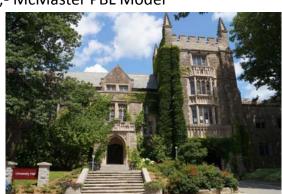Problem based Learning

PBL Models

The origin ;- McMaster PBL Model

1960

McMaster PBL model

- Student-centred learning
- Students work in a small group with the guidance of a tutor
- Tutor acts as facilitator or guide
- Begin with authentic and ill-structured problems as the driving force for enquiry
- Problem as a tool to achieve required knowledge and skills necessary to solve the problems

PBL Models

Maastricht PBL Model

Maastricht PBL Model

- Seven steps
  - Step 1 : Clarify
    - » Clarify terms and concepts not readily comprehensible
  - Step 2 : Define
    - » Define the problem
  - Step 3 : Analyze
    - » Analyze the problem
  - Step 4 : Review
    - » Draw a systematic inventory from step 3

- Step 5 : Identify learning objective
    - » Formulate learning objectives
- Step 6 : Self study
    - » Collect additional information outside the group
- Step 7 : Report and synthesize
    - » Synthesize and test a newly acquired information

PBL Models

Aalborg PBL Model

Aalborg PBL model

- Characteristics of the model:
  - Project: A complex task for a group of students to deal problems that involve analysis process in planning and managing the projects.
  - Problem : The staring point to initiate student group learning process (theoretical, practical…)
  - Interdisciplinary
  - Participant control
  - Exemplarity : Selection of specific scientific content that is exemplary to overall learning outcome

Topical strategy

- Select a topic for PBL
- Typical approach for most PBL implementation in Malaysia

Course A	
Week 1	Topic A: Lecture
Week 2	Topic B: Lecture
Week 3	Topic C: Lecture
Week 4	Topic D: Lecture
Week 5	Topic E: Lecture
Week 6	Topic F: Lecture
Week 7	Topic G: Lecture
Week 9	Topic H: Lecture
Week 10	Topic I: Lecture
Week 11	Topic J: PBL
Week 12	PBL (cont)
Week 23	PBL (cont)

Single course strategy

- Select a single course for PBL
- Disciplinary orientation

Year 1	Year 2	Year 3	Year 4
Course A Traditional	Course H Traditional	Course O Traditional	Course V PBL
Course B Traditional	Course I PBL	Course P Traditional	Course W Traditional
Course C Traditional	Course J Traditional	Course Q PBL	Course X Traditional
Course D PBL	Course K Traditional	Course R Traditional	Course Y Traditional
Course E Traditional	Course L Traditional	Course S PBL	Course Z Traditional
Course F PBL	Course M Traditional	Course T Traditional	Course 1 PBL
Course G Traditional	Course N Traditional	Course U Traditional	Course @ Traditional

Interdisciplinary strategy

- Combine two or more courses
- High collaboration
- Interdisciplinary orientation

Year 1	Year 2	Year 3	Year 4
Course A Traditional	Course H Traditional	Course O Traditional	Course V PBL
Course B Traditional	Course I Traditional	Course P Traditional	Course W Traditional
Course C Traditional	Course J Traditional	Course Q PBL	Course X, Y and Z PBL
Course D, E and F PBL	Course K Traditional	Course R Traditional	
	Course L, M and N Traditional	Course S, T and U PBL I	

A whole university strategy

- Select a program
- Highly integrated

Year 1	Year 2	Year 3	Year 4
Course A Traditional	Course C Traditional	Course E Traditional	Course G PBL
Course B Traditional	Course D Traditional	Course F Traditional	Course H Traditional
PBL project 1	PBL project 3	PBL project 5	PBL project 7
PBL project 2	PBL project 4	PBL project 6	PBL project 8