A TEACHING NOTE: USING GAMES TO BRING A CLASSROOM TO LIFE

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For decades teachers across the United States have used games as instructional tools. Games provide many benefits to the learning experience. Well-structured gaming lessons increase student immersion into the content, create powerful visual memories of that content, and raise the "fun factor" for a given unit of study. For another benefit, games work with different types of student learners, blending auditory, visual, and kinesthetic (hands-on) opportunities for students to approach and master a subject. When teachers embed games into their classes, they can be useful teaching techniques at any academic level. This teaching note describes the use of a war game at the secondary level, but teachers also can use games with great effectiveness in college history classes.

Recently, we developed a unit that made use of a game to help students at West York Area High School in Pennsylvania learn about World War II. Yvette Ganoe is the Instructional Leader for the Social Studies Department at West York Area High School (http://www.wyasd.k12.pa.us). Doug Bryant is the Librarian for the high school but also is certified in Social Studies. During a conversation about the World War II unit in Ganoe's curriculum, Bryant mentioned that one of his hobbies is military strategy board-gaming. Such games put players in the position of the actual military commanders from various battles and campaigns throughout history. When Bryant described how playing the games gave him the sensation of "living" the history, Ganoe decided there might be a teaching application for such games.

From that initial discussion, we decided to incorporate one such game from Bryant's collection. That particular game is a moderately complex one that covers the entire Pacific Theater from 1941 to 1945. However, given time constraints in a class period, we decided it would be necessary to limit the scope of the game to one major campaign from that war. We selected Guadalcanal as the focus because that battle, fought over several months in 1942 and 1943, encapsulated a number of major themes of the Pacific War.

Because students were not going to play the game as published, we needed to create an adaptation to use in class, getting permission from the game's publisher before starting. The first step was to identify the essential content we hoped to convey via the game. After much discussion, we settled upon the following five learning objectives:

- The impact of Japan's oil resource shortage
- The importance of islands as air bases
- The importance of aircraft carriers

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- · America's tremendous industrial capacity
- The importance of Guadalcanal to the outcome of the Pacific War

Having decided on the learning objectives, the next challenge was to create an adaptation that effectively transmitted that content while maintaining the challenging exercise in decision-making that the original game provides. After much work, we created a three-turn "mini-game" adaptation in which students split into Japanese and American teams.

To start, we designed an enlarged game board. To incorporate manipulatives for the students, we also created game pieces using plastic miniatures of ships, planes, and troops. Beyond those steps, though, the real heart of this adapted version is Decision Cards. Each card presents a team with several possible "moves" they can make with their forces. After team discussion, they choose one of the move options, with play then moving to the other team. Creating the cards involved mapping out a "decision tree" for the game. For every decision that one side makes, there is a set of possible counter-actions (listed on additional Decision Cards) that the other side can select in response.

Once we started playing the game, a high level of student involvement was immediately apparent. Comments from students after the game proved the success of the idea. Some students mentioned the new knowledge they gained from playing the game. For example, one student told us that "I never understood the size of the Pacific Ocean and the distances they had to travel until I saw the large game board," while another mentioned to us that she now understood "why our soldiers were fighting on all those islands in the Pacific." Students also indicated that they found the unit to be not only informative, but also enjoyable. "This was really fun! It's the most fun I've ever had in a social studies class," one student told us, a comment that we heard repeated by many others.

Not only was the anecdotal evidence strong; the game also got high marks in a survey of students. Following the unit, each class received a survey asking for student reaction to the game. Students answered on a scale of 1 (Strongly Disagree) to 5 (Strongly Agree). We taught the lesson to 98 students, spanning all ability levels. Of those 98 students, 86.8 percent either agreed or strongly agreed that the game was an effective learning tool. Furthermore, nearly 91 percent of the students either agreed or strongly agreed that more such games should be used in future units.

Both of us learned a great deal during the process, including several fundamentally important concepts that any teacher should keep in mind when creating a game for class use. These concepts apply not only if the game is a military-themed one, but for any game used as a teaching tool, regardless of subject matter.

• **Decisions**—Student feedback indicated that they greatly enjoyed "calling the shots" in the game. Any effective classroom game must provide students with the opportunity to make decisions. However, equally important is that these decisions must

be ones that students will view as having significant impact on the outcome of the game.

- Competition—The game must tap into each student's interest in competition.

 A good deal of the "fun" factor arises from this competition.
- Focus—The game must be structured in such a way that it narrows student decision options to keep them in line with the learning objectives. For example, the Decision Cards in the adaptation narrowed force movement options to only the Guadalcanal/Coral Sea area. The Japanese team was not, for example, allowed to attempt an invasion of Pearl Harbor. Failure to tie student decision options to the learning objectives can lead to a game that loses its educational focus.
- Avoid Gender Assumptions—While many people might assume that men would be more interested in a military game than women, playing the game revealed that women students were consistently more energized about the competitive aspects and consistently made better strategic decisions than their male counterparts. The lesson is that teachers should not shy away from developing a game on a topic because they assume that one gender or the other might not be interested in the topic.
- Manipulatives—Students liked having small ships, planes, and troops to move around the game board, as well as the physical size of the board itself.

Research indicates that students learn best when they are actively engaged with the content. The use of games in the classroom is an effective way to achieve those desired levels of student engagement. By following the key concepts identified above, teachers can create effective games for virtually any subject area and by doing so will see higher levels of student comprehension and retention of the content.