NTNU
Kunnskap for en bedre verden

Evaluation of IKTiSU

IKT i Sivilingeniørutdanningen

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Why?

The intended learning outcomes for MSc Engineering explicitly states that the student after completed education shall master the use of modern and relevant ICT-tools in their future work place.

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IKT i SU

- Pilot 2012. Project 2013-2015.
- Project meetings once a month
- Applications treated continuously as they come in
- Upon rejection a short motivation is given, and occasionally feedback on how to adjust the application
- From 50-150 kNOK per project / total 5,3 MNOK over 4 years (2012-2015).

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Which projects?

- …connected to common BSc-level subjects for big cohorts
- …collaboration and coordination between disciplines, either in parallel in the same semester, or sequentially across years
- …to establish an ICT-thread within a study programme
- …assessing ICT competence through digital assessment
- The development of ICT-tools that are easily accessible and can be used in other disciplines by many teachers.

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Recommendations

- Keep the financing and handling model with respect to application, evaluation and allocation

- Improve and develop a simple documentation model aiming at dissemination and sharing of experiences

- Establish a forum or meeting arena, for example an NTNU-internal conference, where teachers, students and projects can meet.

- Prioritize general skills, not covered by individual courses, which require integration in the disciplines in order for the skills to be mastered.

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Pedagogical advantages

- Support for implementation of common intended learning outcomes (ILOs) on the programme level for the 5 year engineering programmes

- Support for 'Constructive alignment' both on discipline- and programme levels: In order to master ICT-tools students need to use and practice ICT-tools within the subjects where they are to be used. Integration of skills

- To master the use of ICT-tools the students need to spend 'time on task' with the tools.

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The Process

- Simple, low thresholds, quick from application to review and approval or rejection, with immediate feedback when required

- The grant from IKTiSU has been central in facilitating the innovations. In some cases the cost is described as investment costs.

- The grants, varying from 50-150 kNOK, can easily be handled within the framework of normal institutional economy.

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Size and impact

- **The success of IKTiSU is not dependent on each and every sub-project.** With close to 40 approved sub-projects the impact has been considerable. The probability that a student comes into contact with one of the many IKTiSU-sub-projects is high

- Radical innovation requires risk-taking and a willingness to learn form experience. When grants are too big there is a risk of loss of prestige, and change strategies tend to be incremental rather than radical.

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Group work:

1. What do we accept as proof of improved learning? And how can we document improvement?

2. Which areas of integrating ICT into the curriculum has yet to be developed?

3. Which other generic skills should be integrated into the curriculum?

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