

Course Information:

Title: Instructional Strategies That Promote Lifelong Learning: PBL
(Problem Based Learning)

1 credit - online

Audience: Teachers K-16

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Course Description: Many factors and experiences influence the acquisition of skills and strategies that contribute to an individual's engagement as a life-long learner. Carefully crafted school experiences can be purposefully presented with the underlying intention of developing an excitement for learning. This course will introduce and explore a non-traditional approach designed to motivate students to take ownership of their learning -- problem-based learning (PBL).

Course Objectives:

1. To better understand the components of problem based learning (PBL)
2. To be able to differentiate between problem and project based learning
3. To examine the relationship between PBL and student motivation
4. To develop strategies for integrating PBL into teacher instructional practice
5. To investigate appropriate assessment strategies during PBL
6. To understand how to develop collegial support systems
7. To engage in collaborative learning through wikis, projects and Blackboard's discussion board

Course Expectations: Participants are responsible for completing all assignments and meeting all due dates. A participant must notify the instructor **before** the due date if there is an unexpected need for an extension or an adjustment to an assignment.

Deadlines: Each module includes the due date for individual assignments. Most assignments are due by Saturday (midnight) of each week. The fourth module assignments and the final project are due no later than the last day of class.

Course Content/Outline:

Module I Defining Problem Based Learning (PBL)

In Module I participants will examine specific components that create a student centered classroom. Participants will explore how PBL (problem-based learning) artfully integrates real life problems, choice, collaboration, and effective communication to build independence and critical thinking skills in students. They will also compare PBL to project based learning and examine the role of inquiry in the process.

Module II Assessing Problem Based Learning (PBL)

In Module II participants will deepen their understanding of PBL's power to promote independence and how to provide students with strategies to be successful problem solvers through critical and creative thinking practices. The effective use of self and peer assessment will further encourage student ownership of the learning. Participants will also learn how to provide appropriate interventions that accommodate individual strengths and weaknesses. Participants will be put into wiki groups to discuss and create appropriate presentations for their course peers. (See Wiki Project)

Module III Examining Successful Integration of PBL in the classroom

In Module III, participants will consider issues that deter teachers from using PBL successfully and discuss ways around potential problems. Additionally, they will work in their wiki groups to create a problem rubric. (See Rubric Development)

Module IV

In Module IV participants will consider how to develop a collegial culture with their school to support the idea and implementation of problem based learning (PBL). They will brainstorm effective ways to engage all stakeholders (teachers, administrators, students and parents) and how to find strategies that support individual ownership of the processes of PBL.

Course Materials:

Websites -

- <http://www.homeedsa.com/Articles/Self%20Directed%20Learning.asp>
- <http://www.selfdirectedlearning.com/article3.html>
- http://www.sideroad.com/Setting_and_Achieving_Goals/lifelong-learning.html
- <http://www.cat.ilstu.edu/resources/teachTopics/active.php>
- <http://teachingtoday.glencoe.com/howtoarticles/creating-learner-centered-middle-school-classrooms>
- http://edutechwiki.unige.ch/en/Problem-based_learning
- <http://online.sfsu.edu/~rpusser/revised/pages/problem.htm>
- <http://eduscapes.com/tap/topic43.htm>
- <http://pbln.imsa.edu/>
- http://projects.coe.uga.edu/epltt/index.php?title=Problem_Based_Learning
- <http://docs.lib.purdue.edu/ijpbl/>
- http://ed.fnal.gov/trc_new/tutorial/
- http://www4.nau.edu/eeop/aqcp/pbl_resources.asp
- http://www.pbli.org/pbl/generic_pbl.htm

Reports and Articles -

"Getting to the Heart of Problem Based Learning" Summary Report: Illinois Mathematics and Science Academy - PBL Symposium 2003

"Problem-Based Learning As Classroom Solution" by Joan M. Savoie and Andrew S. Hughes: Educational Leadership; November 1994; pp. 54-57

"What Doctors Can Teach Teachers About Problem-based Learning" by David N. Aspy, Cheryl B. Aspy and Patricia M. Quinby: Educational Leadership; April 1993; pp. 22-24

Videos -

Problem based learning -- <http://www.youtube.com/watch?v=622QSyiPUPA>

Problem based learning -- <http://www.youtube.com/watch?v=De74bOxXLw>

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Course Requirements:

I. Discussion Board Participation: The instructor will assign online readings and will post specific questions about the readings. Participants will answer the questions directly on Blackboard and will respond to at least one other student's posting. (A rubric will be provided.)

II. Reflective Journals: For some assignments participants will submit to the instructor (via email) journal entries on how the implementation of the strategies and research presented can work in their classroom. The journal entry will include references to the information presented in the readings and personal reflections on what the participant is learning in the course and how it will impact student learning. (A rubric will be provided.)

III. Group Wiki Project: Teachers will be assigned to a wiki group by the course instructor. The task of the group will be to—

- research available problem based activities
- share and discuss ideas for potential problems for their grade level/content area
- Develop a list of concepts that are part of each problem
- Select a final list of appropriate problems and their concepts
- Create a PowerPoint presentation to be shared online on the discussion board

IV. Rubric Development: During Module III teachers will choose one problem from their wiki group. As a group they will discuss and create a possible rubric to be used with students during the chosen problem unit.

V. Final Project: Action Plan --

Each participant will write up a problem situation they could use at their grade/content level. The write up will include:

- a description of the problem,
- the possible concepts addressed in the problem,
- how students will be organized to work on the problem,
- the strategies they will use for collecting formative data during the process,
- a possible rubric for the final solution presented by each group, and

- a list of possible intervention strategies that could be used for students/groups needing support.

Participants will submit a copy of the plan to the professor via email during the last week of the course.

Grading Criteria:

Discussion Board	25%
Journal Reflections	25%
Group Projects (online collaboration)	25%
Final Project	25%

Accommodation Statement for Special Needs Students:

“Framingham State University offers equal opportunities to all qualified students, including those with disabilities and impairments. The University is committed to making reasonable accommodations as are necessary to ensure that its programs and activities do not discriminate, or have the effect of discriminating, on the basis of disability. Academic Support serves students with learning and psychiatric disabilities as well as students with visual, mobility and hearing impairments. For further information about this, please visit the website at <http://www.framingham.edu/center-for-academic-support-and-advising/disability-services/index.html> or contact Ms. LaDonna Bridges, Director of Academic Support/Disability Services, in the Center for Academic Support and Advising (CASA) at 508-626-4906 or lbridges@framingham.edu.”