

Management of Change

- the balance between a top-down and a bottom-up approach in educational innovation

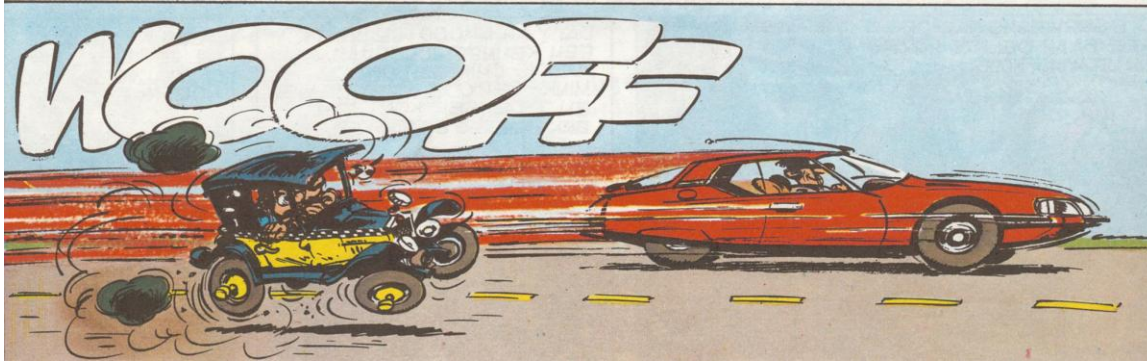
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Topics

- Innovation in Higher Education
- The case of PBL at the Faculty of Architecture 1989 –2003
- FOCUS on Education at Delft University of Technology
- Conclusions



Innovation versus improvement



IMPROVEMENT: More of the same

INNOVATION:

A radically

different approach



An ancient classroom

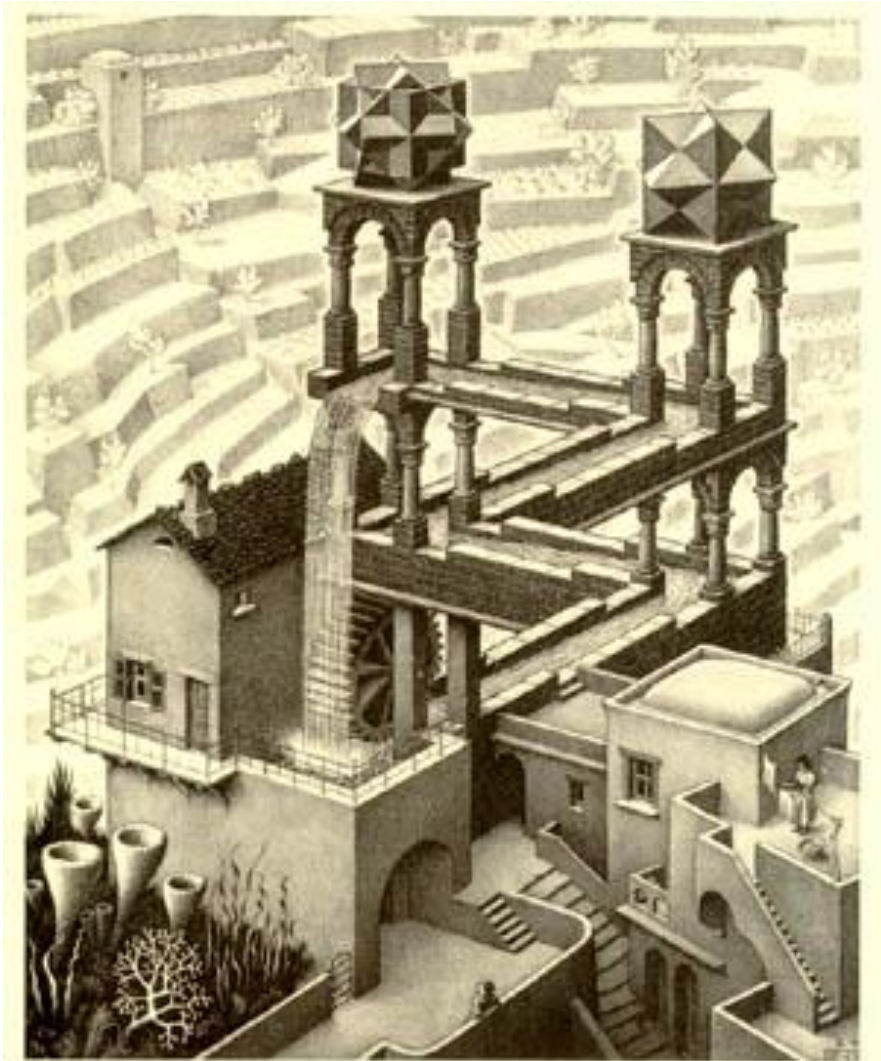


Palace school, Mari 2100 BC

Educational innovation

A shift in paradigm

- From teaching to learning
- From learning content to study activities



PBL as an example of a shift in paradigm

Focus on the learning process

- Cooperative learning in small groups
- Students held responsible for their own learning

Thematic curriculum structure

- Integration of knowledge and skills
- Integration of different domains

Problem based learning (PBL)

PBL builds on pedagogic traditions like:

Jerôme Bruner: *learning by discovery*

William Killpatrick: *whole hearted learning*

Carl Rogers:

student centered learning

The Harvard method:

case based learning

David A. Kolb:

experiential Learning



Challenges for teachers in a PBL curriculum

to design a learning environment:

- motivating and stimulating
- challenging for the students

to manage the learning process:

- integrating different subjects
- participating in teamwork

to facilitate learning:

- guiding the process, without taking the lead
- guarding quality, without obstructing the learning process

Key Features of the Success of PBL

- Freedom to decide on your own learning process
- A clear purpose of all learning activities
- Attention for Communication Skills
- Balanced support from Technical experts to overcome knowledge barriers

Introduction of PBL in Architecture at Delft University of Technology

1900	Traditional Design Teaching
1930's	Delft School of Design
1970's	Studio Teaching and Design projects
1990	Introduction of PBL
2005	A Mixed Model

Strategies for Management of Change

Chin and Benne (1985) distinguish three types of strategies that can be applied in changing an organization:

- Empirical-rational strategies
- Normative-re-educative strategies
- Power-coercive strategies



Changing to PBI in Delft

At the start:

- Diversity of the programme
- Most teacher and students happy
- Outside pressure to change

Primary objective: to satisfy the outside critics

Factors influencing the implementation process

- Most of the staff did not believe it was necessary to change - top down strategy
- Faculty development programme as the key - Re-educative strategy

Change of leadership & change of objectives

FOCUS ON EDUCATION

The Final Report (September 2003) states the following objectives for 2006:

- 30 % increase foreign students
- Active learning formats in 67% of BSc and in 75% of MSc programmers
- Numerical efficiency BSc 80 % and MSc 90%
- High satisfaction score on student questionnaires
- Teachers must acquire Didactic Qualification

Implementation Strategy

- Objectives are stated Top-down
- Implementation is the responsibility of the Faculties
- Inter Faculty Institute **FOCUS** to support the Innovation initiatives

Inter Faculty Institute **FOCUS**

- Project Organization
- Participants are educational experts
 - Faculty development
 - Didactics of Active learning
 - E-learning
 - Educational technology

Conclusions

Educational innovation implies a shift of paradigm.

You can try to force, to coerce or to rationalize with the teaching staff.

But you have to remember: It does not work as long as the people involved do not want it !

Conclusions



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