Management of Change

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

Erik de Graaff
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
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
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

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