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PROMOTING FREEDOM THROUGH PROBLEM-BASED LEARNING

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Abstract

Problem-based learning (PBL) is an instructional tool for encouraging active thinking about realistic problems and making sense of them through multiple content-focused lenses. It also has the power to bring faculty together in support of academic and social goals for students. Using a case-study approach, we share the story of a rural school district's faculty and administrators who decided to implement a school-wide, week-long PBL activity. We focus on the social studies component of the PBL activity, describing the initial decisions teachers made to create this project, the planning teachers completed throughout the semester leading up to it, and students' experiences across the week of PBL. Finally, we share suggestions about how other teachers and school districts can leverage PBL instruction in support of the New Ohio Learning Standards (ONLS) for social studies.

Preparing students to participate as citizens in a democracy has historically been a responsibility of schools (Ochoa-Becker, Morton, Autry, Johnstad, & Merrill, 2001). This citizenship education is considered the primary mission of teaching social studies, but that teaching has lost prominence since the advent of high-stakes testing (Hinde, 2008). Social studies has become increasingly marginalized since curriculum standardization (Fitchett & Heafner, 2010; Heafner & Fitchett, 2012). Some authors have suggested integrating social studies with tested content areas (Boyle-Baise, Hsu, Johnson, Sierrere, & Stewart, 2008). Because the fundamental aim of social studies instruction is the promotion of civic competence (National Council for the Social Studies [NCSS], n.d.), one way social studies teachers can respond to the marginalization of their work is through engaging students in integrated, cross-disciplinary, problem-based learning (PBL).

Problem-based Learning

Originally developed as an instructional strategy in medical schools, PBL represents a specific type of project-based instruction (Halvorsen et al., 2012). It is an innovative instructional strategy that provides students opportunities to investigate problems, learn content, and authentically express that learning (Hmelo-Silver, 2004; Stepien & Gallagher, 1993). PBL activities are designed to assist students to (a) construct an extensive, flexible knowledge base, (b) improve problem-solving skills, (c) acquire self-directed lifelong learning skills, (d) collaborate effectively, and (e) develop greater motivation (Barrows & Kelson, 1995; Hmelo-Silver, 2004). Rather than simply directing students through problem-solving steps, a teacher

implementing PBL acts as a tutor who “supports the [learning] process and expects learners to make their thinking clear, but . . . not provide information related to the problem – that is the responsibility of the learners” (Savery, 2006, p. 16). Because PBL tasks are messy, realistic, and have multiple solutions, PBL activities are interdisciplinary and collaborative in nature and require reasoning, sense making, persuasive writing, and presentations (Savery, 2006). The combined characteristics of PBL, from ill-structured problems to interdisciplinary collaborative activities, work in concert to make it an important instructional strategy.

PBL in the Social Studies Classroom

Project-based instruction, of which PBL is a subtype (Halvorsen et al., 2012), has been shown to have positive impacts on students within social studies (e.g., early childhood students, Gultekin, 2005; elementary gifted students, Diffly, 2002; elementary students with learning disabilities, Filippatou & Kaldi, 2010; middle school students, Hernandez-Ramos & De La Paz, 2009). Research continues to show beneficial effects of PBL in social studies classes. In one study, PBL was implemented during high school economics; students’ experiencing PBL had significantly better achievement on a comprehensive test compared to peers in the traditional teacher-directed group (Mergendoller, Maxwell, & Bellisimo, 2006). In another example, PBL was used in a fourth-grade classroom to teach students human migration patterns within the context of the local community (Wieseman & Caldwell, 2005). Students demonstrated higher order thinking skills and were excited to engage in the PBL activities. Saye and colleagues have shown that their problem-based historical inquiry model incorporates students’ examination of persistent societal problems within particular historical contexts (Callahan, Saye, & Brush, 2009-2010; Saye & Brush, 2004). Across this literature, PBL has been reported to increase the authenticity of students’ learning, and therefore their engagement in social studies.

In addition to these examples, PBL also responds to the College, Career, and Civic Life (C3) Framework (National Council for the Social Studies [NCSS], 2013). The C3 framework suggests that social studies should involve interdisciplinary work so students learn concepts, skills, and enduring understandings to foster democratic decision-making. Instruction should contextualize students’ thinking through compelling questions (NCSS, 2013). “Compelling questions . . . deal with curiosities about how things work; interpretations and applications of disciplinary concepts; and unresolved issues that require students to construct arguments in response” (NCSS, 2013, p. 23). PBL, because it is grounded in ill-structured problems, can focus students’ thinking on compelling social studies questions.

Purpose

In light of research indicating that PBL is an effective instructional strategy and the need for social studies teachers to integrate instruction across subject areas to fight against the marginalization of their content area, the researchers’ lenses for this article is to describe how faculty at a rural secondary school implemented an intergrade level, multicontent PBL activity grounded in a problem related to civic competence. We highlight the social studies teachers’ instruction, who posed the compelling question, “How did Enlightenment thinkers shape the concept of freedom throughout U.S. history?” In the next section, we share how students explored the Enlightenment as a means to better understand their lives as free citizens. We focus

on the process of enacting this school-wide PBL from the perspectives of social studies teachers and students. Then, we offer students' thoughts gathered during the PBL activity. Finally, we make suggestions for others that may attempt PBL.

The PBL Activity: Fighting for Freedom From the King

Case Study Methodology

Our goal is to describe an instantiation of PBL in a secondary school as it relates learning social studies content in an interdisciplinary fashion; hence, we frame this manuscript with a case study methodology. A case study allows an individual to gain an in-depth understanding of a single case within a real-world context (Yin, 2012). This methodology was chosen because the goal was to describe a phenomenon: problem-based learning. Multiple data sources were examined to sufficiently describe the case: one secondary school in one district. Our goal is to describe the case and draw key impressions from it that might be shared with the greater community.

Olscamp School

This PBL was implemented at Olscamp school district (note: pseudonyms for the school district and students are used throughout this case study), a rural district with a small student population in northwest Ohio (Ohio Department of Education, 2013a). Nearly half of its students come from families living in poverty, and historically most graduates remain within 30 miles of the district. The district houses grades K-12 in one building. Olscamp is going into their second year as a one-computer-to-one-child school. Every student had his/her own tablet computer and Internet access during the day.

This project was spawned from conversations between university faculty, secondary teachers, and the principal. The teachers were interested in helping students (a) understand how they were part of a larger global culture beyond their local community, (b) explore connections between the past and present in order to inform future decisions, and (c) learn problem-solving skills that might transfer to outside-of-school contexts. After considering various ways to achieve these goals, faculty chose to implement a school-wide PBL activity during one academic week following semester exams.

The PBL Activity

The school-wide PBL activity had three parts: (a) anchor document, (b) content area tasks, and (c) overarching final project. Across all parts, the objective was to encourage students (i.e., Olscamp citizens) to collaborate successfully so they might best express their displeasure with the king (i.e., principal). Students had to use four content areas (i.e., English/language arts, math, science, and social studies) to convincingly express demands for freedom through various content-focused tasks. Additionally, students constructed a catapult to launch whipped cream pies at the principal as the overarching final project.

Anchor document. An anchor document typically serves as a foundation for PBL (Buck Institute for Education, 2013). After considering possible documents, teachers selected the Declaration of Independence because it exemplified the content-area literacy rigor emphasized in the Common

Core State Standards (National Governors Association, Council of Chief State School Officers [NGA, CCSSO], 2010a). Every student was provided with a digital copy on the first day of implementation. Students closely read and analyzed the anchor document.

Content area focus. Teachers designed PBL components in content area groups. The social studies team included five teachers. To tie the PBL activity into curriculum, social studies teachers made their task support students' development of practical connections between the Enlightenment, the American Revolutionary period, and the present day. Next, teachers drew on backwards design (Wiggins & McTighe, 2005) to construct a pathway to reach intended outcomes. Each student group was assigned one of four Enlightenment thinkers (i.e., Locke, Hobbes, Montesquieu, and Rousseau) and asked to do the following:

- Explain the thinker and his ideas
- Find and explain the thinker's ideas in the Declaration of Independence
- Make connections between the thinker, the Declaration, and today.

Students conducted research and created one document per group that explained these details and the connections. Students also submitted a works cited document following MLA formatting. The social studies rubric used across grade levels is shown in Figure 1. Faculty agreed on categorical aspects to grade, but debated ways to use the rubric equitably across grades (i.e., 7-12). They discussed projects and expectations typically assigned from each grade-level in order to develop a rubric that every teacher could use in a developmentally appropriate manner so that students were graded equitably.

Faculty aimed to support students' specific social studies content knowledge. Content statements that align with the PBL activity are shared in the appendix. Furthermore, SS faculty created content-focused connections between the document and the objectives, also found in the appendix.

In addition to the social studies product, students created an interdisciplinary final product as a culminating experience, a catapult meant to launch a whipped cream pie at the "king." The catapult's construction created opportunities for measurement, calculation, and experimentation that emphasized learning outcomes directly related to *Common Core State Standards in Mathematics* (NGA, CCSSO, 2010b) and *Next Generation Science Standards* (Next Generation Science Standards Lead States, 2013). During the PBL activity, students spent the first three days working on components across content-areas in order to respond to the compelling question. Building the catapult was centered in the final two days.

Data Collection and Analysis of the PBL Activity

We examined this case study through multiple data sources. First, two authors interviewed students, teachers, and staff before, during, and after the activity. The goal was to capture information about the case through multiple lenses. Second, one author was immersed in the experience as a social studies teacher. He, too, spoke with students, teachers, and staff before, during, and after the activity, as well as created his own memos of his thoughts about the activity as a means to sufficiently describe it. Third, a four-point Likert survey was emailed to students and staff from the principal about the activity. A four indicated absolute agreement and one

TABLE 1

Aspect	Thorough (4)	Proficient (3)	Basic (2)	Minimal (1)
Explain the Enlightenment idea for your thinker	Student's explanation demonstrates a thorough understanding of the thinker and his ideas	Student's explanation demonstrates a good understanding of the thinker and his ideas	Student's explanation demonstrates a limited understanding of the thinker and his ideas	Student's explanation demonstrates a minimal understanding of the thinker and his ideas
Find and explain the principle in the Declaration	Student accurately finds the Enlightenment principle in the Declaration (4) times and offers sufficient explanations	Student accurately finds the Enlightenment principle in the Declaration (3) times	Student only finds the Enlightenment principle in the Declaration (2) times or finds inaccurate connections	Student only finds the Enlightenment principle in the Declaration (1) time or finds inaccurate connections
Connection to today	Student made (4) relevant and accurate connections to today	Student made (3) relevant and accurate connections to today	Student only made (2) connections to today or irrelevant connections	Student only made (1) connections to today or irrelevant connections
Sources used	Student used (4) credible sources	Student used (3) credible sources	Student only used (2) credible sources or used sources that are not credible	Student only used (1) credible sources or used sources that are not credible

Table 1. Rubric created and employed to score students' social studies products.

indicated absolute disagreement. Questions included “Did you feel this [PBL activity] was a good use of time?” and “Did you feel this [PBL activity] was a valuable way to explore social studies content?” Results from the student and faculty surveys were analyzed and descriptive statistics are shared. Taking these data sources collectively, they were analyzed qualitatively using inductive analysis (Hatch, 2002; Yin, 2012) to tell the story of this case. We begin to frame this case study with a description of the planning and subsequent implementation.

Planning and Implementing the PBL Activity

Planning was central to this activity’s success and took significant preparation. Hence, we share details about the planning process to contextualize the PBL activity.

Initial Preparations

In August, teachers met to explore PBL during a two-hour professional development session. University faculty described the theoretical basis for PBL and led a discussion about incorporating PBL at Olscamp. Initially, teachers considered separate PBL activities but this intention lost a key facet of PBL – interdisciplinary learning. After faculty agreed to develop a single PBL for the entire school, the teachers, principal, and university faculty began planning.

At the next professional development session in September, university faculty presented information on rubric creation. Teachers had used rubrics in the past, but the goal of this session was to establish a common language, ensuring similarities across all the content areas during the PBL activity. After, the principal worked with social studies teachers to select a focus for the PBL and the anchor document.

Teachers and university faculty reconvened in October to discuss ways that the Declaration of Independence could foster authentic and engaging problems. The first hour of this meeting was spent discussing goals and dates for the PBL project, and organizing faculty supervision of students during the week. The second hour was devoted to content-area work in groups. The social studies team discussed viable connections to the New Learning Standards (Ohio Department of Education, 2012). Near the end of the second hour, one social studies teacher visited other content area groups to share plans. The SS team thought their content area task complemented other groups’ tasks. The team continued working on the task via email throughout the next month. The principal sought out local businesses and industries for donated supplies in order to build the apparatuses. Two manufacturing plants agreed to donate supplies.

Final Preparations and Implementation

Teachers met in grade-level teams during a final professional development session in December. Grade-level teams included a representative from each content area. Each teacher on the grade-level team described his/her content area task and accompanying rubric. Discussions focused on two aspects: fostering students’ content-area literacy and supporting team members’ content knowledge. These next sections explain decisions made during these discussions.

Content-area literacy. Teachers prepared to assist students during PBL and discussed variations in expectations across grade levels. For example, students in grades 11 and 12 were required to format the written document for social studies as a formal research paper, thus enhancing

connections with English/language arts. Students at lower grades were encouraged to create a pamphlet since formal research papers had not been sufficiently practiced at this point in the year for those grades. Multiple reading standards for literacy in social studies grades 6 to 12 were addressed including:

(1) cite specific textual evidence to support analysis of primary and secondary sources [grades 6-8], ... (4) determine the meaning of words and phrases as they are used in a text [grades 9-10]... (9) integrate information from diverse sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources [grades 11-12] (NGA, CCSSO, 2010a, p. 61).

Teachers employed the appropriate grade-level band when reviewing students' work; the sample shown here is meant to indicate how ELA/reading standards were addressed in all grade levels.

In order to help the students understand the anchor document, teachers introduced it to grade-level groups using a content literacy framework based on the Common Core State Standards for English/Language Arts (NGA, CCSSO, 2010a). Initially, teachers completed a read aloud of the Declaration of Independence, then provided explicit instruction in critical academic vocabulary. Teachers selected four words (i.e., unanimous, political bands, impel, unalienable) that students were not likely to know but were necessary for comprehension of the document. Teachers provided students with "student-friendly explanations" (Archer & Hughes, 2010, p. 65) that defined each word within the context of its use in the Declaration of Independence. Across all grades, the next instructional sequence focused on students' re-reading and summarizing the Declaration of Independence as they worked in small groups. Teachers asked clarifying, text-dependent questions (Libman & Libman, 2013), rather than providing students with information. In grades 10-12, teachers used text-dependent questions to push students to make stronger connections with evidence between the Declaration of Independence and Enlightenment thinkers. Teachers did not construct whole-group lessons to be presented during the PBL activity because they intended to follow the tutoring model of PBL and provide assistance only when needed. Students used the questioning and each other as their resources for meaning making.

Supporting team members' social studies knowledge. The social studies teachers shared resources as a primer about Enlightenment thinkers for other content-area teachers. This primer was an eighth-grade lesson that linked Enlightenment thinkers' ideas with the Declaration of Independence (Ohio Department of Education, 2013b).

One page from the primer, shown in Figure 2, delineated key ideas of three thinkers and the Declaration of Independence. This resource gave other content-area teachers the ability to provide assistance if the SS teacher was not present in the room. Using this primer, all teachers could deliver tutorials to small groups by asking questions that directed students to pay attention to resources and build their own knowledge, rather than recite what the teacher might present.

Logistics. Grade-level teams created the schedule their students would follow. The academic day was planned to be different during the PBL week than usual. The principal gave each grade-level team the opportunity to structure their five days in any fashion as long as students (a) began and ended the school day at normal time, (b) lunch times were preserved, and (c) every grade-level attended the whole-school assembly on the afternoon of the fifth day. Schedules varied by grade-level but every group apportioned roughly five hours for social studies exploration. For instance,

FIGURE 2

Faculty Resource for Social Studies PBL Activity

Note: The following philosophies and ideas are a basic summary of content included in this lesson. They may be used by teachers as an answer key or quick reference. If possible, students should conduct more thorough research in order to gain a more comprehensive understanding than is presented here.

Key Ideas of Locke:

- The idea of self-government favored over absolute monarchy.
- All humans have the same natural rights to seek life, liberty and property.
- All humans have a responsibility not to intrude on the rights of others.
- Government represents a social contract between the ruler and the people.
- The purpose of government is to protect people's natural rights.
- If it doesn't, the people have the right to overthrow that government.
- Government's power comes from the consent of the people.

Key Ideas of Rousseau:

- People are born free but are often kept in chains by their social institutions.
- People give up some of their freedom in exchange for the common good.
- The general will or the will of the majority must take priority over individual will.
- Government should be formed by the people and guided by the general will of society.
- All people are equal and titles of nobility should be abolished.
- Every system of government should have as its objectives two things, liberty and equality.

Key Ideas of Montesquieu:

- Many forms of government can work well.
- The liberty of the people should be protected from corrupt leaders.
- Freedom for the people should be sought and tyranny in any form should be opposed.
- Separation of powers in government is the key to successfully keeping one person or group from obtaining too much power.
- Having three branches of government would separate the power and serve as a check of each other.

Key Ideas of the Declaration of Independence:

- All men are created equal.
- Men have inalienable rights such as life, liberty and the pursuit of happiness.
- Governments are instituted to protect these rights.
- Governments derive their powers from the consent of the governed.
- If a government takes away people's natural rights, the people have a right to abolish it.
- People have a right to establish a new government that will protect their natural rights.

(Ohio Department of Education, 2013b)

one grade-level had two hours on the first day and three hours on the second day for SS, but only one hour on Wednesday so that students might concentrate on tasks from other content areas. Another key aspect to the implementation of the PBL activity was teachers' willingness to flexibly support students. Students were placed into grade-level groups with four to six students per group. Each group was asked to design a way to best express their feelings toward the principal. For example, two student groups worked in each classroom under the guidance of one of the grade-level team teachers. Teachers within one team circulated to each team member's classroom so that there was always one teacher responsible for two groups. This decreased time switching between content area classes and allowed students to maintain their focus longer.

Outcomes From the Activity

Students' discussed that they experienced some struggle with making sense of documents including the Declaration of Independence and Enlightenment thinkers' works. Megan, a seventh-grade student, shared that "basically finding the stuff that Montesquieu did in the Declaration of Independence has been a challenge....The Declaration was not hard to read, but it was so big, you had to find parts that you could pick out of it." One common impression from students' interviews was that the Declaration of Independence was not as difficult a text as expected because students were using their reading strategies effectively. As Jeremiah pointed out, "You had to find parts that you could pick out of it [to answer the question]." Thus, the challenge of PBL project and SS task appeared to meet students' developmental needs.

Tutoring went as planned; teachers assisted by asking probing questions (e.g., What is the main idea of this document? Is that idea found in the Declaration of Independence? How do you see that idea in our current history?). Some non-SS faculty reported struggling to answer students' questions without stating the answer. Teachers encouraged students to write down their questions, which were passed to the social studies faculty member when he/she entered the room. On average, a social studies teacher was available to each group at least once every 30 minutes spent working on the social studies task.

Groups spent much of their time researching and analyzing documents (i.e., roughly four hours) and about two hours creating the document. A second impression arose from interviews suggesting that students wrestled with important questions. A group of seniors seemed to connect Locke's ideas to current issues related to freedom in the United States:

We are focusing on John Locke. He believed in democracy, which kind of goes with what we are doing in this problem. He believes that we are all morally good and we don't need a strong central government. We are now looking for situations where our government now goes along with what Locke believed in, or places he would definitely agree with. Like the NSA [National Security Agency] thing where they tapped into our phones. I don't think Locke would be okay with that.

Students made connections between Enlightenment thinkers, the Declaration of Independence, and our current government and political climate.

A final theme was that students felt this was a worthwhile use of school time. A group of seventh-grade students said, "We are still learning about things, but we are doing it a different way than we normally do....This [PBL activity] is a lot better way for understanding [compared

to what we usually do].” No student wanted to do PBL everyday but most welcomed the change. An 11th-grade group reminded us that real life involved coordinating multiple people’s strengths and using time effectively.

- Interviewer: Tell me about the project.
- Alaina: It was kind of confusing on the first day because we didn’t know what we were doing. The teachers told us to go in the room and do the project. We are so used to schedules.
- Matthew: But we had to use our time effectively, manage our time well. We managed our time more effectively this week because we didn’t have a schedule.”
- Interviewer: Is this what you think real life after high school will be like?
- Sherri: This is what I think it’ll be like in the real world.
- Interviewer: Do you feel you grew in your understanding related to the four tasks?
- Sherri: I grew in every part. Definitely the social studies part. [Group members’ nod in agreement.]

These findings were complemented by the survey data.

Overall, students and teachers felt the PBL activity was a good use of their time. Similarly, students and teachers believed it was a valuable way to learn social studies content. Finally, students reported that they talked some with their parents/guardians about the PBL activity and that this talk was different from their normal frequency and type of discussion at home.

Considering these findings, our central impression is that the PBL activity met its goal and students learned about connections between Enlightenment thinkers and the Declaration of Independence, as well as relationships between thinkers, the anchor document, and our present day society.

TABLE 2
Results from the PBL Survey

Question	Mean	SD
Student Survey		
Did you feel this was a valuable use of time?	3.10	0.98
Did you feel this was a valuable way to learn social studies?	2.40	0.95
Did you talk with your parents/guardians about PBL and the work you did in school?	3.00	1.08
Teacher Survey		
Did you feel this was a valuable use of time?	3.30	0.68
Did you feel this was a valuable way to learn social studies?	3.00	0.70
Did you feel the school communicated enough with parents/guardians about the PBL project?	3.40	0.94

Note. Data stem from a four-point Likert scale.

Suggestions for Implementing PBL

Teachers were overwhelmingly positive about the PBL activity and are currently working to implement others in the future. This experience allowed them to coalesce around a central theme and foster sense-making of United States history and the present. Based on the experience at Olscamp, here are a few tips for designing and implementing a PBL activity:

1. Begin planning early. Faculty took four months to plan the school-wide interdepartmental and intergrade level activity.
2. Collaborate with other content-area faculty and possibly other grade-level faculty.
3. Explore opportunities for the community to become involved.
4. Connect with students and their families by sending a letter home describing what will happen in the classroom.
5. Plan for students to spend time in- and outside-of-school contexts working on the activity. Students at Olscamp did not necessarily have Internet access at home.
6. Prepare to be a tutor and guide and not a knowledge disseminator. Teachers shared that they asked many more questions and made far fewer declarative knowledge statements than during their typical instruction.
7. Create a manageable outcome-based rubric to grade students' work before the PBL activity.

Summary

PBL activities are complex interdisciplinary tasks that encourage collaboration to resolve a problem. It was clear from the literature that PBL activities support students in learning social studies content in a deep fashion and the benefits extend to various types of learners regardless of their economic background and past performance. Olscamp teachers decided to try a PBL activity as something that might build students' self-confidence, learn content, and develop better social and problem-solving behaviors. The experience also brought faculty together as a way to help address SS standards in a way that bridged classrooms. Based on experiences and observations, the goals for the PBL activity were met and students expressed interest during the week. Olscamp teachers and administrators are excited to build upon this initial PBL activity and have begun chatting about another one next year.

References

- Archer, A., & Hughes, C. (2010). *Explicit instruction: Effective and efficient teaching*. New York: Guilford Press.
- Barrows, H., & Kelson, A. (1995). *Problem-based learning in secondary education and the problem-based learning institute (Monograph 1)*. Springfield, IL: Problem-based Learning Institute.
- Boyle-Baise, M., Hsu, M-C, Johnson, S., Sierrere, S. C., & Stewart, D. (2008). Putting reading first: Teaching social studies in elementary classrooms. *Theory and Research in Social Education*, 36, 233-255.
- Buck Institute for Education. (2013). *PBL do-it-yourself: Guidance, tools, and tips for your projects*. Retrieved from <http://www.bie.org/diy>
- Callahan, C., Saye, J., & Brush, T. (2009-2010). Educative curriculum materials to develop social studies teachers' professional teaching knowledge. *The International Journal Social Education*, 24(2), 5-33.

- Diffly, D. (2002). Project-based learning: Meeting social studies standards and the needs of gifted learners. *Gifted Child Today*, 25(3), 40-59.
- Filippatou, D. & Kaldi, S. (2010). The effectiveness of project-based learning on pupils with learning difficulties regarding academic performance, group work, and motivation. *International Journal of Special Education*, 25, 17-26.
- Fitchett, P. G., & Heafner, T. L. (2010). A national perspective on the effects of high-stakes testing and standardization on elementary social studies marginalization. *Theory and Research in Social Education*, 38.
- Gultekin, M. (2005). The effect of project-based learning on learning outcomes in the 5th-grade social studies course in primary education. *Educational Science: Theory and Practice*, 5, 151-173.
- Halvorsen, A., Duke, N. K., Brugar, K., Block, M., Strachan, S., Berka, M., & Brown, J. (2012). Narrowing the achievement gap in second-grade social studies and content area literacy: The promise of a project-based approach. *Theory and Research in Social Education*, 40, 198-230.
- Hatch, A. (2002). *Doing qualitative research in education settings*. Albany, NY: State University of New York Press.
- Heafner, T. L., & Fitchett, P. G. (2012). National trends in elementary instruction: Exploring the role of social studies curricula. *The Social Studies*, 103, 67-72. doi: 10.1080/00377996.2011.592165
- Hernandez-Ramos, P., & De La Paz, S. (2009). Learning history in middle school by designing multimedia in a project-based learning experience. *Journal of Research on Technology Research and Development*, 59, 529-552. doi:10/1007/s11423-011-9198-1
- Hinde, E. R. (2008). Civic education in the NCLBera: The contested mission of elementary and middle schools. *Journal of Curriculum and Instruction*, 2, 74-86.
- Hmelo-Silver, C. (2004). Problem-based learning: What and how do students learn? *Educational Psychology Review*, 16, 235-266.
- Libman, D. & Libman, M. (2013). Complete guide to creating text-dependent questions. *Achieve the Core*. Retrieved from <http://www.achievethecore.org/page/46/complete-guide-to-creating-text-dependent-questions>
- Mergendoller, J., Maxwell, N., & Bellisimo, Y. (2006). The effectiveness of problem-based instruction: A comparative study of instructional methods and student characteristics. *Interdisciplinary Journal of Problem-based Learning*, 1(2), 49-69.
- National Council for the Social Studies (NCSS). (n.d.). National curriculum standards for the social studies: Executive summary. Retrieved from <http://www.socialstudies.org/standards/execsummary>
- National Council for the Social Studies (NCSS). (2013). *The college, career, and civic life (C3) framework for social studies state standards: Guidance for enhancing the rigor of K-12 civics, economics, geography, and history*. Silver Spring, MD: NCSS.
- National Governors Association, Council of Chief State School Officers. (2010a). Common Core State Standards in English/Language Arts. Retrieved from http://www.corestandards.org/assets/CCSSI_Math%20Standards.pdf
- National Governors Association, Council of Chief State School Officers. (2010b). Common Core State Standards in Mathematics. Retrieved from <http://www.corestandards.org/ELA-Literacy/RH>
- Next Generation Science Standards Lead States. (2013). Next Generation Science Standards: For states, by states. Retrieved from <http://www.nextgenscience.org/next-generation-science-standards>.
- Ochoa-Becker, A. S., Morton, M. L., Autry, M., Johnstad, S., & Merrill, D. (2001). A search for decision-making in three elementary classrooms: A pilot study. *Theory & Research in Social Education*, 29, 261-289.
- Ohio Department of Education (2013a). *Typology of Ohio school districts*. Retrieved from <http://www.ode.state.oh.us/GD/Templates/Pages/ODE/ODEDetail.aspx?Page=3&TopicRelationID394&Content89486>
- Ohio Department of Education (2013b). Light the way! Influences of the enlightenment on the American Declaration of Independence—grade eight. Retrieved from http://ims.ode.state.oh.us/ode/ims/lessons/content/css_lp_s05_ba_l08_i01_01.pdf
- Ohio Department of Education. (2012). New learning standards: K-12 social studies. Retrieved from <http://education.ohio.gov/Topics/Academic-Content-Standards/Social-Studies>
- Savery, J. (2006). Overview of problem-based learning: Definitions and distinctions. *Interdisciplinary Journal of Problem-based Learning*, 1(1), 9-20.
- Saye, J. W., & Brush, T. A. (2004). Promoting civic competence through problem-based history learning experiments. In G. E. Hamot, J. J. Patrick, & R. S. Leming (Eds.), *Civic learning in teacher education: International perspectives on education for democracy in the preparation of teachers* (Vol. 3, pp. 123-145). Bloomington, IN: ERIC Clearinghouse for Social Studies/Social Science Education.
- Stepien, W., & Gallagher, S. (1993). Problem-based learning: As authentic as it gets. *Educational Leadership*, 50(7), 25-28.

Wiggins, G., & McTighe, J. (2005). *Understanding by design* (2nd ed.). Upper Saddle River, NH: Prentice Hall.

Wieseman, K. C., & Caldwell, D. (2005). Local history and problem-based learning. *Social Studies and the Young Learner*, 18, 11-14.

Yin, R. (2012). *Applications of case study research* (3rd ed.). New York: Sage Publications.

Appendix

Content Statements and Connections Between Standards and Activity for Grades 7-10

(<http://education.ohio.gov/Topics/Academic-Content-Standards/Social-Studies>, 2014)

Seventh-grade Social Studies

- **Content Statement:** With the decline of feudalism, consolidation of power resulted in the emergence of nation states.
- **Historical Thinking and Skills Content Statement #1:** Historians and archeologists describe historical events and issues from perspectives of people living at the time to avoid evaluating the past in terms of today's norms and values.
 - **Content Elaboration:** Students should be able to examine historical documents in order to understand multiple sources and perspectives.
- **Civic Participations and Skills Content Statement #16.** The ability to understand individual and group perspectives is essential to analyzing historic and contemporary issues.
 - **Content Elaboration:** The ability to understand individual and group perspectives is essential to analyzing historic and contemporary issues.
- **Connection:** The students will begin to understand the Enlightenment ideas that were introduced during the Renaissance period in Europe after completing this project. As nation states began to emerge in Europe during this time the power of the nobles slowly became limited.

Eighth-grade American History

- **Content Statement:** The ideas of the Enlightenment and dissatisfaction with colonial rule led English colonists to write the Declaration of Independence and launch the American Revolution.
- **Historical Thinking and Skills Content Statement #1.** Primary and secondary sources are used to examine events from multiple perspectives and to present and defend a position.
 - **Content Elaboration:** Students should be able to read and understand primary documents in order to better understand the perspective, gain firsthand information, and be able to apply the information presented in the document.
- **Civic Participation and Skills Content Statement #18.** Participation in social and civic groups can lead to the attainment of individual and public goals.

- o **Content Elaboration:** Students will learn firsthand that by working in groups they are able to accomplish individual and public goals. Examples of these goals throughout American history include the work of the Sons of Liberty and American Anti-Slavery Society.
- **Connection:** This project will support students to make a direct connection between the Enlightenment ideas and the writing of the Declaration of Independence by playing the role of the American colonists. They must be able to explain their dissatisfaction with the king by using the ideas of the Enlightenment to support their answer to the problem.

Ninth-grade Modern World History

- **Content Statement:** Enlightenment ideas on the relationship of the individual and the government influenced the American Revolution, French Revolution, and Latin American wars for independence.
- **Historical Thinking and Skills Content Statement #3.** Historians develop theses and use evidence to support or refute positions.
- **Content Elaboration:** Students should be able to play the role of detectives by using information to develop theses in order to explain past events. The theses should be developed using artifacts, documents, and other primary sources.
- **Content Statement:** Enlightenment ideas challenged practices related to religious authority, absolute rule, and mercantilism.
- **Content Statement:** Enlightenment ideas on the relationship of the individual and the government influenced the American Revolution, French Revolution, and Latin American wars for independence.
- **Connection:** Students will develop a strong understanding of the important thinkers during this time, which include Locke, Hobbes, Montesquieu, and Rousseau. Once the students develop this understanding then they will be able to draw connections between the thinkers and their ideas and the Declaration of Independence.

Tenth-grade Modern American History

- **Content Statement:** The Declaration of Independence reflects an application of Enlightenment ideas to the grievances of British subjects in the American colonies.
- **Content Statement:** Problems facing the national government under the Articles of Confederation led to the drafting of the Constitution of the United States. The framers of the Constitution applied ideas of the Enlightenment in conceiving the new government.
- **Content Statement:** The Bill of Rights is derived from English law, ideas of the Enlightenment, the experiences of the American colonists, early experiences of self-government and the national debate over the ratification of the Constitution of the United States.

- **Historical Thinking and Skills Content Statement #3.** Historians develop theses and use evidence to support or refute positions.
- **Content Elaboration:** Students should be able to play the role of detectives by using information to develop theses in order to explain past events. The theses should be developed using artifacts, documents, and other primary sources.
- **Connection:** Students will develop a rich understanding of the Enlightenment ideas, which include the notion of social contract. The students will draw on the writings of Locke and Hobbes to develop this understanding. They are expected to be able to explain why it is necessary to overthrow the dictatorial king (i.e., principal).