectives students could assume which were identified by the course instructor as goals of the course: the perspective of a historian, a person responding to events, a political leader, a city-state citizen, a Greek at the time. The last three of these were identified as important historical practices that are difficult to teach in a lecture-focused classroom environment. Analysis of students' classroom interactions and written work demonstrates that learning occurred and that students adopted the five perspectives in question. We pay special attention to the design of the game and how different design features supported perspective-taking in students.

Keywords: game-based learning, history, roleplay, strategy, board game, design

Introduction

Learning history is more than names and dates (Wineberg; 2001). It involves engaging in professional historical practices such as inquiry or historical thinking which involve skills like historical comprehension, analysis, perspective-taking and argument construction (Craig, 2017; Monte-Sano, 2011; Shopkow et. al., 2012). These allow students to “go beyond the written word and examine the intention, motive, plan, and purpose” (pp. 9) of the people in a historical period (van Hover & Yeager, 2004). In order to engage students to do history within local learning environments, researchers and practitioners need to keep these criteria and goals in mind when designing history curricula. One route towards this end is to engage students taking on historical perspectives as a way to combat ‘presentist thinking’ and the misconceptions that arise from interpreting the past through the lense of the present (Wineberg, 2001); however, this ability to take on historically-situated perspectives is difficult to teach or foster in a traditional lecture-based classroom (van Hover & Yeager, 2004).

In order to foster historical perspective-taking in the classroom an ideal environment for perspective-taking would be one that, in addition to teaching content, 1) engages students with the content, 2) provides a narrative structure, and 3) fosters critical thinking (Monte-Sano, 2011). The literature shows that game-based learning environments often meet these three criteria. The ability of games to engage learners has been well-studied (see Abdul Jabar 2015). Point two is also well within the understood scope of games and Akkerman (2009) specifically shows how games and simulations can foster the specific kind of historical narratives that are important to this study. Berland and Lee (2011) address point three, showing how complex reasoning can arise naturally in strategy board games.

Therefore, this study investigates a unique game-based learning environment, the undergraduate history course *Greek History Through Games* which was set in the historical period of Ancient Greece and built around a competitive team-based strategy board game, *Cities on the Edge of War*, which was designed for this course by authors 4 and 3. This analysis shows how the design elements of such games contribute to perspective-taking in a history classroom. This investigation will expand on previous work on game-based history learning by focusing on the potential value of longer-term (6-week-long) and analog strategy games to understand the potential of such tools.

Theoretical framework

Game-based learning is a well-researched approach to increase student engagement (Squire, 2010). Perhaps the most well-known roleplaying game for history pedagogy is *Reacting to the Past*, a pedagogical game where students assume the roles of actors in historical situations (*Reacting to the Past*, 2019.). *Reacting to the Past* allows students to engage with historical material in a way that increases enjoyment, empathy, and engagement while improving certain rhetorical skills (Stroessner, Beckerman, & Whittaker, 2009). While game-based history pedagogy has shown to support student engagement and enjoyment of history, there is a potential challenge in

being able to fully understand how instructors and designers can support robust perspective-taking within this kind of classroom environment. In particular, we aimed to use a combination of board game design elements, and after-class reflection to supplement the role-playing experience of *Reacting to the Past* in ways that would support students in recognizing historical details of the time period, and in being motivated to discuss and debate these issues amongst themselves.

Greek History Through Games was developed as an extension of *Reacting to the Past*, and other game-based learning environments like it. It was an experimental undergraduate history course taught at a large university in the mid-western United States where 11 of 15 class days were devoted entirely to playing a strategy role-playing board game, *Cities on the Edge of War*. Set in the days leading up to the Peloponnesian War (430 BCE), *Cities on the Edge of War* puts learners in the role of a political leader of a Greek city-state and asks them to advance their unique goals through strategic and role-playing actions. Both the game and the course were designed to foster historically relevant perspective-taking in the students participating in the course.

The perspective-taking in the design of *Greek History Through Games* was targeted at five perspectives which were identified by author 4, a history teacher, as useful or important for history students understanding the complexities of the historical period being taught (in this case, the Peloponnesian War) and the decisions that local actors faced. Below we will provide evidence of each type occurring in the classroom and illustrate how the game design supported each of these perspectives. The five perspectives are as follows: 1) a student personally responding to events, 2) the leader of a political faction 3) a member of a city-state, 4) a Greek at the time, and 5) a historian or history student. All of these perspectives can be seen in the language students use within the context of the class.

The first perspective can be seen when students understand events as happening *to them* as opposed to simply happening; for instance, times when the students take events personally, “Lysander is on my absolute last nerve”. The second and third perspectives are present when students understand the events in the game or reading through the lens of their assigned city-state or political faction; e.g., “One of our Kings felt as though it was Sparta’s duty to protect the well-being of Sparta by staying out of such conflict”. The fourth perspective allows students to understand events as a person living at the time would; this is meant to be the antithesis of ‘presentism’, where students understand and assess events with modern ideas, theories, or morals, “The constant threat of a competing power, i.e. Sparta, or worse, upsetting a mightier power, i.e. Persia, really makes a young man feel old in short time”. The fifth perspective, the historian, is characterized by making arguments supported by primary sources and historical analysis of events; “I predict that the oligarchs may even attempt to come to peace with Sparta after overhearing a conversation they were having when discussing how to raise their prestige once more. Reading about the “fear, and the sight of the numbers of the [oligarchic] conspirators” shutting down democratic Athenians’ hopes of a switch back to democracy is similar to how I think things will play out in-game (Thuc, 8.66)”.

We recognize that *Greek History Through Games* is a unique experience--not all history faculty have the time, expertise, and flexibility to develop and support a semester-long board game. However, our goal in the present analysis is to begin documenting how the features of such a game support the key historical skill of perspective-taking. By doing so, we hope to provide insights to other educators who hope to either design games to support historical perspective-taking, or to implement longer-term game-based experience.

Design of Cities on the Edge of War

Student participants (n=29) were divided into eleven groups; nine of these groups were pairs playing smaller states while two were groups of five or six students who played Athens and Sparta, the two dominant powers at the time. Additionally, each student was given an individual role either as a historical figure (e.g., Alcibiades of Athens) or, in the smaller groups, the leader of their city’s Democratic or Oligarchic faction (because there were fewer well-documented specific historical actors). Each student was given a summary card indicating their role, and the motivations of their character. The students also had access to a physical map with figures to place their military forces as well as an authoritative map and a summary of the game state that was updated in real-time to help them explore the game world both during class and between. The intention was that the different roles and motivations would help drive students’ perspective-taking, that the map and physical military figures would help them focus on the geographic scale and relationships, and that the need to agree to actions within their team would foster debate within the factions.

We selected 9 elements of the design of *Cities on the Edge of War* to focus on in this analysis, based upon our design goals and experience in running the game (see table 1). Three of these were roleplaying elements and six were related to strategy. RP elements included being assigned the role of a historical person (Role), specific mentions of the Diplomacy Season (Diplomacy) which allowed students to communicate freely with other groups, and the ‘Greek Freedom Index’ (Freedom), a track that moved up or down depending on how students dealt with

conquered cities (were they left to govern themselves or forced into vassalage?). Strategy elements look at students' use of the map, tokens, role cards, and other strategy game elements, such as the Prestige meter that measured the overall dominance of Athens or Sparta in Greece. We also looked at how students dealt with game features that imposed certain realities of Greek life, for instance, city-states could not communicate with each other except during designated diplomacy seasons to simulate the time it took for messengers to travel between cities. Situated Strategy was an emergent code indicating times when students justified their strategic thinking using non-presentist thinking. In the quote below, for instance, the democratic leader of Corinth explains that they did not attempt to usurp power from the ruling oligarchy because, in their mind, the importance of foreign affairs outweighed that of internal ones:

The failure of the democratic faction to make an attempt power within the city of Corinth may be ascribed to one of two reasons. First, I am being tasked with the survival and prosperity of Corinth above all other concerns, could not reasonably justify wasting time subverting the ruling party while military forces were engaged against enemies of the state. Secondly, attempts from the Corcyraeans to overthrow the democratic ruling faction in Epidamnus brought my attention away from domestic affairs towards more urgent foreign issues. (Reflection by Corinthian Democrat, Day 7)

Data and analysis

The semester-long game was video recorded to capture the whole-class and instructor activities (one in the front of the classroom, one in the back), and three cameras that captured student discussions during class. Students also submitted written reflections after each class where they indicated what they had done and how it might have related to readings about the historical period. Finally, copies of the students' final papers were collected. Written work was used to show general trends across the whole course while video data was used to provide focused evidence of how this unfolded in interaction. The authors were present to support the implementation of the game throughout the course.

Written work analysis

Student artifacts were analyzed using Atlas.ti. We focused on commentaries from three weeks of the course which were selected in order to see changes over time in the student's work and historical thinking: Commentary 1 is from the first week of gameplay, which was the second week of the course; commentary 5 comes from the last week of the first game session and commentary 9 is the penultimate day of gameplay. For each of the three weeks, every submitted commentary was put into ATLAS.ti (a total of 71 documents from 29 students) and coded using a coding scheme designed to identify the 9 design goals and elements of the project described above. Quotes were created whenever students' written work evidenced thinking that aligned with one of the five perspectives. These quotes were then coded for any of the 9 design elements that were mentioned or utilized by the student within that quote.

Video data analysis

After the completion of the course, target episodes from the video data were selected for further analysis and were then de-identified and transcribed. Finally, we conducted interaction analysis (Jordan & Henderson, 1995; IA) to explore how the different features of the game design supported the students' interactions as they engaged in various perspectives and explored the historical context. The present analysis focuses on three episodes from this course in addition to the student's written work. These episodes were selected because they included extended (more than 1 minute) discussion with multiple participants within the group engaging, and there was evidence of the five perspectives. Thus they are intended to be illustrative and not representative, though we see evidence that these kinds of perspectives appear throughout the corpus of data. The class sessions chosen for this analysis were in the middle of the second game of the semester, so students were more aware of the rules and various non-player character (NPC; these were city states or figures that the instructor enacted upon request, making decisions such as weather to ally against a common foe) powers that were in play for students to consider in interactions with other city-state teams.

Results

Overall, the analysis demonstrates that perspective-taking is occurring in *Greek History Through Games*. Carrying out IA on the video data showed that students participated in a variety of complex interactions that were supported by various design elements of the game-based learning environment (see Table 1). In particular, it was found that

the role-playing, and strategy-based elements of the course, coupled with its unique long-term character, were instrumental in supporting students' various types of perspective-taking.

Table 1: Co-occurrence of Perspectives with Design Elements

		Perspectives				
		Responding to events	Faction	City-State	Greek @ Time	Historian
Design Elements	Roleplay: Diplomacy	4	0	5	5	2
	Roleplay: Freedom	2	3	4	1	0
	Roleplay: Role	11	16	18	16	0
	Strategy: Map	1	0	2	0	0
	Strategy: Prestige	0	0	1	0	1
	Strategy: Realities of Time	7	2	7	1	4
	Strategy: Role	3	4	10	0	2
	Strategy: Token	1	0	0	0	0
	Strategy: Situated	13	9	33	14	3

Analysis of the after-action reflection assignments showed complex and broad engagement with the content material. Each of the 71 documents coded had evidence of at least one of the five perspectives and all perspectives were represented. Table 2 shows the correspondence of each of the identified game design elements with each of the five perspectives within the student's written commentaries. Within the commentaries, the highest code counts were in Strategy: Situated (72) and RP: Role (61). Both of these codes are associated with the idea of taking on a role, which was unsurprisingly strongly associated with perspective-taking. Students also frequently mentioned the rules concerning the realities of communication and travel (21) and used them to make sense of events in the game (historian and responding to events perspectives)

Role-playing elements

Previous studies (e.g., *Reacting to the Past*) have shown that roleplaying affords engagement and empathy in historical contexts. In students' written work we also find strong evidence of deep engagement with historical roles which led to interesting instances of perspective-taking. Below, a student playing as Hyperbolus of Athens reflects on events that saw him removed from power as oligarchs take control of the city:

I now see the strain that being a regional hegemony meant for Athens. The constant squabbling of subjugated and allied states ultimately placed a heavy burden upon the future of Athens, just as it has done so in our game. The constant threat of a competing power, i.e. Sparta, or worse, upsetting a mightier power, i.e. Persia, really makes a young man feel old in short time. And heck, don't forget to keep a lookout for someone inside that is willing to open the gates... In the end, this week's game operated as a great way to realize the complex and dangerous international system that Athens and the Greek world resided in historically. (Reflection by Hyperbolus, Day 11)

Here we see evidence of a situated historical argument (historian perspective), personal investment in the game narrative (personally responding to events), and comprehension of historically accurate pressures and motivations (Greek at the time). In this reflection, the student displays a nuanced understanding of the political complexities that led to the downfall of his Athens and implies that this led him to insights concerning the fall of the historical Athens. The student's statement that governing Athens "makes a young man feel old in short time" is particularly powerful evidence that playing this role allowed this student to take on the perspective of a historical actor in a way that fostered critical engagement with the content material.

One element of the game that brought out significant interactions were the diplomacy phases of the game. The turn phases the game went through were labeled as seasons of the year (e.g. winter, high summer, fall, spring). The winter and high summer phases were labeled as diplomacy seasons, simulating historical realities, such as large scale conflict not being feasible in the winter seasons due to poor conditions and the high summer season is considered culturally significant as the time of the Olympics for the Greek world. During a diplomacy season, students were free to walk around the room to negotiate or communicate freely with any city-state, student, or professor (who played the role of other cities and figures in ancient Greece). Interactions emerged in these phases that supported students taking on the perspective of being a leader of a city-state and the historical power dynamics

that came with it during negotiations. In one particular diplomacy session, the members of Athens had several poignant interactions with multiple city-states that displayed multiple participation structures of the power dynamics present between members of different city-states. During diplomacy, players in Athens firmly placed themselves in positions of power over smaller city-states while maintaining more equally distributed power when dealing with Sparta, their rival.

At the start of the turn, two members of Athens went to negotiate while the four other Athens players remained seated. Multiple players from various city-states then lined up to speak with the members of Athens, Sparta going first. Athens players and the Spartan player discuss a plan that had been previously made and how that was being carried out and are amiable in their dialogue discussing these plans. Immediately following the Spartan player one of the leaders of a smaller city-state, Megara, comes to make a plea to Athens to free the people of an NPC territory if the siege they are carrying out on it is successful (this was motivated by the assigned historical reading). An Athenian player is dismissive of the claim and begs the question as to why Athens should give them freedom instead of ruling over them if the siege is successful. The Megara player makes their case to Athens as to why this is necessary, but at the end of the interaction Athens has not agreed to anything and an Athenian player states “we will see”. Finally, a player from Chios comes to ask Athens for aid in dealing with combatting an NPC that is within their own Delian League. An Athenian player responds that it would be bad for Athens image if all of its allies were fighting amongst themselves and says that is why they will take no action. When the player from Chios asks how many fleets Athens has at its hands, an Athenian player responds with “enough”. The interactions that emerged during diplomacy phases highlighted how power dynamics played out across members of different city-states. It made salient how role-playing their characters during historical periods of diplomacy designed within the structure of the game supported students taking on the perspective of being leaders of a city-state and the power that was attached to them.

Greek freedom was a design concept implemented into the game that represented the overall freedom that Greeks as a whole experienced in the game. The scale ranged from -5 to 5 and that was dictated by city-state action when dealing with how they interacted with other city-state and NPC powers if they had been conquered in a siege. In one class session, a non-player city was under siege by Athens and Delian League forces. Athens had already received pleas to give the NPC city their freedom. Athens ultimately chose to force the territory into the Delian league and in doing so drop the Greek freedom index in order to benefit Athens and the Delian League. Here the role-playing elements and the roles that the Athenian players were designated supported students in making a decision that may not line up with more modernized views of freedom and democracy. Instead, their roles allowed them to take the perspective of what it meant to be both a faction leader and a member of a powerful city-state in order to understand the wealth and power that they may have sought after during the time period.

Strategy elements

While the connection between roleplaying and perspective-taking has been studied there has been little if any research into how strategy games can accomplish this. We see this as particularly important because the goal of the strategy was not to privilege or appeal to students who enjoyed games (though it did) but to help all of the players appreciate how these strategic issues helped shape the history of the time. Of all the strategy elements that students interacted with while playing *Cities on the Edge of War*, the map and tokens were the most prominent. In the video data, we see students consistently utilizing both the map and the tokens to plan out their courses of action within the game, supported them taking on multiple perspectives.

For example, during a turn planning phase where city-states worked privately to decide their next turn, a Spartan player used tokens from the game to refer to another Spartan player’s character, Lysander, and the soldiers they were leading out in the field (see figure 1). In the interaction, both Agis and the Euphor point down to the map and at the tokens representing where infantry forces were at on the map. Agis at one-point points to the map and says “and the second action would be [*pointing to token representing Lysander*] move you home, go back to Sparta”. The Spartan team is referring to the student playing Lysander as Lysander when they are interacting with the map and tokens, as evidenced by the use of ‘you’ and ‘your’ when gesturing toward the game token which was not always the case in these interactions. Students were typically not “in character” unless they were giving a speech to the class or writing a message out as their character. They also specifically refer to a specific token on the map as Lysander when they mention moving him back to Sparta. Referring to the token that represents Lysander’s and his troops’ location on the map supported students taking on the perspective of a student personally responding to events and being a Greek at the time of the Peloponnesian War, in this case a military general.

Another example that can be seen is during an interaction with Sparta and Athens during a period of diplomacy where multiple students are collaboratively utilizing the map to plan an upcoming turn. During the interaction Lysander proposes that after a siege that both Athens and Sparta are currently a part of, the two city-states should again use their forces to take on another NPC on the map. Alcibiades, an Athenian player, responds

by saying that “And then I’m content in sending, letting *them* go attack Macedonia” while pointing to the tokens on the map representing Athenian troops (see Figure 2). Alcibiades takes ownership of the Athenian troops, represented by the tokens, in an interaction with other city-states. The Spartan player, Lysander, initially misunderstands this and thinks that Alcibiades is referring to the Spartans. Alcibiades clarifies by physically gesturing to the troops while saying “them”, and Lysander takes up the meaning. Here the physical tools of the map and tokens used throughout the game to support students in taking up the perspective of players personally responding to events.

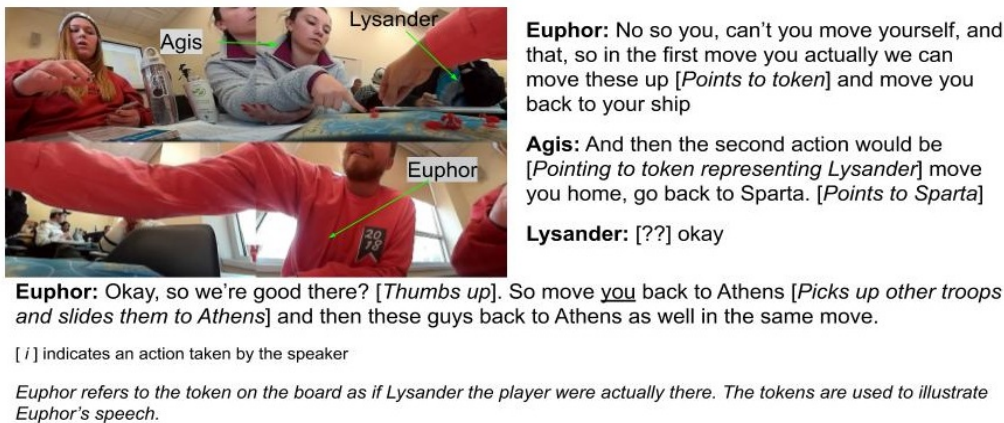


Figure 1. Example of interaction

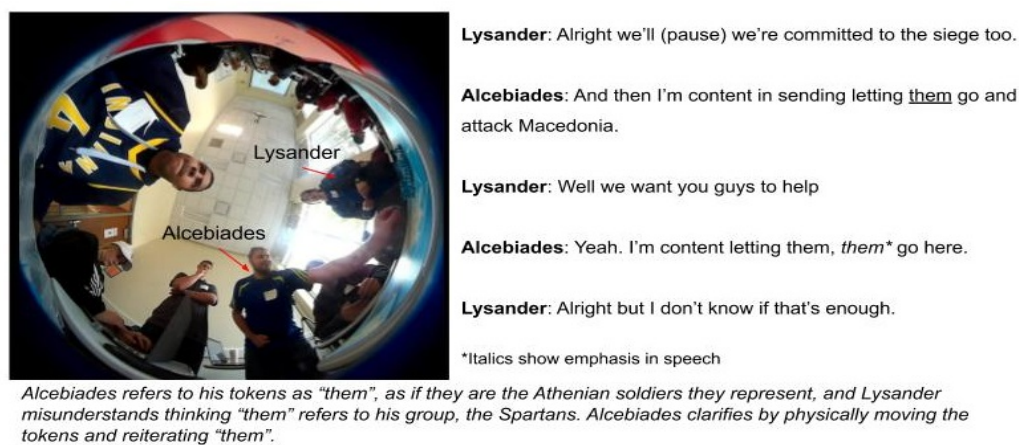


Figure 2. Example of interaction

In addition to the map and tokens, the rules of the game were designed to enforce certain realities of the Greek world circa 420 BCE. Communication during that time was not instantaneous--messengers had to walk to between cities to deliver messages--and, to simulate this, the different city-state groups were not allowed to communicate with each other, except during the winter and high summer diplomacy seasons, where groups could talk but could not take any other action. This often led to frustration from the students, as seen below, but also proved to be a route by which they could better understand the pressure of diplomacy in ancient Greece:

Toward the end of the game, we made a surrender deal with Syracuse... Athens was aware of this deal, though it did not become public because Athens violated the deal and destroyed Syracuse before the Syracusans could make a public announcement of their surrender. We leaders of Mytilene were offended that Athens had disregarded our agreement, and we then considered revolting from their League. (Reflection by Mytilenean Democrat, Day 7)

The Mytilenean player expresses frustration primarily because Athens disregarded Mytilene's agreement with Syracuse but, secondarily, there is also frustration that this seems to have occurred because the groups could not

communicate smoothly. Mytilene had no way to coordinate with Athens which lead to their taking action before Syracuse could declare their agreement to surrender. This led the student to an understanding of the difficulties faced by smaller city-states, and she goes on to formulate a detailed plan by which Mytilene could extricate itself from Athens' control by forming a coalition of smaller states.

The value of a long-term classroom game experience

One of the most unique features of *Greek History Through Games*, compared to what is generally seen in the literature, was the scope of *Cities on the Edge of War* within the class. For 11 of the 15 in-class days, students spent the entire 3-hour class period playing *Cities on the Edge of War* (they played a full 5-week game followed by a week to reflect, and then a new 6-week game that took place later in history, and with new groups / faction assignments). This continuous play experience provided students a chance to familiarize themselves with the rules of the game, gave multiple chances to compare/contrast readings, and, perhaps most importantly, told a continuing narrative that allowed students to connect with the game world. Table 2 below shows the counts of various codes in the student's written commentaries over the course of the semester. In these commentaries, a few trends stand out over time: there is a decrease in the city-state perspective and the situated strategy over time (red) while the Greek at the Time and Person responding to Events perspectives increase (green).

Table 2: Code Counts over Time

	Commentary 1	Commentary 5	Commentary 9
1st Person	46	31	36
3rd Person	6	17	12
P1: Responding to events	15	21	22
P2: Faction	14	11	15
P3: City-State	24	34	17
P4: Greek @ Time	11	8	23
P5: Historian	6	14	6
RP: Diplomacy	8	2	2
RP: Freedom	1	3	4
RP: Role	22	11	15
Strategy: Map	3	0	2
Strategy: Prestige	0	4	0
Strategy: Realities of Time	3	8	7
Strategy: Role	5	12	5
Strategy: Token	0	0	2
Strategy: Situated	20	22	11
Primary Text	3	14	3

One way of reading this data is that, as the game progresses over the course of the semester, students begin to internalize the game world. Events in the game affect them personally and they contextualize these events much as a historically situated Greek citizen would. Looking at quotes from Commentary 9 makes this internalization clear.

I was also able to convince Sophocles and Nicias to join me. The argument I presented to them was that the Spartans were going to do what they can to keep the oligarchic faction in power, so it was better to be with them than against them. Now that I am in power, I am not exactly sure what to do next. The Spartans have heavily suggested that if they helped me overthrow the democracy, I should repay them by joining the Peloponnesian league, but I never actually agreed to this. I would be more than happy to work with the Spartans, but I do not want to be ruled by them. (Reflection by Theramenes, Day 11)

Here, a student playing the role of Theramenes of Athens is reflecting on his successful overthrow of the Athenian democracy which installed him, along with two students playing as Sophocles and Nicias, as oligarchic rulers of the city. Theramenes' initial reasoning is quite pragmatic but, afterward, we see a clear struggle within the student's thinking. This outcome is the result of the collective action of multiple student groups over several days of gameplay and Theramenes' player is balancing a real obligation his classmates who helped him gain power

with a desire to keep his city free and powerful. The fact that we see such a steep increase in this perspective in Commentary 9 is evidence that the length of the game supports this kind of perspective-taking.

Discussion and conclusion

As a long term, analog strategy game, *Cities on the Edge of War* extends the current research on game-based history learning by suggesting design strategies that can help foster position-taking, historical argument, and an understanding of the dynamics and motivations of historical actors. We believe that the length of the game contributed to the perspective-taking success, but also that students were supported by their roles, by the organization of the class into city-states, and by the board game mechanisms that pitted students against each other and yet also in need of collaborating to fend off the Persian armies. Students also unanimously reported that this was one of their favorite history classes ever, and several indicated it was the best class they had ever taken. This combination of praise, engagement and perspective-taking is all too rare, and thus there is value in continuing to explore how they can be supported by these kinds of game structures.

This initial instantiation of the course showed that students developed deeper insights in the intricacies of Greek motivations compared to other classes run by the same professor, the students lacked a breadth of knowledge that was evident in students from lecture-based courses. Additionally, some students said they would have liked to have a slightly stronger grasp of the historical realities, such as dates and outcomes. Given this, we are revising the game for a future instantiation that will include more opportunities to make connections to the broader historical context of the time period.

In many ways, game-based learning is still unexplored territory and this study shows how powerful of a learning tool it can be. Our purpose here is not to suggest that all history courses be replaced with six-week strategy games. Rather, we suggest that games are an excellent way to supplement history learning (and learning in general) and train students in important disciplinary skills in an engaging and non-alienating format. Also, extended games appear to be a unique opportunity to foster powerful perspective taking in ways that single-session games may not. Our hope is that current and future teachers and researchers can draw from the designs presented here to study and implement this powerful tool to foster perspective-taking in their own contexts.

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