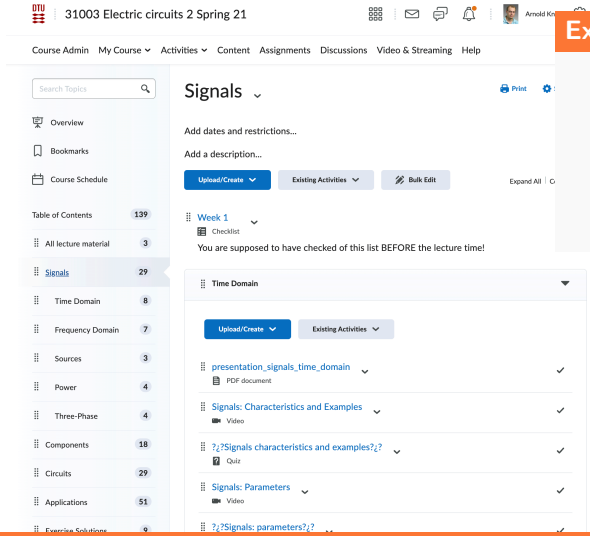
DTU

DTU

Arnold Knott

Teaching Adventures

Spring 21: Normal use of DTU Learn



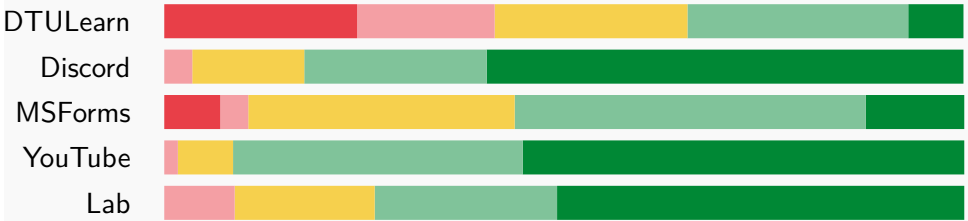
Examples

- YouTube
- Learn quizzes
- Learn chat $\Rightarrow$ **NO** posts
- Learn checklists $\Rightarrow$ popular

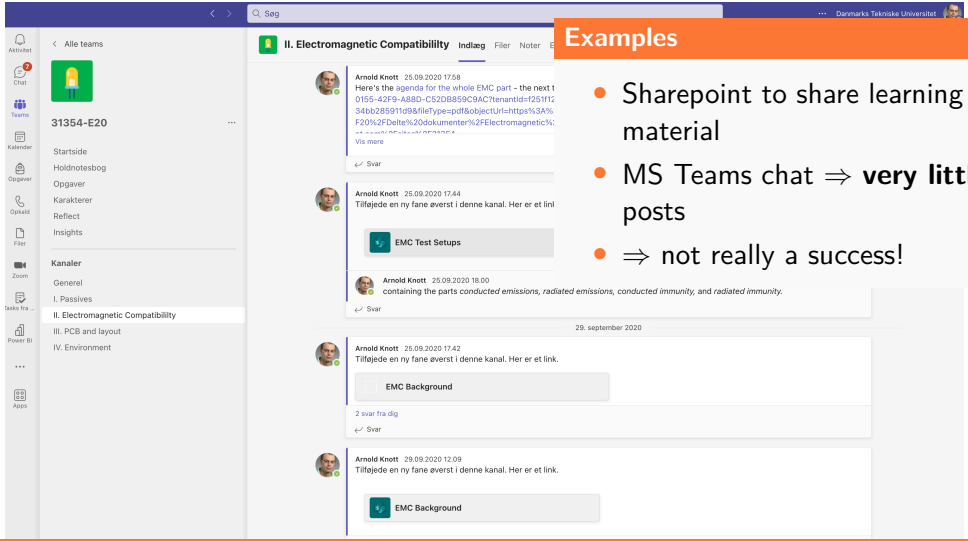
Spring 21: Evaluation

I've learned a lot in this course (all courses):

What do you think about those tools? (2021)



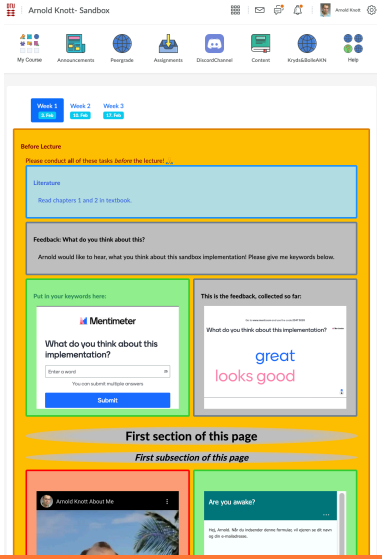
Fall 21: MS Teams with embedded Sharepoint sites



Examples

- Sharepoint to share learning material
- MS Teams chat ⇒ **very little** posts
- ⇒ not really a success!

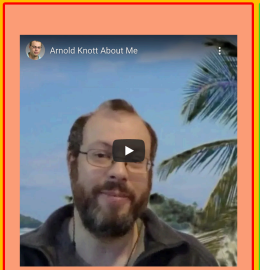
Spring 22: dissable Learn and embed version 1 of own interface.

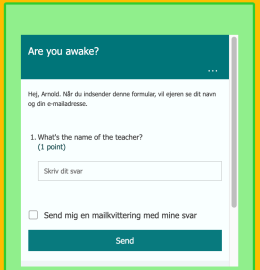


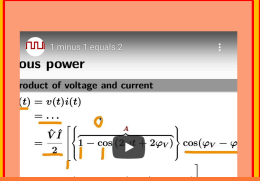
Integration of mainstream tools

First section of this page

First subsection of this page



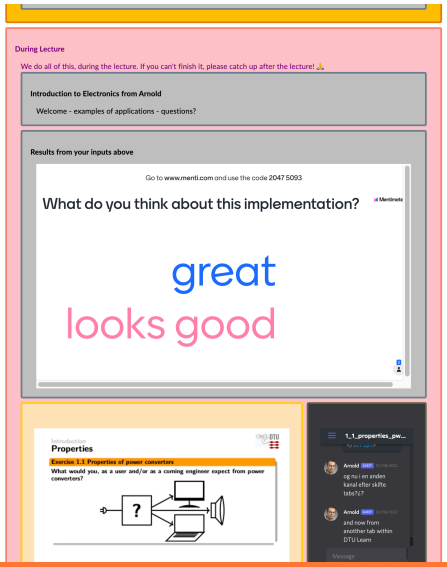




Examples

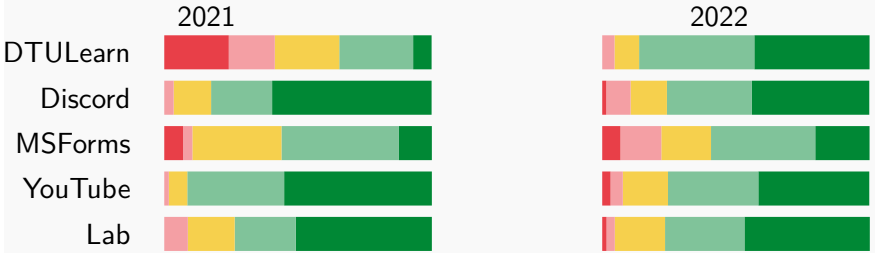
- YouTube
- Microsoft Forms
- Discord channels
- Mentimeter
- PDF-preview
- slides, pictures, ...
- basically every tool, that has an <embed>, a <iframe>, API, CLI or similar.

Student activation



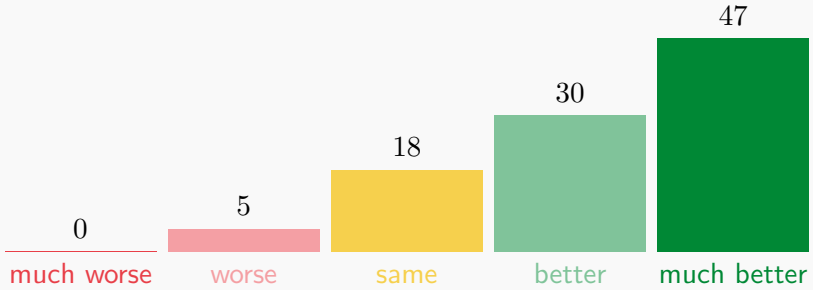
Evaluation Spring 22: before and after

What do you think about those tools?



Evaluation Spring 22: Comparison to other courses

Compared to other courses at DTU - how do you like my setup of DTU Learn, with the frames on the frontpage, the integration of videos, quizzes, and so on?



77% out of 66 students think, that my setup is better or much better!

Version 2: still most of learn dissabled and learned Typescript, Cloud, …

34601 Electric circuits 2 Spring 23

Arnold Knott

Course Home | My Course | Announcements | Assignments | Discord | Zoom | Help

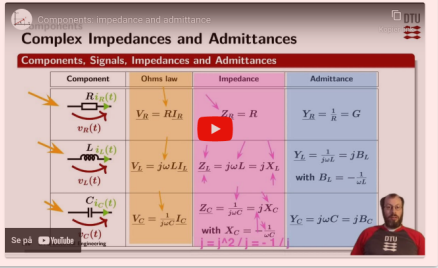
Slides | Week | 1 2 3 4 5 6 7 8 9 10 11 12 13 | 15. Feb

SIGNALS
- Time Domain
- Frequency Domain
  - Readings for Fr…
  - Fourier Series
  - Quiz: Fourier S…
  - Spectrum
  - Quiz: Spectrum
- Sources
- Power
- Three Phase

COMPONENTS
- Resistor
- Inductors
- Coupled Inductors
- Capacitors
- Impedances

chapter 8.2 in textbook

Video



Quiz

?¿?Components: Impedances and admittances?¿?

Hej, Arnold. Når du indsender denne formular, vil ejeren se dit navn og din e-mailadresse.

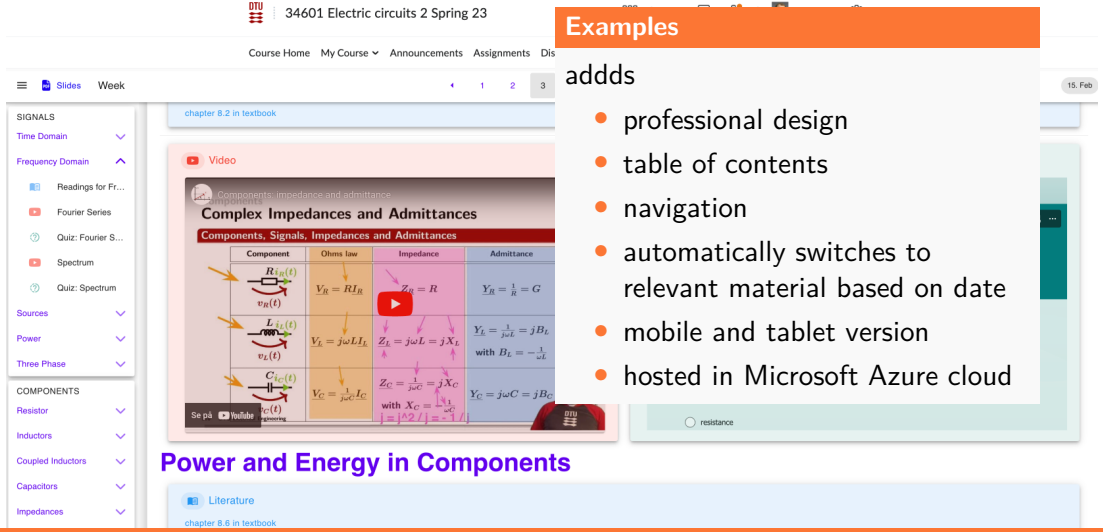
1. What's the real part of impedance? (1 point)
   - conductance
   - susceptance
   - resistance

Power and Energy in Components

Literature

chapter 8.6 in textbook

Version 2: still most of learn dissabled and learned Typescript, Cloud, ...

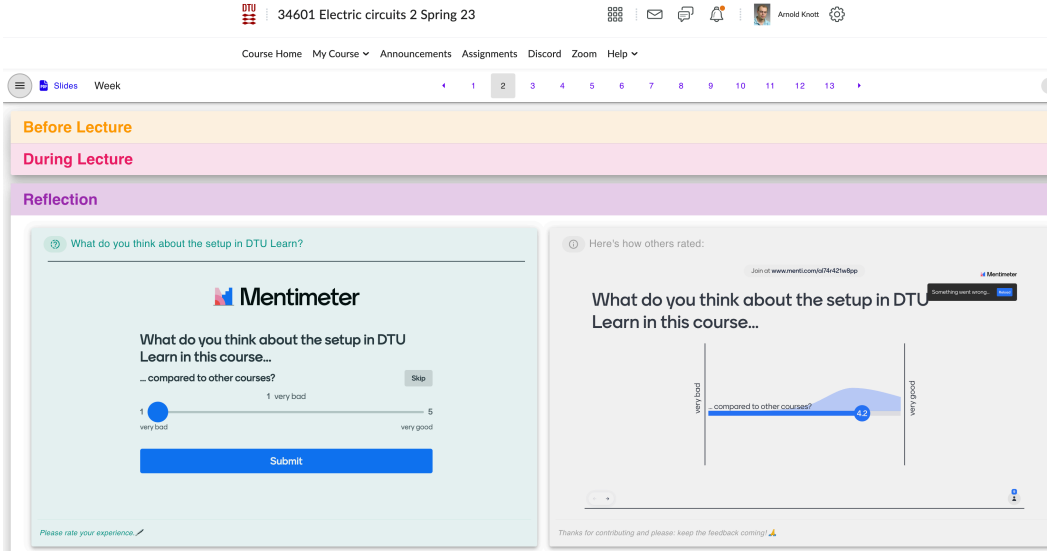


Examples

addds

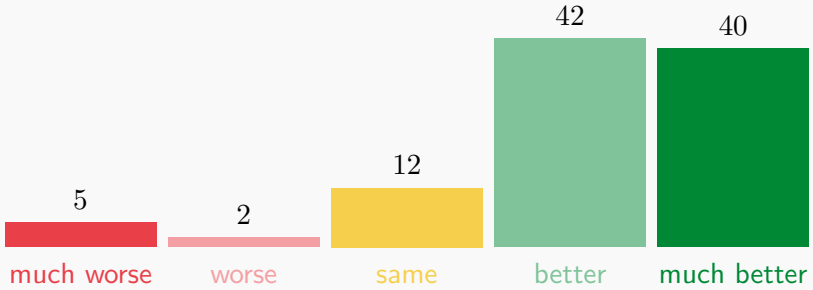
- professional design
- table of contents
- navigation
- automatically switches to relevant material based on date
- mobile and tablet version
- hosted in Microsoft Azure cloud

Version 2: other view



Evaluation Spring 23: Comparison to other courses

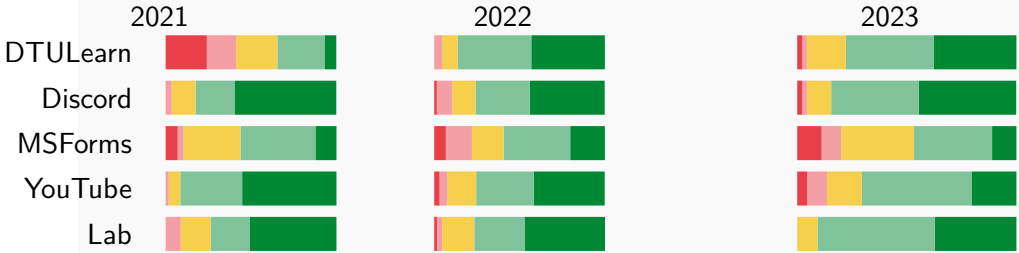
Compared to other courses at DTU - how do you like my setup of DTU Learn, with the frames on the frontpage, the integration of videos, quizzes, and so on?



82% out of 43 students think, that my setup is better or much better!

Evaluation Spring 21, 22 and 23: normal Learn, 1st version and 2nd version

What do you think about those tools?



What students say...

- "Ombygningen af Learn har gjort det meget nemmere at finde rundt i kurset og brugen af Discord har gjort det nemmere at spørge om hjælp samt bare at arbejde."
- "Arnolds programmering af dtu learn er fremragende og gør faktisk at det kan anvendes til noget fornuftigt! Det giver et meget bedre overblik end man ellers ville kunne få."
- "Et godt struktureret kursus, og kan godt lide layoutet på Learn da det er intuitivt og mere spændende end den normale side."
- "Jo mindre Learn jo bedre. Til næste kursushold, bare uploade din hjemmeside til dem i stedet, ville højst sandsynligt være lettere at bruge."
- "Baren med logoer i toppen af Learn fylder for meget..! Kan ikke altid se hele videoen og lign. (Og farverne er lidt voldsomme ;)). Men kan godt lide opsætningen, bedre end almindeligt DTU Learn."

Future work - target spring 24

- Create a backend to enable individual progress tracking
- Rework automated exams and couple with student engagement
- Expand to more courses: 1st round with JSON input from teachers
- Expand to more courses: 2nd round with teacher frontend

Potential new features

- couple students' efforts on quizzes (and other tasks) with amount of exam questions => less formative assessments and more fully automated individualisation
- add transcript of YouTube videos to page (makes the videos searchable) and available in any language (use API to YouTube and API to google translate)
- collapse content based on students to-do-list
- auto-translate all content
- add search to course page: search in videos (via transcripts), quizzes, chats, documents, ...

Sources...

... of slides:

https://gitlab.gbar.dtu.dk/ELE_group/teaching/teaching_adventures.git

... of web front end (version 2):

https://lab.compute.dtu.dk/knott/knottcoursesweb

... of web front end (version 1):

https://gitlab.gbar.dtu.dk/knott/AKNcoursesWeb.git

(login with your DTU credentials as LDAP user.)