Integrating Social Studies and Literacy through Project-Based Learning

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Integrating Social Studies and Literacy through Project-Based Learning

By

Katie L. French

A thesis submitted to the Department of Education and Human Development of The College at Brockport, State University of New York, in partial fulfillment of the requirements for the degree of Master of Science in Education

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Abstract

Inspired by a phrase commonly heard in schools, “I’m never going to use this in real life,” this paper focuses on how students make real-world connections through project-based learning (PBL). Specifically, research is focused on how middle school teachers efficiently and effectively integrate social studies and literacy through PBL in addition to any challenges and successes they experienced. By observing and interviewing teachers who have implemented PBL, I found that there was an increased amount of motivation and positive attitudes towards the work, as well as a shifting role between the teacher and the students.
Integrating Social Studies and Literacy through Project-Based Learning

“I hate Social Studies! It’s stupid! What’s the point of learning history if there’s nothing we can do about it because it already happened?” This is just one variation of the age-old question I get asked most frequently while teaching Social Studies: When am I ever going to need this in real life? Math is used when students count their money; science is explored as they watch mold grow on the leftover sandwich sitting in their locker; the many forms of literacy are literally everywhere whether students realize it or not. But what about history? Is answering Jeopardy! questions correctly the only real-life application of Social Studies as one student recently informed me? In my study, I focus on how teachers are finding real-world implications of Social Studies content through the integration of literacy and project-based learning.

**Topic and Research Problem**

As a substitute teacher, I have the privilege of peeking into different classrooms across a span of grade levels and subject areas. Some days I am on the floor with a group of first graders while other days I am overhearing Socratic discussions in an eighth grade classroom. Upon gaining a position as a long-term substitute for a consultant teacher, I spent six weeks bouncing around classrooms at a local middle school and noticed trends in student engagement in the core subject areas. I witnessed the most student engagement in math and science where they participated in numerous hands-on activities and labs; content was related to their personal lives, and they were engaged in meaningful projects where they had a varying degree of autonomy. There was a slight decrease in interest in English class where they mumbled about having to write yet another “boring essay” about the book they were reading. Social Studies was paired with complete mental shutdowns and numerous pained
facial expressions while they read from the textbook and listened to their teacher and took notes. Students did not see the point in going to Social Studies since none of the content was relevant to their lives; they had no choice in what they were learning and they just sat there day after day taking meaningless notes.

Students need engaging activities that will hold their interests while incorporating both social studies content and literacy learning: project-based learning. According to the Buck Institute of Education, project-based learning “is a teaching method in which students gain knowledge and skills by working for an extended period of time to investigate and respond to an engaging and complex question, problem, or challenge” (Markham, Larmer, & Ravitz, 2003, p. 1). Students choose a topic of interest, research answers to their authentic questions and design and complete projects that focus on their findings (Markham, Larmer, & Ravitz, 2003). When thinking about projects and hands-on learning opportunities, STEM subjects come to mind with their potential to create physical objects as a result of research and proper execution. In a recent study, educators representing English, mathematics, and science subject areas were interviewed concerning recent PBL experiences conducted in their classrooms; Social Studies was exempted from the list of those studied (Lee, Blackwell, Drake, & Moran, 2014). There is lack of information regarding PBL in Social Studies that I will be exploring. Furthermore, literacy learning should not stop once students walk out of their English classroom. Reading and writing instruction should continue across the curriculum since the reciprocity of the two areas leads to higher comprehension of the topic that is being read and written about (Knipper & Duggan, 2006). The Social Studies curriculum lends itself well to the incorporation of literacy components, but too often I am observing students answering short answer questions that do not involve critical thinking skills. Students need to be engaged in
asking and answering authentic questions; PBL will allow students to do just that and goes a step further as students synthesize the information they learn to create projects that could potentially impact their community.

**Rationale.** As an avid lover of history, the lack of enthusiasm among students (and sometimes teachers!) in regards to learning about Social Studies is concerning. A large part of why students go to school is to learn what it means to be a citizen in the United States. Through critical thinking and analysis of the past, students will be able to apply what they have learned to authentic situations in their own lives either now or in the future (“A vision of powerful teaching and learning in the social studies: building social understanding and civic efficacy,” n.d.). After analysis, history, a branch of Social Studies, can provide students with multiple perspectives of events that took place, and they can learn how to take situations that occurred in the past and aspects of them in their lives and the world today.

Although I am currently substitute teaching, it is my goal to learn more about PBL so I can effectively implement it in my own future classroom. I am well aware that Social Studies is sometimes viewed as a subject that students either love or hate. One of my goals as a future teacher is to provide students with learning opportunities that increase their interest in the subject; through PBL, students will have a choice in what they are researching and thus increase their motivation and engagement in their project (Chalupa & Haseborg, 2014). Through PBL, students will have the opportunity to discover more about topics of interest and dive deeper into the content than they would have had a chance to in a traditional classroom setting. Students will have opportunities to showcase their learning through a variety of hands-on projects of their choosing; this could range from students giving a presentation in class or talking to a local government official about an area of concern in their community that could be potentially solved
based on their research and proposal. The opportunities for the integration of social studies and literacy are endless on paper, but it is important to learn more about how effective PBL is in actual social studies classrooms.

**Purpose.** Through PBL, students are taking ownership of their own ideas and participating in an extended research study of a topic instead of simply reading through a textbook. During my research, I interviewed teachers who have completed PBL experiences with their students and analyzed their thoughts on the projects with the aim to answer the following questions:

1. How can middle school teachers efficiently and effectively integrate social studies and literacy through project-based learning?
2. What are the challenges and successes educators face when implementing project-based learning in their classrooms?

**Literature Review**

**Theoretical framework.** To gain a better understanding of the topic, this literature review begins by providing a theoretical framework of the ideas behind PBL, as well as why students are motivated to complete these experiences. To help contextualize the research questions, prior research concerning the role of the teacher in a PBL classroom, academic achievement as a result of PBL, and complications with PBL will be reviewed.

**Constructivism.** At the heart of PBL is the idea of constructivism; it is not an instructional approach, but rather a theory of how students gain knowledge. Constructivists believe that learning is an active process, where students use their background knowledge of the topic to construct new ideas (Sharma, 2014). According to Piaget (1990), humans were born with schemas that individuals could add to through the process of assimilation or accommodation.
Constructivist theorists often agree with Piaget’s theory, as they believe students construct their own knowledge through experiences and by building upon their existing knowledge (Tompkins, 2014).

By using past experiences and the environment around them, PBL engages students’ intellectual development through observation and investigation to expand their preexisting schemas concerning the topic (Katz & Chard, 2000). While PBL can take different forms, students are often asked to produce a research question or hypothesis that will guide their work throughout the process (What is pbl?, 2003). These research questions will be the launching point for further student work on the project, and because the students choose them, they are more motivated to add to their knowledge about the topic. Instead of having students take note about the particular content matter, students will be actively engaged with a relevant, hands-on project as they seek to answer the authentic questions they created (What is pbl?, 2003).

**Social constructivist theory.** While PBL is rooted in the constructivist ideas of Piaget, specifically how learners construct their knowledge, the theories of Vygotsky can also be found in the social nature of the projects. Whereas Piaget is often criticized for underestimating the influence of social interactions in meaning making, Vygotsky argues that social interaction is critical in student learning (McLeod, 2014). Students are curious about the world around them and actively learn more from their interactions with their peers, or with someone whom Vygotsky refers to as a more knowledgeable other (MKO) (Vygotsky, 1978). In the case of PBL in the classroom, the MKO for a student could be his/her teacher; additionally the MKO could also be a peer member of the student’s group that might have prior knowledge to share about the topic. Vygotsky (1978) argues that students absorb the information they are receiving via
interactions with others, and then internalize the conversations to create knowledge about the particular topic.

With cooperative learning and discussions playing a large role in PBL experiences, this idea of social constructivism is widely supported amongst PBL advocates (Damon, 2015). With this notion of social learning comes a shift in the dynamics of the classroom; learning is now student-led as opposed to teacher-led (English & Kitsantas, 2013; McCright, 2012; Sharma, 2014). However, this does not mean that the teacher will be sitting on the sidelines and watching the students work. The teacher will still be playing an active role in the students’ learning by providing the proper scaffolds the students will need to succeed and stay within their zones of proximal development during the PBL experience (Vygotsky, 1978). These scaffolds should enable students to reach their full potential when participating in the cooperative learning portion of PBL; proper scaffolds and student-led discussions will lead to students respectfully arguing for their opinions, developing reasoning skills towards others opinions, and allow them to critically think and make meaning of a particular area of content (Reznitskaya, Anderson, & Kuo, 2007).

**Theory of multiple intelligences.** Project-based learning is a different approach to the traditional method of teaching. It fosters active, cooperative learning (Klein, Taveras, King, Commitante, Curtis-Bey, & Stripling, 2009) in which students dive deeper into content than in a traditional classroom setting. Howard Gardner’s theory of multiple intelligences states that individuals may learn in a variety of ways, and some of those ways may come more naturally to a particular student (Gardner, 2000). These eight intelligences are as follows: linguistic, logical-mathematical, special, bodily-kinesthetic, musical, interpersonal, intrapersonal, and naturalist (Gardner 1983). Traditional schooling typically focuses on linguistic and logical-mathematical
intelligences, but PBL has the potential for students to tap into other intelligences on the list that they might possess (Gardner, 2000; Sharma, 2014; Wright & Mahiri, 2012). Since PBL is student-led, students have the opportunity to discover and present new information in ways that play into other intelligences that are not typically tapped into during the school day.

**Funds of knowledge.** Project-based learning also activates the students’ unique funds of knowledge that they come to school with. Students’ funds of knowledge is referred to as the information and cultural ways of knowing and being in the world that students bring with them to school based on prior social and cultural experiences (Gonzales, Moll, & Amanti 2001). Before starting a PBL unit, teachers need to take into account the students’ funds of knowledge that they are bringing with them to the project. A study in Taiwan found that students who had families with deeper cultural ties to the area were able to better complete the project based on prior knowledge and connections to the project (Shih, Chuang, & Hwang, 2010). Furthermore, research conducted by Alisa Bates (2008) found that students with funds of knowledge in technology-related areas had a greater focus on the social studies aspects of their assignment rather than spend most of their time learning how to use the program needed to create a WebQuest for the assignment; those students were able to grasp the purpose of the assignment better than those who had to spend copious amounts of effort on the technology-related component of the project.

In a way, Gonzalez, Moll, and Amanti’s (2001) theory about funds of knowledge is similar to Piaget’s idea of schemas, as they both relate to the students gaining and storing information, and then using that information at a later time to acquire further knowledge. Piaget, however, does not address the cultural ways of knowing as Gonzalez, Moll, and Amanti (2001) do. PBL helps foster this acquisition of knowledge by using the students’ multiple intelligences
through a cooperative learning model that allows students to construct new meaning from the material they are researching and manipulating.

**The power of motivation.** So often, students are bribed into completing work with the promise of a sticker on their chart or a piece of candy for the right answer. This extrinsic motivation may work to meet teachers’ short-term objectives, but teachers often struggle with holding a higher level of student engagement for the duration of the unit. PBL, though, motivates students intrinsically to complete their work. Author Daniel Pink (2009) writes about the advantages of intrinsic motivation, which include autonomy and purpose. When students are given the freedom of choice to work on a project, they are more motivated to master that specific content area. Through PBL, student engagement and interest in the subject increases throughout the duration of the unit, and students feel a sense of belonging in the classroom and the community as a result of this intrinsic motivation to succeed.

**Increased engagement and interest amongst students.** The autonomous nature of PBL units helps drive student motivation. The differentiation of the projects allows students to choose a specific aspect of a broad topic that is of interest to them personally, and then investigate that issue in detail (Bell, 2010). This idea of student choice reflects the teachings of John Dewey, who argues that student learning should be relevant to the students’ lives (Dewey, 1938). In a study conducted by Chalupa and ter Haseborg (2014), the researchers found that the students’ ability to make choices about the project increased their motivation, as well as their engagement and interest, in the assignment.

Teachers may mistakenly view PBL as a teacher-facilitated approach rather than a teacher-guided one (i.e. teachers regulate most aspects of the project as opposed to teachers giving their students voice and choice throughout the duration of the PBL), which may lead to a
decrease in motivation amongst the students if they feel like they are losing their authority in the project (Larmer, 2014). A study by Catapano and Gray (2015) helps confirm this idea; they looked at a Saturday School program that used a PBL approach to motivate students. The authors found that the Saturday School program started out using PBL units as a supplement to the material the students were learning during the week, and attendance was at an all time high: students hated to miss Saturday School. After a few years of high student engagement in the PBL program, there was a change of administration that brought an end to the PBL program and also the high attendance rates the program was experiencing. Without the hands-on project model and without any choice in what they were learning, student engagement and interest in the once popular program decreased with the implementation of more traditional methods of teaching (Catapano & Gray, 2015).

Similar studies have found connections between PBL and an increase in student engagement and interest as well. Researchers Wright and Mahiri (2012) chronicle the literacy transformation of a young teenager named Pepe who refused to read at the beginning of the year, and then flourished academically as a result of a PBL unit. The researchers cite that Pepe was successful because he had a choice in what he was learning, and he saw that there was a purpose behind the project (Wright & Mahiri, 2012). Educator Andrew Damon (2015) found similar results in his class after implementing a PBL unit that spanned an entire year. After receiving complaints about his college class and noticing a decrease in enrollment, Damon decided to implement a PBL experience. He found that student interest in his class had increased by the end of the project, and his students were engaged the entire time with the project and were motivated to continue working on their projects outside of designated work times (Damon, 2015). All three
studies mentioned above cite PBL as the reason for student engagement and interest in the content.

**Sense of belonging.** Along with engagement and interest in the content, students who engage in PBL also experience a sense of belonging in the classroom, as well as the community. Students participating in the Saturday School program, as well as students in Damon’s classroom, completed projects that were designed to impact their classroom and school community by taking what they have learned from the academic content and applying it in their own lives (Catapano & Gray, 2015; Damon, 2015). Furthermore, Pepe and his class noted that they thought their projects mattered, and because they saw the purpose behind their work, they were able to feel a sense of belonging in the working community (Wright & Mahiri, 2012). Another study found that students who created a shadow puppet theater and presented their findings about a particular subject area not only increased their literacy skills, but the students also reported that they felt a sense of duty to share their performances with other classrooms to spread the important information they had learned about civil liberties (Peck & Virkler, 2006).

When implementing PBL units it is recommended that teachers integrate the outside community within the project, as it allows students to connect with the community and help find their place within it (Lee et al., 2014; Shih et al., 2010). The projects should also aim to be authentic in nature, as this will help students see the purpose behind them and increase their motivation to complete the project to their full capabilities (Cydis, 2015).

**Role of the teacher in PBL classrooms.** With the constructivist approach of PBL comes a shift in the role of the teacher in the classroom. It is no longer a teacher-led classroom, but rather one that is student-centered where the teacher is less directly involved. It is the job of the teacher to provide scaffolds for students and ensure they are working within their zones of
proximal development (Vygotsky, 1978). After introducing the project, some students will be eager to get started right away, but others will need more support throughout the experience; it is important to recognize which students will need help throughout the process and then provide the necessary scaffolds that student needs in order to succeed (English & Kitsantas, 2013). The teacher needs to keep in mind, however, the importance of letting students make mistakes along the way and to also not provide too much support that student voice is lost (Larmer, 2014; Lee et al., 2014).

In addition to realizing that they need to take a more hands-off approach to teaching, it is also recommended that teachers undergo several professional development training sessions concerning PBL in their classrooms (Lee et al., 2014). Researchers Cook and Weaver (2015) found that the more professional development teachers received about PBL, the more they were able to implement PBL with fidelity. In addition, they were able to develop PBL units well in advance of when they would take place in the classroom, and then they could reflect on the units themselves and with other teachers to make the units even stronger (Cook & Weaver, 2015).

Although PBL is typically a vastly different approach than what someone would see in a traditional classroom, the idea of the teacher creating a safe environment stays the same. Numerous educators cite that although their students were challenged at times by their projects, the students mention in their reflections that they were in part able to succeed because they felt safe making mistakes, and they knew they would have the support of their teacher if necessary (Damon, 2015; English & Kitsantas, 2013; Lee et al., 2014; Wright & Mahiri, 2012). Teachers should continue to be open to student questions, and periodically reflect on their involvement to make sure that they providing a safe environment with scaffolds, but not too much that it stomps on the autonomy of the project (Damon, 2015).
Challenges. As previously mentioned, teachers often encounter challenges in regards to implementing PBL in their classrooms. Often times it is because students do not have adequate prior knowledge about the topic to ensure a smooth completion of the project (Bates, 2008). Some students may also need more scaffolds than others, and may become frustrated by the lack of teacher support, or they may lose motivation depending on the stamina of the student and the length of the project (English & Kitsantas, 2013). One of the biggest challenges is not student-based, however, but has to do with the rigorous standards teachers have to abide by (Lee et al., 2014). With the implementation of the Common Core State Learning Standards and the increasing of high-stakes testing, many teachers are simply too scared to take a risk on PBL, because of the sheer amount of content that they have to cover in a short amount of time (Bowman, 2015). Administrators as well are being held accountable for student test scores and teaching that is occurring, and often discourage the use of PBL in the classroom in order to put on a front that traditional teaching methods are being implemented (as opposed to PBL, which is often seen as taking a risk in teaching) (Catapano & Gray, 2015). Teachers and administrators alike are worried that PBL will not allow the teacher to cover as much of the content that would be covered with traditional teaching measures, and then the consequences that would have on student test scores and teacher ratings (Bowman, 2015; Cook & Weaver, 2015).

Academic achievement. Although educators face many challenges in the forms of rigorous standards and high-stakes testing, there is a plethora of research in regards to PBL being successful in the classroom. One of the most compelling articles that advocates for PBL in the classroom states that students who participated in PBL experiences scored higher on standardized tests than their peers who did not complete any PBL units (Geier, Blumenfeld, Marx, Krajcik, Fishman, Soloway, & Clay-Chambers, 2008). Geier el al. (2008) found that not
only did students who engaged in PBL score higher than their non-PBL peers, their test scores also increased and students remarked that they felt they had a deeper understanding of the material. Although PBL takes time out of the day, teachers can cover multiple standards in one project, and synthesize information together along the way (Bowman, 2015).

Besides an increase in standardized test results, teachers who implement PBL notice an increase in the everyday academic achievements of their students as well. One researcher noted an increase in the students’ interdisciplinary skills throughout the course of the year in regards to social studies and the study of the environment around them; he argues that PBL provides students the skills they need to critically think about the subject and teaches them the skills they need to succeed in their lives outside of school (McCright, 2012). Due to student choice in the matter, many students choose to focus on real-life applications of the content or skills being taught (Galvan & Coronado, 2014), which helps them to produce purposeful writing that gets stronger the longer the projects goes on (Knipper & Duggan, 2006). A team of teacher-researchers also noticed that their students showed an increase in fluency and reading comprehension, they began to use a wider variety of reading strategies effectively, they mastered a large chunk of social studies material in a short amount of time, and their social skills improved all as a result of the PBL unit they participated in (Peck & Virkler, 2006).

**Literature review conclusion.** Founded in constructivism, PBL is a student-led, hands-on approach to learning that incorporates the strengths of the individual student. PBL intrinsically motivates students to succeed by allowing them to choose almost all aspects of their projects, and provides a sense of purpose for their work. While there will be those who argue against PBL in the classroom stating that learning and achievement will be stunted, much of the research indicates the opposite. I am interested to see where my own research will fall in regards
to whether or not teachers can efficiently and effectively use PBL to foster student achievement, as well as incorporate literacy into social studies instruction.

Methodology

By conducting this study, I hoped to find out how teachers are efficiently and effectively integrating social studies and literacy through PBL, and what are some of the challenges and successes they face along the way. With PBL primarily being an approach used in STEM classes (Lee, Blackwell, Drake, & Moran, 2014), I wanted to learn more about how it could be used to get students critically thinking about social studies topics as well. As a future educator with part of my certification in social studies, I wanted to not only answer my research questions, but to also learn strategies for PBL implementation along the way for my own personal use in the future.

Setting and participants. I conducted my research at a local institution called Redwood Middle School (all names in this study are pseudonyms). Redwood is located in a suburban area about twenty minutes away from the local city, and the district’s residents consist primarily of white-collar workers in the middle to upper class socioeconomic brackets. Students at Redwood are divided into three houses: Red, Blue, and Green. Students stay with peers in these houses for the duration of their education at Redwood.

According to the 2014-2015 New York State Report Card, there were approximately 1,210 students attending Redwood. Out of those students, the population was predominantly white with a total eighty-two percent of the students identifying as Caucasian, nine percent were black, four percent identified themselves as Hispanic or Latino, three percent were Asian, Native Hawaiian, or Pacific Islander, and two percent of the student population was multiracial. There were almost an equal number of males to females, clocking in at fifty-one percent and forty-nine
percent respectively. Almost all of the students were proficient in English; only one percent of the students were limited English proficient. Students with disabilities accounted for fourteen percent of the population and eighty-six percent of the students took general education classes. Out of these students twenty-nine percent were economically disadvantaged (New York State Education Department, 2015).

Participants in my study consisted of twelve teachers at Redwood, and three of the administrators who also work there. The collective teacher population at Redwood has experience that spans a wide range of time; for some, it is their first year teaching, while others have thirty or more years of experience. There is little diversity amongst the teaching staff, as all teachers have identified as Caucasian. I sent a survey via e-mail to seventeen fifth grade and seventeen sixth grade educators who teach all the subjects, as well as six seventh grade and six eighth grade teachers who specifically teach only social studies; I received anonymous responses from five teachers.

The first teacher I interviewed was Jim, a seventh and eighth grade social studies teacher. Jim is a Caucasian, middle-age male who has about twenty-five years of teaching experience. He teaches in the Red House and was selected to participate in this study because of his position as a middle school social studies teacher who uses PBL in his classroom. After Jim, separately interviewed Lucy and Jackie who are both sixth grade teachers. Both Lucy and Jackie are Caucasian, middle-age females who collaborated on two PBL units last year. One of the projects used the Social Studies curriculum, which is why I selected them as participants for my study. I also conversed with a teacher named Pam who is responsible for the Gifted and Talented program at Redwood. Pam is a Caucasian, middle-age female with about twenty years of teaching experience. She pulls students to work with from all three houses, and she was selected
to participate in the study because her position as the Gifted and Talented coordinator at Redwood has allowed her to facilitate numerous PBL experiences with students. To gain an administrative perspective, I jointly interviewed Amy and Linda who are both Caucasian females in their mid-thirties. While Amy and Linda’s main jobs are the Math and STEM coaches at Redwood respectively, they have also been assigned to train teachers about PBL and have become the go-to PBL leaders at Redwood, which is why I asked them to participate in my study. The final participant I interviewed was Sharon, who is the director of professional development at Redwood. Sharon is a Caucasian female in her forties with about fifteen years of administrative experience. She was selected as a participant because she is well versed in PBL and is able to provide another administrative view of PBL in the classroom.

The teachers who responded to my survey teach a wide range of subjects and represent various grade levels. Of the five teachers who responded, two teach multiple subjects in sixth grade, one teaches seventh grade ELA, another teaches eighth grade science, and the last teacher teaches both seventh and eighth grade social studies.

**Positionality as the researcher.** As a resident of the district, I have similar demographics of the community and those who are involved (teachers/students) with the school. Furthermore, I am a Caucasian female in my early twenties, and I am working on my Master’s degree in Literacy at a local college. In regards to my role as a researcher, I strictly observed when I was in the classroom. As a substitute for the past two years, I typically split my time working between Redwood and another local school, so I am familiar with many of the students and procedures that occur there. Halfway through my research for this paper, I was placed as the long-term substitute for Pam and had the chance to obtain a hands-on experience working with PBL with the Gifted and Talented students at Redwood. Additionally, my husband is a math
teacher at Redwood and we are friends with numerous teachers who also work there. Taking this familiarity into account, I frequently reflected with my research partner about my data collection, analysis, and findings to reduce any potential bias that might occur.

**Methods of data collection.** I conducted a qualitative study (Clark & Creswell, 2015) and collected data through interviews, surveys, and observations. After gaining permission from the school, I interviewed Jim, Lucy, Jackie, and Pam about their experiences with PBL in their classrooms, and also Amy, Linda, and Sharon about their view on PBL as administrators. The interviews were audio recorded with the consent of the participants who all agreed. Interview questions were adapted from a study conducted by Lee et al. (2014) and can be found in the appendix. These interviews helped me answer both of my research questions, as they touched upon all aspects of what it is like to implement PBL in the classroom.

I also sent a survey to all middle school social studies, literacy, and multi-subject teachers (excluding the teachers I am interviewing) about their experiences (if any) using PBL. I created the survey using a Google Form (see Appendix), and I sent it to their school e-mail addresses via my Brockport e-mail. In my e-mail to the teachers, I provided a definition of PBL to present background information about the topic and stressed that responses would be kept anonymous. Although I only received five responses, sending this survey helped me answer how teachers are using literacy in their PBL units, and what the specific challenges and successes they have seen in their own practices with PBL.

Furthermore, using a double entry journal (Shagoury & Power, 2012) I observed Pam implement a PBL unit in her classroom and took field notes about what she specifically was doing; minors were in the room, but my observations were strictly confined to the actions of the adult educator. I observed her for one hour, twice a week for seven weeks. By observing Pam, I
was able to collect data on how she was implementing PBL in her classroom, if it was in an efficient and effective way, and what challenges and successes she faced.

**Procedures.** I began my study by sending my survey via e-mail to the teachers at Redwood; they were given two weeks to complete the survey. During that time, I conducted semi-structured interviews with the teachers previously mentioned, and I transcribed the audio recordings of the meetings. Once I interviewed Pam, I started to observe her implement a PBL unit to a small group of Gifted and Talented fifth graders; I took field notes on my observations on solely what Pam was doing during these sessions. These field notes, along with the information gained from the surveys and interviews, helped me to triangulate my data (Clark & Creswell, 2015). Throughout this process of data collection, I have been frequently consulting my research partner and project advisor and reflecting on the data that I have collected.

After I collected my data, I started to analyze my notes by employing a grounded theory method of analysis as well as by using numerous methods mentioned by Shagoury and Power (2012). The first step I took in the analysis process was to enter the interview transcripts into a word cloud generator and magnify what each teacher thought, which revealed trends in my data as a result. Coupled with my research questions, I assigned different colors to each question and initial trend that I found, and I combed through each of my data sets and underlined where I found instances of that particular trend. Through constant comparison of my data, trends and categories that I was highlighting in my notes evolved throughout the analysis process. After reading and coding each interview, I also wrote a memo to myself that included a brief summary of what was said as well as what stood out in each interview. The survey responses were analyzed in a similar way; I did not magnify them, but I did color-code the data. Furthermore, I cooked the field notes I gathered while observing Pam by annotating the notes and adding my
own thoughts about the trends I was discovering. Throughout the analysis process, I found that I was often comparing my initial trends and findings with ones found in similar studies outlined in my literature review, in addition to frequently consulting with my research partner and project advisor.

**Analysis**

As I was coding and developing themes for my data, I kept in mind my research questions that I wanted to answer; I soon realized that many of the findings to my first question also answered my second, and vice versa. Taking this into account, I developed my findings by looking how the two questions were interwoven together and then sought commonalities between my themes. I discovered the following overarching themes: 1) time in general is a source of anxiety; 2) literacy is interdisciplinary by nature; 3) social studies learning should be authentic; 4) the role of the teacher shifts; and 5) the many successes of PBL in the classroom.

**Finding 1: Time in General is a Source of Anxiety**

In every single interview that I conducted, the issue of time was brought up again and again as a challenge presented when dealing with PBL. Whether it be trying to justify implementing PBL for weeks or months out of the school year, or working out how they will find the time to plan often rigorous details, each of the participants I spoke with have lost sleep over this potential barrier to a successful PBL.

*Is it worth it?* Before even starting to plan a PBL, the teacher must make a commitment to dedicate potentially numerous weeks out of the already too busy school year to teach seemingly one topic; many teachers may be asking themselves if PBL is truly worth it. While discussing PBL with Jackie, she allowed herself to become vulnerable and talked about her internal struggle with allotting so much time to PBL. “Sometimes you fight with yourself. This
one project is going to take four weeks, well that’s wonderful,” Jackie sarcastically stated, “I thought that was kind of a challenge for me personally, though I knew that the outcome was going to be great, I still struggled. I kept asking myself if this is what I should be doing. Should I be covering more topics in this time rather than just one?” With the pressure of state tests looming and the increasing amount of content to teach throughout the year, Jackie is not alone in this concern (Bowman, 2015; Catapano & Gray, 2015).

In general, is an educator making the right decision to implement a time-consuming PBL that teaches students about seemingly one topic, or should the educator be using that time to increase the span of the content being taught? All four of the teachers I interviewed expressed concerns about whether or not they were making the correct decision. When I sat down in a joint interview with both Amy and Linda, they had an idea about why middle school teachers are struggling with this concept. “In elementary schools, teachers are trained to teach in themes. They teach science about penguins, then they write a short paragraph about penguins, and then they teach about the geography of where a penguin lives for social studies. They’re used to working with a theme-based model,” explains Amy. “I think that the high school and middle school teachers are more tied to the test and getting through the content than they are at the elementary level.”

Sharon, who is the leading administrator in charge of implementing PBL at Redwood, mentioned that this is the number one hesitation teachers have about PBL when they are first introduced to the concept. However, she goes on to mention that the teachers have the support of the administration to do this, so the challenge actually lies with the teachers themselves to find the confidence to go forth with this huge endeavor. This challenge can be slightly countered, though, by the teachers’ personal philosophies of education. Four of the seven participants I
spoke with specifically commented on how PBL closely aligns with how they think students learn best and how they ideally want to teach. Although he acknowledges that he sometimes struggles with the amount of time PBL experiences takes, Jim declared that he has, “…pretty much always had the trust and faith in the students…” to succeed in learning all of the material he wanted and needed to teach them. This confidence he has, and more importantly the confidence he has toward his students, helps Jim to overcome the time-restraint obstacle of PBL and begin to craft an efficient experience for his students.

“These are the experiences students are going to remember,” Jackie reasoned toward the end of her interview with a newfound sense of assurance, “They will remember the artifact they made during this PBL, and they’ll remember all of the skills they used while working together, rather than all of the dates and names of people in social studies.”

*All or nothing approach to PBL planning.* With the newfound self-assurance that everything is going to be okay, teachers can now begin to plan the PBL if they can once again find the time to do so. Planning a PBL experience is an all or nothing approach that potentially scares teachers enough to decide against doing one, results in an ineffective PBL for the students, or ideally initiates a PBL experience that students will recollect for years to come. Planning a PBL is a giant commitment which should not be taken lightly, and “if you don’t have that planning up front, then it’s going to fall apart,” Amy warned.

“Until you can say what the deliverables are going to be for the first day, last day, and all the days in between, then you’re not ready. If you can’t define that, then the kids are definitely not going to be able to define it either,” Linda offers. For many teachers, this concept of planning so far, often four or five weeks in advance, presents a logistical nightmare for some middle school teachers.
Collaboration between teachers with different skill sets can be one way to combat the daunting task of planning a month’s worth of material in a timely manner (Cook & Weaver, 2015). Luckily for the teachers at Redwood, Amy and Linda are the resident PBL experts who teachers can turn to when trying to plan their PBL. When working together to plan their very first PBL, Jackie and Lucy sat down with them and created a timeline of how they wanted their PBL to go. With a rough outline the project, jobs were assigned. While Jackie and Lucy were busy making the day-to-day plans, the school librarian was helping to locate resources for the students, and Amy was busy securing an authentic audience for the students to present their finished products to (Lee et al., 2014; Shih et al., 2010). Jackie also reached out to the school’s technology teacher, and she scheduled a time in class to teach the students more about the technology that they would be using for their presentations. “Both people who came in to help the kids research and put together their presentations were fantastic. Deb [the librarian] showed the kids resources that I never knew about, and computers hate me, so the tech teacher was able to help them with their presentations much better than I could!” laughed Jackie. She and Lucy both attribute the success of the PBL, as well as their ability to maintain their sanity throughout the process, to the work and collaboration that went into planning the full PBL ahead of time.

_How do you grade creativity?_ According to the four teachers I spoke with who have all implemented at least one PBL unit, deciding on how they want to grade their students is one of the most challenging and time consuming parts of the planning process. When thinking about a PBL that involved students creating artifacts from ancient civilizations, Jackie pondered about how a teacher is supposed to grade the creativity of a student. This concept was one that both she and Lucy struggled with when developing their rubrics for the project. “The rubrics were
challenging,” recalled Lucy, who has received training from the Buck Institute of Education\(^1\), “Buck already has rubrics set to go, but you have to line them up with the activities you planned, so there’s a lot of wordsmithing that you have to do along the way.” Lucy also mentioned how even more formal assessments, such as short quizzes, were sometimes a challenge to interpret student success or needs by. Since PBL allows students to work at their own pace, Lucy found it difficult to know when to administer these quizzes, because some students may not have covered the material being tested yet. Eventually, Lucy and Jackie relied more on informal assessments along the way to enlighten them on the effectiveness of the PBL. “Those intermittent checkups were great and let me make sure they were getting the concepts along the way,” reflected Lucy.

“We ended up doing a glow and grow format. So one group told another group what they did good and then what they needed to work on while I observed. They were able to do that, and I felt that they were very successful,” Jackie remarked. Jackie went on to mention how she used these observations to provide certain groups with more support if they needed it.

Both Pam and Jim also take the same approach that Lucy and Jackie ultimately decided on. During my interview with Pam, she informed me that she used to take hours pondering over what her rubrics should look like for each little part of the PBL experience (i.e., the quality of research or the collegiality amongst groups). Now, she relies heavily on informal assessments that she takes throughout the course of the project. This was evident during my observation of her implementing a PBL; I never saw her without her notebook, and she was constantly making notes about what each of the students were doing. She would eavesdrop on the conversations of each group, jot down some notes, and then provide scaffolding if needed. She later informed me that these notes that she was taking played a large part in what the students overall grade for the

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\(^1\) The Buck Institute of Education is the leading organization advocating for PBL in schools and provides educators with top-notch professional development in regard to PBL.
project was, rather than just solely basing the grade on the product they presented at the end. Pam also informed me just because they were in the same group, group members may not receive the same grade as each other; it all depends on the effort that she witnesses throughout the PBL. Jim’s approach is very similar in its flexible nature. “I’m not one who says that grading needs to look the exact same for each student,” he reveals, “as long as their project matches their starting abilities going into it, and I see them putting in effort, then I’m happy.” It is important to remember that both Pam and Jim have completed numerous PBL experiences and have found ways of grading that work for them. For teachers who are just starting off using PBL in their classroom, like Jackie and Lucy, figuring out how to grade the students can be a challenging and time consuming process.

**Finding 2: Literacy is Interdisciplinary by Nature**

Through my analysis of my survey results, interviews, and my observation notes of Pam, I was able to discover how teachers were integrating literacy instruction in multiple subject areas through PBL (McCright, 2012).

While I was mainly concerned with how the social studies teachers were integrating literacy, I opened my survey up to other core subject teachers as well and received responses from different content areas (ELA, science, and social studies). In response to my question concerning how they incorporated literacy, an ELA teacher wrote that there was “lots of vocabulary study and development involved” as well as “…a lot of research.” A science teacher had a similar response stating that the students were responsible for creating solar cookers, so they had to research different designs, take notes, and then write descriptions of their own solar cookers once they created them. Furthermore, the social studies PBL also required research,
along with writing about what they learned, and then sharing their information through a presentation.

As I analyzed the interview data, I was not surprised to see many of the same literacy skills being talked about and used. “I think project-based learning really lends itself to literacy skills,” shared Jackie, “I had them research using both books and online, and they bookmarked things. I had them actually share out loud and took lots of notes in their journals. So we were doing note taking, paraphrasing, and oral speaking skills.” Jackie went on to mention how she thought literacy was already embedded into the core PBL model of creating a driving question to research and provide an answer to. “They really have to be able to research, and that’s a skill that you have to actually teach as I found out the hard way last year,” she laughed.

Jim also incorporates literacy into every PBL he does with his social studies students; he reflects that, “there’s always a research and writing component that they have to have with it.” During the mini-lessons he incorporates into the project, he provides background knowledge of the subject at hand, and he stresses the importance of looking at both sides of an issue to “…figure out what the other side believes in so you can understand where they’re coming from and make a counterpoint from where they are.” Identifying these beliefs helps students during the debates Jim facilitates in class, as well as when they write argumentative essays in ELA.

While I was observing Pam, I was able to appreciate just how much literacy was incorporated into a PBL experience. Pam’s class was working on a PBL entitled “E-Power on the Move,” which had students traveling through the fictitious country of Zonac in an electric car and solving problems along the way. Although the students were completing the project during their scheduled math time, the PBL contained interdisciplinary activities throughout. Each day, students would be completing “action” or “discover/challenge” (D/C) problems to earn travel
miles to move their car across the map (see Figure 1.1). Often these problems would involve students researching sustainability issues, or taking notes on the historical rise of electric cars. Furthermore, students had to complete their assigned team job (these jobs rotated every week), as well as write in their daily reflection log. These reflections were about what happened that day during their “journey.” Students wrote stories about being attacked by a mountain lion during their hike that day, or about how they forgot their purse and had to go back to a restaurant to get it. One of the team jobs was the Reporter, who was responsible for detailing what the team accomplished that day (i.e., the team researched why bullet trains are more popular in Europe than in the United States, and if they would be suitable for travel in Zonac). The students were not only being given the chance to reflect on what they learned, but they were also having fun with the creative writing aspect of the assignment. Pam mentioned that this literacy aspect of the PBL is a component that students consistently state is one of their favorite parts, along with physically moving their cars along the map of Zonac.

![Figure 1.1](image)

*Figure 1.1* Part of a form in which students record how many miles they earned for each Action or D/C problem. This figure shows the interdisciplinary nature of this PBL.
Finding 3: Social Studies Learning should be Authentic

Authentic, or real-life, learning is one of the core components in PBL experiences (Markham, Larmer, & Ravitz, 2003), and this authenticity is what will help students see the point behind completing the work (Cydis, 2015). When I asked my participants about the components of a PBL, they all immediately responded that it had to be authentic; it had to do with something in the real world or something students could relate to. I found that the authentic nature of the projects the teachers discussed with me helped students make connections to the real world, as well as ultimately increased their interest in the project.

Surviving in the real world. When I spoke with Jim about his previous PBL experiences, he started talking about his favorite project he had his students complete: a zombie apocalypse survival guide. We both immediately started laughing at how ridiculous the project sounded, but once he started to explain the PBL more in depth, the authentic problem solving and social studies aspects started to shine. Capitalizing on his students’ interest in zombies, and realizing that they would be interested and motivated to complete any zombie-related work in school, Jim’s overall driving question was simply, “Where would you go in the event of a zombie apocalypse?” To begin, he had students research disease outbreak over the past centuries and how each disease impacted parts of the world differently. Students learned about the spread of the Black Death, the outbreak of the Spanish Flu, discovered more about the recent swine flu, and made connections with what they knew about the Ebola epidemic.

Now staffed with knowledge about disease outbreak, students were tasked with determining a location where they could establish a new zombie-free community. Again, students took to researching about the varying locations around the United States, and thought about what area would provide them with the natural resources their community would need to
survive and potentially prosper (i.e., good source of water nearby, fertile soil, natural protection). Jim mentioned that this is when it was critical to keep the students on track and make sure the focus was on the social studies aspects of the component rather than on the zombies. For example, one student was convinced at the start of the project that Lake Erie was the ideal place to settle, because it was “eerie.” Upon picking a place to build their new community, students then had to establish rules and regulations that the settlers would abide by. They answered a variety of questions such as how the new government would work, how would jobs be established, what would the security of the new colony look like, and what would happen if the zombies happened to stumble upon their new community (i.e., their emergency protocols).

While our own nation is not currently being plagued with zombies, Jim taught the students more about careers that deal with disease outbreak, government jobs relating to building up our infrastructure and city planning, and scientists who are researching natural disasters and putting together plans for emergencies. Upon reflection, to make the project even more authentic, Jim mentioned that he would like to bring in some of those professionals to teach the students more about their field and then also have the students present their plans to them at the end of the PBL. Furthermore, critical thinking and literacy skills were incorporated into every aspect of the project; students had to research and take notes, they kept daily logs from the point of view of a survivor once they picked a geographic location, and they gave a multimedia presentation to their peers and a handful of school administrators. Even though talking about and preparing for a zombie apocalypse sounds silly and unrealistic, the project resonated with the learners. “I saw particular students who were in no way interested in the typical type of lesson really buy into the zombie project,” Jim chuckles. This PBL was a success because students were able to take what they learned academically and apply it to an authentic notion (stress was placed
on the fact that they were studying disease outbreak in reality, and not so much zombies), create projects with a sense of purpose, and obtain recognition that this project had real-world connections to it (Catapano & Gray, 2015; Damon, 2015).

**Current connections.** Jim also has his students keep track of current events through a series of small-scale PBL projects. During our interview he described one such PBL that took place over the course of two weeks, which is a relatively short amount of time for a typical PBL. One such project was around the time of World Rights Day, and the students were challenged with finding different issues that they wanted to get more involved in, such as women and equal pay and how most of the world’s chocolate is the product of slave labor. “They looked here in the United States, and then they looked at other countries… we talked a little about Malala [Yousafzai] and everything that was happening, and then we talked about other countries that are making products from sweatshops and how they can get involved,” Jim explained. He went on to talk about how he has his students look at issues holistically and then decide which side they most support; follow up activities to the research could include writing a letter to their congressman or debating with their classmates about the issue. “Just being involved and being an informed citizen is what I’m trying to really get across,” said Jim. The students are once again developing authentic connections with what they are learning about, and they come away with a sense of belonging in the community (Peck & Virkler, 2006).

**Finding 4: Shifting Role of the Teacher**

Through analysis of my observations and interviews, I found that the role of the teacher shifts from the beginning to the end of the PBL. While the teacher may introduce concepts and background knowledge initially, the role of the teacher will gradually diminish by the end of the
project based on a gradual release of responsibility and allowing students voice and choice in the project (Larmer, 2014).

**Gradual release of responsibility.** As I was speaking with Pam and Jackie about their respective PBL units, both teachers mentioned the importance of using the gradual release of responsibility (GRR) model (Pearson & Gallagher, 1983). The GRR model allows students to learn the skills and background knowledge they need to complete a task from a more knowledgeable other (Vygotsky, 1978) before trying the task on their own. As I observed Pam, I noticed that the amount of teaching and guidance she provided the students with noticeably decreased after day five of the PBL and was virtually nonexistent by day twenty, which was when the students officially completed their projects. For the first five days, much of Pam’s instruction came in the form of providing the students with background knowledge of the project, and she also focused on teaching the procedures the students would follow for the duration of the PBL. Once students started to complete these procedures on their own around day five, Pam provided the students with less reminders about what needed to be done, and at that point, the students had all of the background information they needed to be successful. Pam started to blend into the background of the classroom as gradually all of the students remembered what needed to be done that day. The procedures that Pam had shown the students, had the students complete with her, and then had them complete with minimal support had become independent practices by day twelve of the PBL.

While the nature of Pam’s PBL and GRR model was based on procedures, Jackie’s PBL required teaching the students how to research historical content. Initially, she introduced the project to the students, provided the necessary historical background knowledge, and then let the students start to research on their own, which “was a massive failure!” exclaimed Jackie, “I
didn’t realize we would have to teach them how to research, and I learned the hard way.” Jackie decided to collaborate with the school’s librarian to teach the students how to research their topics in a more effective manner (see Figure 1.2), and together they were able to turn the research aspect of the projects around. Even though the two teachers used the GRR model for different purposes, the model serves as an example of how a teacher’s role should look during a PBL: high support to start gradually transitioning to little to no support (Pearson & Gallagher, 1983).

Figure 1.2 Example of the GRR model used by Jackie.
Voice and choice. Coupled with authenticity, another main component of PBL focuses on the teacher allowing students to have what the Buck Institute calls voice and choice within a project (Markham, Larmer, & Ravitz, 2003). Voice and choice within a project increases the students’ motivation and interest in the project in addition to providing them with a sense of ownership of the work (Chalupa & ter Haseborg, 2014). “If you introduce a project to them, then within that allow them to pick and choose things, then they do a far better job,” describes Pam, who saw this firsthand during a PBL she implemented earlier this school year. Pam’s PBL dealt with the different aspects of designing, building, and then decorating a house; students were assigned the roles of architect, contractor, and interior designer respectively, and one of the first tasks they had to complete was design a bedroom for a potential client to showcase their talents. Pam was completing this PBL with two classes, and she remembers going into very specific detail with the first class about how a bedroom design should look. Due to time constraints with her second class, though, she was not able to give them much detail and essentially told them to design a bedroom and that was it. Since this assignment was given the day before a long break, students did not have a chance to ask Pam any questions while they were designing, and they only relied on the information she gave them during break.

When the students came back and showcased their designs, Pam was shocked by how different the designs and the attitudes of the students were from the first class compared to those in the second (see Figure 1.3). Pam recalls the students in the first class came in and very timidly presented their designs as if “they were almost embarrassed about what they made” and wondering if it met Pam’s standards. In stark contrast, the second class presented their bedrooms with enthusiasm and with a sense of pride in what they created. As Pam reflected on why this may have been, she concluded that it was most likely because she did not give them any strict
guidelines about the project other than to use their creativity to design a bedroom. “I’ll definitely be talking much less the next time I introduce a project!” Pam joked. The idea of the teacher talking less and giving more choice to the students leads to increased interest in the PBL (Damon, 2015); the roles of the teacher and students are shifted since the classroom is no longer teacher-led, but rather student-centered when they are given voice and choice within the PBL (Vygotsky, 1978).

**Figure 1.3** The 108 square foot bedroom on the left was designed by a student in Pam’s first class, while the more spacious and detailed 670 square foot bedroom on the right was designed by a student in her second class.

**Finding 5: Successes through PBL**

As I have previously mentioned, there have been numerous successes documented by the teachers I have interviewed as a result of their PBL experiences. Students have been making authentic connections with the real world, and they have been producing high-quality work when given the opportunity to have a say in the project. Furthermore, teachers are able to incorporate
literacy throughout the duration of the project, as well as create multidisciplinary projects that are efficient both academically and time wise. Another accomplishment of PBL is the flexibility teachers have when it comes to assessment; many of the teachers interviewed stated that although figuring out an effective assessment tool was tricky, they ultimately liked the amount of informal assessments and data that they were able to collect throughout the PBL. If they found a need as a result of those informal assessments, they were able to provide scaffolding for the students. While analyzing my data, I also noticed the rising levels of engagement, as well as overwhelmingly positive reactions from students who normally struggle in a traditional classroom.

*Rising level of engagement.* After speaking with the teachers about various PBL successes, talking about how engaged the students are throughout the duration of the project seems to be a highlight for them. When I spoke with Amy and Linda, I asked them what their main argument was for advocating PBL to other educators and they immediately agreed that it was the engagement factor. Linda went on to describe a second year teacher who was nervous about an upcoming observation during her PBL; she was worried that the administrator would not be able to accurately evaluate her because she was not really teaching, but rather guiding students during their PBL work time. Linda explained that she calmed the teacher down by explaining that since the district was using a Danielson model of evaluation, “…it says student does, student does, student does. Nowhere does it say teacher does! I told her that she was going to get an exemplar because there was nothing more they could give her, and that’s what she got.” Amy went on and spoke about how the new social studies inquiries developed by New York State align well with the PBL model, because they aim for more engaged, student-centered learning. Since PBL allows students to become fully engaged in their work, this project-based
way of student inquiry benefits not only the students but also the teachers. Additionally, Sharon also brought up how a classroom typically looks like when students are working on a PBL.

“When I walk into a room and see all of the students working on their projects, it’s amazing. Every single student is working and doesn’t even notice me walk in. You never have to answer the question, ‘when am I going to have to use this?’”

Jackie and Lucy also commented on the engagement they noticed as a result of the collaboration piece of their PBL; both teachers had their students work in groups to complete their projects, and every student had a role in the group. They noticed that students were not only working the whole time during the time allotted in class, but also outside of the classroom too so they would not drag their team down. Parents began reporting that their children were researching more at home and brainstorming how they could make their project better instead of playing video games or watching TV like they normally did. “I think it’s a success when parents are really communicating with you when they say how much they felt that it was beneficial for their child to be in that experience. You don’t hear that normally!” laughed Jackie. While concluding her interview, Lucy stated that the students realized that the risks were too high if they did not put in the work, and they all made the right decision to become engaged and put a tremendous amount of effort into the project. Both Jackie and Lucy noted that a handful of their students chose to remake their final products (historical artifacts) for their presentations because they did not want to be embarrassed when they presented them to the authentic audience.

**Unlikely student achievement.** It is important to note that when the teachers interviewed mentioned that all of their students were engaged and producing high levels of work, they truly meant each and every one of their students was successful. When talking about her collaboration with Jackie, Amy mentioned that Jackie “…got a ton of response from parents about kids,
especially the special education kids, who were coming home talking about school instead of having to pull it out of them.” When speaking with Jackie about her PBL, she also mentioned the high levels of achievement that she noticed some unlikely students were having. “I like the fact that the students who really didn’t shine in the ‘traditional’ format were really involved,” Jackie explained, “They were really excited, showed a lot of interest, and they were successful and they felt successful.” Jackie went on to mention that she overheard one of her typical lower performing students mention that he wanted to do a good job on the project because “it actually matters.” The authentic nature of the PBL helped the student become more engaged and produce a higher-quality product because he was given an authentic task and understood that he would be presenting his project to students outside of his classroom and different people within the community (Cydis, 2015).

Lucy and Jim also observed students who do not shine in the traditional sense succeed during PBL units. “I loved seeing the kids who are normally shy, don’t work well in groups, don’t like to speak, or don’t like to offer ideas do really well during the PBL. Everything kind of came to the surface.” Once again, Lucy went on to mention that the high stakes of the PBL (presenting to an audience other than their classmates) may have been just the right amount of motivation these particular students needed coupled with having choice within the project. Jim noted the success in certain students as well. “I’ve seen particular students who may not be interested in the typical type of lessons really buy into some of the projects that are out there. There were a lot of individuals who I saw their best work from when they were doing something with project-based learning,” Jim proclaimed.
Discussion

Conclusions. As I began to develop my conclusions, I reflected on each one of my findings and sought how they were related to previous literature I read about PBL. My first finding was because it takes a copious amount of time to both plan and implement a PBL experience, many teachers were anxious about if they made the right decision to try it. This is a very common thought to have when trying PBL, especially for the first time, and it has been documented in numerous studies concerning the challenges of PBL (Bowman, 2015; Cook & Weaver, 2015; Lee et al., 2014). The issue of time and teachers questioning themselves over if implementing a PBL is worth it leads me to my second and third findings of the notion of literacy can be interdisciplinary and social studies learning needs to be authentic in a PBL. When students realize the real-life implications of the work they are doing, they will put forth more effort into the project due to their newfound intrinsic motivation to succeed (Bowman, 2015); I found this to be true throughout my study and saw that main proponents of the PBL that the students were working so hard on were primarily literacy-based (Knipper & Duggan, 2006). Furthermore, my fourth finding states that the roles of the teacher and student shift throughout the project. Essentially, while the teacher is still working to ensure the students are working within their zones of proximal development, the role of the MKO (more knowledgable other) transfers from the teacher to the students’ peers and the sources of their research (Vygotsky, 1978). My final finding further added validity to the general thought that PBL provides more overall successes in the classroom than it does challenges. Through PBL students are intrinsically motivated to succeed due to the authentic nature of the projects (Catapano & Gray, 2015; Pink, 2009), so teachers see an increased amount of effort and engagement from the
students in addition to a higher quality of work being produced (Damon, 2015; Larmer, 2014; Wright & Mahiri, 2012).

During this study, I made three key conclusions based on these findings. They are that 1) PBL is time consuming but is worthwhile due to the incorporation of multiple subjects; 2) the authentic nature of PBL answers the “when am I going to use this?” question; and 3) the successes of PBL outweigh the challenges.

**PBL is time consuming but worthwhile.** PBL does not only take multiple weeks to plan, it also takes many weeks or often many months to implement. Based on my findings, while many teachers find this planning and implementation process to be tedious and time consuming, they realize the benefits of PBL, which makes the time spent worthwhile. Depending on the PBL, the teacher has the ability to incorporate potentially all of the core subjects. Since literacy is interdisciplinary by nature, it is automatically incorporated into many aspects of the PBL. As Amy mentioned, PBL is more of a theme-based model of teaching, which allows students to explore the material being learned through the lens of multiple subject areas.

**Authentic nature of PBL.** One of the main components of PBL mentioned by the participants I interviewed was authenticity. Whether it is an authentic problem or question students are trying to solve, or if they are simply presenting their projects to an authentic audience, that component is critical for student motivation and ultimately student success. When the authentic component of PBL comes into play, students are making real-world connections; they are seeing how they are going to use this information in ways outside of the classroom. Looking back at the student who told me he will only use social studies information if he is on Jeopardy!, he would see the different ways he could use the same content in the real-world if he
participates in PBL experiences. If more teachers tried PBL in their classrooms, they would notice a decrease in the amount of students asking, “when am I going to have to use this?”

**Successes outweigh the challenges.** Although PBL has its challenges, the solutions teachers find to these problems lead to student success. Many teachers state that they are hesitant to devote so much time both planning and implementing PBL, but as I previously mentioned, once they see how much content the students are actually working with during PBL time, they realize that all the time spent on the project is worth it. Additionally, many of the teachers I interviewed stated that grading the students was initially a challenge. Even though it took some trial and error, the teachers were able to develop a system of informal assessment that allowed them to monitor student success and needs efficiently. Furthermore, the successes PBL brings to students in general are strong points to mention while advocating for PBL. Not only are students more actively involved in the PBL due to the voice and choice they have, they also take ownership of their work. This ownership and pride in their work leads to increased motivation to perform and produce work at a higher level and an increase in their engagement levels throughout the project.

**Summary of conclusions.** PBL allows students to critically think and develop a deeper understanding of the material because of the authenticity of the projects. Students are able to make real-world connections and the choice within the project allows them to have a sense of ownership of their work, which motivates them to produce higher quality projects. Teachers are able to informally assess student learning, and use that information to provide scaffolds for students who may need extra help with the PBL. More often than not, these scaffolds will not come in the form of teacher instruction, but by their peers helping each other understand expectations and the material being presented.
Implications. After analyzing the data, I found three implications for future teachers who want to try a PBL unit in their classrooms. Teachers should: have professional development on PBL before starting to plan the unit, focus on the interests of the students, and realize the importance of an authentic audience and project.

Professional development before planning. Based on the findings and conclusions of my study, it would be beneficial for teachers to receive professional development on PBL before starting to plan and implement a project. According to Amy and Linda, many teachers would not know to plan out the whole project ahead of time in order to be successful, and they also might not know all of the components that make a project a true PBL experience. If the school is still very new to PBL, professional development is a must as it allows teachers and administrators to understand the challenges that come along with PBL as well as how to combat them (Catapano & Gray, 2015) Furthermore, professional development will help teachers understand the components of PBL which will help foster student success with the project (English & Kitsantas, 2013).

Focus on student interests. One of the challenges teachers face on a daily basis is how to intrinsically motivate their students to succeed. When students are given the freedom of choice on a project they are interested in, like they are allowed to do in a PBL, they are more likely to be intrinsically motivated to do well (Pink, 2009). What sets PBL apart from other projects is the teacher’s ability to cater the project to the needs and interests of the students. If the students are not interested in the PBL, they are not very likely to put as much effort as they are truly capable of into the project. Even if the PBL might not directly align to student interests, it is important to act excited about the project when launching it as this will in turn get the students more excited as well.
**Importance of authenticity.** After speaking with Jim, Pam, and Jackie about each of their most successful PBLs, I realized just how important the authenticity component of a PBL unit is. For Jim, by simply saying the word “zombie” to start the project, he captured the attention of his students and used their interests to create an authentic PBL about disease outbreak based on a silly idea of a zombie apocalypse. Although zombies taking over the country may not seem that authentic, the actual work the students were completing as a part of the project related to the real world, which is part of why it was successful (Damon, 2015). Furthermore, Pam and Jackie spoke about the need for an authentic audience while presenting the projects. If the audience is genuine and made up of people other than those regularly in the classroom, students will generally put more effort into their projects and complete them with a sense of pride; the projects allow them to feel a sense of belonging in the community when they share their culminating project with an authentic audience from the area (Lee et al., 2014; Shih et al., 2010).

**Limitations.** During my study I encountered limitations as to how I could go about my research. One of the main constraints I encountered was the lack of knowledge and PBL experience at other middle schools besides Redwood. My initial thought when beginning to research was to use data from at least two different schools to construct a better understanding of PBL, but I was only able to conduct my research at one of the schools. Furthermore, due to my position as a substitute teacher and time constraints, I was not able to speak with the students about their PBL experiences, and I was limited to only speaking with and observing the teachers and administrators.

**Recommendations for future research.** Based on the limitations of my study, I would recommend that future researchers speak with students about PBL, as well as compare the more
formal assessment results of students who have completed a PBL with the results of students who have not.

As I previously mentioned, I did not have an opportunity to speak with students about their thoughts on their own experiences with PBL, but I think that this would be vital research to include in the future. My research speculates that the authenticity of the project, as well as giving students voice and choice, is largely responsible for the success of the PBL. Interviewing students about what their thoughts about PBL are would be beneficial, because it would potentially help to confirm this theory or it might help discover other reasons why PBL brings forth so many classroom success stories. Speaking with the students will also allow researchers gain a better sense of areas of improvement within PBL, which will in turn allow teachers to create more effective and efficient experiences.

I also recommend that researchers delve deeper into the notion of how experiencing a PBL impacts students’ grades, or if there is even an impact at all. A study conducted by Geier et al., (2008) states that PBL does positively affect students’ grades, but the study is limited to STEM subjects, and there is not much further research to replicate their findings. I suggest that future studies look in to comparing and contrasting the grades of PBL versus non-PBL students in regards to more formal assessments such as state tests or final exams given in all core subject areas. Additionally, records of PBL and non-PBL students’ grades throughout the year can be examined (McCright, 2012). By using a larger sample size and analyzing the data, this information will help expand the PBL research field and help teachers implement successful learning experiences for their students.

Closing. In regard to social studies, PBL opens the door for teachers to make real-world, historical connections with their students. Allowing students voice and choice within the project
allow them to make even more personal connections as they investigate deeper into the content and are thoroughly engaged in what they are learning. Since literacy is at the cornerstone of PBL, teachers will be providing their students not only with an authentic way to apply what they are learning about in social studies, but also a genuine way to use their literacy skills in the real world. As a result of the teachers’ willingness to try PBL, the knowledge students learn and the connections they make are the type of memories that will stay with students for years to come, but whether or not they use that information to become the next Jeopardy! champion is completely up to them.
References


Appendix A

Teacher and Administrator Interview Questions

Participant Name: __________________________ Date: ________________

**Project-Based Learning Interview (Teacher)**
(Adapted from Lee, Blackwell, Drake, & Moran, 2014)

*To participant:* “Thank you for taking the time to help me with my project. I will be asking you some questions about project-based learning, which will allow me to complete my research. Based on your answers, I may ask additional questions that come to mind.”

1. What is your definition of project-based learning (PBL)?
   
   a. What are the components that must be included?

2. Why did you choose to implement PBL in your classroom?

3. How do you facilitate PBL during class time?

4. How have you adjusted the way you teach your content since you started using PBL?

5. Describe one project you have designed, implemented, and evaluated. If possible, please provide anonymous samples of student work.
   
   a. How did you launch the project?

   b. What was your driving question?
c. What concepts, knowledge, and skills were you addressing?

d. How was literacy integrated into the project?

e. How did you know students successfully completed the PBL? What kind of formal or informal evaluation was used?

f. Did expectations for students change during the PBL implementation? Why?

6. Thinking about your overall experience with PBL, what are some successes and challenges you have had designing projects?

a. Implementing projects?

b. Evaluating projects?
To participant: “Thank you for taking the time to help me with my project. I will be asking you some questions about project-based learning, which will allow me to complete my research. Based on your answers, I may ask additional questions that come to mind.”

1. What is your definition of project-based learning (PBL)?
   
   a. What are the components that must be included?

2. Where did you learn about PBL?

3. How much experience do you have with PBL?

4. How much professional development have you received regarding PBL?
   
   a. How much professional development will teachers receive?
   
   b. What kinds of professional development will teachers receive?

5. What are some successes you have seen regarding PBL?
   
   a. What are some challenges?

6. What is your main argument for advocating PBL to other educators?

7. Please share anything else that you would like me to know about PBL in your school.
Appendix B

Teacher Survey

If the teacher answers “yes” to the question “Have you ever used project-based learning in your classroom?” they will be directed to Section 2 of the survey (see following page). If they answer “no” to the question, the survey will end and submit after they click “next.”
Project-Based Learning Survey

* Required

How did you incorporate literacy in your project-based learning assignment? *
Your answer

Have you used project-based learning to teach social studies? If yes, what was the specific content being taught? *
Your answer

What were some successes you have encountered during the project-based learning assignments? *
Your answer

What were some challenges you have encountered during project-based learning assignments? *
Your answer

BACK  SUBMIT  100%: You made it.

Never submit passwords through Google Forms.