

PROJECT-BASED LEARNING

DESCRIPTION

KEYWORDS

Active teaching
Motivation
Interaction
Tutoring
Teamwork

PBL enables learners to identify and formulate their own problems to develop skills. Students define an objective, identify and then carry out the actions required to complete the project. PBL aims at developing the ability to problematise, document, learn by one-self, think critically, organise, plan, carry out and communicate.

WHY IS IT INTERESTING ?

- The concrete aspect of the project is a source of motivation and commitment
- The multidisciplinary aspect makes it possible to integrate knowledge and skills, and to develop cross-disciplinary skills
- It helps understanding the complexity of real world



ADVANTAGES OF PROJECT-BASED PEDAGOGY

- Developing and becoming aware of transdisciplinary skills
- Mobilising concepts from various disciplines
- Learning to work in cooperative and collaborative manner
- Taking responsibilities : Gaining autonomy, being an actor of ones training, ensuring scientific, organisational and material management of a project.

Suitable for learners of level



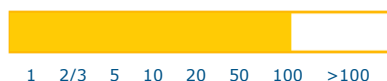
Investment time before session



Investment time post session



Suitable for managing large groups



Duration of the act



MISTAKES TO AVOID ?

- The time and investment of the students in the PBL has to be included in the curriculum
- Clearly state the learning outcomes
- Set up a monitoring system to identify the work done by each learner in group
- Do not solve the project, but help a guide the students in the progression.

PROJECT-BASED LEARNING

Group evaluation

Production

Involvement of members

Tutor relationships

Project relationships

Organization

Atmosphere

Example of group evaluation, rated from 1 (very unsatisfactory) to 4 (very satisfactory)

Individual evaluation

The group helps me

I assume the roles

I am an attentive listener

I actively participate

My interventions are welcomed

I avoid conflicts

I have worked hard enough

My work is valuable

I learned

Example of individual evaluation, rated from 1 (very unsatisfactory) to 4 (very satisfactory)

REFERENCES

[Louvain Learning Lab](#)



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THE DESIGNING TEACHER...



During PBL preparation, the teacher can :

- Plan the activities to be implemented
- Assess the length and time needed for completion
- Cooperate with other teachers
- Check whether the project can take place in a wider framework

... AND THE TUTORING TEACHER



During the project, the teacher takes on different roles :

- Guiding the students in their approach
- Helping the students to progress
- Favouring group dynamics
- Observing and analysing what is happening in the group

WORK EVALUATION



The PBL evaluation should cover different elements :

- Acquisition of collective skills : Evaluation of the final deliverable by an oral defence of the students and/or a report
- Acquisition of individual competencies : implementation of a peer and by-peer review to identify the collective and individual parts of the performed work, as shown in the opposite examples.

EXAMPLES AT ENSIC??



Number of students involved : **100**

S5 : Informatics and numerical methods

S6 : Reactive systems

S7 : Process Design