

Intel® Teach Elements

Project-Based Approaches

Syllabus

Course Description

Using specific classroom scenarios, teachers explore characteristics and benefits of Project-Based Learning (PBL). Throughout the course, teachers consider their own teaching practice as they follow a teacher new to project-based learning who discusses strategies with a mentor teacher. They also consider the ways that technology supports project-based approaches. Planning and project design modules guide teachers through organizing the curriculum, the classroom, technology, and students for successful 21st century projects. The assessment module demonstrates strategies for assessing students' 21st century skills throughout an open-ended project. The course offers opportunities to apply the PBL concepts with action planning exercises.

Module 1: Projects Overview

In this module, participants explore the principles of project-based learning. They learn about the differences between a project-based approach and conventional teaching, and review the research-based benefits of project-based learning. As they view examples of different projects and hear from teachers doing projects, they come to understand the characteristics that projects have in common.

Outcomes:

- Recognize what makes a project approach unique
- Understand the benefits of projects
- Identify characteristics of projects

Lesson 1: Project Basics

Lesson 2: Project Benefits

Lesson 3: Project Characteristics

Lesson 4: Module Review

Module 2: Project Design

In this module, participants begin thinking about designing their own projects. They are introduced to the four major steps of project design and apply these steps to consider their own learning goals, Curriculum-Framing Questions, assessment, and student activities. Participants follow one teacher's process as he begins to plan his project.

Outcomes:

- Understand the steps of project design
- Identify standards, 21st century skills, and learning objectives for a project plan
- Learn the purposes and components of Curriculum-Framing Questions

Lesson 1: Project Planning

Lesson 2: Learning Goals

Lesson 3: Questions That Frame Learning

Lesson 4: Assessment in Projects

Lesson 5: Activity Design

Lesson 6: Module Review

Module 3: Assessment

Assessment is integral to a project-based approach. In this module, participants learn how to integrate assessment throughout a project. They see examples of assessment instruments and develop or adapt them for their own use. They learn how to assess 21st century process skills—such as collaboration, self-direction, and reflection—using teacher, peer, and self-assessment methods. They also identify the challenges and possible solutions for assigning grades during projects.

Outcomes:

- Understand the different purposes, methods, and instruments for assessing projects
- Create an assessment timeline to plan ongoing assessment throughout projects
- Explore ways to assess 21st century skills
- Review methods to grade project work

Lesson 1: Assessment Strategies for Projects

Lesson 2: Assessment of 21st Century Skills

Lesson 3: Assessment Planning

Lesson 4: Grading Projects

Lesson 5: Module Review

Module 4: Project Planning

Planning the day-to-day work of a project is just as important as planning the big picture. In this module, participants learn how to plan project details to keep a project organized, using project timelines and implementation plans. They consider management strategies to support their students' self-direction and success and ensure their projects run smoothly. Teachers also discuss ways to keep students on task during projects and strategies for project time management.

Outcomes:

- Develop a project timeline to plan for a successful project
- Review strategies for managing projects
- Plan the details of a project using an implementation plan

Lesson 1: Project Organization

Lesson 2: Management Strategies

Lesson 3: Project Tasks and Activities

Lesson 4: Module Review

Module 5: Guiding Learning

In this module, participants focus on improving instruction throughout projects. They explore questioning strategies to improve student learning and ways to develop students' collaboration, self-direction, information literacy, and reflection skills. Sample lessons are demonstrated as models for participants as they create mini-lessons for their own projects. Participants also observe student dialogues as students develop 21st century skills through discussions and practice.

Outcomes:

- Learn questioning strategies to enhance student learning
- Integrate instruction on collaboration, self-direction, information literacy, and reflection throughout a project

Lesson 1: Questioning in Classrooms

Lesson 2: Collaboration and Self-Direction

Lesson 3: Information Literacy

Lesson 4: Student Reflection

Lesson 5: Module Review

Course Length

Total hours to complete the course depend on how the course is taken (self-paced or facilitated), the number of optional activities completed, and the delivery method (face-to-face or online.)

1. E-learning: 4-5 hours of individual work learning concepts of project-based learning in interactive tutorials and exercises
2. Action Planning: 8-12 hours of individual work, applying project-based approaches to one's own classroom
3. Facilitated Discussions: 5-8 hours of sharing ideas with other teachers and giving feedback on action plans (Note: Facilitated versions of the course will be available November 2009)