Group Member Evaluation

Use Case

DKE - Maastricht University

Who am I?

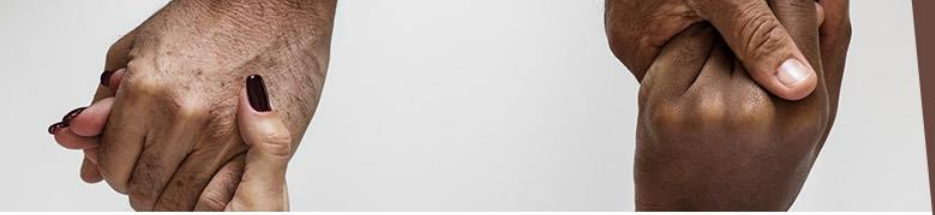
Work in Maastricht, Netherlands

... at the Department of Data Science and Knowledge Engineering (DKE)

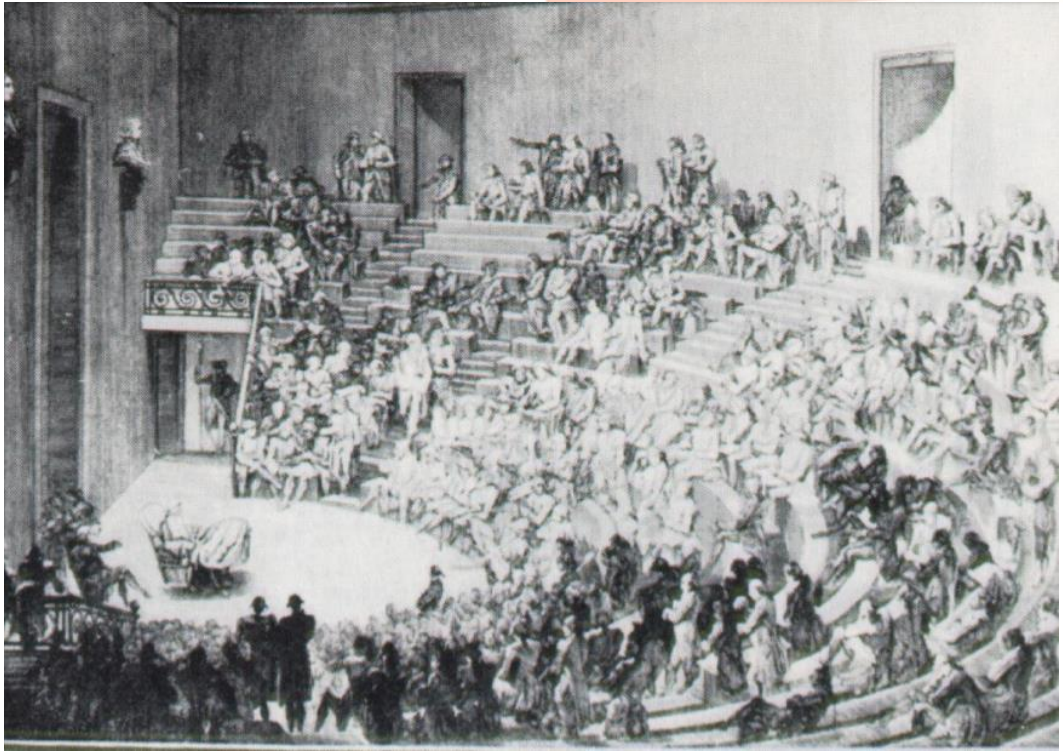
Katharina Schneider

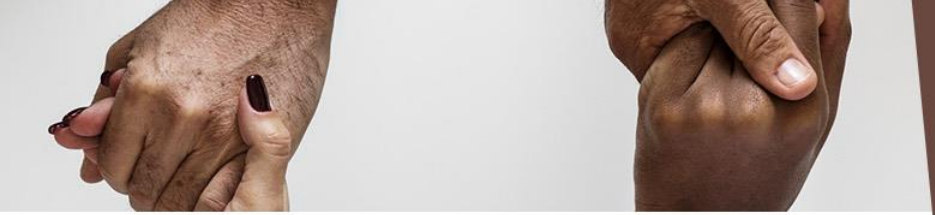
... which is a department of:

Maastricht University



Lecture hall in 18th Century





Lecture Hall late 20th Century

Lecture Hall in 21st Century

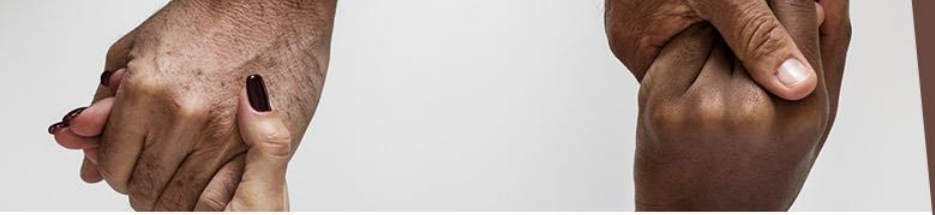
What? My friends went for a beer without me?

Lungs

A starship trouper

Awwww…. A grumpy baby

And sometimes it looks like that

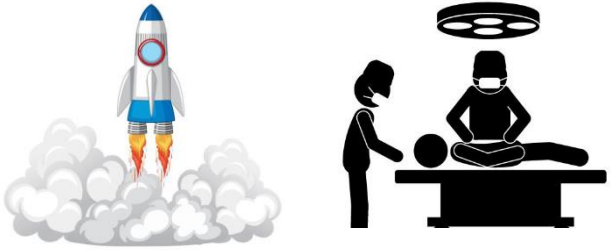


Need For a Change

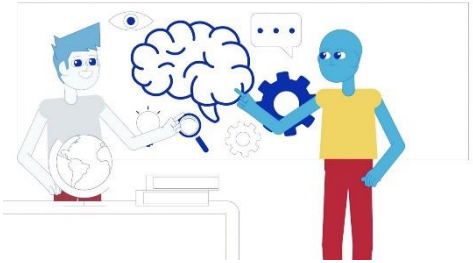
- Put the students back into the focus
- Activate the students
- Let the students apply the knowledge
- Let the students explore their interests

Problem-based learning (PBL)

Contextual



Constructive



Collaborative

Self-directed

How does DKE interpret PBL?

Projects

PCL – Project Centered Learning

My Job

Lecturer

Project Coordination

Research

Projects at DKE

Week 1 to 7		Week 8
Course 1		E X A M S
Course 2		
Course 3		
Project	PFP	

Week 1 to 7		Week 8
Course 4		E X A M S
Course 5		
Course 6		
Project	PSP	

Weeks 1, 2, 3		Week 4
PROJECT	FP	R E S I T

- Students work in groups of 6-7 students (in total 10-30 groups in each year)
- On real-world data science and AI problems (in year 3 even in collaboration with companies)
- Tutor guides students through project (weekly/bi-weekly meetings)
- Examiner assess and give feedback

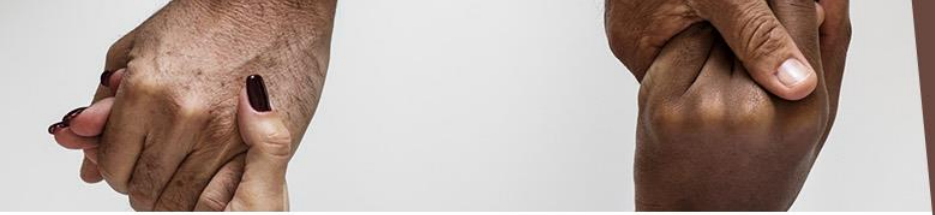
Assessment

- $\text{FinalGrade} =$
  $0.9 \cdot (0.15 \cdot \text{gradePhase1} + 0.15 \cdot \text{gradePhase2} + 0.7 \cdot \text{gradePhase3})$
  $+\text{skillClassGrade}$
  $+/-\text{individualGrade}$

- Group grade: based on performance of the group
- Skill class grade: based on how many missed skill classes $\in \{0; 0.5; 1\}$
- Individual grade: based on individual contribution

Complaints & Issues

- Students complain about
  - Free riders
  - Group members not submitting their tasks on time
  - Unfair individual grades
  - …
- Tutors/examiners
  - Have a hard time to find out the truth
  - Need input from other group members to give individual grades
  - Are contacted often too late



Group member evaluation

- Thus, we wanted a platform where the students can give feedback to each other (anonymous)
- Good learning experience for students
- Easier for tutors to identify free-riders and issues early
- Base for giving individual grade

Implementation at DKE

- Feedback fruit integrated to our education management system
- Anonymous GME in the middle of phase 2
- Self-evaluation + evaluation of peers
- GME in phase 2 discussed by tutor
  - What are your main take-away from the feedback?
  - Do you agree with the feedback, why so/why not?
  - What do you think went well?
  - What would you have done differently, given the opportunity?

Feedback Rubrics

	Unacceptable 1	Satisfactory 2	Exemplary 3
Attending internal team meetings	Frequently missed meetings and did not inform the team	Attended most team meetings. When member had to be absent they informed and/or sought the agreement of the team.	Attended all team meetings and took the initiative to organize and facilitate them.
Responsibility	Did not share any responsibility for tasks to be accomplished	Shared responsibility for tasks to be accomplished	Shared responsibility for tasks to be accomplished and also helped others
Communication	Does not or barely communicate with team and does not or barely respond to team members' questions	Communicates and responds to team members' questions but there is some room for improvement (e.g. communication is sometimes unclear, or (s)he does not reply in a timely manner)	Communicates clearly and responds promptly to team members' questions and requests

	Unacceptable 1	Satisfactory 2	Exemplary 3
Interaction and collaboration	Does not or insufficiently listens and does not consider team members' ideas and opinions	Makes sufficient effort to listen and consider team members' ideas and opinions but could improve on this (e.g. sometimes responded in a dismissive manner or did not always listen to others' suggestions)	Listens and respectfully considers team members' ideas and opinions
Initiative	Shows little to no initiative (e.g. gave no suggestions and did not participate in team decision making and planning)	Shows some initiative and interest in team decision making and planning but there is room for improvement (e.g. providing suggestions or seeking feedback)	Made frequent suggestions, sought feedback and actively participated in team decision making and planning
Timely submission of assigned work	Was not able to submit any assigned work on time	Was able to submit most assigned work on time	Was able to submit all assigned work on time

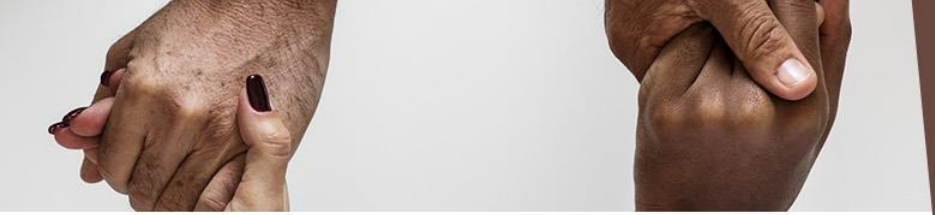
No summative assessment

- GME was not part of summative assessment
- Not participated in GME -> reduction of skill class grade
- We would like to make the individual grade completely based on peer feedback
- BUT:

Equal coding contribution (wanted by tutors/examiners)
vs.
Incentive to go the easiest way (students)

Reflection

- 6 runs of GME so far
- Most groups valued feedback and reflected seriously
- Some cases, where students got more self-confidence
- Tutors got a lot of insights into group dynamics
- In the pilot: 2 GME per project -> too much
- Possible improvement: comments mandatory at least for low grades for a certain criterion



Thank you