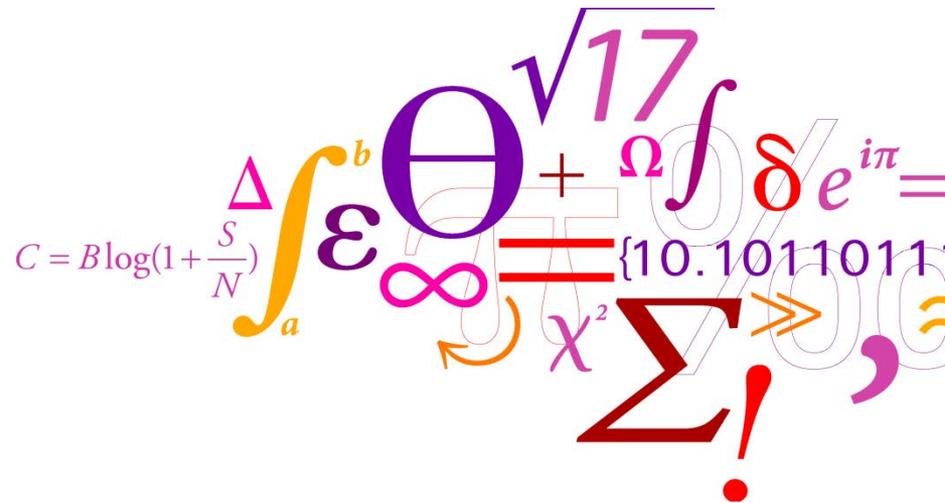


# Peer review – a practical approach

Henrik Christiansen, Ph.D.

Associate professor in mobile communication

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# Agenda

- Why use peer assessment?
  - Intentions
- How?
  - Possible implementations
  - Evaluation rubrics
  - Preparing the students
- Outcomes
  - Teacher and student perspectives
  - Caveats

## Peer assessment – quick facts

- Formative assessment
  - Assessment during the course (feedback to students)
  - Assessment used as a learning tool – not (only) for grading
- The evaluation from students is (almost) as good as the evaluation from the teacher
  - The teacher must provide the evaluation criteria (rubrics)
  - Each student should evaluate a number of reports
- The students learn a lot from doing the evaluation
  - They get a lot of feedback – from several evaluators
  - They learn from seeing other students' reports

# Motivation → Why use peer assessment?

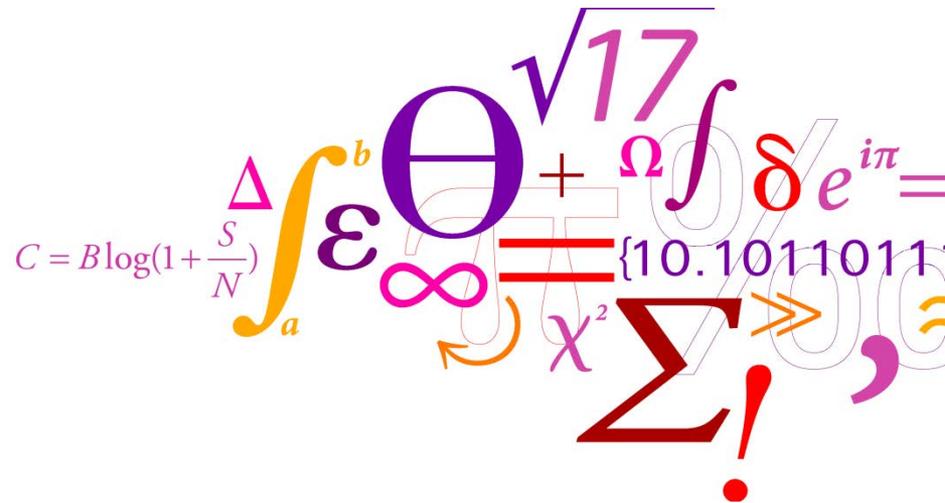
- Report writing is an important skill for an engineer
- How can we improve report writing?
  - Feedback
  - Peer review
- How can we automate the process
  - Maximize learning
  - Minimize teacher effort
- Implementation
  - Using Coursera
  - Using Blackboard

**MOTIVATION**



## How?

- Possible implementations
- Evaluation rubrics
- Preparing the students

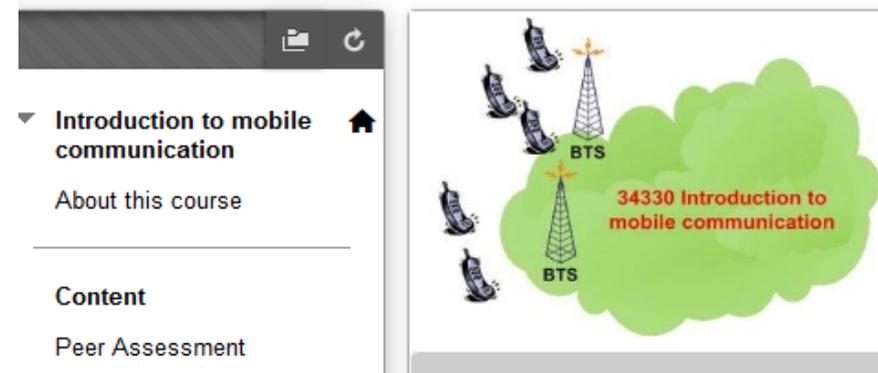


# Automating peer assessment

- Tools with built-in peer assessment capabilities
  - Handles all the reports and distribution among the students
  - Feedback to students
  - Results to teacher
  
- Things to set up
  - Deadlines
  - Evaluation rubric (quantitative / qualitative)
  - Number of reports to evaluate

**coursera**

- Coursera / Blackboard



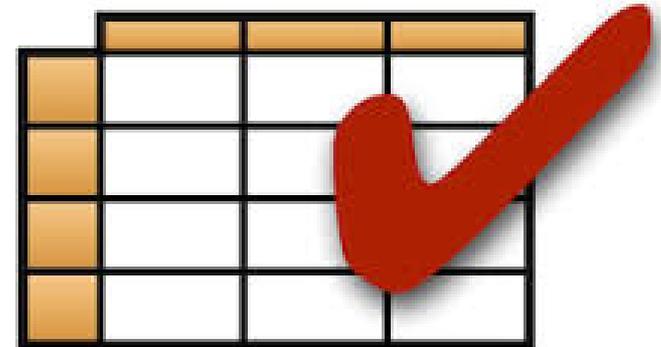
# Setup – preparing the students

- Clear instructions to the students
  - Report
    - What are the expectations
    - How will it be evaluated
  - Peer review process
    - What is peer review all about
    - Why are we doing this (learning / evaluation)
    - All the practical details
    - Evaluation rubric (← known *before* they write the report)
- Essential!
  - I had to improve on this
  - The process has been running much more smoothly this year



## Evaluation rubric used

- How to evaluate reports?
  - Try to quantify
- Four quantitative questions (assessed on a scale from 1-5)
  - Structure
  - Language
  - Results
  - Link to Theory
- One qualitative question
  - General comments
- Number of reports to evaluate: 4



## Example quantitative question

- Results

Please, assess how well the results are documented. Typically screen shots are a good way of providing documentation.

- Grading scale (qualitative 1-5)

1. No documentation at all - did you attend the lab?
2. Some results are there, but a lot are still missing. Clearly not good enough
3. Nice try! A decent attempt has been made, but there is room for improvement.
4. Almost there. There are only very few results missing
5. Perfect. All results are documented



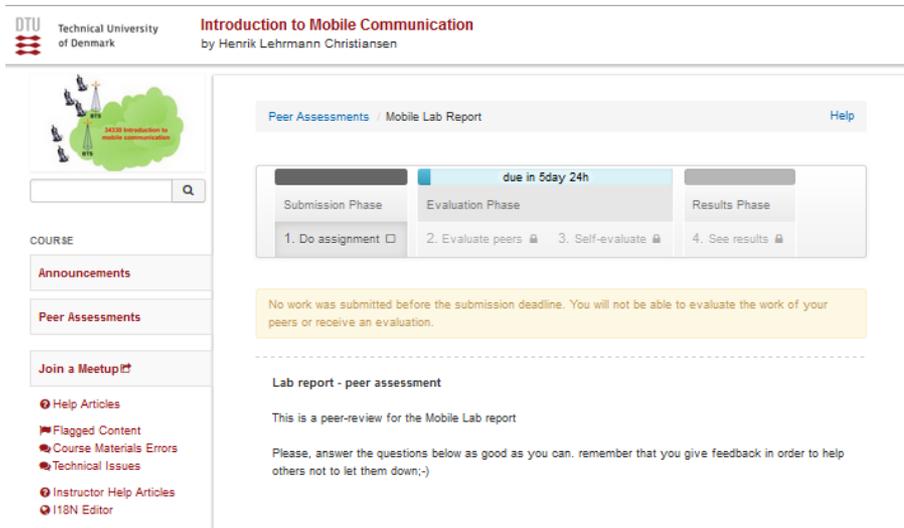
# Teacher view: Coursera vs. Blackboard

## Coursera

- Students must set up a new account
- Clever algorithm for distributing reports

## Blackboard

- Use of DTU credentials
- Not so clever algorithm for distributing reports



DTU Technical University of Denmark

**Introduction to Mobile Communication**  
by Henrik Lehmann Christiansen

Peer Assessments | Mobile Lab Report

due in 5day 24h

Submission Phase	Evaluation Phase	Results Phase
1. Do assignment	2. Evaluate peers	3. Self-evaluate
	4. See results	

No work was submitted before the submission deadline. You will not be able to evaluate the work of your peers or receive an evaluation.

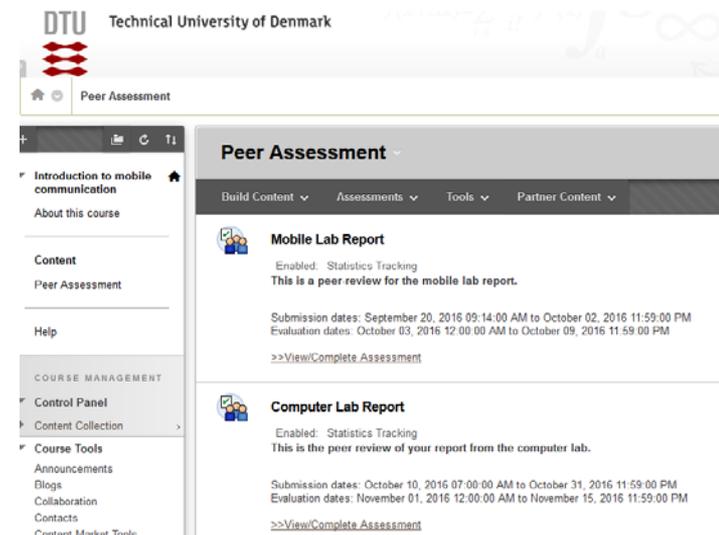
Lab report - peer assessment

This is a peer-review for the Mobile Lab report

Please, answer the questions below as good as you can. remember that you give feedback in order to help others not to let them down;-)

COURSE

- Announcements
- Peer Assessments
- Join a Meetup
- Help Articles
- Flagged Content
- Course Materials Errors
- Technical Issues
- Instructor Help Articles
- I18N Editor



DTU Technical University of Denmark

Peer Assessment

Peer Assessment

Build Content | Assessments | Tools | Partner Content

**Mobile Lab Report**

Enabled: Statistics Tracking  
This is a peer review for the mobile lab report.

Submission dates: September 20, 2016 09:14:00 AM to October 02, 2016 11:59:00 PM  
Evaluation dates: October 03, 2016 12:00:00 AM to October 09, 2016 11:59:00 PM

>>View/Complete Assessment

**Computer Lab Report**

Enabled: Statistics Tracking  
This is the peer review of your report from the computer lab.

Submission dates: October 10, 2016 07:00:00 AM to October 31, 2016 11:59:00 PM  
Evaluation dates: November 01, 2016 12:00:00 AM to November 15, 2016 11:59:00 PM

>>View/Complete Assessment

COURSE MANAGEMENT

- Control Panel
- Content Collection
- Course Tools
  - Announcements
  - Blogs
  - Collaboration
  - Contacts
  - Content Market Tools

# What about the students – did they like it?

- Course evaluation (2015):
  - What went well: “...Peer-to-peer review - Guideline how the report has to be...”
- Students asked in class were positive
- Example student comments
  - Overall a good report :-) Some places could use a little more linking to theory, f.ex. the capacity utilization in the UMTS part would have been good. Otherwise you come to some interesting and good conclusions. Unfortunately some of the results were missing, but a good thing you write it :-D
  - A very good report, but i think the structure needs some improvements. It would be nice, if the screen dumps were fitted better to the text explanations. I also think, the table of content, should stand alone on one page. But in overall, a well written report!
  - - You have a lot of theory that is not referenced to anywhere. - Some detail on the MO and MT calls seems to be missing. - There is some text that is understandable but could use a more technical rewrite (higher lower at one point should refer to the amplitude of the wave). - Some spelling and grammar mistakes, most prominently watch out for witch (heks) and which (hvilken). Your report seems a bit rushed, but you get through the report and the things you have documented are well done, and thumbs up on using LaTeX! :-)
  - Structure and language is near-perfect (From distribution of sections & subsections to the descriptions of the graphs). Very clear and concise. Results are to-the-point with only a minor exception in the first part of the UMTS section. The only other critique I could add is that you might consider more theory references accompanying the result descriptions. Good report.

## Caveats

- Students not handing in
- Technical problems
- Can we trust the students' grading?
  - Does it matter – or do they learn something in any case?
- Can we use the peer grades for formal exams?
  - Legal issue
- The Coursera DTU “sand box” has been taken out of operation
  - But there are alternatives, e.g., Blackboard

