peaches in two flavors

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Flavor 1

- course Introduction to Modelling, Q3 2013-2014
- homework; open assignments
- homework result is part of final mark
- published rubrics
- ranking
  - students rank (not mark!) 5 peer elaborations;
  - marks follow from prescribed criteria (all or nothing per criterion)
- potential feature: self-consistent ranking, but in practice: use received scores as marks

Flavor 1

- assumptions:
  - students can recognize quality, even when better than their own level;
  - students will raise their own level when seeing the work of superior peers;
  - there exists a ‘performance level’ and a 'judgement level' (as intrinsic students' properties), and *the wisdom of the crowds* will handle statistics.

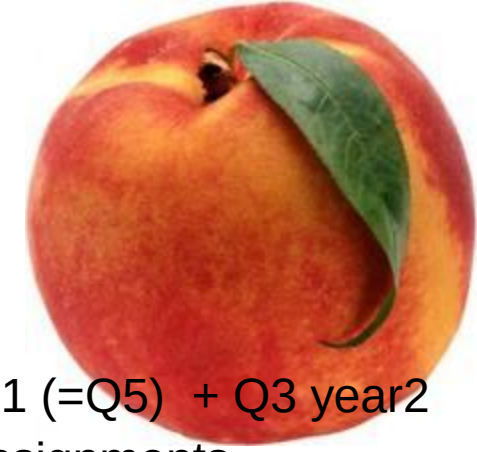
Flavor 1

- advantage:
  - assessment aligns 1-1 to learning goals (are students competent in X? → make them demonstrate X);
  - all administration is handled by PEACH;
  - excellent scaling behavior;
  - measure both performance and judgment levels in one go.

Flavor 1

- disadvantage:
  - assumptions turned out to be false:
    - disappointing correlation between student markings and sampled teachers´ markings;
    - statistics: poor convergence;
  - students have little confidence in the results
    - defence of the method is based on comparing peer-marking reliability with inter-rankers-reliability in conventional assessment, but this is not part of students' world view.

Flavor 2



- Intro to Modelling Q3
- homework; open assignments
- homework result is part of final mark

- published rubrics
- prioritizing
  - students rank 5 elaborations;
  - marks follow from prescribed criteria (all or nothing per criterion)

- potential advantage: self-consistent ranking; assessment of primary learning goals

- Intro to Modeling Q1 (=Q5) + Q3 year2
- homework; open assignments
- homework result is ***no*** part of final mark; only admission ticket to partake in peer feedback
- published sample elaboration
- textual (=subjective) feedback
  - students express appraisal for instructiveness of 3 received feedbacks in 'likes'
  - mark for peer reviewing is replaced by O(received likes)

- needs additional (intermediate) assessment(s) of the learning goals

Flavor 2

- assumptions:
  - students are willing to put effort in homework in order to be allowed to do peer-feedback (for max 1 / 10 of the mark);
  - student can assess when they find feedback instructive;
  - there exists a ‘feedback quality’ (as intrinsic students' property) and the *wisdom of the crowds* handles statistics.

Flavor 2

- advantages:
  - less rules required to obtain (perceptually) 'fair results' : it is accepted that '*instructiveness of received feedback'* may be assessed subjectively;
  - → transparent protocol to translate student's behavior to a mark;
  - → students may be more willing to accept the fairness of the final result.

Flavor 2

- disadvantages:
  - instructiveness of received comments (feedback), although a learning goal, is less essential than the actual modeling skills: these now need assessment by other means;
  - slight decrease in eagernessto do in homework after 10 received likes (=maximum for the 1 / 10 marking) (although there are still students who go for 17 / 21 likes !)
  - evaluation and students' mails still show occasional unease (although students tend to accept after 1-to-1 explanation).

Flavor 1 ←→Flavor 2

- Attempted analysis:
  - PEACH is here to stay;
  - PEACH is only half of the answer to the question for scalable assessment;
  - a need for (new?) instruments to assess skills that don't comply with formal examination;
  - peer reviewing / marking / ranking / feedback has certain potential, but suffers from a dilemma:

Variëteit 1 ←→Variëteit 2

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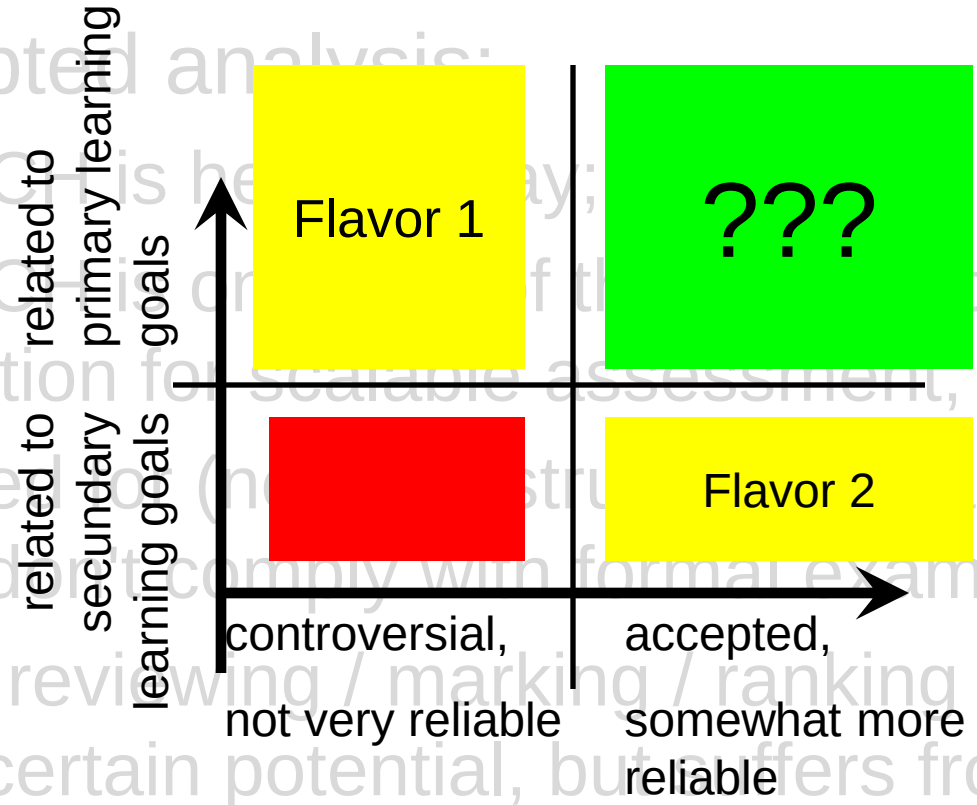

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  - PEACH is here to stay,
  - PEACH is only half of the answer to the question for scalable assessment
  - a need for (new?) instruments to assess skills that don't comply with formal examination
  - peer reviewing / marking / ranking / feedback has certain potential, but suffers from a dilemma:
  - we should learn to use self-consistency

Peer-Reviewing
Basic Design course
2012/13 – Q3
2013/14 – Q1 (Q5)
2013/14 – Q3

Bauke de Vries

Technische Universiteit
Eindhoven
University of Technology

Where innovation starts

Why Peer-Reviewing for Design?

- **Design is non-deterministic**
- **Criteria formulation and application**
- **Academic attitude**

Design Course structure:

- **Theory: (web)lectures + home assignments + peer-reviewing (20%)**
- **Practice: design assignment + instructions (80%)**

2012/13 – Q3

Implementation:

- **Review (comments + score) by 5 students**
- **Review scale: (Rejected), Insufficient, Sufficient, Good**
- **Semi-automated grading; random sample check**
- **Generic grading criteria**

Experiences:

- **After week 1: Too many discrepancies between teacher-student grading**
- **Thus: All submissions graded by teachers**
- **Finally: low correlation between teachers and students grades**

2013/14 – Q1 (Q5)

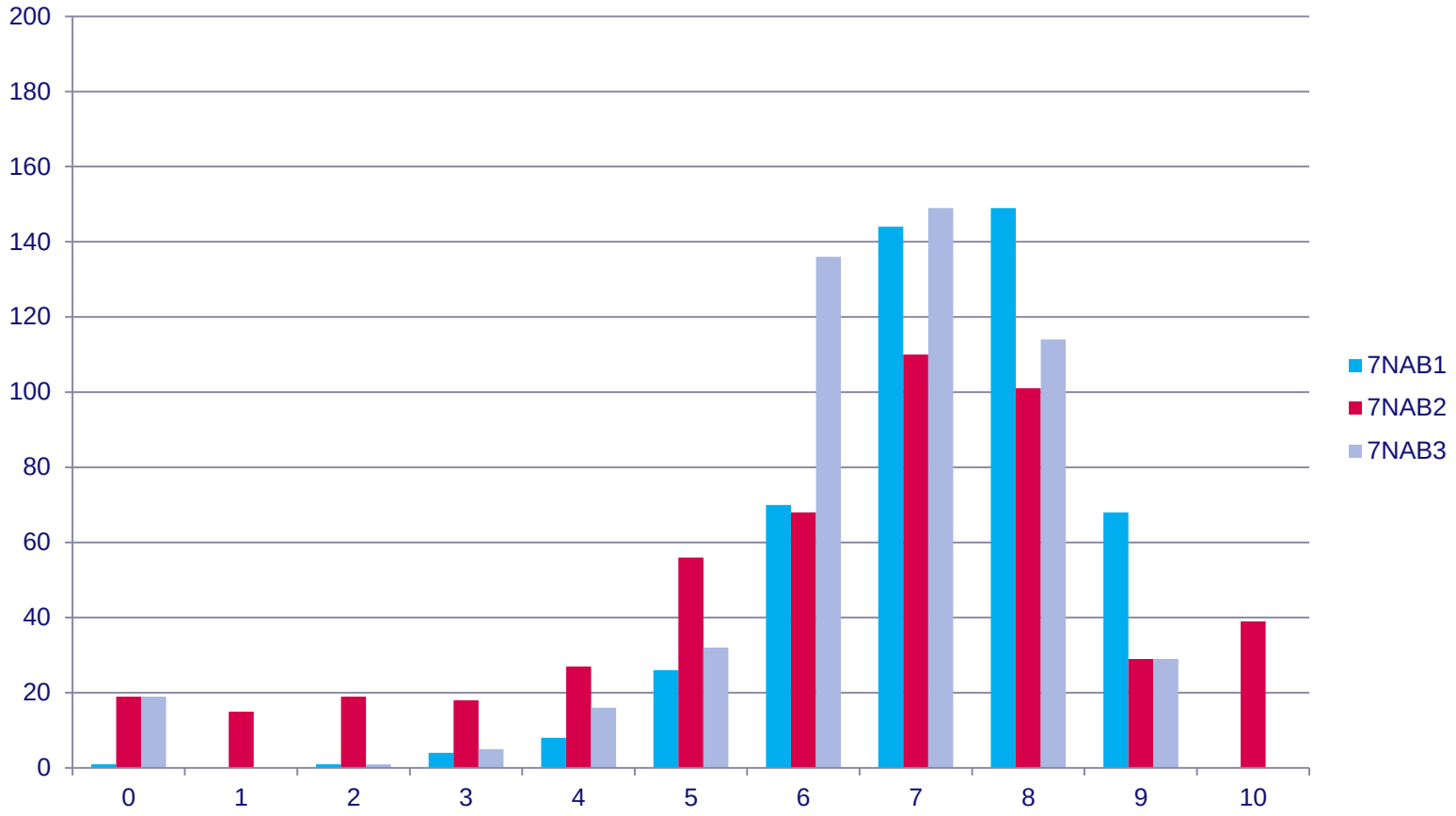
Implementation:

- **Review by 3 students**
- **Students determine grading criteria per weekly assignment**
- **Peer-review score is basis for Assignment grade**

Experiences:

- **Approx. 50 % graded automatically**
- **Good students receive useless reviews and visa versa**

Home Assignm. vs. Project grading



2013/14 – Q3

Implementation:

- **Scoring Peer-review feedback; private opinion**
- **Preset weekly criteria for Home assignment scoring**
- **Home assignment Review focus on Improvements instead of Critique**
- **Separation Home assignment grade (objective) and Peer-review feedback grade (subjective)**

Experiences so far:

- **> 50 % automated grading for Home assignment**