Redefining Education with Project-Based Learning Supported with Moodle

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Agenda

1. About us
2. Overview of Project-Based Learning (PBL)
3. Implementing PBL at the University of Ljubljana
4. Integration of Moodle as a Platform
5. PBL Activities Supported by Moodle
6. Evaluation of the Implementation
About Us

We are offering support to UL teachers:

- Dissemination activities
- Trainings
- Consultations
- Research and development:
  - pilot renewals
  - multiplicators
  - one-year projects to introduce innovative pedagogies
  - integrated study environment
What is PBL?

- Student-centered instructional approach
- Involves students working on real-world projects to solve authentic problems
# Features of PBL

<table>
<thead>
<tr>
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<th>Feature</th>
<th>Description</th>
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<tr>
<td>01</td>
<td>Active learning</td>
<td>Students actively engage in the learning process through hands-on projects.</td>
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<td>02</td>
<td>Critical thinking</td>
<td>PBL promotes problem-solving, analysis, and evaluation skills.</td>
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<td>03</td>
<td>Collaboration</td>
<td>Students work in teams, fostering communication and teamwork skills.</td>
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<td>04</td>
<td>Authenticity</td>
<td>PBL connects learning to real-world contexts, making it more meaningful for students.</td>
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<td>05</td>
<td>Inquiry-based</td>
<td>PBL encourages students to ask questions, explore, and discover knowledge.</td>
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Benefits Of PBL

Application of knowledge

Skill development

Preparation for the future

improvement of communication and collaboration skills

Engagement and motivation

Personalized learning
Implementing PBL at the University of Ljubljana

• Recognizing the need for more engaging and practical learning experiences for students.
• Aligning with the university's commitment to student-centered education.
• Responding to the evolving demands of the job market, which requires students to possess practical skills and the ability to apply knowledge in real-world contexts.
Our approach on implementing PBL in study process

1. Integrate project-based learning into the curriculum across various disciplines.
2. Utilize technology, such as Moodle, to support and enhance PBL activities.
3. Evaluate the outcomes of PBL implementation, including student satisfaction, skill development, and academic performance.
4. Share insights and best practices with other educators and institutions seeking to adopt PBL.
Integration of Moodle as a Platform

Moodle's versatility, collaboration features, project management tools, and assessment options make it a suitable platform for implementing and supporting project-based learning initiatives.
Creation of learning modules in the form of micro MOOCs by students, future teachers

Author: doc. dr. Črtomir Podlipnik
Faculty: Faculty of Chemistry and Chemical Technology
Subject field: chemistry
Project phases:
- project planning
- introduction to the use of the tools
- creating learning content
- publishing and delivering the courses
Use of Moodle:
- resource creation
- microMOOC launch
- microMOOC implementation
Promoting the development of students' digital competences through experimental and project-based learning with the possibility of distance learning

Author: prof. dr. Vesna Ferk Savec, asist. Katarina Mlinarec
Faculty: Faculty of Education
Subject field: educational sciences, chemistry
Project phases:
- planning experimental work
- testing planned experimental work
- presentation of the experimental work to be undertaken

Use of Moodle:
- resource creation and sharing
- submission of project plan
- submission of project results
- evaluation
Interdisciplinary development of educational games

Author: prof. dr. Jože Rugelj, asist. dr. Matej Zapušek
Faculty: Faculty of Education
Subject field: educational sciences, computer science

Project phases:
• specification
• analysis
• design
• development
• implementation
• evaluation

Use of Moodle:
• resource creation and sharing
• submission of project plan
• submission of project results and evaluation
Collection, analysis and digital presentation of Slovenian legal-archaeological material

**Author:** prof. dr. Marko Kambič, asist. Vid Žepič
**Faculty:** Faculty of Law
**Subject field:** law

**Project phases:**
- planning and research
- design and development
- implementation
- presentation and sharing

**Use of Moodle:**
- submission of project results (Padlet)
- evaluation and monitoring
Addressing staffing challenges through applied field research and the application of international research results

**Author:** prof. dr. Andrej Kohont

**Faculty:** Faculty of social sciences

**Subject field:** sociology

**Project phases:**

- preparation prior to fieldwork in lectures and seminars, benchmarking
- discussions (buzz groups, pro-contra)
- visit to a selected company, selection of the topic of the case study
- theoretical placement of the problem in the context of the course
- preparation of an analytically applicable group solution to the selected problem
- group presentation

**Use of Moodle:**

- submission of project results
- evaluation and monitoring
Group design of physical exercise programmes

Author: dr. Aleš Dolenec
Faculty: Faculty of sports
Subject field: sports

Project phases:
• planning and research
• design and development
• implementation
• presentation and sharing

Use of Moodle:
• resource repository
• communication
• choice of topic
• peer evaluation (Moodle workshop)
Alternative sustainable sources of dietary protein

**Author:** prof. dr. Breda Jakovac Strajn

**Faculty:** Veterinary Faculty

**Subject field:** veterinary

**Project phases:**
- forming groups
- choice of themes
- formation of expert groups (by subject areas)
- project work in expert groups
- project work in core groups
- reviewing results, giving feedback, making corrections
- presentation of projects and snowball discussion

**Use of Moodle:**
- group and theme choice
- submission of project results
- evaluation and monitoring
Summary of Moodle in support of PBL

- Robust Learning Management System
- Seamless Collaboration
- Assessment and Feedback
- Centralized Project Management
- Resource Sharing
- Flexibility and Customization
- Integration with Other Tools
Thank You

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