



Problem Based Learning



✔ WHAT IS IT?

Problem-based learning (also known as PBL) is an enquiry-guided learning method characterised by active learning in small groups where solving interesting real-life problems is central to the learning process. The key focus of PBL is the process that students go through to reach a solution for example, activating their prior knowledge, developing theories or hypotheses, working in teams, conducting research, and explaining findings. The problems posed to students are typically ill-defined, messy problems that they might encounter in authentic situations.

✔ WHY USE IT?

In PBL activities, students use 'triggers' derived from the problem or case to define their own learning outcomes/objectives. Triggers can be a photograph, a journal article, a newspaper clipping, statistics, or graphs. The nature of PBL also presents opportunities to develop a range of generic skills and attitudes such as:

- Teamwork
- Leadership (chairing a group)
- Critical evaluation of literature
- Self-directed learning and use of resources
- Presentation skills
- Listening
- Recording
- Cooperation
- Respect for colleagues' views

(Adapted from Wood, 2007)

✔ HOW I DO IT?

The following resources may suit this context

- ❖ Wood (2007) identified a structure for incorporating PBL into curriculum and emphasises (cceas.columbia.edu/sites/dsa/files/what_is_PBL.pdf) that PBL will only be successful if the scenarios developed are of high quality.
- ❖ Ganareo and Lyons (2015) ([Problem-Based Learning: Six Steps to Design, Implement, and Assess \(facultyfocus.com\)](http://facultyfocus.com)) outline key steps to design, implement and assess PBL to help develop twenty-first century skills such as teamwork, digital literacy, and problem solving.



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'Seven Jump' method (Gijsselaers, 1995) used at Maastricht describes the key steps students go through to resolve a problem during PBL tutorial sessions:

JUMP	Activities
1	Clarify terms and concepts not readily comprehensible
2	Define the problem
3	Analyse the problem and offer tentative explanations
4	Draw up an inventory of explanations
5	Formulate learning objectives
6	Collect further information through private study
7	Synthesise the new information and evaluate and test it against the original problem. Reflect on and consolidate learning.

WHAT SHOULD I CONSIDER?

Considerations

- Problem-based learning can be used as a key strategy for the flipped classroom with the expectation that students prepare before class and engage in active learning that challenges higher order thinking in collaboration with peers.

WHAT IF I WANT MORE?

- Schwartz, P., Mennin, S., & Webb, G. (2001). *Problem-Based Learning: Case Studies, Experience and Practice* (Eds.). London, UK: Kogan Page Limited.
- [Problem-Based Learning at Maastricht University \(youtube.com\)](https://www.youtube.com/watch?v=...)

References:

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- Gijsselaers, W. (1995). Perspectives on problem-based learning. In W. Gijsselaers, D. Tempelaar, P. Keizer, J. Blommaert, E. Benard, & H. Kasper (Eds.), *Educational Innovation in Economics and Business Administration* (pp. 39-52). Netherlands: Springer.
- Ribeiro, L. R. C. (2011). The Pros and Cons of Problem-Based Learning from the Teacher's Standpoint. *Journal of University Teaching and Learning Practice*, 8(1), 0-17. Retrieved from <https://ro.uow.edu.au/cgi/viewcontent.cgi?article=1149&context=jutlp>
- Wood, D. F. (2003). Problem based learning. *BMJ*, 326, 328-330. doi: 10.1136/bmj.326.7384.328