An excerpt from

Inside Information

Developing Powerful Readers and Writers of Informational Text Through Project-Based Instruction

by Nell K. Duke
Does Project-Based Instruction Work?

Research on project-based learning suggests positive impacts on academic achievement, attitudes, self-efficacy, engagement, and motivation (see reviews by Thomas, 2000 and at http://www.edutopia.org/pbl-research-learning-outcomes). Many studies have examined students’ learning and attitudes about learning after experiencing project-based units of instruction (e.g., Filippatou & Kaldi, 2010; Hertzog, 2007; Kaldi, Filippatou, & Govaris, 2011; Okolo & Ferretti, 1996; Rivet & Krajcik, 2004), finding that students developed knowledge, skills, and improved attitudes about learning. Some studies have compared the learning of students who were taught using a project-based approach to that of students who were taught using more traditional instruction. For example, Pedro Hernandez-Ramos and Susan De La Paz (2009) studied eighth graders’ learning about the Westward expansion and their attitudes related to that learning. One group of students experienced a project-based approach in which they created documentaries on the topic. The other group experienced more traditional forms of instruction. Pre-/post-assessments of content knowledge, attitudes, and engagement revealed that students experiencing the project-based approach had developed greater content knowledge and reported much higher engagement in learning history than students in the traditional instruction group. Students who experienced the project-based approach also demonstrated greater historical reasoning skills and learned more complex information related to the topic. (See also Parker et al., 2011, in civics and government and Boaler, 1998, in mathematics.)
Some teachers and administrators with whom I have talked have the idea that project-based learning is for older students or gifted students. Some in high-poverty districts have told me that this kind of teaching “just isn’t practical for our students.” The research so far does not support these positions. The studies cited in the previous paragraph include first graders through high school students, students with learning disabilities, and students in high-poverty school settings. In fact, in a study of a project-based approach to teaching social studies and content literacy to second graders, my colleagues and I were able to close the gap, statistically speaking, between students in high-poverty school districts—who experienced project-based units—and students in wealthy school districts—who did not—on standards-based measures of social studies and content literacy (Halvorsen et al., 2012). Although that study was small in scale, it is certainly promising with respect to the use of project-based approaches with young children in high-poverty settings. (We are currently conducting a related study on a much larger scale; I expect to post results about the project on my website: http://umich.edu/~nkduke/.)

Of course, like any approach, project-based instruction has its downsides. Preparing project-based units can take time and effort, though I offer many suggestions in this book to address that concern. Teachers and students need considerable support to engage effectively in this form of teaching and learning (Thomas, 2000). There is a danger, for example, of getting so wrapped up in completing a project that actual instruction, carefully aligned to standards and students’ needs, falls by the wayside. As with any approach, project-based instruction can be implemented well or implemented poorly. This book is designed to put you on the road to high-quality implementation of project-based instruction with informational text.

Where Does Project-Based Instruction Fit in the School Day and Year?

Project-based instruction is often interdisciplinary, and it often involves both reading and writing (as well as speaking and listening). So where does it fit in the school day? Science time? Social studies time? Reading time? Writing time? One option is to have a time of day (e.g., just after lunch) or a day of week (e.g., every Friday) specifically devoted to project-based instruction. This may allow you to sidestep, to some degree, labeling the project with a particular domain. Another option is to place it in the block that makes the most sense in terms of topic. For example, a bird guide for a local nature sanctuary might be created during science, whereas a letter to the editor about creating bike lanes might be created during social studies. Of course, to place project work in a particular content area slot, you need to make sure that it really foregrounds that discipline—otherwise the danger is that it is supplanting the important work you need to be doing in that content area.
Integrated Reading and Writing

You may be wondering what to make of the fact that project-based instruction involves reading and writing instruction within the same block of time. You may remember a time when reading, writing, and the content areas were often integrated, for example, under the auspices of thematic teaching, but today, this is the exception, not the rule in U.S. elementary classrooms. Typically, there is a time devoted to “Readers’ Workshop,” “Guided Reading,” or “Reading” and a separate time of the day devoted to “Writers’ Workshop” or “Writing.” And it’s not just that reading and writing are separated temporally, they are also separated conceptually. I often observe a Writers’ Workshop in the afternoon that bears no clear relationship to the reading students experienced in the morning. For example, in reading time, students might be reading one genre, and in writing time, they might be writing another. In reading, there might be a lesson about chunking words to decode them, but in writing time the strategy of chunking words to encode them is not presented.

What I find most vexing about the temporal and conceptual separation of reading and writing in elementary-school schedules is that I rarely meet anyone interested in defending it. I think we all know at some level that reading and writing are reciprocal processes and that instruction is likely to be most powerful when they are treated as such. Indeed, research reveals a variety of ways in which reading and writing are integrally related (Shanahan, 2006).

For example, a recent meta-analysis found that writing instruction actually improves reading (Graham & Hebert, 2011) and, not surprisingly, another found that more effective teachers have students writing more of the time (e.g., Pressley et al., 2001).

My read of the CCSS is that they lend themselves to integrating reading and writing. Consider, for example, this pair of standards from grade 1 (with emphasis added):

- **Reading, Standard 8:** Identify the reasons an author gives to support points in a text.

- **Writing, Standard 1:** Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure.

Or these pairs of standards from grade 5 (emphasis added):

- **Pair 1:**

  - **Reading, Standard 2:** Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.
  
  - **Writing, Standard 8:** Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.
Pair 2:

- **Reading, Standard 6**: Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.

- **Writing, Standard 7**: Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.

These close connections between reading and writing standards at the same grade level lend support to instructional approaches that integrate reading and writing—approaches such as project-based instruction.

So the fact that project-based instruction integrates reading and writing is a strength of the approach. Now, you may be required to, or just choose to, continue to devote separate parts of your day to reading and to writing, in which case your project-based time may be the one part of your day that does not have that separation. Or you may find that project-based instruction leads you to reorganize your day without separating reading and writing. Your decision should be based on the constraints and preferences of your teaching situation.

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Professional References Cited


Most teachers understand the importance of teaching children to read and write informational text. But how do they do it effectively—and in a way that is truly engaging? Nell K. Duke has the answer. With *Inside Information*, she shows how to build skills in reading and writing informational text through project-based instruction. Children read and write for real purposes and audiences on topics that matter to them.

Drawing from the latest research, Duke provides a blueprint for developing project-based units from start to finish—units that move children through a logical progression of phases: Project Launch, Reading and Research, Writing and Research, Revision and Editing, and Presentation and Celebration. Packed with standards-aligned, classroom-tested teaching ideas, this book will be an essential resource for years to come.