

AALBORG UNIVERSITY

Shifting the educational paradigm: From Teaching to Learning

Erik de Graaff
Department of Planning
degraaff@plan.aau.dk

AALBORG UNIVERSITY

Agenda

- The traditional educational paradigm
- The shift from teaching to learning
- Training teachers' facilitation skills

- Questions

© SLP-gruppen, Aalborg Universitet

AALBORG UNIVERSITY

The art of teaching

A teacher

- ... tells stories and explains how things work
- ... has superior knowledge about the topic
- ... shows possibilities
- ... decides on content and time schedule
- ... gives turns questioning the students
- ... takes examinations and gives marks

AALBORG UNIVERSITY

Etymological roots of Learning and Teaching

to learn: From Teutonian: lis = to find out = to observe, to perform; to follow the track

to teach: From: token; tecan = to point out, to indicate Sanskrit root DIK = to show. Latin In-dic-are. to point out

School: From scola (L-Gk) = rest, leisure, employment of leisure. Org. 'a pause' Sanskrit root SAGH = to hold in

AALBORG UNIVERSITY

Traditional teaching

Basic assumptions about teaching:

- The teacher has expertise and access to specific knowledge
- The teacher knows best how to structure the learning materials
- The teacher is responsible for directing the learning process

AALBORG UNIVERSITY

Traditional teaching

Rule 1
The teacher is always right!

Rule 2
When the teacher happens to be wrong Rule 1. applies automatically

Teaching is directing the learning Process

Formal learning	Teacher controlled
Informal learning	Self-controlled
Accidental learning	Uncontrolled

Levels of learning


Knowledge		About the world
Comprehension		• Facts
Application		• Process
Analysis		About Your self
Synthesis		• Facts
Evaluation		• Process

Bloom's taxonomy

Matching Teaching and Learning

Teaching		Learning
Transfer		• Knowledge
Shaping		• Comprehension
Coaching		• Application
		• Analysis
		• Synthesis
		• Evaluation

The traditional model of curriculum design: the pizza-model



Traditional teacher roles

The teacher as:

Expert	• Explaining, answering questions and sharing his enthusiasm with the students
Designer	• Defines learning goals, chooses methods to stimulate the learning process
Evaluator	• Assess learning results, evaluates the effectiveness of the education

Ramsden, 1992


Challenges for the teacher in PBL

To facilitate learning:

- .. to be a source of inspiration
- .. to offer support, guidance and feedback
- .. without interfering

To design a stimulating learning environment:

- .. to select and prepare learning resources
- .. to construct challenging assignments
- .. with alignment of assessment and learning

AALBORG UNIVERSITY  www.aau.dk

Teacher roles in a PBL curriculum


The teacher as:
Expert

- Designing a stimulating environment for learning
- Management of the learning process, including evaluation

Facilitator


- Stimulates students to define their own learning goals and to direct their own learning process

De Graaff & Frijns, 1993

AALBORG UNIVERSITY  www.aau.dk

Introducing PBL entails a paradigm shift in educational design: from teaching to learning


<p>Educational functions</p> <ul style="list-style-type: none"> • The development of a scientific attitude of critical reflection • The development of a sense responsibility and an independent personality • Acquisition of professional knowledge and skills 	<p>Educational form</p> <ul style="list-style-type: none"> • Active participation in group cooperation, dealing with insecurity and learning to take responsibility • Working on practice oriented projects and analyzing theoretically oriented problems • Critical reflection on performance
---	--

AALBORG UNIVERSITY  www.aau.dk

Competency oriented curriculum design


Definition of Learning Goals in terms of desired competencies
Active leaning pedagogy or PBL
Thematic curriculum structure
Self-directed learning process
Cases, courses, instruction and learning tools available for the students
Teachers as facilitators of the learning process

- **A different time table**

AALBORG UNIVERSITY  www.aau.dk

Re-designing the curriculum


1. Focus on the student and the learning process
2. Outline student activities necessary to achieve the goals
3. Re-define the role of the teacher
4. Design a stimulating learning environment
5. Set up a competency Define the desired outcomes (competencies)
6. oriented assessment system
7. Implement the curriculum as a part of life long learning programme

AALBORG UNIVERSITY  www.aau.dk

Factors influencing the implementation process

Introducing PBL involves a paradigm shift, and a change in culture
Often not all staff members belief it is necessary to change
The transition demands an extra effort on top of the normal work load

Needed are:
EDUCATIONAL LEADERSHIP !
CLEAR OBJECTIVES !
REPORT RESULTS: RESEARCH ON EDUCATION !

AALBORG UNIVERSITY  www.aau.dk

Assumptions and values underlying the PBL model

Learning is stimulated by sharing knowledge, in particular when the knowledge is not 100% sure
A group of students is capable of directing their own learning process
A group has the potential to achieve more than the individuals on their own
Everyone contributes to the best of his/her abilities
Within the group every member is equal
Group members need to feel free to speak their mind and to make mistakes
Critical thinking is an important learning outcome

Assumptions underlying any teacher training programme

- The ability to teach does not just depend on the content specific expertise of the teacher.
- Teaching can be learned, it is a skill not an art or a natural talent.
- It is possible to transfer relevant knowledge from one person to the next.

Teaching Competencies in Higher Education

1. Designing a Learning Environment
2. Facilitation of Student Centred Learning
3. Organisation and Management of Education
4. Individual Supervision and Coaching of Students
5. Evaluation and Assessment of Learning Results

Topics in a PBL workshop: How to shift the paradigm

Interactive Plenary Presentations

- PBL Models and pedagogic principles
- Best practices PBL
- Facilitation versus teaching
- Assessment and evaluation

Exercises

- Learning and teaching experiences
- Designing an environment for active learning
- Project work
- Facilitation skills

Questions ????

Opinions !!!!!

Comments !!!!!