



## Project-Based and Problem-Based Learning

### Objectives

This module aims at developing the following competences:

1. Apply project and problem-based learning in a systematic manner in the teaching repertoire (instrumental, systematic)
2. Work with others effectively in using project and problem-based learning (interpersonal)

### Learning Outcomes

Upon the completion of this module, the trainees will be able to:

1. Explain the benefits of project-based and problem-based learning in the context of current trends and challenges in higher education
2. Compare various approaches to project- and problem-based learning and core principles (e.g., 7 Step Problem-Based Learning Model)
3. Explain the importance of the instructor's roles in the use of problems and projects in higher education
4. Use an appropriate project or problem for achieving the learning outcomes of a course
5. Facilitate student progress in project and problem-based learning
6. Assess student learning using formative and summative assessment
7. Reflect critically on the use of both methods in their teaching context
8. Appreciate the importance of opportunities for students to participate in problem and project-based learning

**Prerequisite:** N/A

### Outline:

- **Active Learning (AL)**
  - Active Learning Concept – revision and contextualization
  - Active Learning principles and evidence
- **Problem and Project-Based Learning (PBL) conceptualization**
  - PBL concept, principles, difficulties, evidence, and motivation.
  - Problem and Project BL Concepts; different or not? Typologies; External agents.
  - PBL examples.
- **Competences' Development in PBL approaches**
  - Competence concept – revision.
  - The importance of PBL for professional identity development, and for the development of both technical and transversal competences.
- **PBL Instructors' role (and the learners' role)**
  - The role of the instructor in PBL approaches.
  - The role of the learner in PBL approaches.



- Support the learning process in different phases of the project.
- **Conducting Problem and Project-Based Learning (PBL) approaches**
  - Identification and definition of problems for Problem and Project-Based Learning (PBL) approaches.
  - The Problem BL approach – a problem case at the centre; the 7-step Problem BL model.
  - The Project BL approach – a problem or theme at the centre of a project; the specification of the problem.
  - The Problem and Project-Based Learning (PBL) links with curricula and competences development.
- **Planning and coordinating Problem and Project-Based Learning (PBL) approaches**
  - Planning and organizing a PBL approach: problem, content, curriculum, assessment, evaluation, stakeholders (instructors, learners, professionals), phases, materials, learning spaces.
  - Communication with the stakeholders of the PBL approach: instructors, learners, and professionals.
  - A perspective on online or hybrid environments.

### Learning Activities:

- Presentations
- Think pair share
- Quiz
- Two-minute paper
- Search and study different approaches
- Collective discussions
- Simulation
- Gallery walk
  
- Develop a plan
- Implement the plan
- Discussions
- Portfolio

### Time Distribution and Study Load:

- Training: 15 hours
- Coaching: 30 hours
- Group project: 60 hours

### Assessments:

#### Training

- Quiz
- Two-minute paper
- Simulation to set up part of a PBL approach



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- Gallery walk with different approaches

#### Coaching

- Discussion
- Project delivery
- Reflexive Portfolio

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