

# Assessing Project-Based Learning: An Integral Part of Local Comprehensive Assessment Systems

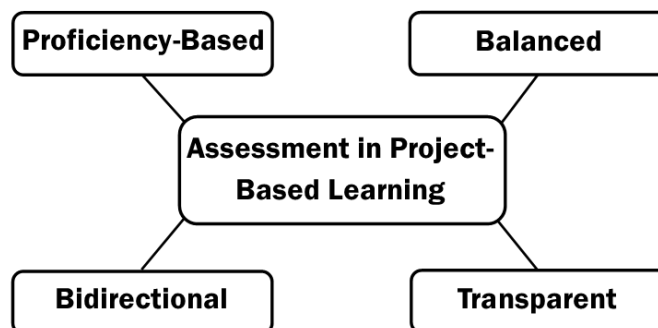
## Purpose

This document outlines strategies for implementing and assessing Project-Based Learning in any learning environment or instructional model. Below are considerations for assessing Project-Based Learning, virtual tools and platforms for formative and summative assessments during key phases of Project-Based Learning, and suggested strategies for managing Project-Based Learning, including in remote and hybrid learning environments.

## Considerations for Assessing Project-Based Learning

Comprehensive assessment is essential in Project-Based Learning. It should be aligned with a personalized or student-centered approach to learning that is proficiency-based, balanced, bidirectional (or cocreated), and transparent. Units should include a series of formative assessments with a culminating summative assessment (e.g., the public product), all of which should be performance-based when possible. In Project-Based Learning, formative assessments can be offered in conjunction with different project milestones, allowing teachers and students to observe and reflect on a documented inquiry path. Formative assessments inform teachers and students of the avenues that need to be taken to be successful in the unit. The summative assessment is the public product. Though the actual product will vary based on how teams and individuals respond to the driving question, the learning goals and performance indicators should be consistent. Presenting or displaying the public product is an opportunity for students to show what they learned and why it matters for their target audience and stakeholders.

## A Student-Centered Approach to Assessment



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## **Proficiency-Based**

- Focuses on growth
- Assesses specific skills
- Remains appropriate for the grade level
- Offers multiple opportunities to demonstrate learning in a variety of ways

## **Transparent**

- Communicates criteria clearly from the onset of the unit
- Explains the purpose of each criterion and why it matters for student success
- Uses goal-oriented language
- Reflects relevance to students' lives

## **Balanced**

- Includes a variety of assessment tools
- Integrates assessments that are used to inform inquiry and instruction
- Supports student understanding of their metacognitive process
- Ensures individual and collaborative assessment remains balanced and fair by defining ahead of time which components will be assessed individually and which will be assessed collaboratively

## **Bidirectional or Cocreated**

- Includes student learning goals and criteria for success that are cocreated
- Incorporates student-friendly language to rubrics
- Supports in-depth understanding of the process, product, and overarching learning goals of the project
- Facilitates student ownership of their work and their assessment

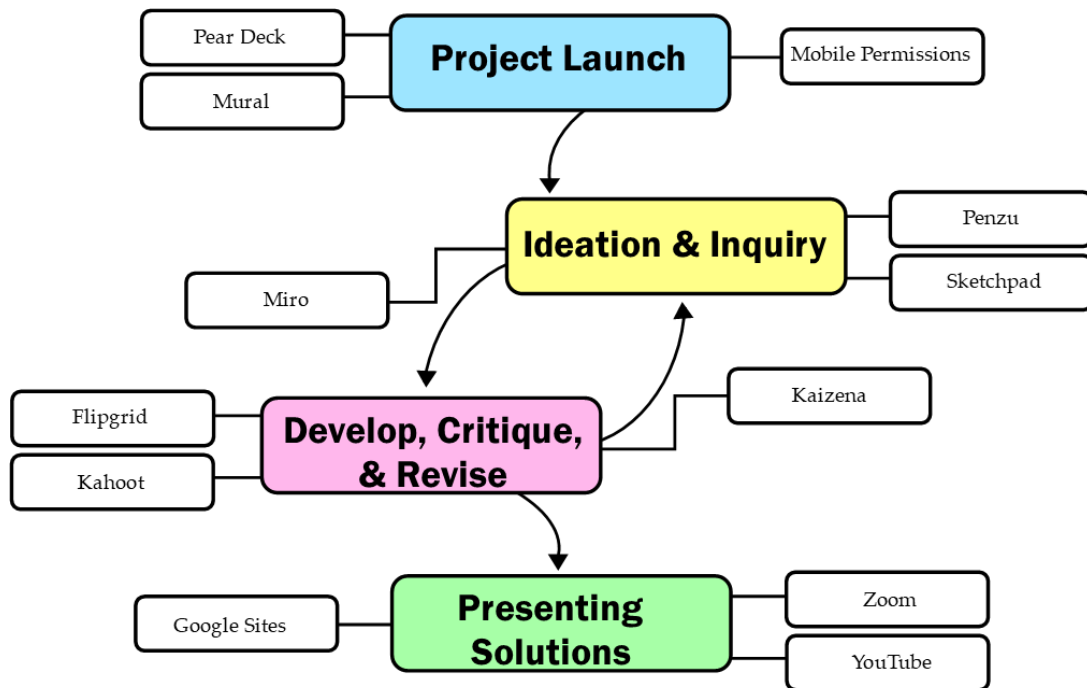
These four assessment components of Project-Based Learning provide students with the opportunity to understand and take ownership of assessment and their learning. Students can offer input on criteria and rubric design by responding to the question “If I were to do this really well, what does it look like?” (Boss & Larmer, 2018). These components support a holistic understanding of assessment in school and how it can be used to foster qualities of a lifelong learner.

## **Assessment Tools for Key Phases of Project-Based Learning**

Key phases of Project-Based Learning include a project launch, ideation and inquiry, critique and revision, and presentation of products. Definitions and descriptions of these phases can be found in the AOE's [Essential Components for Implementing Project-Based Learning](#).

This section outlines and describes virtual tools and strategies for formative assessments throughout major phases of Project-Based Learning. Additionally, considerations and recommendations are described for virtual delivery of the public product (i.e., the summative

assessment). These tools, among many others, can be used to document and reflect on the process, allowing students to refine and pursue their inquiry path.



### Phase I: Project Launch

The project launch includes the entry event and introduction to the driving question. As the Project-Based Learning process is initiated, teachers and students will begin to consider how to respond to the driving question using knowledge that they already have. The purpose of formative assessment in this phase is to support students in identifying their current knowledge of the problem and topic. For example, students could explore the question “How can we display artwork in a virtual setting?” In remote learning, the entry event can include one of the self- or teacher-guided virtual field trips on [MobilePermissions](#) or a virtual visit from a local art curator who discusses problems and solutions to art displays during the pandemic. Teachers and students can formatively assess their understanding of this problem through analysis activities using [Pear Deck](#) or another interactive presentation tool (e.g., [Mural](#) or [Jamboard](#)) to identify their current knowledge and begin to determine pathways to gain new knowledge.

### Phases II and III: Inquiry and Critique/Revision

The rhythm of Project-Based Learning takes place throughout inquiry and critique phases. Formative assessment tools for these phases will vary depending on the unit and students’ response to the driving question. The goal, however, is to guide students through their inquiry path using formative assessments, offering clear documentation of the learning process and opportunity for feedback and reflection. There are tools that can be used to document ideation and inquiry through virtual mind mapping (e.g., [Miro](#)), journaling (e.g., [Penzu](#)), or sketching (e.g., [Sketchpad](#)). These platforms can help teams of students, teachers,

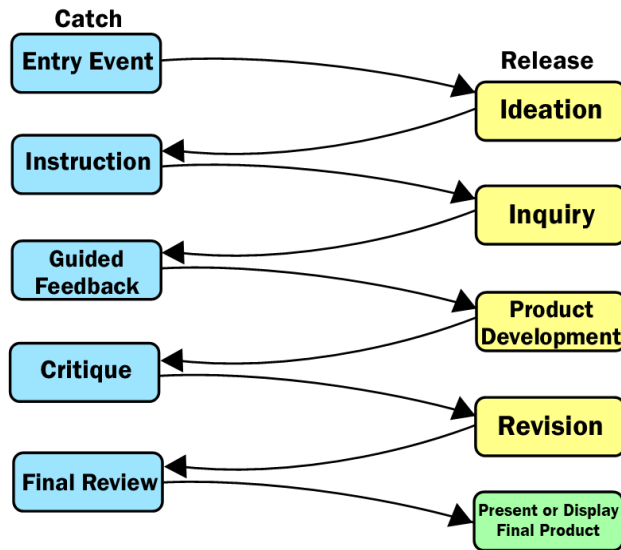
and other stakeholders check for understanding and progress throughout the inquiry phase of Project-Based Learning. For students in middle and high school, the Personalized Learning Plan (PLP) is another tool to capture and monitor progress during phases II and III. Even in a virtual setting, peer and self-critique should take place to ensure students continue to refine their authentic work. [Flipgrid](#), [Kaizena](#), and [Kahoot](#) can help support critique and revision phases in a virtual environment.

#### **Phase IV: Public Products**

Students' responses to the driving question should include a public product. This is the culminating product or task and serves as the summative assessment for the unit. This is the opportunity for students to show what they learned, how they learned it, why it matters, and where it fits beyond the classroom. Rubrics (see the [PBL Works resource page](#)) for presentation, transferrable skills, and content standards should be used for this final phase and it may require several assessors, including peers and experts from the fields. Therefore, the public product can take many forms and the media or platforms that students use to develop it can vary. If a product is being created in a virtual setting, students might consider presenting their solution or findings with a [Google Sites](#), a [StopMotion Studios](#) video, or through a presentation on [Zoom](#). Students can also consider their product be more of an action (i.e., performance-based) rather than a visualized or tangible product (e.g., a social media campaign or radio broadcast).

#### **Finding the Rhythm of Project-Based Learning in Virtual Settings**

Learning in both in-person and virtual environments can take place synchronously and asynchronously. Project-Based Learning inherently contains elements of both forms of learning (Larmer, Mergendoller, & Boss, 2015), making it a strong approach to instruction in any environment, including remote and hybrid environments ([Larmer, 2020](#)). The key phases of Project-Based Learning can be broken into smaller components to allow teachers and students to manage the teacher-guided and student-directed elements of Project-Based Learning. Below are suggestions for structuring the key phases using a "Catch and Release" approach. The purpose of this approach is to allow teachers and students to maximize their time when learning remotely. Student engagement in sustained real-time virtual instruction is a challenge. Opportunities for students to explore content and ideas through their own lens can support engagement and investment in learning. This kind of structure can lead to authentic and sustained learning while giving students opportunities to intentionally explore their strengths and interests in a self-directed way.



The “catch” activities are teacher-guided or facilitated in real-time. These can be done synchronously and focus on introducing or directly instructing new content knowledge and skills. It can also include formative assessments, critiques, and progress monitoring. The “release” activities are student-directed and can be done independently or in students’ collaborative teams. These can be asynchronous, and focus on application of knowledge and skills, sustained inquiry, and product development. In the tables below, the “catch” activities are found in the left-hand column, while the “release” activities are found in the right-hand column.

Entry Event	Ideation
<p><b>Key Questions:</b> What is the topic? What is the problem?</p> <p><b>Possible Activities:</b> Virtual fieldtrip, virtual visit from an expert.</p>	<p><b>Key Questions:</b> What do we know? What do we need to know?</p> <p><b>Possible Activities:</b> Explore content, brainstorm with Miro.</p>

Instruction	Inquiry
<p><b>Key Questions:</b> How can content knowledge and skills help us solve this problem?</p> <p><b>Possible Activities:</b> Student-centered instruction using content-specific tools (e.g., <a href="#">Smithsonian Learning Lab</a>).</p>	<p><b>Key Questions:</b> Where can we find student-developed solutions to this problem? How can we virtually document our findings?</p> <p><b>Possible Activities:</b> Virtually interview stakeholders, collect and log data, sketch.</p>

Guided Feedback	Product Development
<p><b>Key Questions:</b> What does the target audience need to take away from this work? What tools are available to help develop a product?</p> <p><b>Possible Activities:</b> Use Flipgrid to analyze virtual products that address a similar topic, model tech tools that can be used for production.</p>	<p><b>Key Questions:</b> What visuals or actions can help communicate our concepts?</p> <p><b>Possible Activities:</b> Student exploration of tools and development of product.</p>

Critique	Revision
<p><b>Key Questions:</b> What makes the product strong? How is the message being communicated? How can the product be improved?</p> <p><b>Possible Activities:</b> Use Kaizena or Flipgrid to analyze and critique in-progress work to offer peer feedback.</p>	<p><b>Key Questions:</b> What were the key takeaways from the critique? What steps should we take to complete the product?</p> <p><b>Possible Activities:</b> Students refine, develop, and finalize their product.</p>

Final Review	Present or Display Final Product
<p><b>Key Questions:</b> How is the work being displayed or presented? How can we prepare to display or present this piece?</p> <p><b>Possible Activities:</b> Use various presentation platforms to rehearse public speaking, post digital product, prepare for possible questions from the audience, and outline presentation talking points.</p>	<p><b>Key Questions:</b> How can this work last beyond this unit? What happens next? How does this work impact student learning goals?</p> <p><b>Possible Activities:</b> Students present, explain, justify, and defend their solution to a wide audience. Students should consider how their learning can be released into the world. Why is their solution important? How can their product or idea engender change? Where can they take their learning next?</p>

## Conclusion

Project-Based Learning offers teachers and students opportunities to pivot their learning experiences to in-person or virtual settings. Importantly, opportunities to document and assess learning in any learning environment or instructional model, including remote and hybrid, are integrated throughout phases and design elements of Project-Based Learning. Data collected from Project-Based Learning can be used to guide teachers and students in understanding strategies and approaches that support effective virtual instruction, authentic learning in any

context or flexible pathway, and the development and attainment of personalized learning goals.

## References

Boss, S. & Larmer, J. (2018). *Project-Based Teaching: How to Create Rigorous and Engaging Learning Experiences*. Alexandria, VA: ASCD.

Larmer, J. (2020). Project-Based Learning Can Make Remote Learning More Meaningful. *Green Schools National Network*. Retrieved from [Green Schools National Network](#).

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