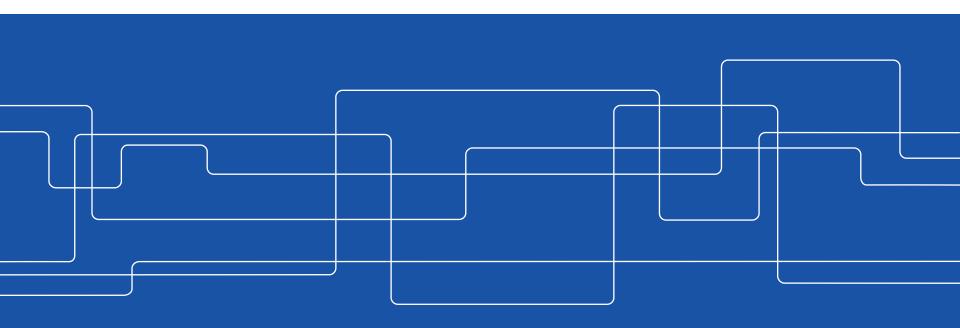


Recent initiatives at a researchintensive technical university

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Recent initiatives at KTH

- 1. A case study on the links between research and teaching
- 2. Within educational development, the link between research and teaching is in focus



Photo: Johanna Järnfeldt



A case study on the links between research and teaching at KTH

- Lack of focus on the links in evaluations
- Survey to all faculty members and interviews with top management and faculty members in two schools
- Focus on funding, incentives, career paths and pedagogical issues



Pedagogical issues – how to implement links in practice

Student-focused Student as participants

Emphasis on research content

Research-tutored (students write and discuss papers or essays) Research-based (students undertake inquiry-based learning)

Emphasis on research processes and problems

Research-led (teaching subject content)

Research-oriented (teaching knowledge construction in the subject)

Teacher-focused Students as audience

(Healey 2005)



Pedagogical issues: How links are performed in practice

- Type of teaching and learning activity:
 - Research-led lectures/guest lectures: 80%/50%
 - Research-tutored activities: 70%
 - Research-based project courses: 45%/50%
- Research-oriented: a course in research methodology or

"the methodology is not an issue on bachelor level, but it is important in the master thesis, and it should be integrated"



Photo: Jann Lipka



Case study at KTH: How links are performed in practice

Stronger links on master level

"you can do similar activities on bachelor and master level, it depends on what you expect"

- Type of course in which the respondent include research:
 - Master thesis 80%
 - Conventional courses 70%
 - Project based courses 55%
 - Bachelor thesis 45%



Photo: Jann Lipka



Case study at KTH: How links are perceived by academic staff

- Confirm the common belief in the nexus, but having all faculty doing both research and teaching is not enough in itself, needs efforts
- Education has an influence on research, Intangible connections (Neumann 1992): the broadening effect: "it promotes your research when you keep up with the basic knowledge"
- Links to research and to professional practice/industry are not in conflict, they are overlapping



Preventing factors

- Aspects preventing academic staff from obtaining a link:
 - too little time for research 50%
 - too little time for teaching 27%
 - it is not valued 46%
 - it is not appreciated 34%
 - it is not requested 34%



Photo: Jann Lipka



Recommendations in the KTH Case study

- Focus on research-teaching links in evaluations
- Include in pedagogical portfolios and promotion criteria
- Offer workshops and courses
- Provide academic staff with examples of how the link can be performed in practice, both on master and bachelor level



In educational development, the link between research and teaching is in focus

- Not necessarily MORE links, not in ALL courses, but there is a need to show HOW
- Links between research and teaching are necessary on both bachelor and master level, but they can VARY
- The team includes faculty members and educational developers
- Task: Present good examples and identify an adequate level of links in engineering programmes, in both directions



Work in progress...

 A survey was sent to 140 programme directors including questions on the links between research and teaching to identify good examples.

 The team will suggest an adequate level of links which will be discussed at a meeting with programme directors,

directors of studies, heads of undergraduate studies etc.

Teacher support web



Photo: Maskot/Folio



Thank you!

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