Programme and Cycle Evaluations @ EPFL
Evaluation Yes, but by Whom?

• Student Evaluations of Teaching are widely used...

• ...and known to be problematic
  • Not correlated with learning (Uttl et al., 2017)
  • Evidence of Gender biases (Boring, 2017)
  • Risks associated with publication (Jones et al. 2012)
Are students good at recognising when they are not learning?

169 2nd year Computer Science students

Two instruments:

• **Objective** measure of self-checking (CRT, Frederick, 2005)
  
  – Short problems with intuitive response which is incorrect

• **Subjective** measure of self-checking (Reflective Problem Solving Scale, Schraw and Dennison 1994)
  
  – I ask myself if I have considered all the options after I solve a problem.

• Self report (Reflective Problem Solving) was not correlated with objective score (CRT) (r=.061)

• …although many students are weak at monitoring their work, they are not particularly aware of this weakness

Not an isolated finding...

“Students estimated that they had reviewed 26% more than trace data showed”.

Looking to other methods – Multidimensional evaluations

Career Framework for University Teaching

Developed by UK Royal Academy of Engineering

Teacher has control over deciding the appropriate measures

Subject to review

http://www.evaluatingteaching.com/evidence/
Evidence-based benchmarking of practices

**Teaching Practices Inventory**
Carl Weiman

- Are goals clear?
- Do support materials support learning?
- Are evidence-based pedagogies used in class?
- Nature of feedback?
- Are assistants trained and guided?
- ...
Take away messages

• Student Feedback has a place but...
  • In context of other types of evidence

• The body or person responsible must own the process

• Use objective measures where possible
Context

• 2011 Campus II survey showed student satisfaction with courses was high, but satisfaction with programmes was lower
  • Student feedback on cycle/programmes proposed

• 2014 CTI-QAQ Quality Audit recommended the development of systems for stakeholder feedback on quality of programmes
  • EPFL proposed to develop the capacity to collect data for programme improvement

• 2017 Pilot project to test different approaches for student feedback on programmes/cycles
  • Chemistry and Chemical Engineering
  • Environmental Sciences and Engineering
The pilot project

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<tr>
<td>Participants</td>
<td>Year 2 and Year 4 students</td>
<td>Graduates from 2006-16 (circa 500)</td>
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<td>Response rate</td>
<td>Over 95%</td>
<td>38%</td>
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<td>Mode</td>
<td>Paper questionnaire, Spring Semester</td>
<td>On-line questionnaire, Early summer</td>
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<td>Focus</td>
<td>• Basic skills required for later courses</td>
<td>• Coherence of knowledge and skills within the domain with their work</td>
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<td>• Information needed to navigate the programme</td>
<td>• Sufficiency of professional/transversal skills</td>
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<td>• Programme coherence</td>
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Other sources of evidence...

• Student note taking (2018)
  • 341 students
  • Survey on note taking/ electronic device use

• Lab practices (2017)
  • Protocol elaboration vs protocol development
  • <20% had feedback on “thinking in the lab” or “problem solving”
  • Most common feedback is on report writing

• Student authored learning outcomes (2017)
  • Overlap and differences with teacher authored learning outcomes
Key proposals

• Build a feedback ‘machine’ that can be driven by the section
  • Alumni feedback, once every 6 years
  • Student feedback, once every 3 years

• On-line, standardized yet customizable questionnaire

• Section will drive design, data analysis and follow up on reporting
  • Pedagogical specialist/data analyst to support them

• Supplemented with other sources of evidence