Learning actively in the classroom: how to use Problem-Based Learning (PBL)

Dr. Heidi Maurer

Maastricht University

h.maurer@maastrichtuniversity.nl

REMEMBER: last time you felt excited about learning something.

- What factors shaped this event in such a positive manner?

- From your experience, what are the three necessary and most important aspects for "deep" learning to occur?

Part I

3 principles of Problem-Based Learning (PBL)

Main Rationales of PBL

Learning as

- student-centred and active

- constructed and contextualised

- collaborative

PROCESS

Process – mimic research

Content – interest & previous knowledge

Relevance & process of learning

Viability test of own understanding & team skills

PBL in practice - the PBL cycle

We start with a "problem"

→

Step 1-5: Pre-discussion in tutorial group

" What do we know already?"
(activate pre-knowledge)
"What do we have to know
to solve the problem?"

Formulate the learning objectives

↓

7.Reporting in
Post-discussion:

Exchange collected information
& reflection

←

6. Self study
Integration of material
from different kind
of disciplines and sources

Structuring PBL – the 7 steps

Pre-discussion

1. Clarification of terms and concepts

2. Formulation of Problem Statement

3. Brainstorm

4. Structuring of Brainstorm

5. Formulation of Learning Objectives

6. Self-Study (i.e. Students go home, read, prepare)

7. Post-Discussion

(8. Reflection)

PBL– different roles

Students – active roles

- Chair

- Note-taker

- Participant
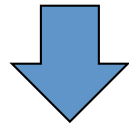
Academic Staff as facilitator
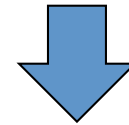
- Coodinator, tutors

Part II

How to… PBL

Let´s experience

Part III – What next?

1. How to run PBL sessions (research skills, reflection, group dynamics)
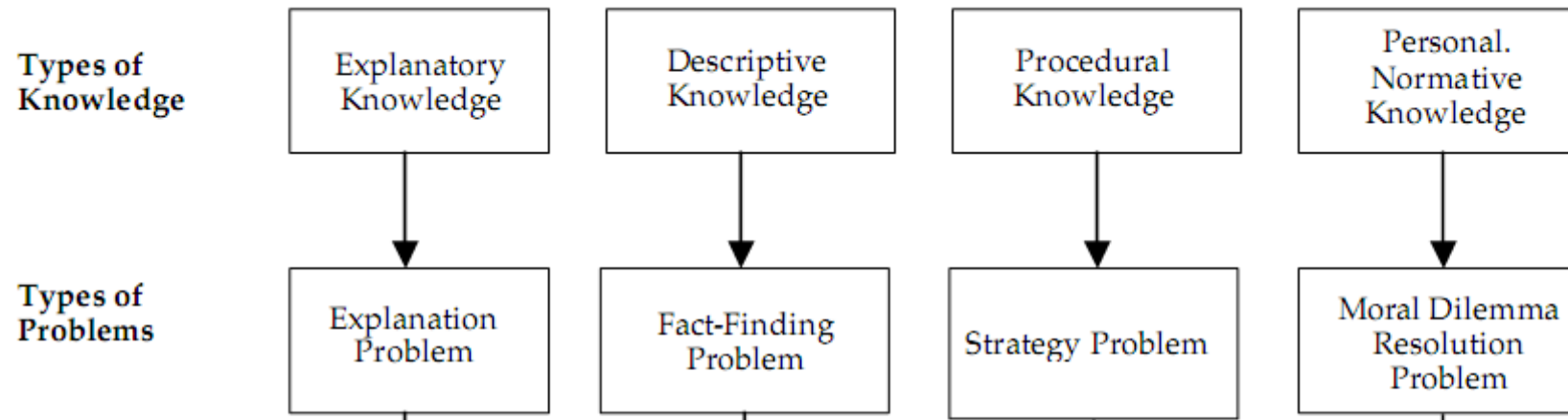2. How to design PBL "assignment"

Problem generation: "What is a problem?"	Problem structure/ communication: How to `sell` the problem?

Taxonomy of Problems - types of Knowledge

Types of Knowledge	Explanatory Knowledge	Descriptive Knowledge	Procedural Knowledge	Personal. Normative Knowledge
	↓	↓	↓	↓
Types of Problems	Explanation Problem	Fact-Finding Problem	Strategy Problem	Moral Dilemma Resolution Problem

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THANKS for PARTICIPATING

Comments, Questions, Reflections always welcome

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