Problem-Based Learning
by floating facilitation

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www.udel.edu/pbl/mie
Delaware
Dela where?
First, a quick exercise:

1. Individually, write down five words or short phrases that come to mind when you think of:

   **Student-Centered Learning**

2. In pairs or small groups, select three “most important”.

3. Finally, report out just one.
...the individuals learning the most in the typical classrooms are the teachers there. They have reserved for themselves the very conditions that promote learning:

actively seeking new information, integrating it with what is known, organizing it in a meaningful way, and explaining it to others.

Page 35, Huba and Freed, *Learner-Centered Assessment on College Campuses: Shifting the Focus from Teaching to Learning*, 2000
What Is PBL?

“The principal idea behind PBL is that the starting point for learning should be a problem, a query, or a puzzle that the learner wishes to solve.”

What are the Common Features of PBL?

Learning is initiated by a problem.
Problems are based on complex, real-world situations.
All information needed to solve problem is not given initially.
Students identify, find, and use appropriate resources.
Students work in permanent groups.
Learning is active, integrated, cumulative, and connected.
A Typical Day in a PBL Course
PBL: The Process

Resolution of Problem;
(How did we do?)

Integrate new
Information;
Refine questions

Reconvene, report
on research;

Research questions;
summarize;
analyze findings

Presentation of Problem

Organize ideas and
prior knowledge
(What do we know?)

Pose questions (What do
we need to know?)

Assign responsibility
for questions; discuss
resources

Next stage of
the problem
Common Classroom Models

Medical school
Floating Facilitator
Peer Facilitator
“Hybrid”
Factors in Choosing a Model

Class size
Intellectual maturity of students
Student motivation
Course learning objectives
Instructor’s preferences
Availability of peer facilitators
Medical School Model

- Dedicated faculty tutor
- Groups of 8-10
- Very student-centered environment
- Group discussion is primary class activity

_A good choice for_
- Highly motivated, experienced learners.
- Small, upper-level seminar classes.
Floating Facilitator Model

More structured format: greater degree of instructor input into learning issues and resources.

Group size: 4-6

A good choice for
Less experienced learners.
Classes of all sizes.

Facilitator rotates through groups: Asks questions, directs discussions, checks understanding.

Other class activities:
– Groups report out
– Whole class discussions
– (Mini-)lectures
Peer Facilitator Model

Advanced undergraduates (or graduate assistants) serve as facilitators

– Have previously completed course in PBL format.
– Help monitor group progress and dynamics.
– Serve as role models for novice learners.
– Capstone (or final) experience for peer facilitators.

Instructor/professor also facilitates groups.

Floating vs. dedicated. *A good choice for classes of all sizes.*
Activities of the Peer Group Facilitators

Weekly meetings with the course instructor

Tutorial Methods of Instruction

Training course for peer facilitators

Work with one or more PBL groups in class

Optional: meet with group(s) outside of class

No involvement in grading
Peer Facilitator Model

Facilitator training important
Development of questioning skills
Group dynamics
Resource guide
Some Characteristics of an Effective (Peer) Facilitator

Questions/probes the thinking and reasoning process.
Provides information when appropriate.
Promotes the use of appropriate resources.
Guides/directs/intervenes to keep the group on track.
Sets high standards.
Involves all members of the group in the process.

From, University of New Mexico Primary Care Curriculum,
A Guide to Quality Tutorials
“Hybrid” PBL

Non-exclusive use of problem-driven learning in a class
May include separate lecture segments or other active-learning components
Floating or peer facilitator models common

*Often used as entry point into PBL in course transformation process*
Characteristics Needed in University Graduates

High level of communication skills
Ability to define problems, gather and evaluate information, develop solutions
Team skills -- ability to work with others
Ability to use all of the above to address problems in a complex real-world setting

Quality Assurance in Undergraduate Education (1994)
Wingspread Conference, ECS, Boulder, CO.
Other Reasons for Using PBL?

Students learning to communicate in a common language.

International Islamic University of Malaya

Innovation and thinking ‘outside of the box’.

Republic Polytechnic, Singapore

Student engagement; learning ‘how to learn’.

Inquiry-based approach, bringing research-like approach to thousands of students.
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_Boud (1985)_)