



Professional Development Institute

Flex Course Syllabus

Creating a Dynamic Classroom through Project-Based Learning (K-5)

PDI Course Number: 116T02

UCSD Course Number: EDUC40298

If you would like information about receiving post-baccalaureate (graduate) credit for completing this course, [please click here](#).

Course Timeline

Participants have one year to complete the course. Participants must spend a minimum of three weeks in this course.

Course Description

Does the phrase *project-based learning* seem entirely foreign to you? Perhaps you've heard about it but it seems much too complicated to incorporate into your current teaching practices? The good news is that it doesn't need to be. Also known as PBL, project-based learning is a great way to engage students so that they are challenged to use their higher-order 21st century skills as they collaborate to learn content in a fun and exciting way. This online course is designed for K-5 teachers who are looking to explore how PBL can fit into their current curriculums. In doing so, students become immersed in the guided inquiry process. As they work through a variety of projects, they become critical and creative thinkers and communicators who are able to work collaboratively while embracing what has become known as Gold Standard PBL. This course begins by discussing the role that PBL plays in 21st century learning. As teachers progress through the course, they will take a deep dive into each of PBL's essential components. Teachers will learn how to effectively implement each of the components throughout several content areas, including reading, math, science, engineering, and social studies. Teachers will learn strategies for establishing a PBL mindset in their classrooms and they will learn how to "marry" some "out of the box" strategies within the PBL framework. By the end of this course, teachers

will feel more confident and successful in their quest to implement project-based learning into their own teaching practices.

Educational Outcomes

1. Teachers will learn how project-based learning (PBL) factors into 21st century learning.
2. Teachers will understand what PBL is, including some of its most common misconceptions.
3. Teachers will understand the difference between project-based learning and problem-based learning.
4. Teachers will learn about the various components of Gold Standard PBL.
5. Teachers will learn strategies for crafting their own Driving Questions for the PBL projects.
6. Teachers will learn some general active learning strategies that can be applied to the PBL framework.
7. Teachers will learn specific strategies for establishing a culture of inquiry and creativity within their PBL classrooms.
8. Teachers will learn best practices for properly structuring their PBL classroom.
9. Teachers will learn how to establish positive classroom norms which are conducive to a positive PBL classroom climate.
10. Teachers will learn specific strategies in order to build a positive PBL classroom climate.
11. Teachers will understand the principles of inquiry-based instruction and how guided inquiry relates to the PBL process.
12. Teachers will learn how to ask different types of questions in order to elicit more engaged responses from students.
13. Teachers will learn how to create a PBL project from the ground up.
14. Teachers will learn how to fit PBL into an elementary literacy program, either fully, partially, or separately.
15. Teachers will learn and understand the various steps involved in the PBL process.
16. Teachers will learn how to adapt their instruction for PBL by designing their lessons using a backwards approach.
17. Teachers will learn how to establish a PBL mindset in their reading classrooms, and they will be given specific resources and activities to use to help students become more logical and deductive thinkers.
18. Teachers will learn how PBL stimulates students' close reading skills, an important 21st century skill.
19. Teachers will learn specific strategies for stimulating students' 21st century reading skills.
20. Teachers will learn how to use "out of the box" tools and strategies such as pen pals and simulations in conjunction with their PBL projects.
21. Teachers will learn about the nine habits of numeracy and how they fit into the overall PBL framework.
22. Teachers will learn the steps involved in the problem-solving process and will understand how to apply them within mathematical project-based learning.
23. Teachers will learn specific strategies and activities for implementing PBL within mathematics.

24. Teachers will learn specific strategies and activities for implementing the engineering design process so that students begin to think like “real” scientists and engineers.
25. Teachers will understand the specific principles needed for an effective STEM/PBL lesson, and they will be introduced to several resources and strategies to help them implement PBL lessons within the STEM framework.
26. Teachers will learn about the different approaches to PBL, including how Genius Hour can be used in conjunction with PBL in order to stimulate students’ STEM skills.
27. Teachers will learn how to successfully implement the PBL process into their STEM classrooms.
28. Teachers will learn about growth mindset and will understand its importance to project-based learning.
29. Teachers will understand how to combine instructional simulations with project-based teaching within the context of social studies.
30. Teachers will learn how to incorporate various forms of technology into their PBL projects, including such things as podcasts, virtual field trips, and scavenger hunts.
31. Teachers will learn specific strategies and be introduced to several examples of how to incorporate PBL into their social studies classroom.

Instructional Media

- Online Discussions
- Online Engagement
- Online Collaboration
- Instructor Feedback
- Instructor Interaction
- Online Resources and Websites
- Supplemental Instructional Materials
- Printable Classroom Resources

Evaluation

- Test #1 (5% of final grade)
- Test #2 (5% of final grade)
- Test #3 (5% of final grade)
- Test #4 (5% of final grade)
- Test #5 (5% of final grade)
- Autobiography and Goals for the Course (10% of final grade)
- Article/Video Reflection (15% of final grade)
- Course Collaboration/Share Ideas with the Class (10% of final grade)
- Cumulative Assignment/Project: Design Four PBL Projects (20% of final grade)
- Culminating Practicum (20% of final grade)

Topical Outline

Unit One

- The Role of PBL in 21st Century Learning
- Setting the Stage for Project-Based Learning
- Breaking Down Project-Based Learning
- **Assignment #1**
Write an autobiography including information about yourself, your grade level and what you specifically hope to learn about incorporating project-based learning into your teaching practices. Your autobiography should be a minimum of three paragraphs.
- **Test #1**

Unit Two

- Establishing a Culture of Inquiry and Creativity
- The Basics of Guided Inquiry
- How to Create a PBL Project from the Ground Up
- **Assignment #2**
As an educator, it is important to be aware of the research, studies, and professional work done in the field. In the course, you will find an article and video that are relevant to the specific course content. Read the article and then write an essay with your thoughts.
- **Test #2**

Unit Three

- Establishing a PBL Mindset in the Reading Classroom
- Stimulating 21st Century Skills
- The Power of Pen Pals as a PBL Project
- **Assignment #3**
Online Discussion Board Participation/Engagement: Please post a tip, strategy, or idea that specifically relates to effectively incorporating project-based learning into the classroom. The tip, strategy, or idea that you share needs to make a difference to other teachers in their own classrooms. Your assignment should be a minimum of three paragraphs and detailed enough for another teacher to follow easily. This is a great opportunity to share and collaborate with other teachers at your grade level around the country. Take time to review and respond to other postings that are relevant to your classroom population in order to gain effective ideas to use immediately in your classroom
- **Test #3**

Unit Four

- Reasoning Mathematically

- The Art of Solving Problems
- Project-Based Learning in the Math Classroom
- **Test #4**

Unit Five

- Thinking Like a Scientist or Engineer
- Integrating STEM into Project-Based Learning
- Project-Based Learning in Science and Engineering
- **Test #5**

Unit Six

- Making Projects Authentic through Simulations
- Incorporating Technology into Social Studies Projects
- Project-Based Learning in the Social Studies Classroom
- **Assignment #4**

Choose a typical problem or activity and turn it into a PBL project instead. You will do this for four different topics which are separate and distinct from one another. When you are finished, you will have created four separate PBL projects. Each of the PBL projects should be appropriate to your grade level and should follow the principles of Gold Standard PBL. All the activities contained within the projects should be inquiry-based and include hands-on, experimental learning which is (for the most part) student-led. Be sure to include the grade level(s) and content area to which each project best applies. Follow the instructions and example given in Assignment 4.

- **Assignment #5**

The culminating practicum is a three-step process. (1) In the first assignment, you were asked what goals you had and what you hoped to learn from the course. Think back to your original goals for this course. Write a minimum two-paragraph reflection specifically describing how what you learned can be used to help you reach those goal(s). (2) Next, write a minimum three-paragraph plan that specifically describes the ways in which you intend to implement a particular strategy you learned in this course into your own teaching situation. (3) Last, write a minimum two-paragraph reflection describing a student you have or have had in the past. Then, discuss how the strategies you learned in this course will specifically benefit that student as you put your plan into action.

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