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Online education in Covid19 times

Results from a large-scale evaluation at WUR and lessons learned

ICAB 2020 Conference

Perry den Brok, November 5, 2020

TU Delft Delft University of Technology

TU/e Technische Universiteit Eindhoven University of Technology

UNIVERSITY OF TWENTE.

WAGENINGEN UR For quality of life

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Conducted at WUR

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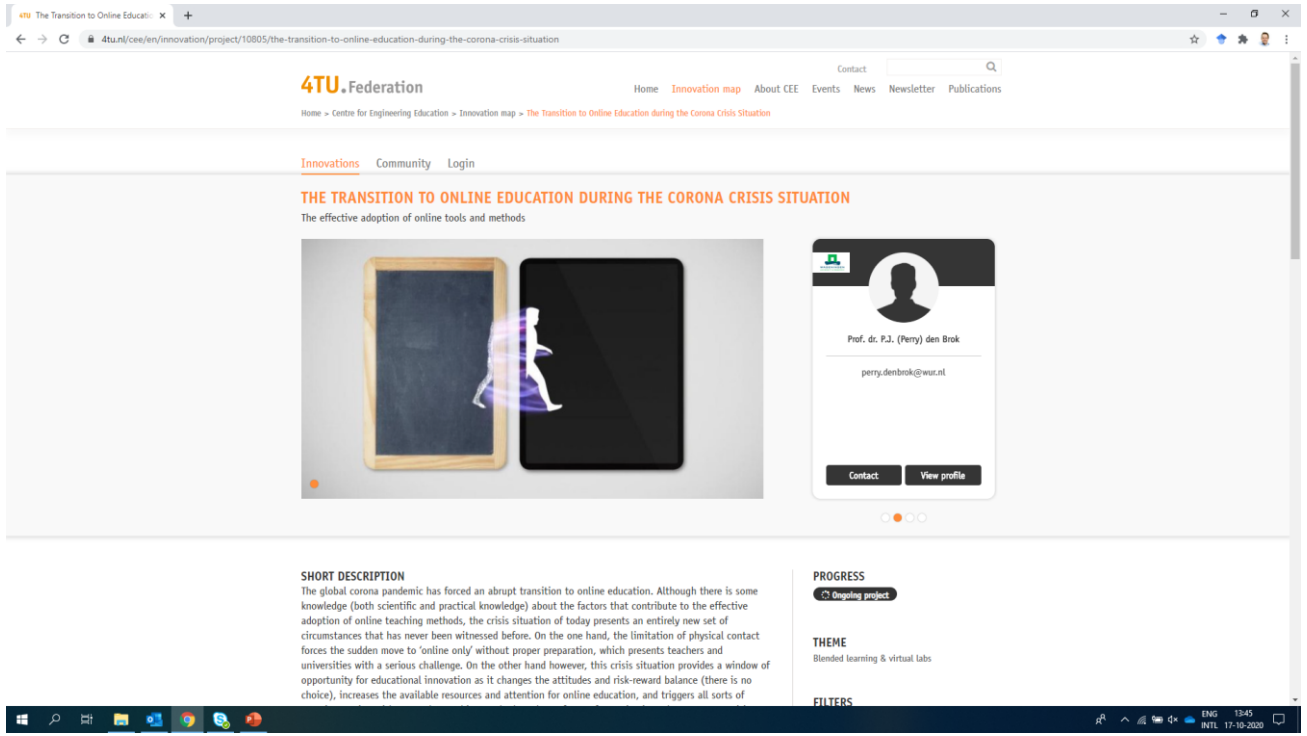


More info about this project:
https://www.4tu.nl/cee/en/innovation/project/10805/the-transition-to-online-education-during-the-corona-crisis-situation
Or:
Tim.Stevens@wur.nl / Perry.denBrok@wur.nl

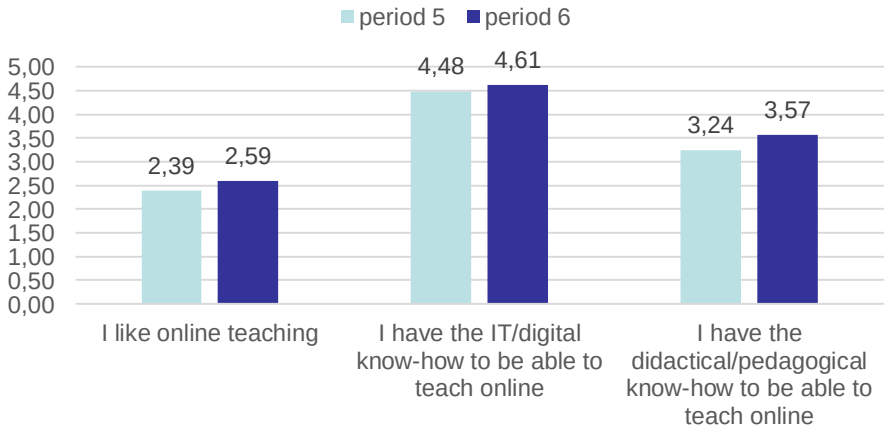
Methods / data collected

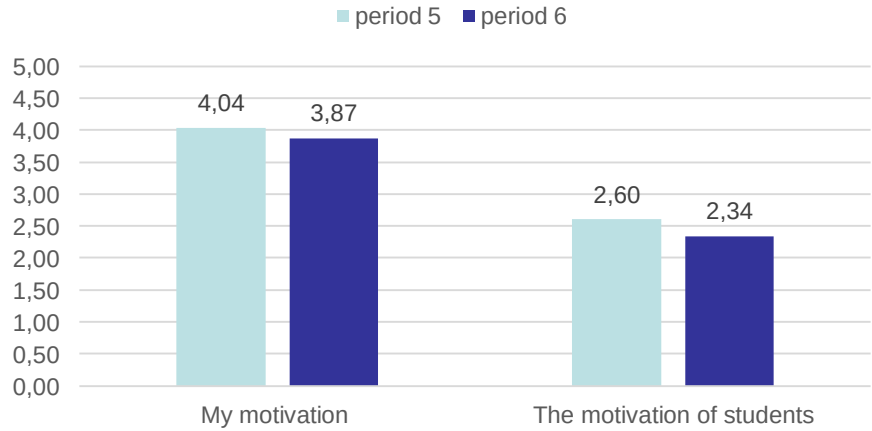
- Student surveys in 2 periods (N=351)
- Teacher surveys in 2 periods (N=338)
- Online proctored examn survey (N=1136)
- Course satisfaction data (Ncourses=457, Nstudents=8997)
- Examn results (N=16828)
- Comparison with course satisfaction data and examn results previous years (2015 – present)
- Interviews with teachers (N=3)
- Case studies (N=3)
- Course guide information (internet), interactive sessions with teachers, well-being data
- Outcomes of research shared (open-access) via MsTeams and 4TU.CEE website (innovation map)

Main topics of this presentation

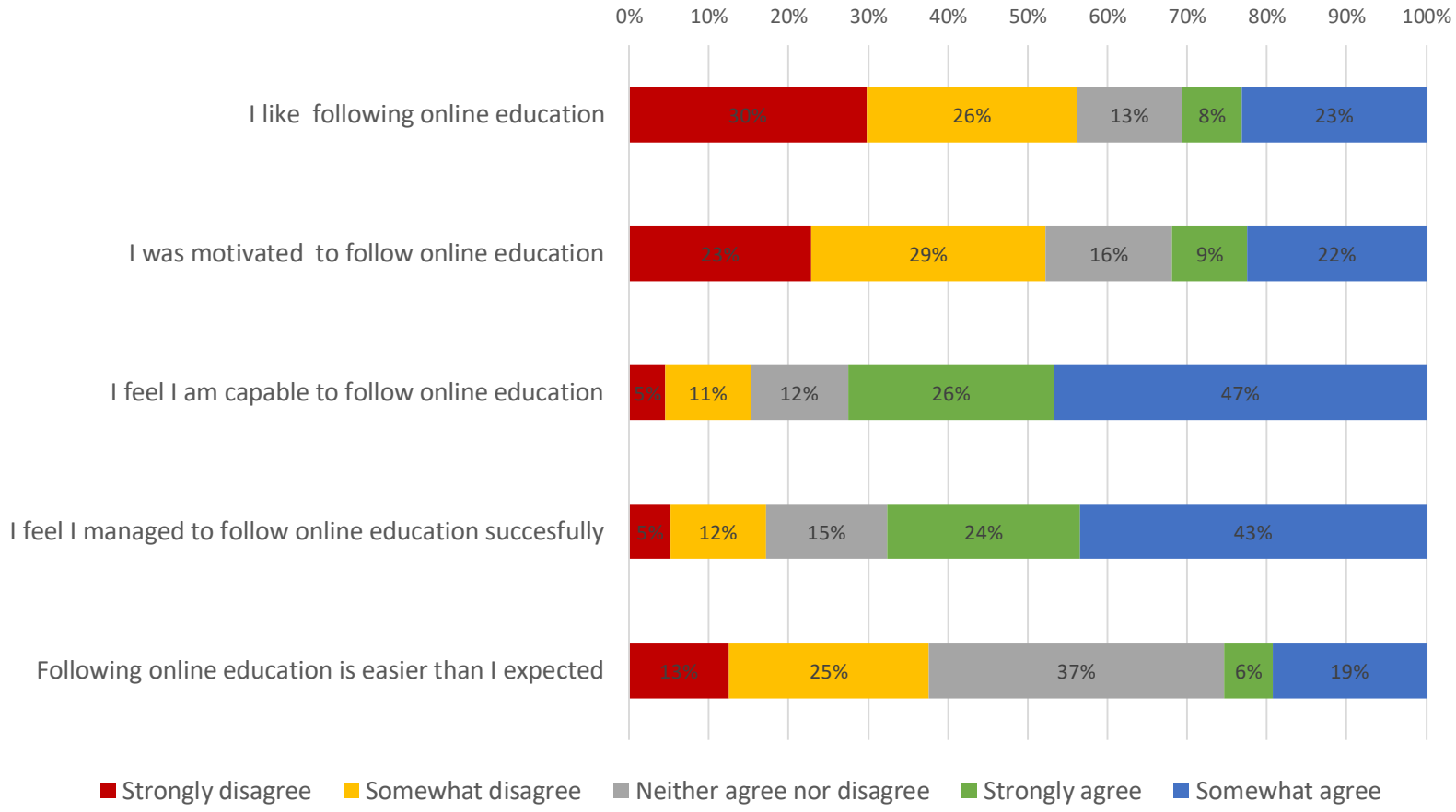
- Perceived ability to teach/study online
- Main teaching methods & changes
- Perceived support
- Attitudes and stress
- Student course satisfaction
- Examn results
- Types/profiles of teachers
- Outlook to the future

Teachers feel able to teach online and are motivated (but think students are less motivated)



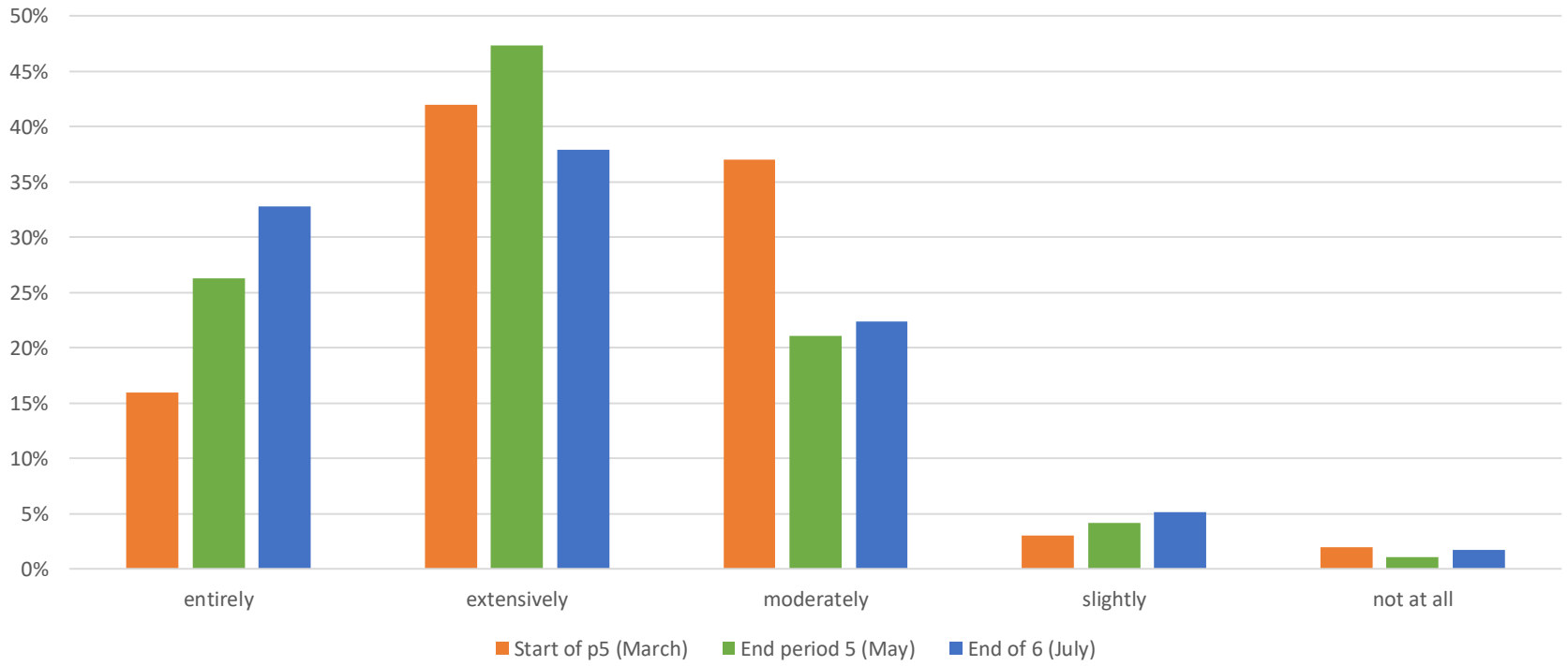


Students feel able, but are less motivated to learn/study online



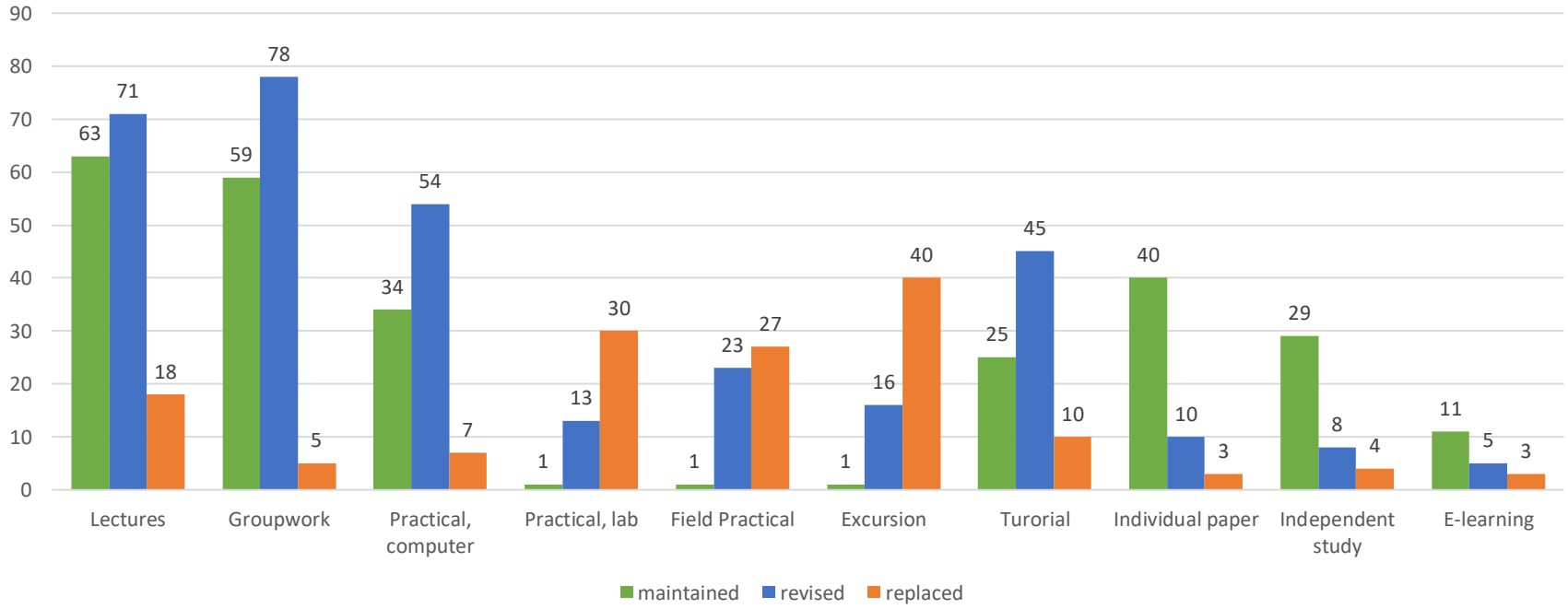
Changing to online education

"As a whole I am/was able to move the teaching activities for this course to online only"

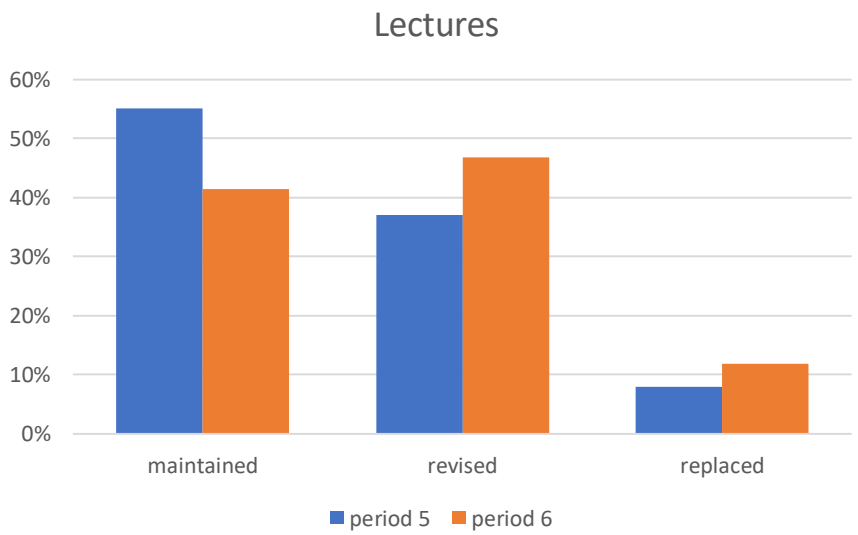


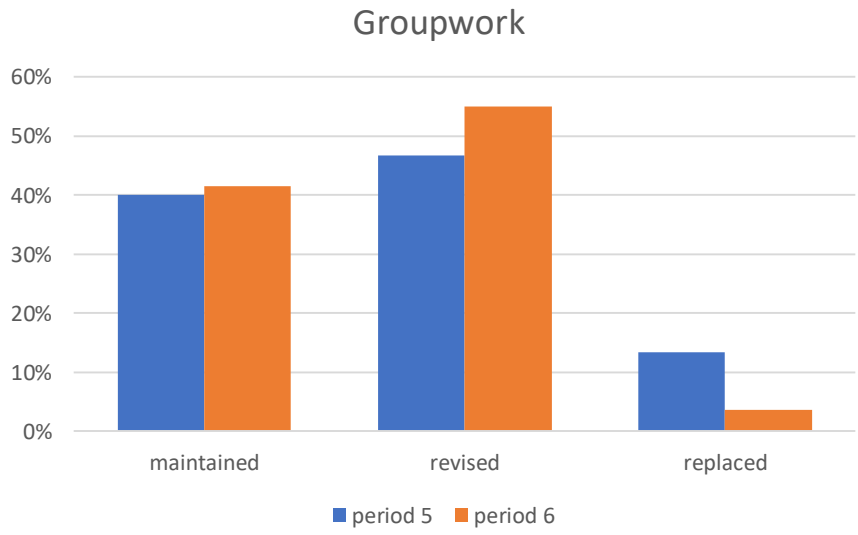
Maintaining, revising, replacing?

“Please indicate for the teaching methods that you applied for this course, whether you largely maintained, revised or replaced the teaching method to be able offer this course online ”



Over time more revising





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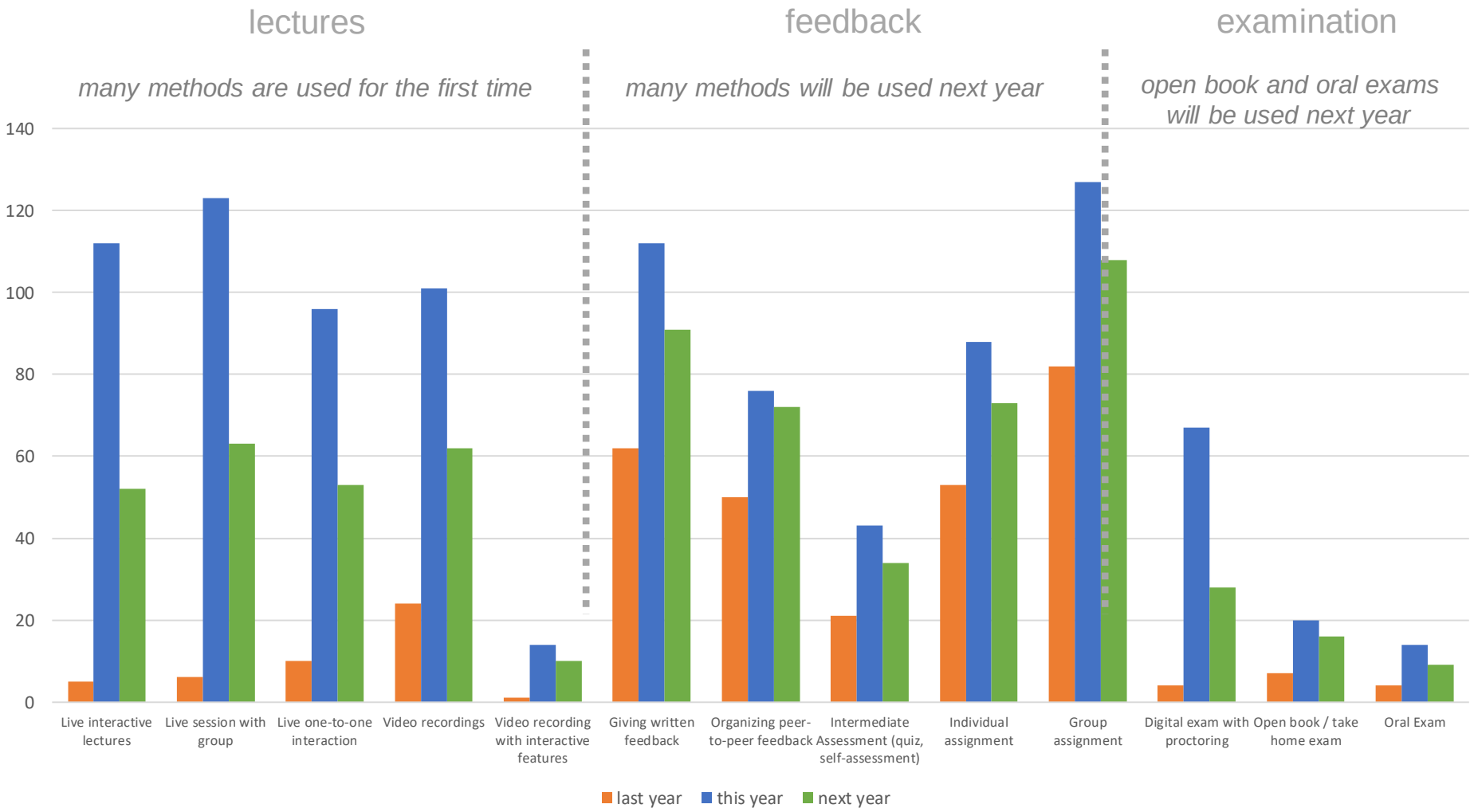
Keeping changes after Covid19?

Please indicate which of the online teaching methods you applied in this course, whether you applied this before and whether you would like to apply it again next year



Students: What contributed (most) to your (online) learning?

- Live lectures (59)
- Recording (56)
- Group work (56)
- Individual work (41)
- Interaction with teacher (28)

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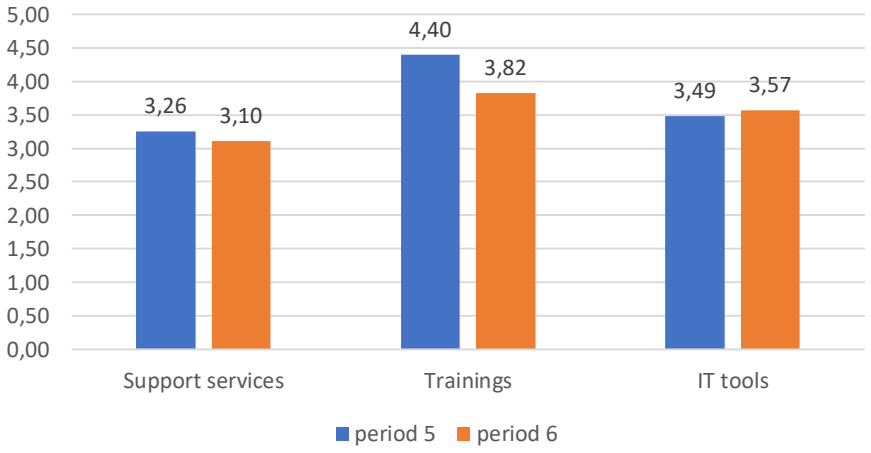
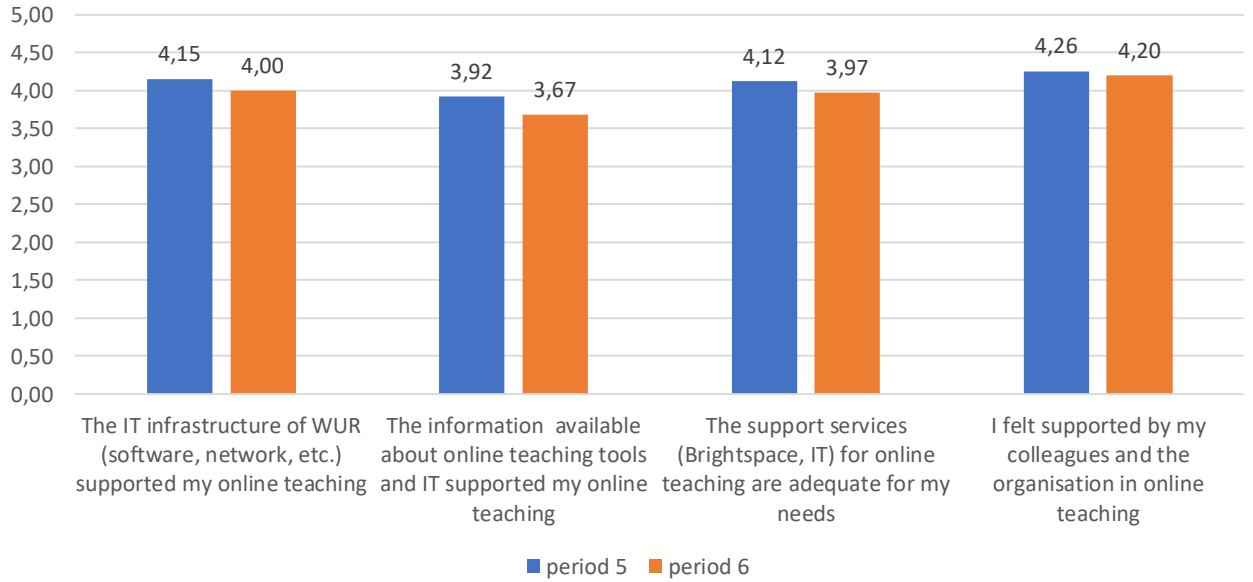
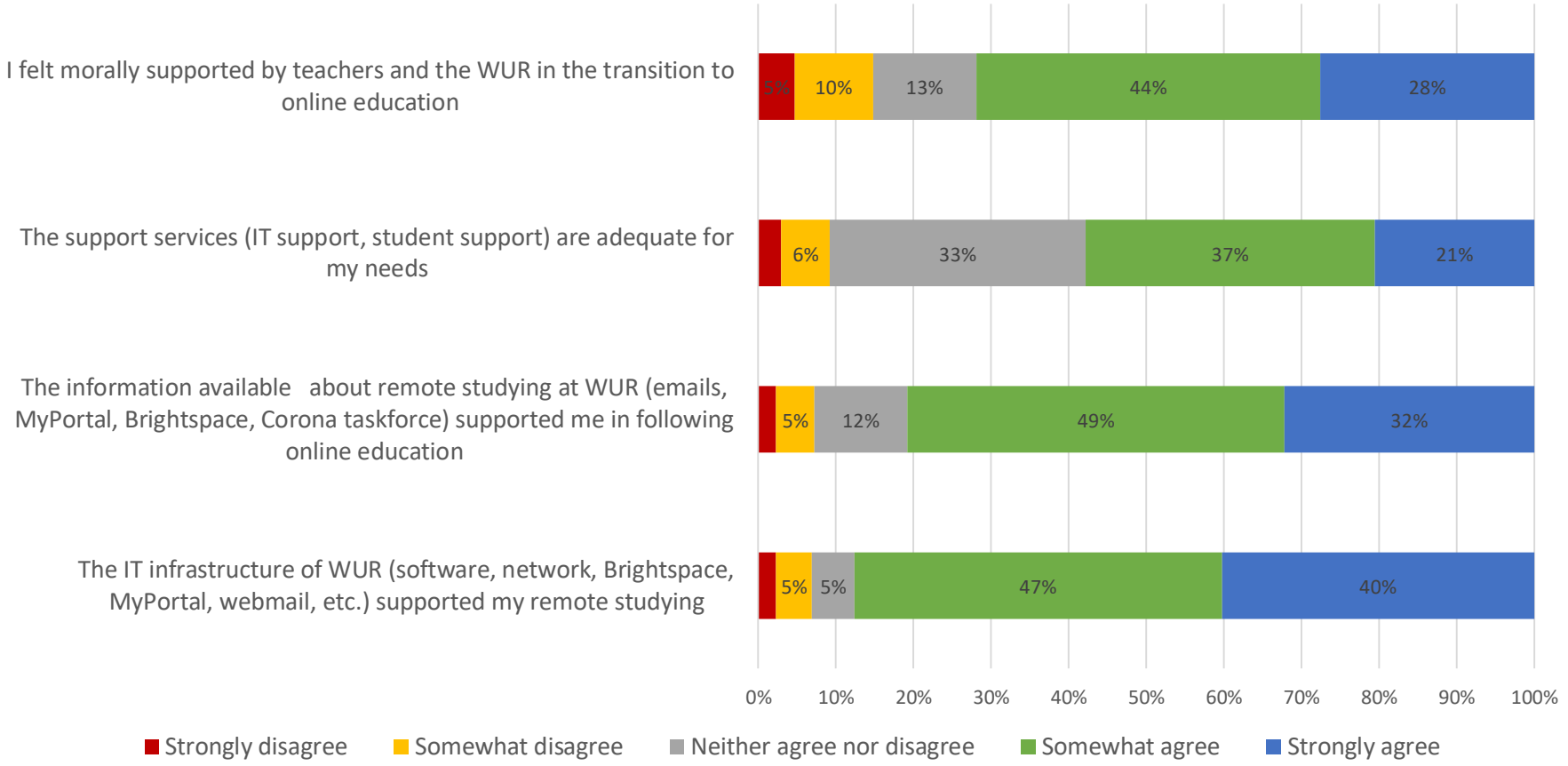
Teachers are satisfied with support

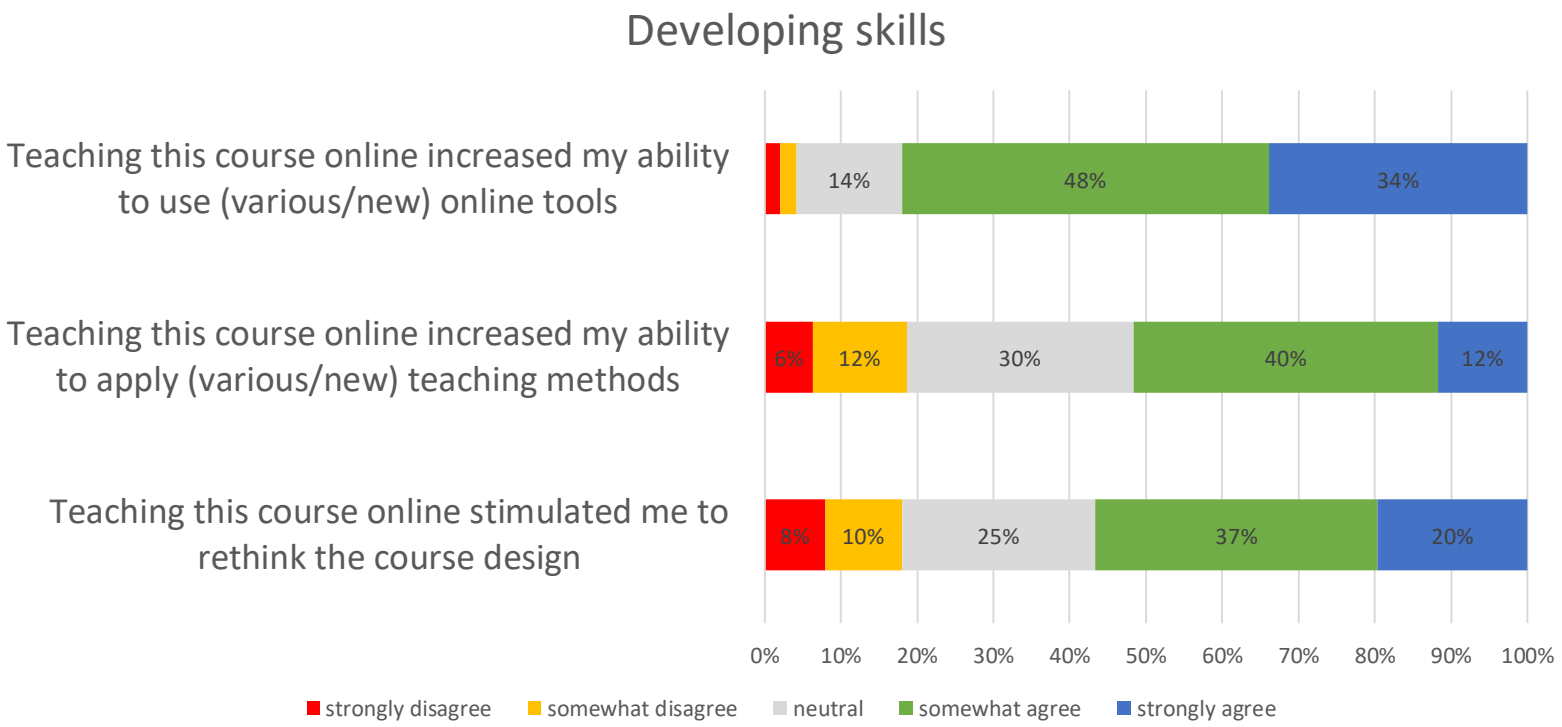




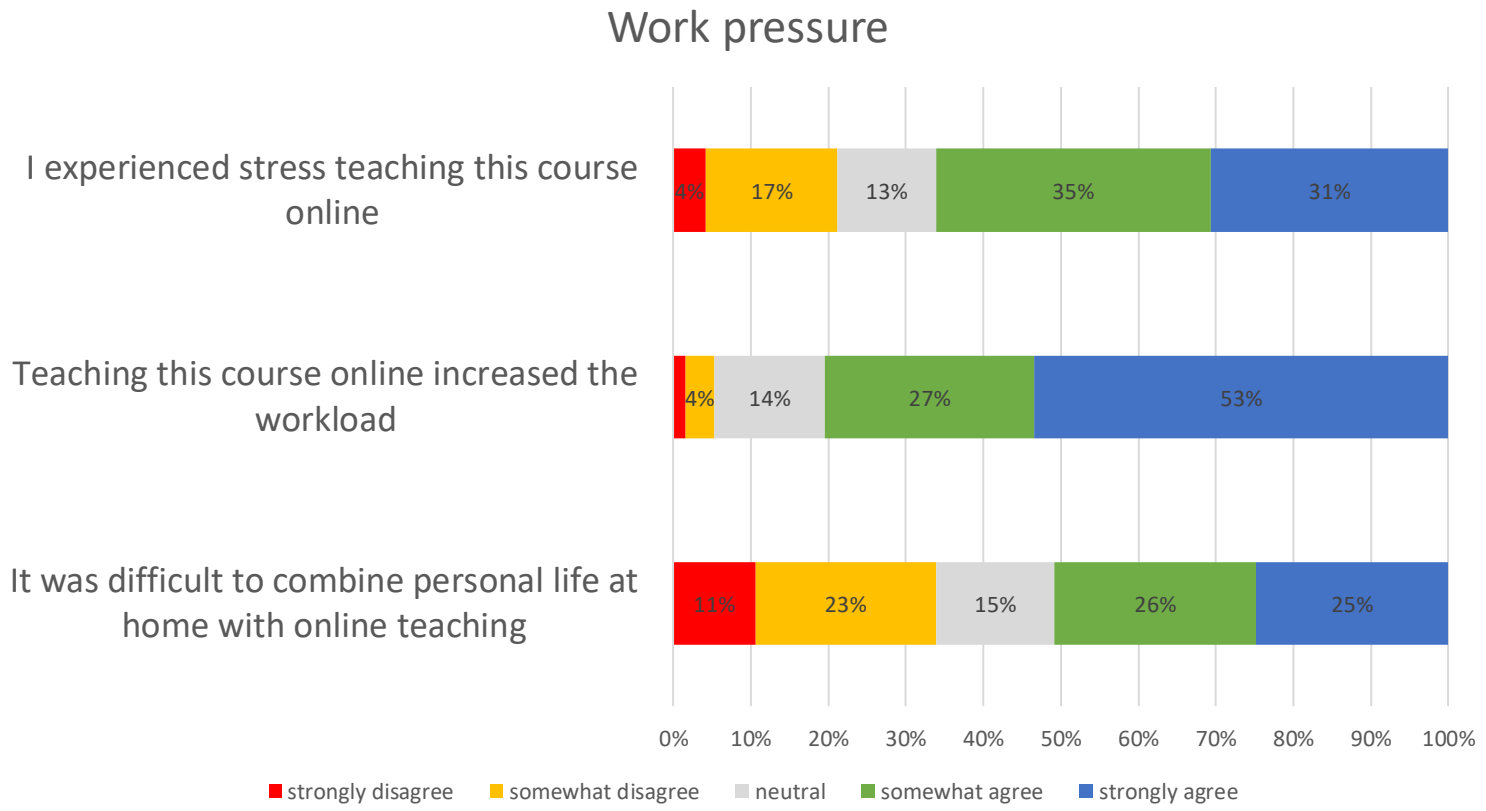
Students are also satisfied with support



Teachers report to develop their online skills....



...but also experience (more) stress



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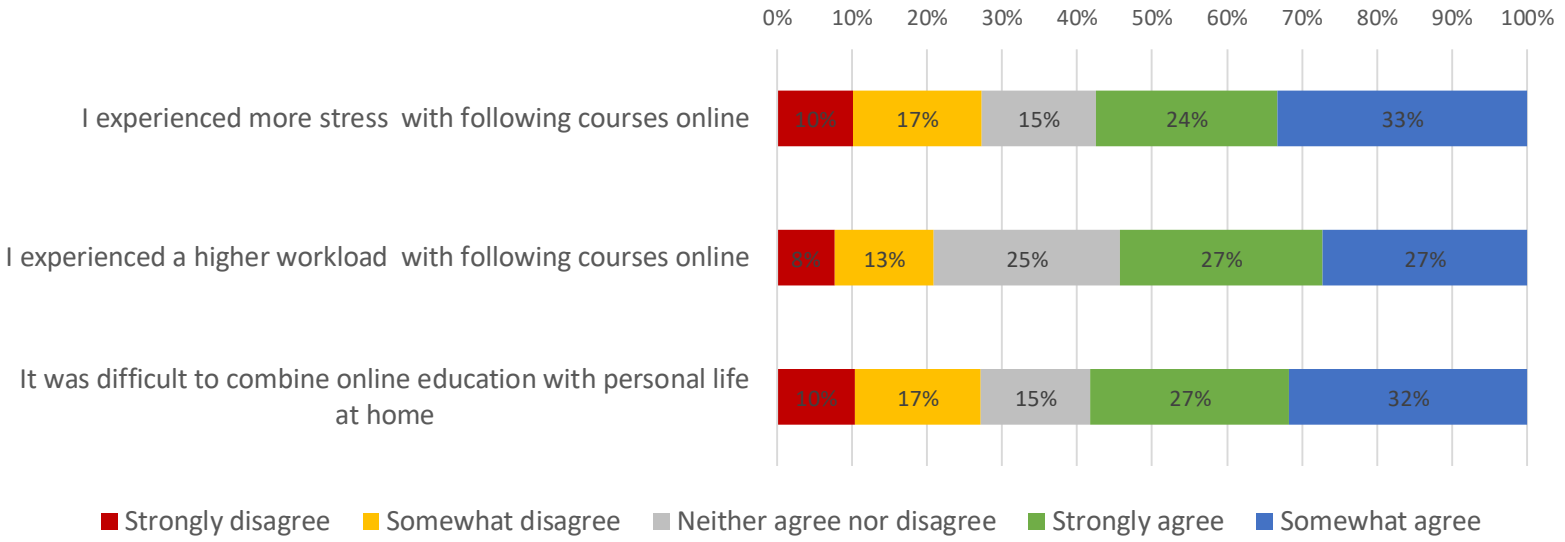
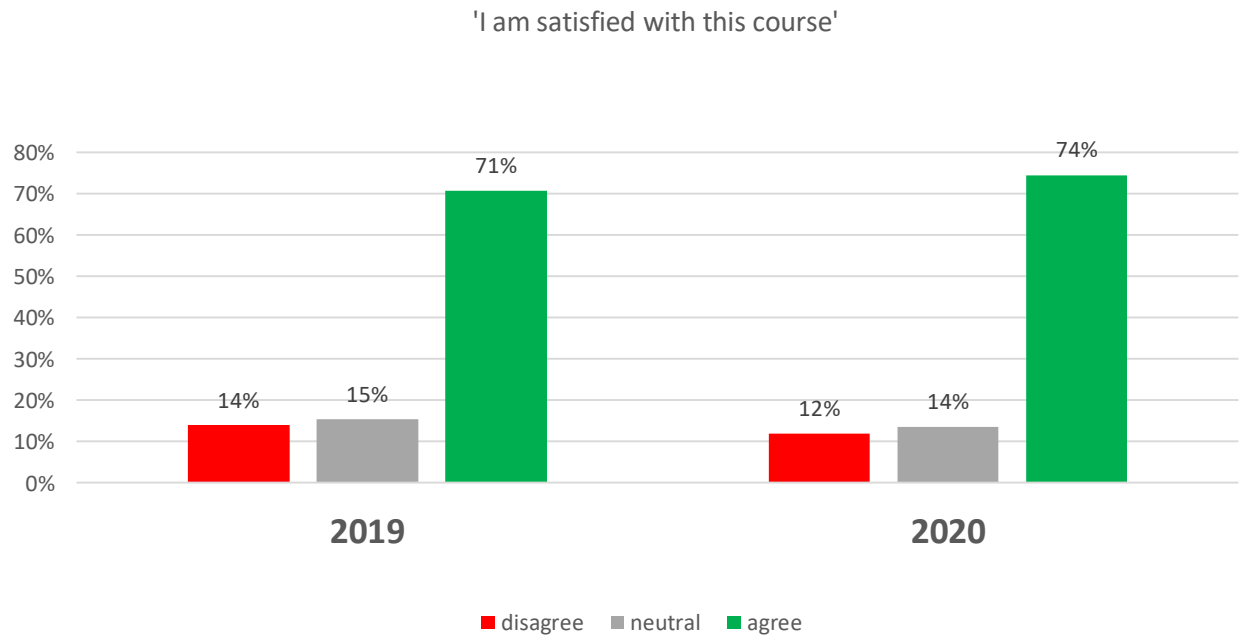
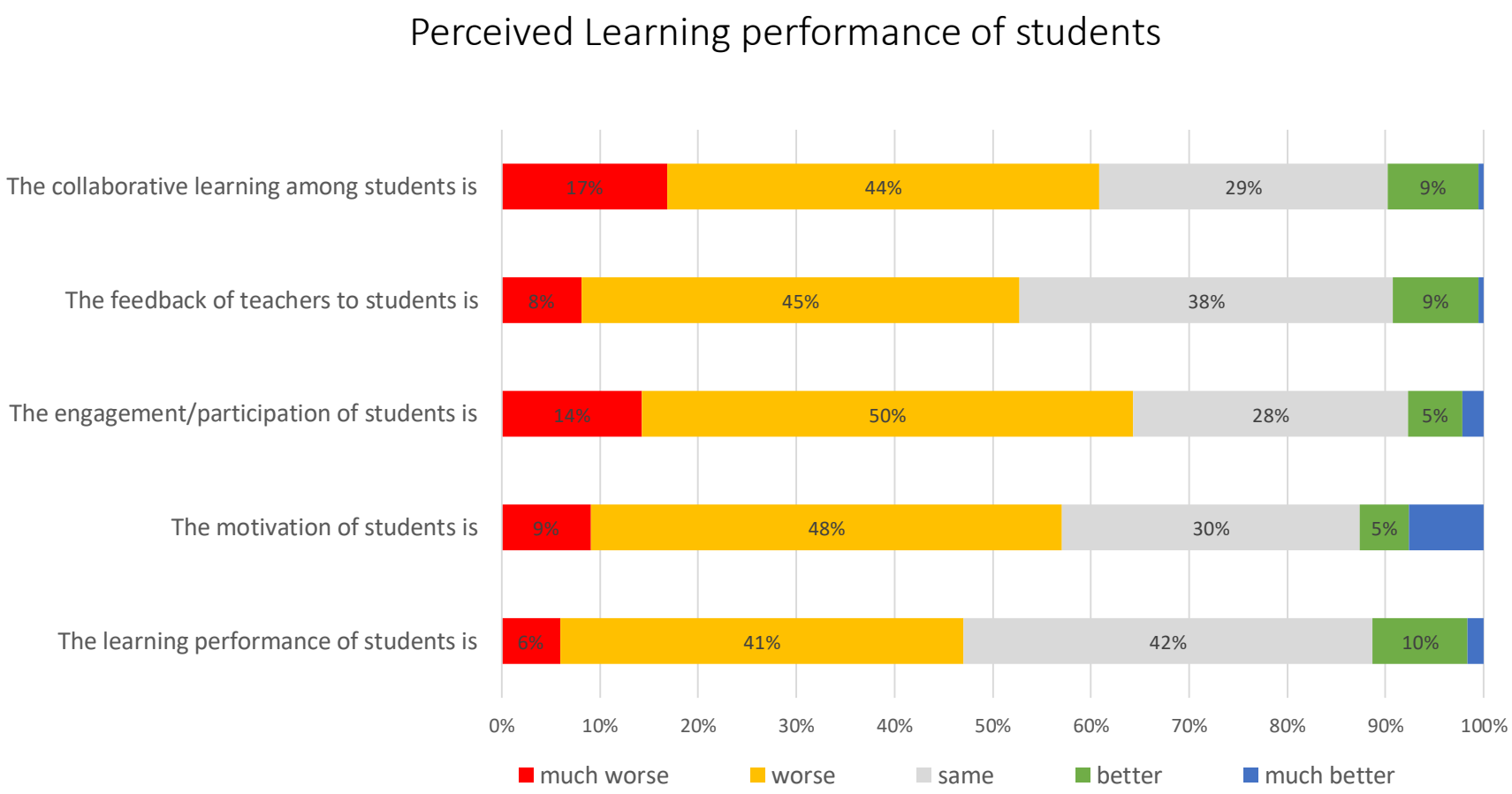
Student stress also increased



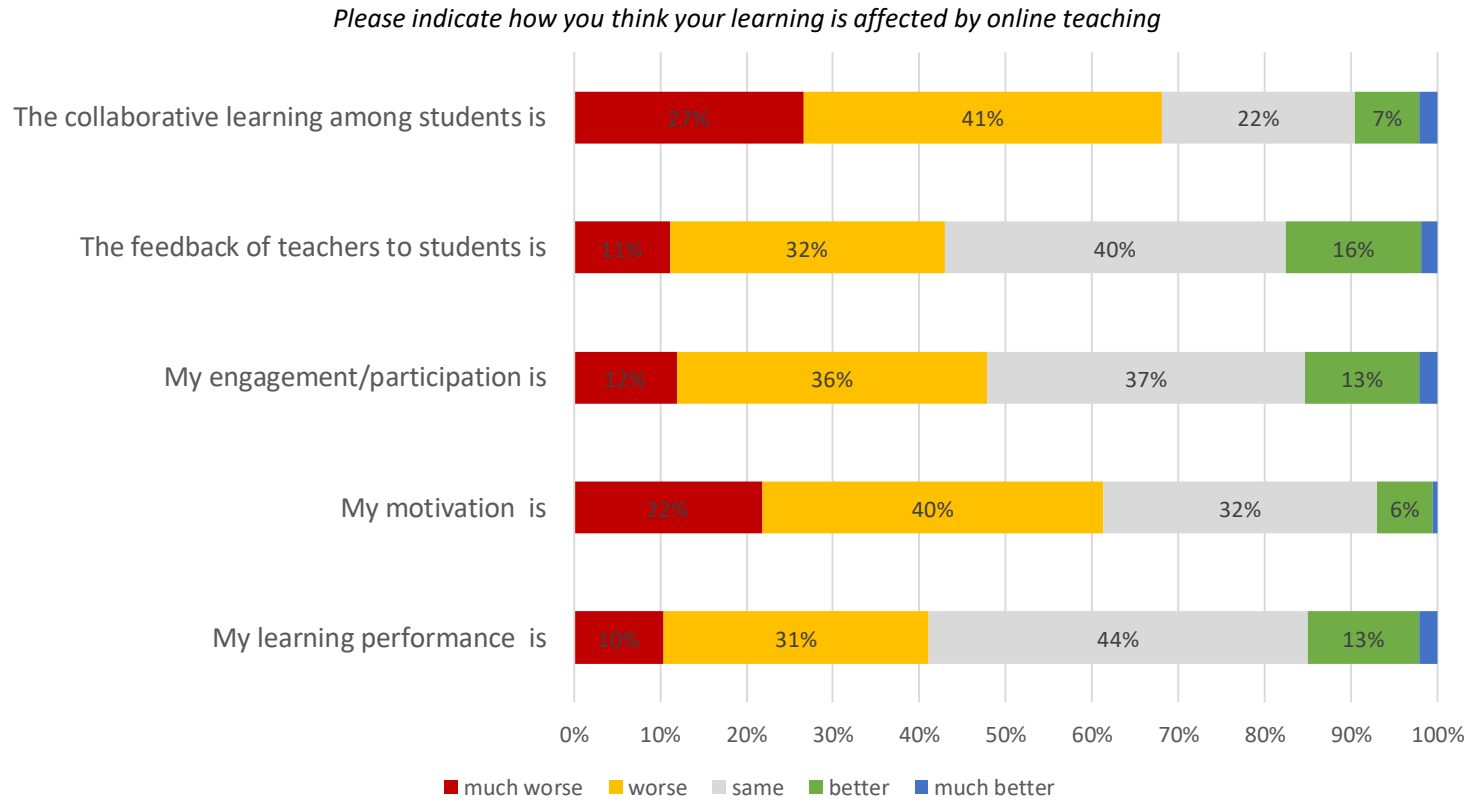
Course satisfaction remains stable



Teachers believe learning (results) of students are worse



Students also believe their learning (results) are worse



Students have similar course (grade) outcomes

Percentage of students with examn success in period 5/6

Year	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Success %	77%	78%	78%	77%	**80%**

Covid19 year

Year	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Mean examn grade/ report card grade	7.03	7.09	7.14	7.14	**7.33**

Slight increase in finishing without grade

Percentage of students without grade in period 5/6

Year	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Success %	21%	17%	19%	17%	**24%**

Covid19 year

Note: trends reported in outcomes similar to other universities (source: VSNU)

Four teacher types found

- Critical about online education and stressed
- Feels to lack skills for online teaching
- Does not use many tools
- But learns from experience

8 %

- Optimistic about online education
- Feels capable
- But experiences a lot of stress

33 %

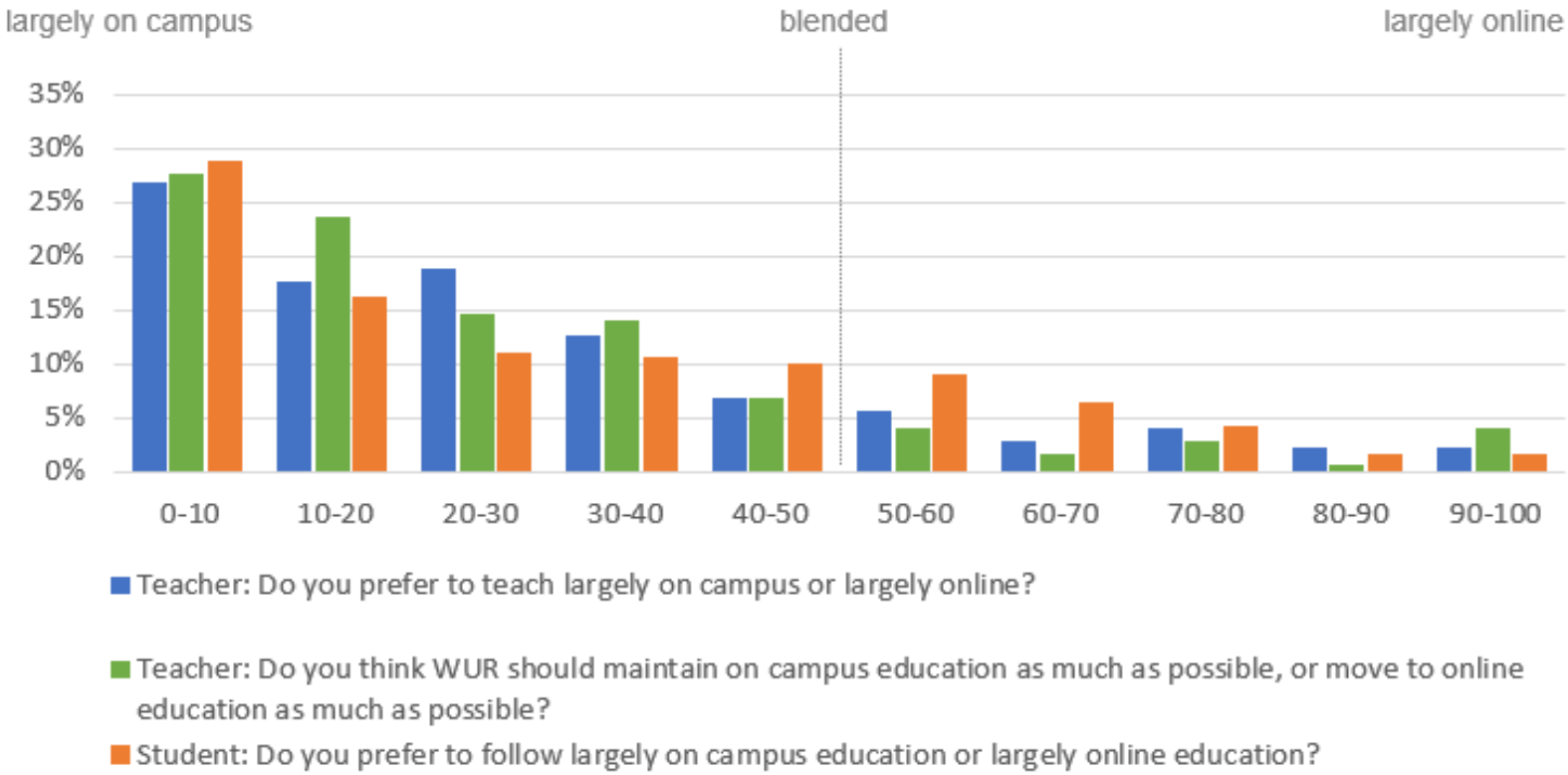
- Critical about online education
- Feels capable
- Does not experience much stress
- But also does not follow trainings

20 %

- Optimistic about online education
- Experiences little stress

39%

Teachers and students prefer on campus teaching over online teaching



Main findings summarized

- Although teachers prefer on campus teaching, they experienced support and skills to teach online.
- Teaching methods were more often revised rather than just maintained or fully replaced. Moreover, most teachers intend to maintain some changes.
- Students differed in the their evaluation of new online teaching methods. There is not one best approach, and different formats are needed.
- Students experienced less motivation, but felt capable to study online.
- Both teachers and students think the learning performance is worse in online education, but grades and course evaluations remain stable (even increase a bit).
- Teachers differ > teacher types. Useful for policy and communication

Implications and need for further study

- There is a need for a more concrete (and perhaps differentiated) vision on what type of blended education will be used after the Covid19 crisis, how to maintain some of the positive changes and lessons learned?
- Blended and online education also requires attention from educational institutions for the home/private situation of students/teachers
- Different approaches and support are needed for different profiles of teachers
- Little is known about internships, theses, labs and excursions: new apps were implemented (or are in the process of being implemented), but no information on impact and effects known
- How to explain the difference between perceived learning outcomes (worse) and actual learning outcomes (nearly similar)?

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Thank you for your attention!

Questions?

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