# **PROJECT-BASED LEARNING**

# Engaging the Community with a Project-Based Approach

# Anne-Lise Halvorsen, Nell K. Duke, Stephanie L. Strachan, and Cathy M. Johnson

Imagine a city playground in need of repair and maintenance. Now, imagine what second graders could do to improve that playground. Rather than participate in a community clean up, imagine the children conducting a survey among community members about which aspect of the playground is in the greatest need of repair or maintenance, studying who in the local government is responsible for playground maintenance, writing persuasive letters to, as well as delivering a persuasive multi-media presentation for, government officials—and then soon thereafter finding their city playground repaired!

This scenario comes from a second-grade integrated curriculum we designed called Project PLACE (Project-approach to Literacy and Civic Engagement), consisting of four 20-session units (in our projects, we referred to the lessons as "sessions" because only part of each session is what might traditionally be considered a "lesson"; much of the sessions involves small group and individual work on the projects). The units are driven by project-based learning (PBL) and aligned with Michigan's social studies standards and some Common Core State Standards for literacy. We developed and field-tested this curriculum and found that gains were 63 percent higher for social studies and 23 percent higher for informational reading in the experimental group than they were in the control group.<sup>1</sup>

The goals of this article are to describe our approach to PBL, to explain the principles that drive our approach, to describe the design and format of sessions in our curriculum, to demonstrate ways in which students engage meaningfully with the community through the units, and to inspire you to embark on designing and implementing PBL in your classroom.

# Project PLACE Curricular Approach

Educators define PBL in varying ways. Our approach reflects many of the essential design elements outlined by PBL educators and other potential characteristics of PBL. Here, we describe four of them: a purpose beyond "doing school"; sustained exploration of a topic; highly standards-aligned; and grounded in research-based practices.

# Purpose Beyond "Doing School"

An essential component of our approach to PBL entails providing students with a purpose for their work beyond just learning what they are supposed to learn. In our case, this includes an audience for their work beyond their teacher, school, or family. We are intentional in our prompting of teachers in session plans to remind students of the overall purpose and audience of the larger project. In this way, we provide a purpose for students' learning beyond "doing school." Why is this important? There is some evidence that students grow more when they have a purpose for their work beyond just learning what they're supposed to learn.<sup>2</sup> Having a community-based purpose is especially compelling for second-grade social studies given the emphasis in standards on the local community context.

# Sustained Exploration of a Topic

Each of the 20 sessions, approximately 45 minutes each, of our four PBL units focuses on developing knowledge and skills necessary to complete the overall project goals. Each session builds upon the previous one, and teachers are regularly reminded to review previous concepts in order to help students draw connections between new concepts and learning in earlier sessions. We believe this sustained, extended period of time and repetition of vocabulary, content, and processes support students' overall learning and motivation by enabling them to gain expertise.

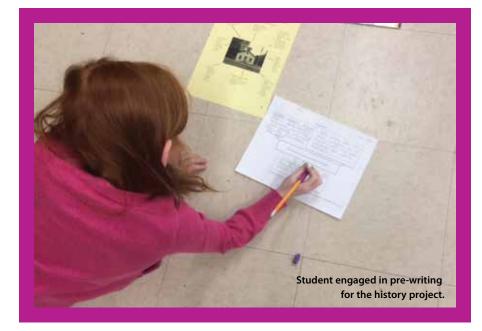
# Highly Standards-Aligned

We designed all projects to address nearly all of the Michigan social studies standards for second graders as well as multiple Common Core State Standards for informational reading and writing. The Michigan social studies standards align with many of the C3 Framework's standards in Dimension 2 (Applying Disciplinary Concepts and Tools). The standards, given that teachers and students are held accountable to them, shape the overall design of each individual activity, session, and overall project.

Grounded in Research-Based Practices Scholarship on children's thinking and on effective instructional approaches informs our design of the sessions. For example, in the geography unit, our sessions build on the ways children use maps to understand physical spaces<sup>3</sup> and on recommendations for how to teach geography to young children, such as using non-standard measurement to teach scale and explicitly teaching how to use a legend to interpret a map.<sup>4</sup> As another example, the history unit draws on research about children's understanding of history, such as the use of visuals to help with chronological thinking<sup>5</sup> and the ways children use factual information about material history and their own experiences to interpret the past.<sup>6</sup> In the civics and government unit, we draw on scholarship about the importance of providing opportunities for students to express their opinions on an issue.7 In terms of literacy-focused research-based strategies, units incorporate explicit instruction in vocabulary<sup>8</sup> and strategies for planning writing.9

# Project PLACE Unit/ Project Design

Process of Designing Projects/Units We used a design-based research approach in which we collaborated with teachers in conceptualizing units/projects. Involving teachers in the design was critical to helping ensure the units were feasible to teach, effective in addressing standards, and engaging to both teachers and children. First, we decided the final project and intended audience. The criteria we used to select the final projects included relevance to the discipline; alignment with standards; inclusion of a writing component; children's interest; authenticity; and feasibility (i.e., in terms of students' capacity to produce the project, cost, and preparation time). We



then generated the activities that would help build children's understanding of the content and skills and the tasks that would support the creation of the final project and align with standards. We organized these activities into session plans, built in instructional practices that were supported by research, and ensured opportunities for teacher and student voice and choice. Our goal was to provide rationales for particular aspects of the instructional sequence so that the plans themselves would serve as a form of professional development (aka educa*tive curriculum features*).<sup>10</sup> Last, project team members revised the plans multiple times. The entire units and some of the supporting materials are found here: https://sites.google.com/a/umich.edu/ nkduke/home/project-place-units.

# Session Design

We found that using a consistent format ensured each session would entail critical components, including opportunities for explicit instruction and, for a longer period of the session, opportunities for small group/individual activity, which is critical for children to develop content and skills. Additionally, teachers reported that a consistent format made teaching the sessions more feasible. Next, we describe each session component in greater detail. Whole Group Introduction. Each session begins with a discussion, explicit instruction, and/or read aloud to generate and sustain children's interest and excitement about the project, to remind children about the audience for the project, and to build children's knowledge. This part lasts for about 10 minutes. During this time, the teacher often models features of the guided small group work or individual instruction.

Group/Individual Guided Small Instruction. The second part of the session, generally lasting between 20-30 minutes, is the heart of the session, in which children are actively engaged with content and skills related to the production of the final project in guided small group or partner work or individual activities. For example, they are reading or writing text, interpreting maps, examining images from the past and the present, exploring government websites of their communities, administering and interpreting results of surveys, producing a good or service through an assembly line, and comparing the natural and human characteristics between communities.

Whole Class Review and Reflection. At the end of each session, for about 10 minutes, the teacher reconvenes children

25



Bulletin board for the history project.

to review content, clear up any confusions, discuss findings or discoveries related to the small group/individual instruction, or provide children an opportunity to share and discuss their work. The teacher helps children reflect on their learning and understand how the day's activities relate to the broader project goals.

# Community Engagement in the Projects

These units provide children authentic means of engaging with, learning from, teaching, and persuading their local community. Although community engagement is not an essential design feature of PBL, we found that it is a natural fit with PBL.

#### Why the Local Community?

In second-grade social studies, the local community tends to be the focus of study, according to the expanding communities framework.<sup>11</sup> Standards focus on the history, geography, economics, and civics and government of the local community. Children study the founding and development of their city or municipality, local businesses, the local community's natural and human characteristics, and the role of local government. The local community is a natural fit with project-based learning because it provides authentic connections between the school and the outside world. However, we argue that PBL curriculum at other grade levels could also connect authentically to the local community, particularly by applying understanding of the state, nation, or world in relation to the local community and by generating an audience for the project from the local community. We explain how our projects involve the local community next.

### Producers and Producing in Our Community (Economics)

The final project for the economics unit is the development of an informational flier about a local business for that business's use and creation and sale of children's own goods or services to raise money for a cause of their choosing. Children visit (either on a field trip or a virtual field trip) a local business and learn how that business produces its goods and/or services. In doing so, they learn ways in which businesses and

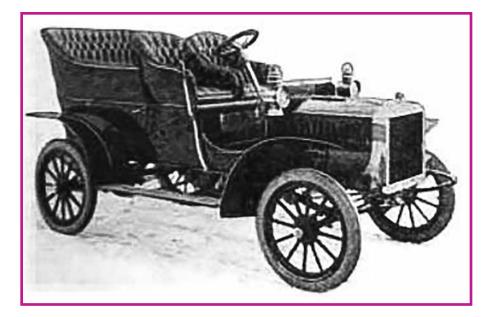


Student writing a postcard for the history project.

consumers contribute to the local community. They also engage their school community through the production and distribution of an unmet want (such as trail mix for snacks or bookmarks for students in the school who were just learning to read chapter books). Through the study of economics of the local community, children develop understandings of concepts including opportunity cost, goods and services, producers and consumers, and specialization.

# Brochure about the Local Community (Geography)

In the geography unit, the final project entails creating a brochure to persuade people visiting or considering settling in the local community that it has compelling natural and human characteristics. Students study their community in a new way—by exploring its natural features, such as rivers, wetlands, lakes, and fields, as well as its human features, such as historic buildings, community and recreation centers, and businesses. The audience are people who are considering visiting or moving to the local community or who have recently set-



The first \_\_\_\_\_ Model C car was built in 1905 in \_\_\_\_\_, Michigan. Cars can go much faster today than in the past. The \_\_\_\_\_ Model C's top speed was about 35 mph. It cost \$1,250. It did not have break lights or windshield wipers. Would you have liked to have driven this car?

Front and back of the history project postcard.

tled there, reached via local real estate agents; members of the local Chamber of Commerce; or others of the teacher and/or children's choosing who interact with new or prospective residents or with people who are considering visiting. The unit also focuses on cultivating children's appreciation and respect for ways their community is diverse and engaging them in learning about the geography of their community.

# Postcards about the Community's Past (History)

The history unit's final project involves t children in creating and writing post-

cards about the history of the local community to be sold or given to community members or displayed in the community. The topics of the postcards are aspects of the local community-schooling, transportation and a noteworthy characteristic-and the audiences are members of the local community seeking to better understand its past. The unit aims to deepen children's knowledge of how their community has evolved over time and to provide them with a richer understanding of the various places they and their families visit in their lives beyond school. (For more on this project see p. 28.)

# Postcards about the Community's Past

### 

How can we know about the past when we are living in the present? How can we share what we've learned about the past with others? Children investigate these questions in the Project PLACE history project: *Postcards about the Community's Past*. In the project, they learn to read timelines, conduct oral interviews with people about life in the past, analyze primary sources, and read secondary sources. Through their investigations, children learn some of the dramatic ways in which education, transportation, and home life have evolved.

The project also aims to teach children ways to share the knowledge they gain about their community in the past through the writing and distribution of postcards. In addition to serving as a form of communication between sender and recipient, postcards often inform the reader about their topic through a short section of writing about the image on the front of the card. Children write their own text for their postcards of schooling, transportation, and a noteworthy characteristic of their local community (e.g., a government building, an arts center, or a park), which are sold or given to community members or displayed in the community (e.g., at a library or local historical museum). On one side of each postcard is an image of community life in the past and on the other side is a short informative/explanatory text written by the children that includes an introduction, facts and definitions about the topic, and a conclusion.

The project's 20 sessions focus on both historical content knowledge and historical thinking skills, as well as informational reading and writing skills. Children read a variety of informational texts during the unit, including informative/explanatory texts, procedural text, and biographies.

The first four sessions provide children opportunities to develop skills in chronological thinking and primary source analysis. In the first session, they learn to distinguish between the past and the present by classifying images of household objects and transportation as either from the past or the present. In the second session, children discover how time—specifically years and decades—is presented on a timeline, and how events are ordered chronologically. They study examples of timelines and develop a timeline of events in their local community.

The third session focuses on how historians use multiple sources to answer a question about the past. Children learn that historians use sources such as letters, photographs, newspapers, books, and artifacts. Sources can provide different information, so it's important for historians to consult and compare a range of sources when answering a question about the past.

One source about learning about what life was like in their local community is interviews with people who have lived in the community in the past. In session four, children develop an interview protocol that they then conduct with an older family member or friend outside of the school day. The responses to these interviews then become a source of the text for the postcards.

The next 12 sessions focus on the topics of schooling, transportation, and noteworthy characteristics of their local community.



Each of these three topics comprises four sessions each. First, the students gain knowledge about the topics through secondary sources—"fact sheets" that are provided in the unit plans and books—and through artifacts (slate and chalk and a train conductor whistle). As they read the texts, children are guided to relate the content of the book to their project, to ascertain the meaning of unfamiliar words, and to discuss the author's purpose.

The entire writing process of each postcard lasts three class sessions, involving the planning, drafting, revising, and finalizing stages. First, using a specially designed planning sheet, children, working in pairs, record three facts about the topic. Children then use information from the planning sheet to write the informative/explanatory text for the postcard. The students write introductions, facts, and a conclusion, along with a caption of the image. Children are encouraged to think about what information would be helpful to the audience.

After deepening their knowledge about their own community through the drafting of the postcards, students then learn how jobs in general have changed over time due to advances in technology and laws about child labor and safety. They then explore a public issue relating to jobs in another community—the building of a new automotive factory on community members' properties in Detroit—and community members' different perspectives on the issue. Children develop an understanding of how point of view/perspective influences how people interpret events, a state social studies standard. In Session 18, children learn that to be mailed, postcards need stamps. Often stamps feature individuals who have made a contribution to society, such as Rosa Parks and Elizabeth Cady Stanton, the former of whom was familiar to many students and the latter of whom they read a biography.

Children practice for and deliver the presentations in Sessions 19 and 20, respectively. In the presentations, children describe the process of writing the postcards, read aloud some of the postcards, and explain how stamps are used on postcards and that they often feature people who have made a difference in history. They then present their finished products for the audience member to display, sell, or give away, with the goal of informing others about the rich history of their community.

### The Park/Public Space Proposal Project (Civics and Government)

The final project of the civics and government unit, described in the introduction of the article, involved developing a proposal, conveyed in letters and in a group multimedia presentation, to persuade the local city government to make improvements to a local park or other public space. Again, the audience, one or more government officials responsible for its upkeep and repair, is from the local community. By exploring

The unit aims to deepen children's knowledge of how their community has evolved over time and to provide them with a richer understanding of the various places they and their families visit in their lives beyond school.

their community's department websites, children learn many of their responsibilities to the community and the ways government affects the lives of people in the community. Children also learn many of the three local governmental branches' roles and the ways in which civic responsibility is differentiated from governmental responsibility.

### **Concluding Thoughts**

Project-based learning has considerable potential to foster social studies learning as well as learning in other domains. Units/projects can be carefully designed to have a compelling purpose and audience, allow for sustained exploration, align to standards, and reflect findings from research. Sessions can include both explicit instruction and opportunities for application and extension in small-group and individual work. The potential to involve the community in projects makes this approach especially well-suited to use in social studies education in general, and civic education in particular. As Richardson concludes, "Our students are capable of doing authentic work that adds to the abundance [of] ways that can make the world a better, richer place."<sup>12</sup>

#### Notes

- Nell K. Duke, Anne-Lise Halvorsen, Stephanie Strachan, Jihyun Kim, and Spyros Konstantopoulos, "Putting PBL to the Test: The Impact of Project-Based Learning on Second-Grade Students' Social Studies and Literacy Learning and Motivation" (unpublished manuscript, University of Michigan, Ann Arbor, Mich., 2017).
- Victoria Purcell-Gates, Nell K. Duke, and Joseph A. Martineau, "Learning to Read and Write Genrespecific text: Roles of Authentic Experience and Explicit Teaching," *Reading Research Quarterly* 42, no. 1 (2007): 8–45.
- Lynn S. Liben and Roger M. Downs, "Understanding Person-Space-Map Relations: Cartographic and Developmental Perspectives," *Developmental Psychology* 29, no. 4 (1993): 739–752.
- Gale O. Ekiss, Barbara Trapido-Lurie, Judy Phillips, and Elizabeth Hinde, "The World in Spatial Terms: Mapmaking and Map Reading," *Social Studies and the Young Learner* 20, no. 2 (2007): 7–9 and Patrick Wiegand, *Learning and Teaching with Maps* (London: Routledge, 2006).
- Keith C. Barton and Linda S. Levstik, "Back When God Was Around and Everything': The Development of Children's Understanding of Historical Time," *American Educational Research Journal* 33, no. 2 (1996): 419–454.
- Keith C. Barton, "'Oh, That's a Tricky Piece!': Children, Mediated Action, and the Tools of Historical Time," *Elementary School Journal* 103, no. 2 (2002): 161–185.
- Michael M. McDevitt and Sprio Kiousis, "Experiments in Political Socialization: Kids Voting USA as a Model of Civic Education Reform," (working paper, College Park, Md.: The Center for Information and Research on Civic Learning and Engagement, 2006), www.civicyouth.org/PopUps/ WorkingPapers/WP49McDevitt.pdf.
- Isabel L. Beck and Margaret G. McKeown, "Increasing Young Low-Income Children's Oral Vocabulary Repertoires Through Rich and Focused Instruction," *The Elementary School Journal* 107, no. 3 (2007): 251–271.
- 9. Steve Graham, Debra McKeown, Sharlene Kiuhara, and Karen R. Harris, "A Meta-Analysis of Writing

- For example, see Elizabeth A. Davis and Joseph S. Krajcik, "Designing Educative Curriculum Materials to Promote Teacher Learning," *Educational Researcher* 34, no. 3 (2005): 3–14.
- Jere Brophy and Janet A. Alleman, "A Reconceptualized Rationale for Elementary Social Studies," *Theory and Research in Social Education* 34, no. 4 (2006): 428–454 and Anne-Lise Halvorsen, A *History of Elementary Social Studies: Romance* and Reality (New York, N.Y.: Peter Lang, 2013).
- Will Richardson, Why School?: How Education Must Change When Learning and Information Are Everywhere (New York, N.Y.: Ted Conferences, 2012), 528.

Note: This work was supported by grants from the Spencer Foundation and the George Lucas Educational Foundation.

ANNE-LISE HALVORSEN is an Associate Professor in the Department of Teacher Education at Michigan State University. Her work focuses on elementary social studies education, projectbased learning, the history of education, and the integration of social studies and literacy. She can be reached at annelise@msu.edu.

**NELL K. DUKE** is a Professor in Literacy, Language, and Culture and in the Combined Program in Education and Psychology at the University of Michigan. Duke's work focuses on early literacy development, particularly among children living in poverty. She can be contacted via Twitter: @ nellkduke.

**STEPHANIE L. STRACHAN** is an Assistant Professor of Language and Literacy at Western Washington University's Woodring College of Education. Her research explores the intersections of language and literacy with young children's content learning. She can be reached at steph.strachan@www.edu.

**CATHY M. JOHNSON** is Assistant Professor of Education at Indiana University Southeast. Her research focuses on elementary social studies, inquiry with visual images, project-based learning and teacher preparation for diverse settings. Her email is johnscat@ius.edu.