

## Pedagogical Work at EPFL

#### Dr. Roland Tormey

Pedagogical Advisor/ Conseiller pédagogique

+ 41 (0) 21 693 23 63 roland.tormey@epfl.ch







Support

### **CRAFT**



(8)+ +41 (0) 21 693 22 7

Fax: +41 (0) 21 693 60 70

E-mail: craft@epfl.ch

 Centre for research and support of learning and learning technologies

Prof. Pierre Dillenbourg

 Both a research centre and a pedagogical support unit



Reflection and Classroom Orchestration with Tangible Tabletops

16:30 Auditorium CE2 >>

The lunch workshops to look forward to

27.02.12 Public thesis defense of Son Do Lenh, Friday the 9th of March 2012,

23.02.12 How to organize effective feedback and Outils pour réaliser rapidement des présentations novatrices et efficaces (sans utiliser power point).

CRAFT

EPFL-AA-CRAFT

CH-1015 Lausanne

Carte du campus

(Rolex Learning Center)

RLC D1 740

### Introduction



Overview

Teaching Quality - Assurance

Teaching Quality – Enhancement

Ongoing Research

### **BA-MA Structure**





Non-selective admission

Polytechnic base



#### BA 2 & 3 Bachelor Cycle

120 ECTS Credits (+60 Year 1)

Within one of 13 programmes



#### MA 1 & 2 Master Cycle

120 Credits

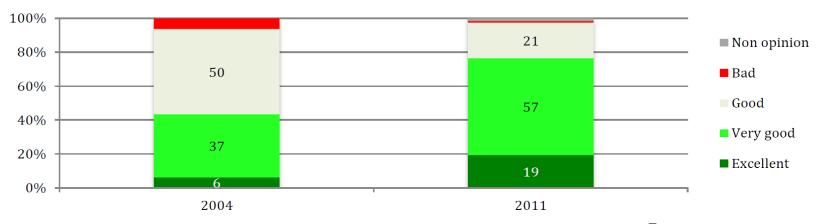
Within programmes - high degree of choice

### Overview



- Student satisfaction with the overall quality of education
  - 76% say excellent or very good
  - 97% say good or better than good
  - 3% are unhappy

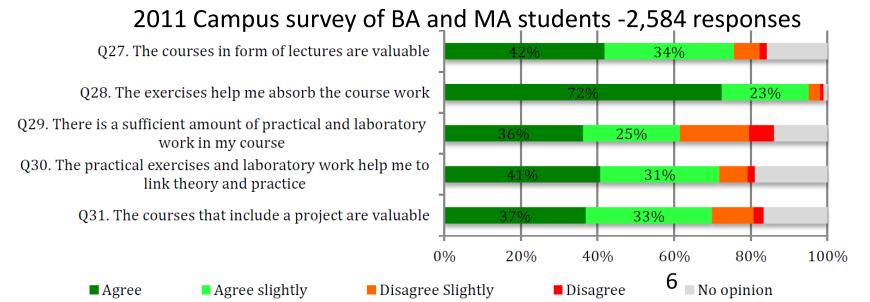
2011 Campus survey of BA and MA students -2,584 responses



### Overview



- Student satisfaction with the overall quality of teaching
  - 76% appreciate lectures (increases per year)
  - 95% appreciate exercise sessions
  - 76% appreciate project work



## **Teaching Quality**



- Quality Assurance
  - Minimum standards
  - "Smoke Detector"

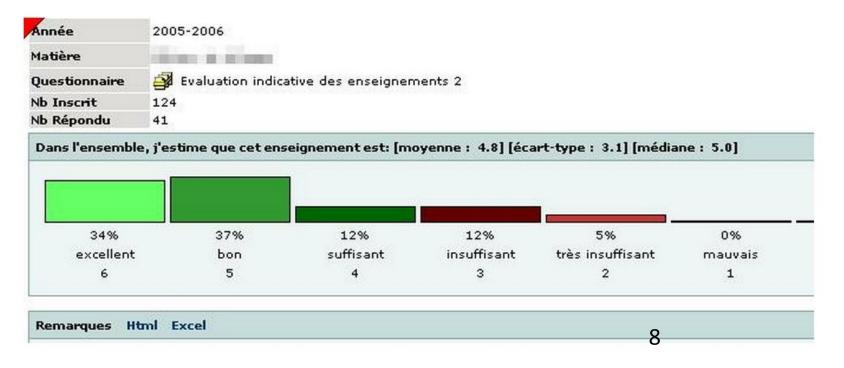


- Quality Enhancement
  - Formative, In-depth evaluations
  - Coaching
  - Class observation
  - Courses/ Workshops

# Quality Assurance – "Smoke Detector"



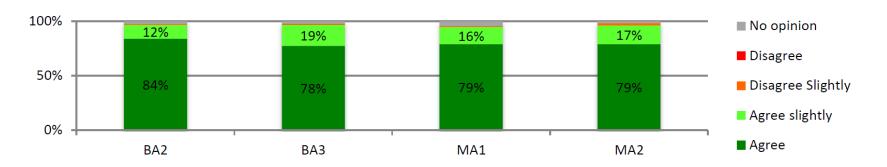
- Response rate typically around 60% (56% this semester)
- Where quality falls below 4, investigation is merited by section



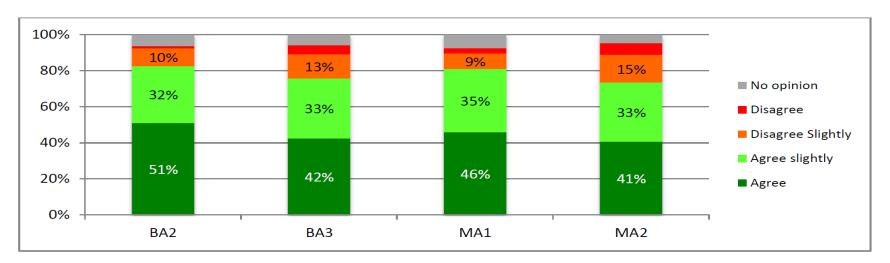
# Quality Assurance – "Smoke Detector"



System is highly regarded by students



Question 48: I appreciate the opportunity to voice my opinion in the course evaluation



Question 49: It is worth the effort of evaluating the courses as my opinion is taken into account

# How valid is the "smoke detector"?



- Do easier courses get better evaluations?
  - Correlation with average grade is p=0.14. Significant but quite weak (Dillenbourg and Jermann, 2006)
- Do only the unhappy students respond?
  - 44% comments are positive (Dillenbourg and Le Duc, 2011)
- Are students primarily interested in "nice" teachers?
  - Most frequent comments are about: (a) the content (b) the coherence with other courses (c) clarity and structure of presentation. (Dillenbourg and Le Duc, 2011)

Only an early warning signal...

## Quality Improvement - CRAFT



Personalised, voluntary service for teachers

Report confidentially to teachers

Feedback meeting on evaluations

Coaching and training

## Quality Improvement - CRAFT



- In 2011...
  - 170 Evaluation carried out for 179 teachers
  - Worked with 16% of teachers in Engineering
  - 69 Professors and 93 PhD students attended workshops
  - 7214 students using Moodle
  - 1930 teachers or assistant using Moodle

## Quality Improvement - CRAFT



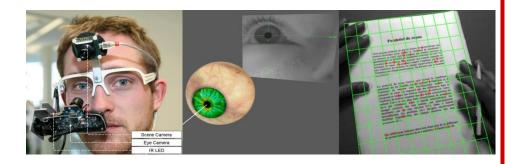
- Pedagogical Projects
  - "Tutorat" in Year 1
  - Curriculum reform and Learning Outcomes
- Supporting Learning Technologies
  - Moodle
  - Electronic Audience Response systems (Clickers)
  - "Lantern"

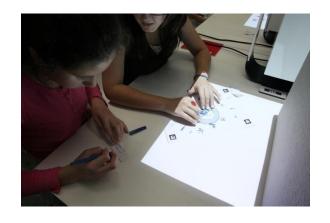


## Examples of other research in CRAFT



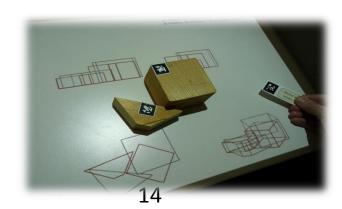
 Effects of self and peer written annotations on learning using eye tracking





 Paper-based computer interfaces for geometry learning

 Tabletop computer interface bridging theory-practice gaps in carpentry apprenticeships





### **THANK YOU**

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