PROMOTING LEARNING WITH PEER ASSESSMENT

Peer assessment = The activity to make decisions about the quality of work of others

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PROVIDING AND UTILIZING FEEDBACK

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THEMES

- Defining concepts
- Why and when to use peer assessment?
- What does the assessment research suggest ?
- Designing rubrics

WHAT IS ASSESSMENT?

All forms of assessment provide estimates of the person's current status

Results can be used for

Judgemental purposes

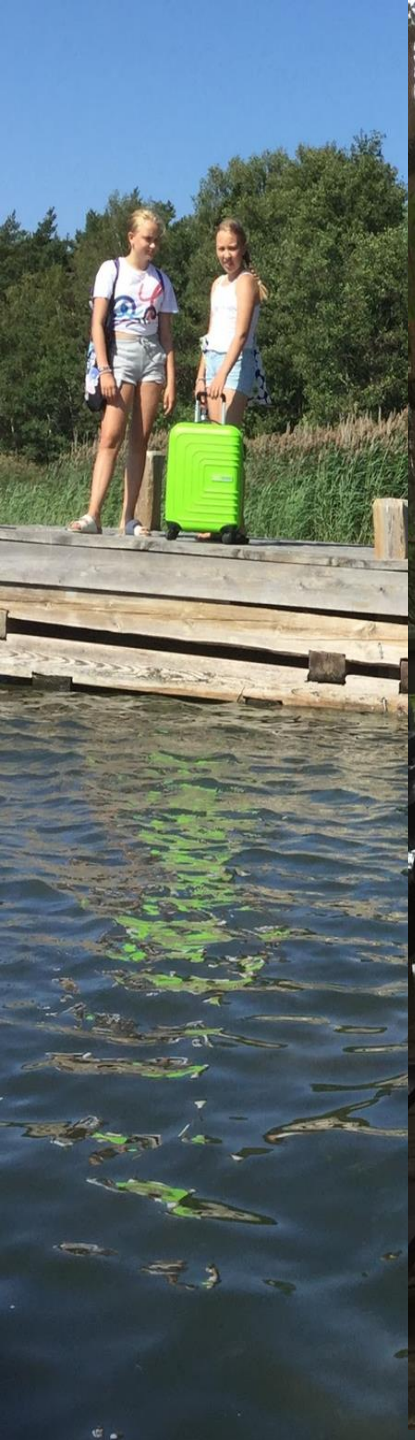
Developmental purposes

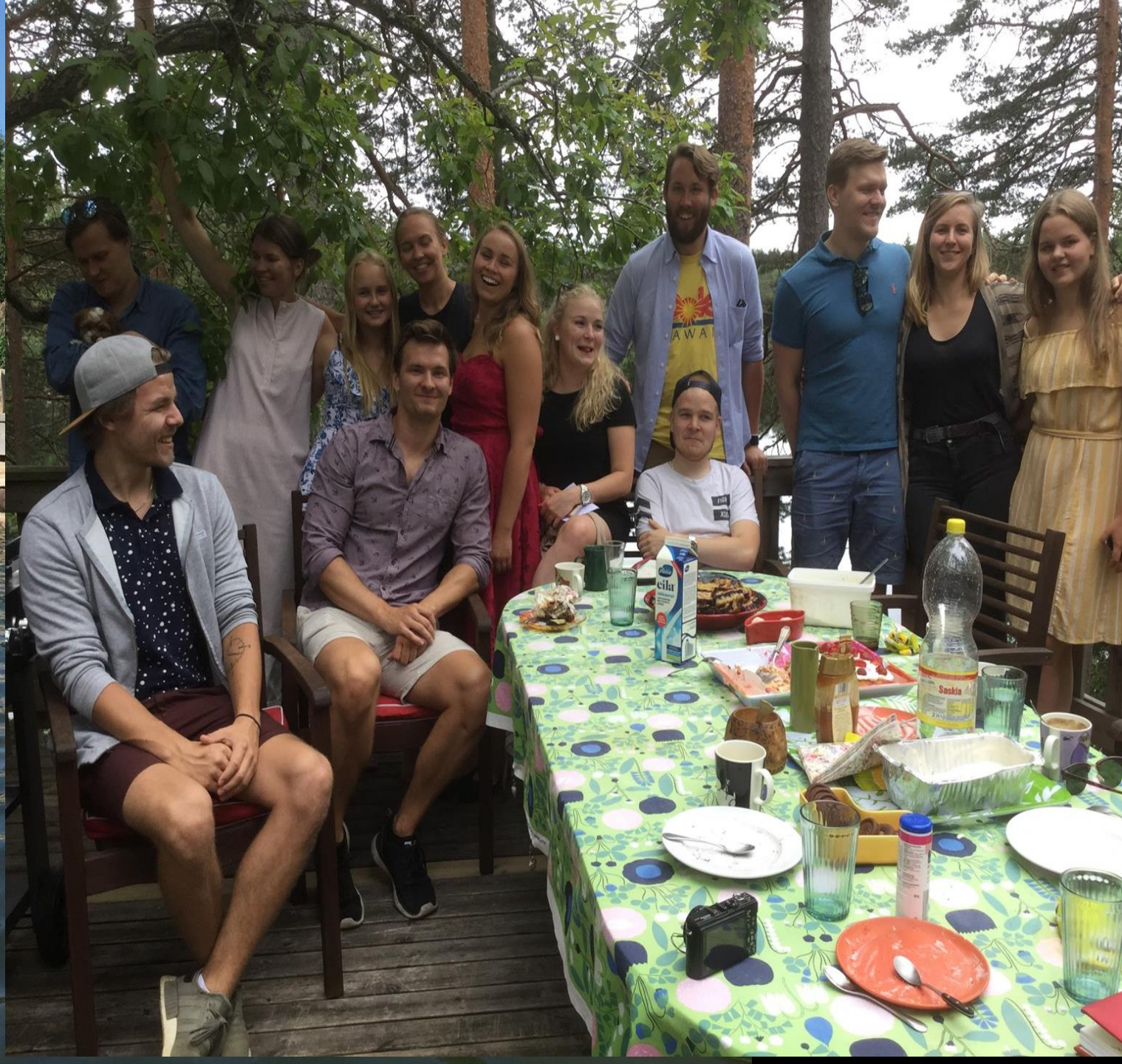
THINK BY YOURSELF

- Think about the last time when your performance was evaluated or assessed by a peer and some feelings were involved.
- How did you feel before the assessment? How about during the assessment? How about afterwards?
- Do you think that the assessment gave a truthful picture of your real skills?

DISCUSS WITH YOUR GROUP

- Share your experiences with your group
- Write down the feelings people in your group have experienced to the whiteboard




Saskia

CRUCIAL FOR LIFE-LONG LEARNING

Evaluative judgement "*The capability to make decisions about the quality of work of self and others*" (Tai et al. 2017, 5)

Boud et al. 2018. Developing Evaluative Judgement in Higher Education. Routledge.

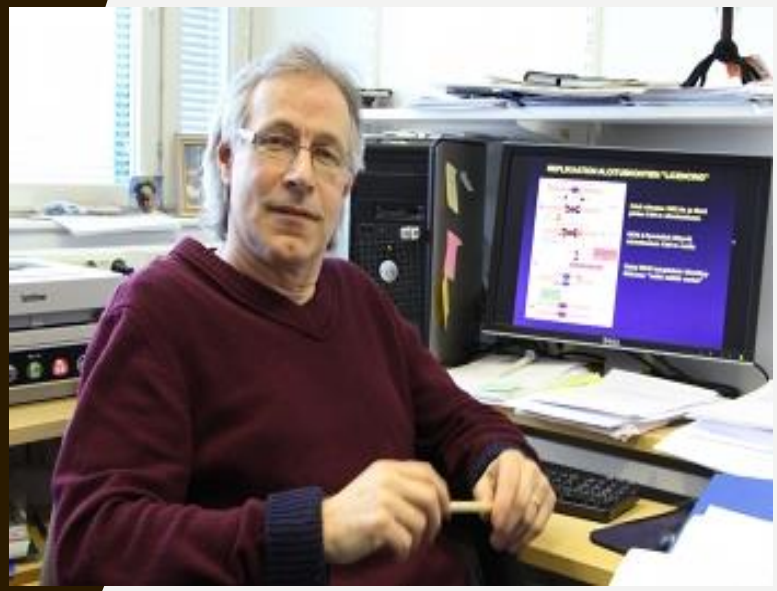
FEEDBACK

- In order for students to engage meaningfully with the feedback comments, they need an understanding of **the standards and criteria** that govern the work.
- Feedback processes from monologue to dialogue

Boud et al. 2018; Boud & Molloy 2013; Nicol 2010

CASE 1: PEER ASSESSMENT FOR SUMMATIVE PURPOSE IN UNIVERSITY COURSE

Genetics course



Mass lecture course

- Exam: Day 1 (exam) + Day 2 (peer ass)
- Each student assessed 2 peer exams
- The exam and the assessment rubric was developed together with the teacher to assess different levels of knowledge
- Before grading, an exampler/"model answers" were discussed in class

Asikainen, Virtanen, Postareff, Heino (2014). The validity and students' experiences of peer assessment in a large introductory class of gene technology. Studies in Educational Evaluation, (43) 197-205

Grade/points	0 <14 Points	1 14–16 Points	2 17–19 Points	3 20–22 Points	4 23–26 Points	5 27–30 Points
Level of knowledge	Fail	Passable	Satisfactory	Good	Creditable	Excellent
	Level 1 Recognising recalling		Level 3 Understanding Comparing		Level 5 Application of knowledge	Academic writing
Exercise 1 10 points	6 Points		3 Points			1 Point
Exercise 2 10 points	3 Points		5 Points		2 Points	1 Point
Exercise 3 10 points	3 Points		3 Points		3 Points	1 Point

- Students grades reflected teacher grades very well ($r = 0.83$, $p < 0.001$).
- 90 % of the students experienced the peer assessment positively
- Students experiences: *supported deeper learning, getting feedback, understanding the requirements or what is expected, assessment was a leanring situation itself, helped to assess one's own learning*

CASE 2: LEARNING OBJECTIVE MATRIX

- Contains both content and generic skills
- Johanna Rämö, University of Helsinki

- http://www.mv.helsinki.fi/jramo/algebra2/tavoitematriisi_alg2.html
- https://disa.cs.helsinki.fi/courses/matrix/1

	Prerequisities	Skills corresponding to grade 1	Skills corresponding to grade 3	Skills corresponding to grade 5
Quotient structures	I can determine the cosets of a subgroup. I can view a quotient group as a group and handle its elements like in any other group (e.g. determine inverse elements and powers). I know how normal subgroups and quotient groups are related. I can check in several different ways whether two cosets coincide.	I can calculate with cosets. I can, for example, determine the elements of the quotient group $S_4/\langle(1234)\rangle$. I can also determine the elements of the subgroup generated by $(12)\langle(1234)\rangle$. I can view cosets as equivalence classes, and know which equivalence relation defines them. I can determine elements of a quotient ring and know how ideals and quotient rings are linked.	I calculate with cosets fluently. I can check whether an equivalence relation is compatible with a binary operation. I know why the equivalence relation needs to be compatible with a binary operation when defining a binary operation for equivalence classess.	I can deduce the definitions of normal subgroup and ideal from the concept of binary operation compatible with an equivalence relation.
Mathematical discussions	I can formulate precise questions when I do not understand something. I can talk about my solutions to other people.	I present my solutions to other people. I take part in mathematical discussions with my peers.	When talking to other people, I listen to them and react accordingly. When talking to others about my mathematical thinking, I try to concentrate on the main ideas instead of technicalities. I give feedback to others when their solutions are discussed.	I give constructive feedback to others so that they can improve their work. I can find something positive and meaningful to say in other people's work. I can summarise my solutions clearly, briefly and precisely. When discussing with other people I can take their position and feelings into consideration. I try to make the conversations meaningful to all parties.

GROUP WORK

- In your group, first, choose a situation in which one needs to assess learners' skills
  - a course in university or other formal education, workplace etc.
- What kind of learning objectives are there?
- Design a rubrics
- Finally, plan together how peer assessment can be used in to assess the learning outcomes in that situation?

WHY TO USE PEER ASSESSMENT?

Student involvement in assessment

- **Engage students with criteria and standards, while students apply them to make judgements**

- **The understanding of criteria and standards**
  - **Enhances understanding of the content**
  - **Enhances evaluation skills**
  - **Enhances group working skills**
  - **Enhances ability to identify own competences**

Falchikov & Goldfinch 2000; Asikainen et al. 2014: Virtanen et al. 2014; Kearney et al 2018)

RESEARCH INDICATES

- Fairness, reliability are important for students (Carvalho 2013; Davey & Palmer 2012)
- It is crucial to discuss and share the assessment process and the criteria with the students (Lindblom-Ylänne ym., 2006; Vu & Dall'Alba, 2013; Welsh, 2009)
- Practice and involvement are important for to succeed in implementing the peer assessment (Boxham & West, 2006; O'Donovan, Price & Rust, 2004)

(To find the references see Virtanen et al. 2014)

REFERENCES

- Asikainen, Virtanen, Postareff, Heino (2014). The validity and students' experiences of peer assessment in a large introductory class of gene technology. Studies in Educational Evaluation, (43) 197-205-
- Boud, et al. 2018. Developing Evaluative Judgement in Higher Education. Routledge.

- More references for peer assessment, see : Virtanen, V., Postareff, L. & Hailikari, T. 2015 Millainen arviointi tukee elinikäistä oppimista? Yliopistopedagogiikka. 22, 1, 1-11. (Abstrat in English How to reform assessment practices for lifelong learning?)