Project-Based Learning Overview

About the Project-Based Learning Series

Through project-based learning (PBL), students gain content knowledge and 21st century skills by addressing authentic, challenging questions and real-world problems. This series presents actual examples of students creating projects in schools that have successfully implemented project-based learning.

Pre-Viewing Discussion Prompt

When you hear the term "project-based learning," what ideas and experiences come to mind?
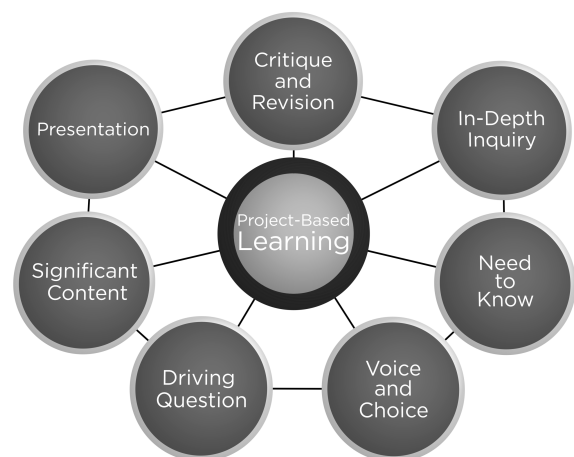
Project-Based Learning Essentials

- Projects focus on *Significant Content* aligned with performance standards and key curricular concepts.

- Students are given a *Driving Question* that is open ended and thought provoking.

- Students have an age-appropriate level of autonomy within *Voice and Choice* regarding the project/solution and its execution.

- Students recognize a *Need to Know* new information and related concepts in order to answer the Driving Question.

- They conduct *In-Depth Inquiry* to fulfill their Need to Know.

- Throughout the project, students participate in *Critique and Revision* through established processes of offering and receiving feedback.

- Project-based learning is concluded with a *Presentation* to peers, and to the extent possible, members of the community as well.

About this Segment

In this overview, administrators and teachers discuss the concept and implementation of project-based learning, the seven essentials of PBL, and the student work is highlighted.

Reflection Questions

1. In what ways did you see students use technology effectively?

2. What roadblocks might you encounter while implementing a project-based learning model, and how would you overcome those roadblocks?

3. In what ways might project-based learning enhance students' content knowledge in your subject area?

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Segment Resources

The Buck Institute for Education. BIE offers numerous resources to help educators effectively implement project-based learning into schools at all grade levels.
http://www.bie.org
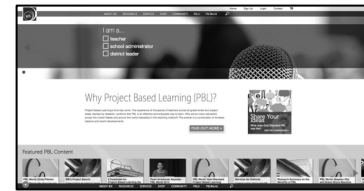
p⁵bl lab. The PBL Lab is a collection of lesson resources and strategies for practice from the Department of Civil and Environmental Engineering at Stanford University.
http://pbl.stanford.edu

Edutopia: Project-Based Learning Discussions. Edutopia's discussion board has insights and conversations by educators that range from "Five Keys to Rigorous Project-Based Learning" to "Reflecting on How to be Innovative with PBL."
http://www.edutopia.org/topic/65260/discussions
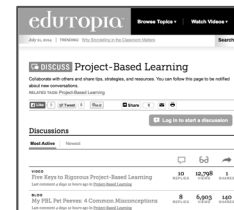
Resources from School Improvement Network

Project-based curriculum elements. *Equity and innovation: West Hawai'i Explorations Academy.* Edivation. https://pd360.com/#resources/videos/5327.

Experiential learning. *Equity and innovation: West Hawai'i Explorations Academy.* Edivation. https://pd360.com/#resources/videos/5328.

Relevant Academic Articles

Beddoes, Kacey D., Jesiek, B. K., & Borrego, M. (2010). Identifying opportunities for collaborations in international engineering education research on problem- and project-based learning. *The Interdisciplinary Journal of Problem-Based Learning* 4, no. 2. Retrieved July 21, 2014, from http://docs.lib.purdue.edu/ijpbl/vol4/iss2/3/

Lee, H.K. & Breitenberg, M. (2010). Education in the new millennium: The case for design-based learning. *International Journal of Art & Design Education* 29(1): 54-60.

Mackaway, J. A., et al. (2011). Practical and pedagogical aspects of learning through participation: The LTP assessment design framework. *Journal of University Teaching and Learning Practice* 8(3).