

Project-Based Learning: A Student-Centered Approach

Purpose

This document provides definitions, information, and suggestions for using essential elements of Project-Based Learning as a tool for K-12 proficiency-based instruction. Strategies for applying Project-Based Learning to support Proficiency-Based and Personalized Learning are described for students, teachers, and school and district leaders to consider when planning for any learning model. In addition, this support document discusses the ways in which Project-Based Learning is a [valuable approach to remote or hybrid learning](#).

Introduction to Project-Based Learning

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 authentic, engaging, and complex question, problem, or challenge” ([PBL Works](#)). Students begin with a driving question that addresses a complex problem or inquiry that has meaning for them, and then engage in an investigation that culminates in a product or presentation to an audience. While working toward that end, students develop a sense of purpose for their work, ownership over what and how they are learning, and an understanding of how this learning can influence their personalized learning goals.

According to [PBL Works](#), Project-Based Learning “unleashes a contagious, creative energy among students and teachers,” strengthening relationships and creating a life-long love of learning. Students gain academic skills and content knowledge while honing critical thinking, collaboration, creativity, communication, and other transferable skills. When done correctly, Project-Based Learning is an effective methodology to support Proficiency-Based and Personalized Learning as it allows students to engage in authentic learning opportunities that are meaningful and relevant to their lives and provide opportunities to present evidence of their learning in creative ways.

Sustained Inquiry

Inquiry is the process by which students gain knowledge, understanding, and skills while determining approaches for applying what they learn to a real-world challenge. Sustained inquiry includes the steps students take in response to the driving question, and upon which they ask themselves “What do we know?” and “What do we need to know?” (Larmer, Mergendoller, & Boss 2015). With teacher guidance and encouragement, students determine and follow their own path to learning through research and inquiry, and through creative thinking and innovation develop an authentic response to a real-world problem.

Contact Information:

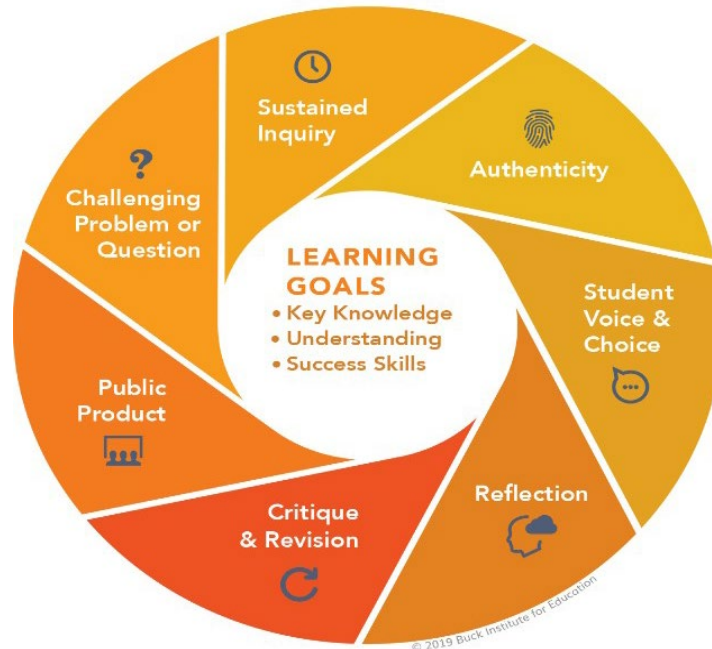
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Essential Elements and Connections with Proficiency-Based and Personalized Learning

The seven essential elements of [Gold Standard PBL](#) can be outlined and integrated into Project-Based Learning to ensure rigor, student ownership, and authenticity. These elements can be used to guide teachers through planning units that support engagement, understanding, and proficiency in any academic domain, and ultimately support student-centered learning in any learning environment.



Intersections with Personalized Learning

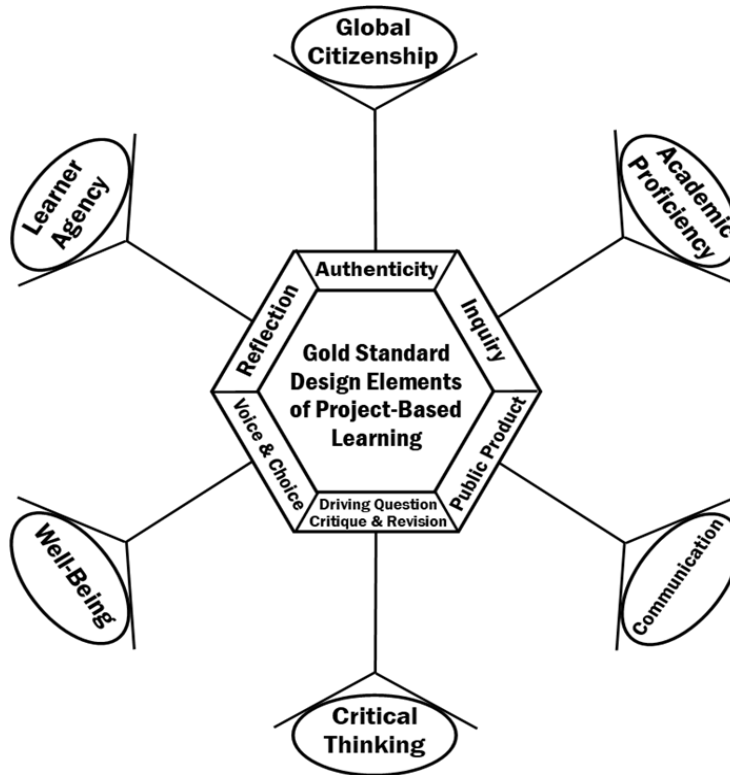
In Project-Based Learning, students seek out answers to a driving question or challenge, placing them on a self-directed path of inquiry as they discover and apply key knowledge and skills to the development of a public product. With learning targets as a guide and teachers as facilitators, students can choose how they pace and demonstrate their learning throughout the choice- and inquiry-based process (i.e., students choose how they become proficient and demonstrate proficiency in an academic domain), rather than answering questions on a test. As such, Project-Based Learning is grounded in the [five attributes of a personalized learning environment](#) (i.e., personal relationships, flexibility, learner profiles, proficiency-based progression, and student agency).

A Focus on Proficiency

In Project-Based Learning, students must ideate, inquire, develop, refine, produce, present, explain, justify, and defend their response to an academic challenge, culminating in a product that can be used for the betterment of the community or an initiative. Through these processes, students engage in multiple assessments and have myriad opportunities to improve skills and knowledge to demonstrate proficiency. There is no single measure to assess the key knowledge and skills necessary to create a solution to an open-ended academic challenge. Therefore, a single overall score on a personalized and sustained process like Project-Based Learning would demonstrate multiple proficiencies across academic domains. Students and teachers must evaluate

their performance on these enduring tasks using rubrics with criteria defined by proficiency scales. This could include the extent to which understanding is demonstrated through application of the knowledge or the student’s ability to communicate their understanding of the knowledge and findings via a product and/or presentation.

Painting a Portrait of a Graduate with Gold Standard PBL



In addition to its pivot-ready nature, Project-Based Learning can serve as a pedagogical tool to support the development of [transferrable skills](#), student-directed learning, and a [Vermont Portrait of a Graduate](#). With the [Gold Standard design elements](#) in place, the approach can guide students through developing skills for each attribute of the Portrait. Gold Standard projects are anchored in authenticity as they focus on real-world contexts or students’ own concerns with social and global issues, thus supporting their role as global citizens.

As students engage in sustained inquiry, they expand upon their academic proficiency, gaining essential knowledge and a personal understanding of how to apply it. Students regularly reflect on their work and learning process throughout phases of Project-Based Learning; they identify and develop quality standards for and ownership of their learning as they grow their sense of learner agency. Adding to their sense of self, place, purpose, and overall well-being, students explore and share learning through their own lens and preferences with elements of voice and choice.

Each element is addressed in pursuit of a student-developed solution to a driving question; a student’s primary role in a Project-Based Learning unit is as a critical thinker, problem solver, and innovator. These are characteristics that are fostered in the critique and revision phase and product development. As students prepare to present, explain, and defend their public product to a wide audience, they explore and develop their strengths as a real-world communicator.

Gold Standard elements of Project-Based Learning can offer a holistic learning experience and guide students to becoming lifelong learners.

Flexible and Cross-Disciplinary

Because of its flexible and cross-disciplinary nature, Project-Based Learning is effective in supporting student-centered learning across all learning models and allows teachers to pivot from one learning model to another without losing momentum ([Larmer, 2020](#)). Project-Based Learning can be implemented both synchronously and asynchronously, and students can take control of their learning and approach academic objectives through an authentic and enduring process in both in-person and remote learning contexts. Students can approach learning through their own lens, increasing student interest and agency in learning across diverse student populations (Hixson, Ravitz, & Whisman, 2012). This ownership supports intrinsic motivation and engagement, which has shown to be effective in beginning to close the opportunity gap (Boaler, 2002; Penuel & Means, 2000; Robinson & Aronica, 2018). Developing in students a sense of purpose for and ownership of what and how they learn is even more crucial in remote environments in which students may feel isolated or disconnected from their education.

Through Project-Based Learning, students engage in authentic and culturally responsive learning opportunities that are meaningful and relevant to their lives and provide opportunities to present evidence of their learning in creative ways, regardless of the learning model. With teacher guidance and encouragement, students determine and follow their own path to learning through research and inquiry and, with creative thinking and innovation, develop an authentic response to a real-world problem.

References

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