What is Problem-Based Learning?

Problem-based learning (PBL) is a student centred instructional strategy in which students collaboratively solve problems and reflect on their experiences.

PBL may be described as a ‘socially constructed pedagogy’ as all participants are collectively involved in a shared process of constructing knowledge. Students are encouraged to exchange ideas, feelings, experiences, information and insights, to tease out and define the limits of their existing knowledge and together actively build a new level of understanding that is greater than could be achieved individually.

The PBL Format

During PBL sessions lecturers and teachers become the ‘facilitators’ and monitors of group learning, on hand to provide guidance, support and information and ensure discussions remain relevant. Students are introduced to a challenging and open-ended problem, scenario or trigger and in groups will roughly work through the following process.

1. Read through/define problem and highlight/clarify unfamiliar terms, concepts or ideas.
2. Explore the nature of the problems and issues in relation to the topics in question by sharing of group knowledge and experience.
3. Define and record learning questions and objectives.
4. Brainstorm possible solutions, explanations and relevant actions.
5. Allocate further investigation into research questions to individual group members.
6. In-between sessions - self-directed learning (within the setting of the group/personal goals and deadlines) and reflection on experiences.
7. At subsequent sessions – share results of private study, cite resources, and discuss related experiences.
8. Complete all relevant individual/group assessments.

For more information about the Hybrid PBL project please contact: Sophie Bessant (Hybrid PBL Project Officer) - s.e.f.bessant@esci.keele.ac.uk
Novel Features of PBL

- Levels of instruction from facilitators vary from course to course and institution to institution; from one end of the spectrum where students are free to define their own problem scenarios to more structured ‘projects’ with guidelines.
- Students guide the course of their own learning sessions (within limits and with academic guidance) rather than following more rigid outlines.
- PBL focuses on organizing the content of modules around problem scenarios rather than around specific topics or disciplines.
- PBL involves the treatment of curricula content and the actual process of learning as an integrated whole.
- PBL’s novel features make it the ideal vehicle for the integration of academic content with the natural acquisition and development of both discipline specific and transferable life skills.

Educational Benefits of PBL

Educational research has shown that many adults learn most effectively through active and collaborative learning pedagogies which use learning material that is contextually relevant to the student and draws on their own existing knowledge of the problem in question. Key benefits include:

1) **Increased Ownership of Learning** - which promotes greater responsibility, motivation and instils greater retention of formal didactic knowledge.

2) **Enabling Lifelong Learning** - through practising problem solving skills suitable for real world situations, self-directed learning and through teaching students how to learn.

3) **Development of Employability Skills** - through practising a logical and analytical approach to unfamiliar situations, team working/communication skills, listening, negotiating and accepting alternative perspectives and critical reasoning/appraisal and reflection.

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