

Enhancing academics as teachers

Workshop on assessment and recognition of university teaching

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Council on Higher Education

Protea Hotel Edward, Durban, South Africa

June 2015

LUND UNIVERSITY
Faculty of Engineering
2015



Lund University

Founded in 1666

8 faculties

47 000 students

7 500 employees

600 partner universities in
more than 70 countries

Turnover R 10 700 000 000

Faculty of Engineering

Since 1961

9 600 students

1 500 employees



Scholarly teaching
Scholarship of teaching
Institutional development

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Topics...

Sharing knowledge and experiences

developing teaching and learning

My story

from Chemical Engineering to Teaching and Learning

Scholarly Teaching

Scholarship of Teaching

Scholarship as an institutional strategy
for development of teaching and learning

from our research



The importance of **sharing knowledge and experience** in academia ...

- Think about an experience concerning teaching and/or student learning that has been important to you
- Share it with your neighbour



Discuss in groups ...

- What characterises meaningful experiences?
- Are there any similarities with your research activities?
- Could such experiences be used to develop teaching and student learning in your discipline at your university?



“My story from Chemical Engineering to Teaching and Learning”

some personal experiences of special importance ...

1982

1995

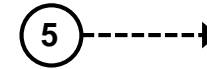
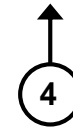
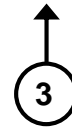
1998

2000

2005

2015

T P x_a x_b



1. Pedagogical Course: **Project** (Chemical Engineering)
2. Advanced Pedagogical Course: **Conference Publication** (Chemical Engineering)
3. The Swedish Council for the Renewal of Higher Education: **Funding** (Chemical Engineering Education)
4. Academic Development: **Development/Research** (Excellence in university teaching)
5. Ongoing scholarly development of Teaching and Learning: **Research** (Teaching and Learning/Engineering Education)

1982

1995

1998

2000

2005

2015



Pedagogical Course: Project (Chemical Engineering; Pedagogical contract)

Questions about responsibilities

Attitudes and expectations

First year problems

- Questionnaires
- Simple statistical analysis



1982

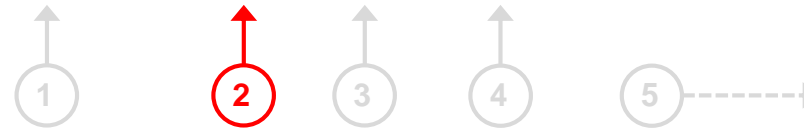
1995

1998

2000

2005

2015



Advanced Pedagogical Course: Conference Publication (Chemical Engineering; SOLO-taxonomy)

Analyses of examination papers in the Chemical Engineering Programme (1990-1998)

Written/oral assessment

Analysis of an assessment method in the laboratory (solving practical problems)

- Documents; examination papers
- Simple statistical analysis



1982

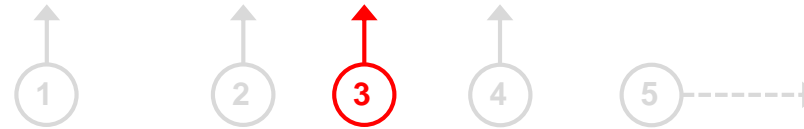
1995

1998

2000

2005

2015



The Swedish Council for the Renewal of Higher Education: Funding (Chemical Engineering Education; Qualitative Assessment in Engineering Education)

Experimental skills

Generic competencies

Reflection

Curriculum

- Interviews; focus group interviews; reflections
- Analysing and arguing text



1982

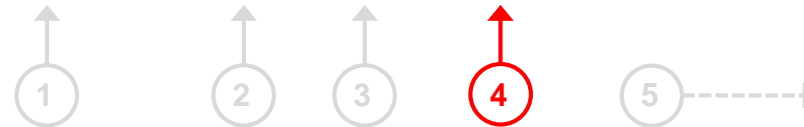
1995

1998

2000

2005

2015



Academic Development: Development/Research (Excellence in university teaching, The Pedagogical Academy)

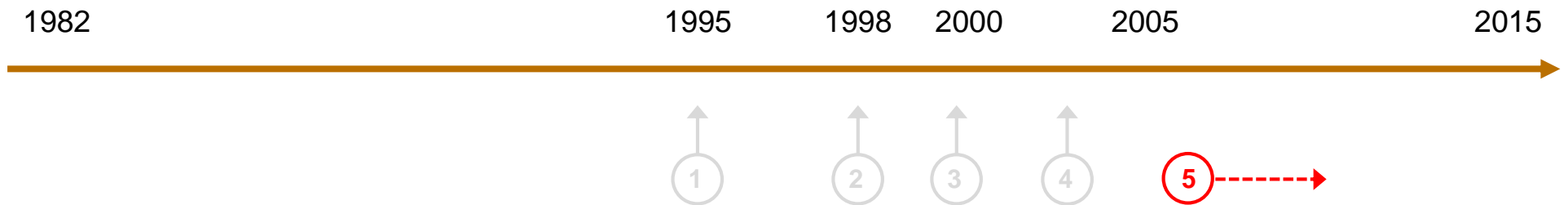
Criteria

Model of assessment

Procedures

- Interviews; observations (video recordings); documents
- Phenomenography...





Ongoing scholarly development of Teaching and Learning (Research)

Rewarding excellent teaching

Judging excellent university teaching

Teaching skills and pedagogical competence

Student assessment

Institutional development

.....



Could scholarly teaching and learning activities be part of most academic teachers' careers?

Discussion



What is a Scholarly Approach?

Scholarly teachers...

- refer to the literature about teaching and learning
- perform systematic observations
- evaluate teaching and learning outcomes
- obtain peer evaluation of their performance
- are experts in their discipline
- view teaching as a profession

(Trigwell et al., 2000; Shulman, 2000; Kreber, 2002; Healey, 2000; Hutchings & Shulman, 1999; Allen, 2005; Richlin, 2001; ...) →



What is Scholarship?

Scholarship of teaching...

builds on and goes beyond scholarly teaching

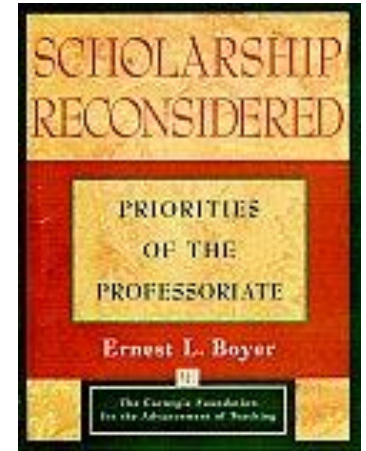
goes beyond the individual and influences institutions

- requires an understanding of how students learn and what kind of teaching activities support learning in the specific discipline
- generates new knowledge and is innovative and original
- can be replicated and built on
- is documented, public, and subjected to peer-review



Scholarship of Teaching - Background

Ernest Boyer (1990)



“Specifically, we conclude that the work of the professoriate might be thought of as having four separate, yet overlapping, functions.

These are: the scholarship of *discovery*; the scholarship of *integration*; the scholarship of *application*; and the scholarship of *teaching*.”



Lee Schulman (1998)

Characteristics of an activity to be defined as scholarship:

- It should be **made public** in some manner
- It should be subjected to **peer review** and evaluation
- It should be accessible for **exchange and use** by others (cited, built upon and shared)



Levels of investigation

- 1 inform oneself
verified by oneself

Personal knowledge

- 2 inform within a shared context
verified by those within the same context

Local knowledge

- 3 inform a wider audience
verified by those outside of the local context

Public knowledge

Ashwin and Trigwell (2004)



Examples of what Scholarship might be at the local level?

Short papers from teachers at the Faculty of Engineering, Lund University...

- Concept circuit training
- Challenges in PhD education
- Screencasts
- Course evaluation data
- Curriculum building

Papers from campus conference proceedings



Read one or two papers...

Discuss in the groups

- Does this format appeal to you?
Discuss your reasons
- What is the level of investigation?
- How could such papers be used?
- Could similar activities be an integrated part of academic teachers' careers?
What could be investigated?
.....



Terms and concepts

Teaching

Good teaching

Excellent teaching

Scholarly teaching

Scholarship of teaching /and learning/

Educational research



Benefits for the individual teacher

Benefits for the organisation



Benefits for the individual teacher

Benefits for the organisation



Engaging in scholarly activities can support cultural change...

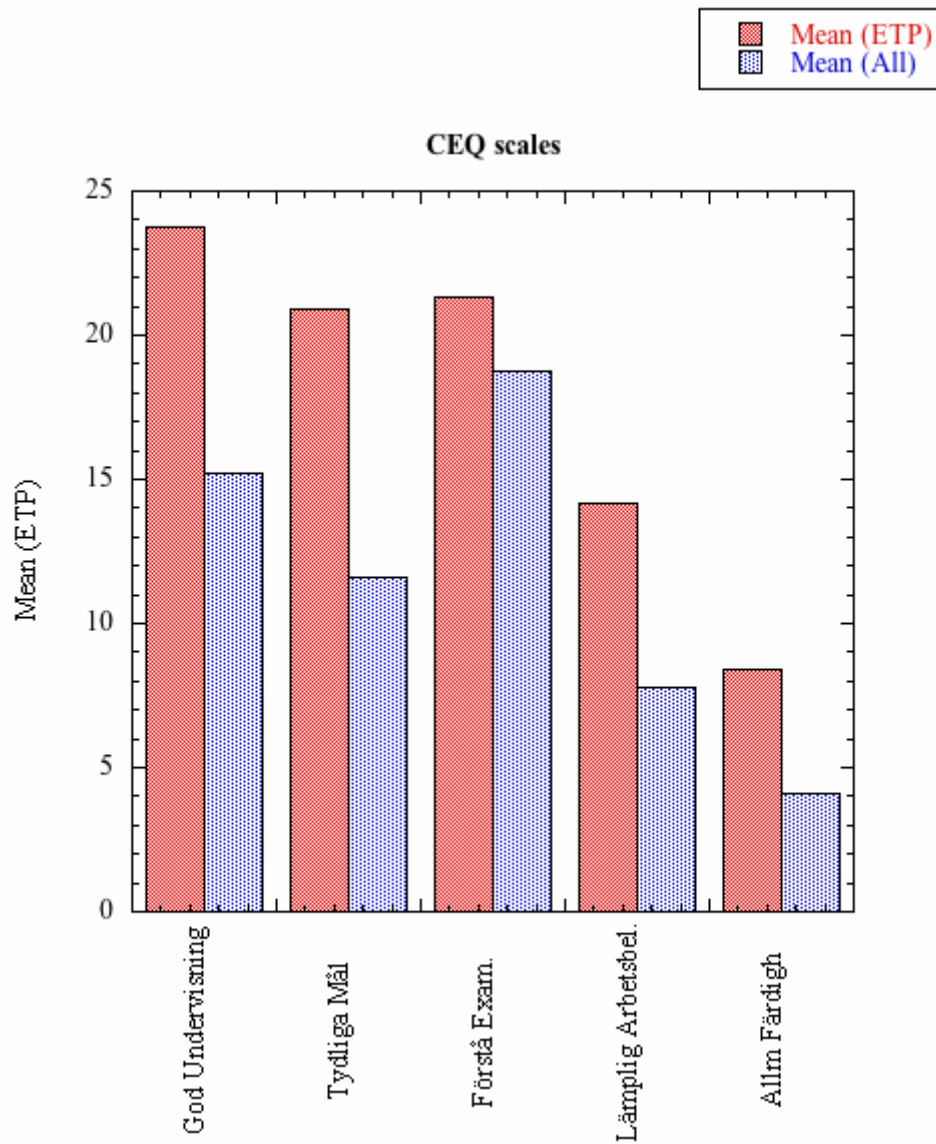
and we will later discuss a system for rewarding excellence in teaching

the Pedagogical Academy



Engaging in scholarly activities
seems to improve teaching...





Mean (ETP)
based on 7797
questionnaires.

Mean (All)
based on 84107
questionnaires.



A view from the perspective of our research ...

Roxå, Olsson & Mårtensson (2008)



Two Trajectories...



Scholarship of the Teaching and Learning – an institutional strategy for development of teaching and learning

Boyer (1990)

Increased focus on the quality of teaching

Scholarship of teaching

Alternative career path?

... problematic issues

- theory and practice Kreber (2002)
- teaching and research
- Scholarship of Teaching and Learning
individual enterprise?



A complex social landscape

Going public means that peer-review is at the focal point
... will have an impact on social issues

Networks ...

Becher & Trowler (2001)

Trowler & Cooper (2002)

Initial engagement in the Scholarship of Teaching
and Learning

... could be somewhat problematic
(e. g. jeopardise existing Teaching
and Learning regimes)



A possible solution

Roxå, Olsson & Mårtensson (2008)

Individual enterprise (engage in a non-threatening way)
... not sharing the same social context

TRAJECTORY 1

Another solution

Collective enterprise (engage with the local Teaching and Learning regime)

- ... discussions with colleagues sharing the same context
- ... could lead to change and long term development

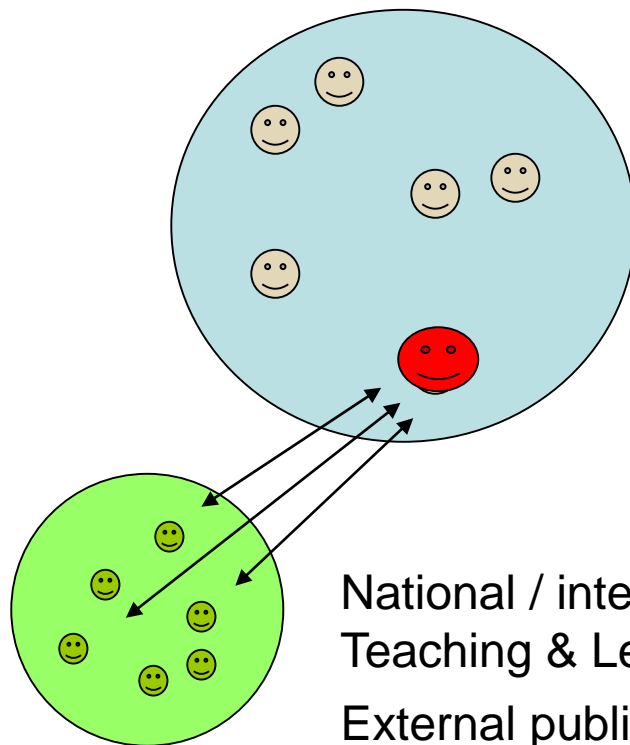
TRAJECTORY 2



Effect on the local context

Trajectory 1

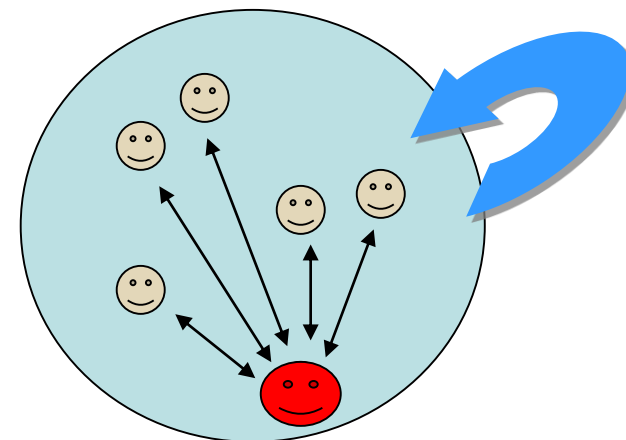
Engage in discussions with colleagues *in other* contexts



National / international conferences on Teaching & Learning
External publications

Trajectory 2

Engage in discussions with colleagues *sharing the same* context



A comparison

Trajectory 1

- less precarious for the individual
- possibly more rewarding in terms of status
- more limited impact on the local culture
- could function as brokers Wenger (1998)

Trajectory 2

- could lead to improved organisational development
- could eventually lead to a shift in the local Teaching and Learning regime
- could lead to emerging Communities of Practice within an institution Wenger (1998)



A preliminary conclusion

If Scholarship of Teaching and Learning is used as an institutional strategy there should be a balance between Trajectory 1 and Trajectory 2.

A question for debate and inquiry is how to identify an optimum.

We argue that an institution needs a certain proportion of individuals who choose Trajectory 2 if long-term change and development in teaching and learning is to be achieved.

Roxå, Olsson & Mårtensson (2008)



Scholarship of Teaching and Learning – appropriate use of theory

Extended use of theory vs. generosity

- ... the kind of theoretical underpinning?
- ... the quality of theoretical underpinning?

Most academics are also researchers

- ... aware of the potential offered by
use of theory
- ... daunting, frightening,
less comfortable?



Demanding extended use of theory

- ... may produce high quality results
- ... but also frustration and non-engagement

The degree of theoretical underpinning

- ... depends on the local context
- ... proportion of locally engaged teachers
- ... will change over time
- ... monitored and not considered as self-regulated



Scholarship of Teaching and Learning – the role of the academic development

Scholarship of Teaching and Learning is based on **inquiry** into teaching and learning,
the **integration** of what has been found,
and the **application** of new and more developed
knowledge about student learning in relation
to teaching practice.



Academic development could secure the scholarly process by

- promoting the migration of good practice
- supporting scholarly dialogues horizontally and vertically
- monitoring the use of theory in the scholarly dialogues

Academic development at the Faculty of Engineering at Lund University comprises several integrated activities

... and we will continue this discussion later in the workshop when the topic is academic development strategies ...

