PROJECT-BASED LEARNING

The "Secret Ingredients" of Problem-Based Learning: **A World History Perspective**

Robert Hallock and Kathryn Smoot

The Ottoman Empire team was completing its intelligence briefing. The teacher addressed the other empire teams: "On a scale of one to ten, how interested are you in engaging with the Ottoman Empire? Turn and talk with your team. Write it on your white board you have two minutes ... Go!"

There was a brief pause and then the conversations began forming a rapid crescendo: the diplomats were strategizing. Just as the crescendo was reaching its peak, the teacher called the empires back together: "Hold up your white boards on three. One ... two ..." The boards went up. The Dutch Republic held up the number 8; The Spanish Empire a 3.

"The Safavid Empire?" the teacher asked.

"The Safavid Empire ranks the Ottomans ... negative 5." The class laughed, but the teacher knew this was a good sign. They had picked up on a key point: The Safavids and the Ottomans, Shiite and Sunni Muslim respectively, were historic enemies.

The activity described above was an actual experience from part of the Diplomacy Challenge unit in our Problem-Based Learning (PBL) AP World History Curriculum when students discover and analyze the history of the Early Modern Era (1450–1750). In this article, we explain how we have adopted PBL, its "secret ingredients," as



Students at Sammamish High School in Bellevue, Washington, participate in a PBL activity called the UN Summit on the Refugee Crisis in June 2017.

well as the lessons we have learned since making this change.

How Did We Get Here?

In 2010, our school, Sammamish High School in Bellevue, Washington, was awarded an Investing in Innovation grant from the U.S. Department of Education. As part of this grant, our school embraced problem-based learning as a core curricular philosophy.¹ Grant funds were used to give teachers release time to work in course design teams on creating engaging and rigorous PBL units across the curriculum. While we designed our PBL curriculum before the C3 Framework was released, we found that the skills our curriculum sought to develop are well aligned with the four dimensions of the C3 Inquiry Arc.² We have boiled down PBL in the social studies to three "secret ingredients": *Authentic Problems.* This means that the activities, challenges, or skills we ask our students to do and demonstrate, reflect the activities, challenges and skills the people in that discipline or field actually do and need to have. In C3 terms, the compelling question at the heart of each unit is what drives the Inquiry Arc.

Need to Know. This does *not* mean "need to know basis" as in spy movies. By "need to know" we mean that a good PBL challenge gives each student and student team an authentic—both academically and in their historic role—incentive to learn about the position/role of *other* students during the PBL challenge cycle.

Differentiation. Much has been written about this important education buzzword. In the PBL context we mean that there are many entry points to learning content and demonstrating skills for students of all ability levels.

Each of these "key ingredients" is detailed below. This unit takes about five weeks and a version of it is posted on the National Endowment for the Humanities EdSITEment website.³

Ingredient 1: Authentic Problems

When planning units in social studies, we distinguish between two types of authentic problems, those of the discipline—the questions that actual historians grapple with—and the problems and challenges faced by actual historical actors (e.g., how, as a Mombassan merchant, to successfully benefit from the Indian Ocean Trade).⁴

There is often overlap between these two types of authentic problems. For example, a historian of diplomacy in the Early Modern world may research questions about how diplomacy was conducted, what tools were used, how the practice of diplomacy differed between imperial courts, and of course, why these distinctions existed. A successful Early Modern diplomat would also have to address many of these questions as well. However, while the historian's goal might be to contribute to the existing knowledge in her field or perhaps to alter the existing paradigm about a historical belief, the goal of the Early Modern diplomat, at its core, is very different. His goal would be to use the "intelligence" he gathers about other empires to strengthen the position of his empire vis-a-vie its rivals and allies.

The Diplomacy Challenge is built around the question "How did early modern empires use diplomacy to maintain and expand their power?" This question ultimately will be the writing prompt for the unit assessment. To answer this question, the students play the role of diplomats from that era.

How to Choose an Authentic Problem? When deciding on an authentic problem for a unit, there are four questions that we ask:

- 1. Would a historical actor actually have to address a problem such as the one we are posing (e.g., is it authentic)?
- 2. Does the problem incorporate the skills and habits of mind that historians employ in their work?
- 3. Does the problem lend itself to a thoughtful assessment opportunity that satisfies one (or more) of the course objectives?
- 4. Finally, are there sufficient primary source documents/evidence to provide students with a variety of perspectives to examine this question?

We picked diplomacy as a theme for our authentic problem for the Early Modern Era because many of the primary-source documents we have from this period are dispatches and descrip-

OTTOMAN EMPIRE

Initial Empire Intelligence: Factors to Consider

1. The Sunni Ottomans engaged in an ongoing war with the Shi'ite Safavid Empire forcing the Ottomans to rely on a large army (including captured slave soldiers called janissaries) and a large bureaucracy to protect and maintain their power. Soldiers and army officials needed to be paid.

2. Cities in the Ottoman Empire were religiously tolerant and Istanbul was one of the cities that Jews who were expelled from the Spanish Empire came to.

3. Spanish silver caused inflation in the Ottoman Empire. Europeans, having access to more gold and silver, could pay more for Ottoman commodities (such as wheat), leading to an overall increase in prices.

4. Increased prices did not coincide with increased wages for soldiers and for peasants who also had to pay more taxes. This led to revolts in the early 17th century,

5. Throughout the 16th century, the Ottoman Empire controlled and profited from the spice trade between the East and Europe, but, with European exploration and expansion, Europeans were able to bypass the Ottomans.

6. The Ottoman Empire had a special, although tense, relationship with Venice upon whom it depended for various supplies and a market for its goods.

7. The Ottoman Empire did have a navy but it was not equipped for the high seas and focused on the Mediterranean Sea and coastal waters. An alliance of Spain, Venice, and the Papal States defeated the Ottoman navy at Lepanto in the late 16th century. The Ottomans quickly recovered from the defeat and rebuilt.

tions written by diplomats or documents that are of interest to diplomats (e.g., Austrian diplomat de Busbecq's *Turkish Letters* and Pope Pius V's bull excommunicating Queen Elizabeth⁵).

We also realized that the activities of diplomats dovetailed nicely with the skills we wanted students to dem-

web resources

The following organizations provide good examples of Problem-Based Learning as well as sample lessons and units:

The Buck Institute, www.bie.org/

Educurious, http://educurious.org/

Edutopia, **www.edutopia.org**/ The George Lucas Education Foundation (GLEF) documented the process of school-wide change to PBL at Sammamish High School in a series of videos, articles and blog posts on the Edutopia website.

The following resource is a sample curriculum planning and pacing guide for AP World History using Problem-Based Learning available from the College Board.

Hallock, Robert and Kathryn Smoot. *AP World History: Course Planning and Pacing Guide*. The College Board, 2015. PDF e-book. https://secure-media. collegeboard.org/digitalServices/ pdf/ap/ap-world-history-planningpacing-guide-hallock-andsmoot-2015.pdf.

Paul Halsall's Internet Sourcebook Project at Fordham University is a good resource for primary source documents. Halsall, Paul, ed. Internet History Sourcebooks Project. January 26, 1996. http://sourcebooks.fordham. edu/index.asp. onstrate. Diplomats gather, analyze and prioritize "intelligence" which are exactly the skills students need for the Comparison Essay assessment we were preparing students to write for the AP World History Exam.⁶

We broke down the challenge into three components: Intelligence Briefings, Reception and Toast, and Treaty Negotiations.

Intelligence Briefing. Diplomats "intelligence" information gather about their own and other empires in order to advise their rulers on the best course of action. We decided to convert what had traditionally been a series of in-class lectures or stand-alone PowerPoint presentations by students into "Intelligence Briefings." Each student team was given a list of "Factors to Consider" (a format we borrowed from Boulder, Colorado, teacher Andy Aiken. See the sidebar on p. 41 for the Ottoman Empire team's "Factors to Consider") and primary source documents about their empire. Each team was required to create a brief (7-slide) PowerPoint "Intelligence Briefing" for diplomats from other empires on the important aspects of their empire that other countries should know. Students were not allowed to use text in their presentations and instead had to use images that helped represent the key ideas.

During the "Intelligence Briefings" students sat with their empire teams and took notes on a graphic organizer designed for the presentations like the Ottoman Empire briefing described at the beginning of this article. At the end of each presentation, each empire's diplomats were required to write a number ranging from 1 to 10 on a small white board displaying their interest in engaging in diplomacy with the empire that had presented, turning the presentations into an opportunity to signal interest in diplomacy.

Diplomatic Reception and Toast. After analyzing their intelligence, empire teams gathered to select one empire with which they would like to engage in diplomatic relations and invited that empire to a diplomatic reception. At the heart of the reception is a diplomatic toast, which highlights the similarities and differences between the two empires and their accomplishments as well as the hopes for an ongoing diplomatic relationship. To help prepare students, we model a sample speech and, more importantly, show an example of a diplomatic speech. We have used former President Obama's speech to President Hu in 2011 to show that these skills continue to be relevant.7 The inherent nature of the toast requires that students compare and contrast their empire and another empire, which is what they will be required to do for the Comparison Essay Assessment. This involves students analyzing data and generating supporting questions related to the principal question.

We also have students prepare a dish from their country and present a gift to the invited empire that represents something significant from their empire, as well as include a relevant saying or proverb, all activities that commonly occur at diplomatic receptions.

Treaty Negotiations. While the diplomatic reception is often the highlight of this unit for students, the goal of the activity is for students to negotiate a treaty that strengthens their empire's position of power. Treaty writing and negotiating are not simple tasks, and we provide students with a sample treaty complete with "whereas" statements, which serve as historical justifications for the provisions included in the treaty. This aligns with Dimension 3 of the C3 Framework, as students must support their treaty proposals using evidencebased claims. We also provide students with options they might propose. For example, land-based empires such as the Safavid Empire have the option to have highly regulated trade, or free trade, as well as to allow another empire's merchants to establish a "factory" or trade based in a specific port city. On the day

of negotiations, students exchange treaty drafts and negotiate their differences. Students are often editing up until the last minute, again, typical in diplomacy.

Ingredient 2: Establishing the Need to Know

In the theater there is a saying that "there are no small parts, only small actors." In PBL, we make sure that each role is of some importance to another role in the class so that there really aren't any small parts, only smaller empires. For example, while student diplomats from the Ottoman Empire may not have much interest in the West African kingdom of Ashanti, the Spanish and British will. Every empire is a piece in another empire's puzzle, which means that students ignore the intelligence briefings of other empires at their peril. The quiet student from the Mughal Empire in the back of the room may hold the key to negotiating a successful treaty.

There are many ways we build the "need to know" into the challenge. One way is to create an environment where the diplomats with the most complete information will be able to demonstrate the skills to negotiate the best treaty. Unlike a disconnected series of PowerPoint presentations on different empires, the intelligence briefings described above become sources of critical information not just for the final assessments but in order to be successful in the challenge. For example, after the Ottoman Empire presents, our student diplomats learn that they have an ongoing feud with the Safavid Empire, a difference that some sea-based empires can exploit.

Ingredient 3: Differentiation

In order for the Diplomacy Challenge to be truly successful, all students need to contribute. This means all students need to be able to access the curriculum. We designed our curriculum with this in mind by creating various "access points" for students of all readiness levels. At the most basic level, students become knowledgeable about the empire they represent as diplomats and learn to analyze "intelligence" from that empire. For more advanced students, there are many opportunities to go beyond knowledge of one or two empires and demonstrate a more complex understanding of the Early Modern period.

We begin the Diplomacy Challenge Unit by having students read over "Factors to Consider"-facts about their empire-that we want to make sure they know. We have them prioritize these factors in terms of what they think is important for other empires to know about them (e.g., The Spanish Empire views itself as the defender of the Catholic Church). This aligns with the perspectives skills of Dimension 2 of the C3 Framework. Finally, we have students "mix and mingle" amongst other diplomats to share their three priorities. From a differentiation stand-point, for our lowest skilled students, at the very least they learn three important facts about their own empire. For our middle skilled students, they begin to see which empires might have complementary trade needs and begin to think about which empire they might want to negotiate with. Our most advanced students often begin to triangulate and identify relationships between other empires (e.g., tension between the Sunni Ottomans and the Shi'ite Safavids) and begin to calculate how to use that to their advantage in diplomacy.

Lessons Learned

After five years teaching a PBL curriculum at both the World History and the AP World History level, we have experienced both the benefits and pitfalls of PBL. Some of the most common concerns that come up when discussing PBL are addressed below:

How do you cover all of the content? In a course as packed as AP World History this has been a challenge. We have long invested in the idea that a deep understanding of one or two empires (or revolutions, or ancient trade routes, etc.) is better than a cursory understanding of all of them. We are encouraged by recent changes in the AP World History exam that seem to embrace a similar philosophy.

How do you ensure all members of a group are learning/contributing? This has been a significant challenge and though we do not have all the answers, here are some tips. One strategy we use is to **keep groups small**. Most of the collaborative work in our class is done in pairs or in groups of three. This makes it difficult for any one student to be anonymous in their group. We have also spent considerable time revising

"Key Ingredients" of PBL

Authentic Problems. Unit activities and skills reflect those the people in that discipline or field actually do and need to have.

Need to Know. Student roles have built-in incentive to learn about the position/role of other students.

Differentiation. Many entry points to learning content and demonstrating skills for students of all ability levels.

our projects to ensure we have created meaningful roles for every student. In the Diplomacy Challenge Unit this means that students take on **rotating leadership roles**. Working in groups of three, one student takes the role of "lead diplomat" on one aspect of the project (the intelligence briefing, the reception or the treaty negotiations), while the other students take on the supporting role. This means that everyone has a crucial role to play in the successful completion of the project.

How do you separate the simulation from the actual history? While simulations are fun, we don't want students to learn alternative facts. In our Diplomacy Challenge the Mughal Empire may successfully avoid British interference or a savvy Spanish Empire may trade the Philippines for the Dutch Spice Islands, but in history neither of those things really happened. Our goal is to give students the freedom to explore "alternative history" without causing too much confusion. One strategy to address this is to ensure that student decisions are grounded in historical fact.

While emphasizing the facts is important, we have also learned that the most important aspect of any PBL unit, small simulation or any classroom activity is the debrief. The discussion that follows a unit, which we try to schedule for a whole class period, is often as important as the unit itself. It is in this discussion that students are able to refine their thinking, clarify misunderstandings, and answer the essential questions. We cannot stress enough the importance of the debrief. Problem-Based Learning in both our World History and AP World History classes has increased engagement and has helped guide our students in developing historical thinking skills. Though it can be challenging to plan and implement, especially because it requires teachers to hand over significant control to students, we believe our "three ingredients" are a good place to start when planning similar projects.

Notes

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ROBERT HALLOCK teaches social studies at Sammamish High School in Bellevue, Washington, and has served as a reader for the AP World History Exam. He can be reached at hallockr@bsd405.org.

KATHRYN SMOOT currently teaches social studies in Florham Park, N.J. She previously taught AP World History for five years at Sammamish High School in Bellevue, Washington. She can be reached at Ms.Smoot728@gmail.com.

Social Studies

Social Studies and Exceptional Learners

Darren Minarik and Timothy Lintner, NCSS Bulletin 115. 183 pp., 2016

Even as students with disabilities are more fully included in general education settings, there is a significant lack of resources on teaching social studies to these exceptional learners. This book fills that important gap. "The driving force behind this publication," the authors write, "was the limited number of empirical investigations and teacher practitioner articles currently available for social studies educators who want to address the needs of exceptional learners in their classrooms."

Darren Minarik and Timothy Lintner bring together the latest research in special education and social studies in this easy-to-use guide for educators at all levels from elementary through high school.

The authors provide background information on categories of disability, and laws driving disability services

in schools, and recommend best practices for educating these exceptional students in an inclusive classroom setting. The topics discussed include instructional design and strategy, assessment, classroom management, and the use of appropriate technology.

Minarik and Lintner offer carefully designed lesson plans for teaching economics, geography, history, and civics to exceptional learners at each of the elementary, middle, and high school levels. The lessons are aligned with the national social studies standards and the C3 Framework for social studies state standards. The authors also recommend important institutional and published resources that can assist with the education of exceptional learners.

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