



# Individual Partner Report on the Impact of Covid-19 on University Teaching

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#### **NOVEMBER 21**

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htw saar





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# htw saar

Hochschule für Technik und Wirtschaft des Saarlandes University of Applied Sciences

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# Introduction

The purpose of this report is to analyze activities during the period of Covid-19 related to the mass transition to online education, taking into account all stages of the distance learning process.

The following report shows the situation at the partner university htw saar in Saarbrücken, Germany. At the University of Applied Sciences more than 6,000 students are enrolled in four schools - the Business School, the School of Architecture and Civil Engineering, the School of Engineering, the School of Social Sciences, and the Franco-German Institute for Technology and Business (ISFATES-DFHI). The htw saar offers over 55-degree programs, some of them with international focus and courses in English. The lecturers place great value on face-to-face learning at the university. But digital media and elearning have a lot to offer in terms of enriching the overall learning experience.



# General information on the survey

# **Objectives**

The influence of the Covid-19 pandemic on teaching at the university can be found out with this student and teacher survey.

#### Means and time

The distribution of the student survey showed some challenges at htw saar. It was difficult to address all students because data protection issues did not allow the e-Close team to send the survey link to all students. Other options like sharing the link on social media platforms of the university or on the moodle opening page were discussed. Finally, the student survey was distributed on the 5<sup>th</sup> October 2021 via e-mail to all htw saar students (see screenshot). Before that, the student survey link was sent to a smaller group of students of Prof. Rückert via Microsoft Teams chat during a lecture. On the 27<sup>th</sup> of October, the student survey at htw saar was closed.

When the e-Close team at htw saar found out how to forward the survey link to all students, the same solution was used to forward the staff survey. On the 5<sup>th</sup> of October, the staff survey was sent via e-mail to all htw saar staff members, lecturers, and professors and on the 5<sup>th</sup> December 2021, the staff survey was closed.

#### Student survey:



Rückert, Frank Prof. Dr.

Umfrage zur online Lehre an der htw saar

An O Xenia Huelsmann: O Rückert, Frank Prof. Dr.

Liebe Studierende,

im Rahmen des vom Erasmus+ geförderten EU-Projektes e-CLOSE führen wir einen Befragung unter allen Studierenden durch. e-Close steht für: "A model for Interactive (A)Synchronous Learning in Online STEM Education"

Die Studierendenbefragung ist anonym und in englischer Sprache. Uns interessiert dabei, wie ihr die online-Lehre findet. Die Befragung wird auch in der gleichen Form an drei anderen europäischen Universitäten durchgeführt.

- UNIVERSIDADE DE AVEIRO (UA)
- UNIVERSIDAD DE ALCALA (UAH)
- POLITECHNIKA LODZKA (TUL)

Um zu der Umfrage zu gelangen, könnt ihr auf den folgenden Link klicken:

 $\underline{\text{https://docs.google.com/forms/d/e/1FAlpQLScFtyxl96dw29Fzf0E6pbam3tHKTM0aEfH4C9R} \ \ \text{ubWwPl} \ \ \text{ZwQ/viewform} \\ \underline{\text{result}} \ \ \underline{\text{Local Constraints}} \ \ \underline{$ 

Vielen Dank für eure Unterstützung

Euer e-CLOSE Projekt-Team Xenia Hülsmann Frank Rückert





#### Teacher survey:



Rückert, Frank Prof. Dr.

Umfrage zur online Lehre an der htw saar

O Xenia Huelsmann; O Rückert, Frank Prof. Dr.

Sie haben diese Nachricht am 13.10.2021 10:06 weitergeleitet.

Liebe Dozent\*innen der htw saar,

im Rahmen des vom Erasmus+ geförderten EU-Projektes e-CLOSE führen wir einen Befragung unter allen Dozent\*innen durch. e-Close steht für: "A model for Interactive (A)Synchronous Learning in Online STEM Education"

Die Befragung ist anonym und in englischer Sprache. Uns interessiert dabei, wie die online-Lehre bei Euch abläuft. Der Survey wird auch in der gleichen Form an drei anderen europäischen Universitäten durchgeführt.

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https://docs.google.com/forms/d/e/1FAIpQLScLTwZyWyx qMw3GmZh5tJT8bU3XOVy3NWtCD7Ft5kzpm5KA/viewform

Vielen Dank für eure Unterstützung

**Euer e-CLOSE Projekt-Team** Xenia Hülsmann Frank Rückert



### Respondents profile

In the student survey, 196 students of htw saar participated. With 58% most of them were male and 40% were female (2% Not Specified). A large majority (81%) were undergraduate/Bachelor's degree students and 19% studied in their master's degree/ Graduate. The htw saar has four schools. 78% of the students participating in the survey came from the school of Engineering. They study degrees like Engineering, Technology, and Mathematics. 10% came from the School of Social Sciences and 9% from the Business School. Degrees like Business, Economics, and Management were mentioned by the students. The rest of the students studied other subjects like Tourism, Culture, Security Management.

The staff survey was filled out by 20 lecturers, nine of them were female and eleven male. Teachers with different lengths of teaching experience participated. Half of the participants already teach between six to ten years. A few even teach longer than this (4 teach 10-20 years and 3 teach more than 20 years). Only two persons teach less than five years.

# Covid-19 Impact on Teaching and Learning

#### National framework for distance education

In Germany, the Covid-19 regulations for schools and universities are ruled and set up by the conference of ministers of culture.

The decisions of the 3<sup>rd</sup> April 2020 said that the summer semester started as planned, but each university can adapt their lecture periods as they wish. Digital teaching and learning formats will be offered. Some students might not finish their degree in the normal period, this should not have a bad effect on them. BAföG (Federal Education and Trainings Assistance Act), Child benefit or health insurance should offer flexible regulations. The following winter semester 2020/2021 starts at all universities on the first of November. (Usually, the semesters start individually between September and the end of October.)

On the 28<sup>th</sup> of May 2020, the application and admission process of the next winter semester are adapted. The central proceedings to apply for a study program end on the 20<sup>th</sup> of August. This is later than in the past years (usually 15<sup>th</sup> July) and makes it possible for students, who finished their school graduation delayed, to apply on time.

At another conference on the 10<sup>th</sup> December 2020, the application date for the next year is postponed to the 31<sup>st</sup> July 2021.

On the 6<sup>th</sup> August, 2021 new regulations are published. The winter semester 2021/2022 should take place on campus again. The vice president of the conference can be quoted as followed

"After three digital semesters, we have to bring our students back to the universities and guarantee as much study normality as possible. For most students, studying is a formative phase in life that is accompanied by new friendships and personal development. This inevitably includes learning, discussing, and researching in person. At the same time, we have to use the digital innovation boost and the findings from the past semesters to further develop the interaction between virtual and face-to-face formats and promote sustainable working methods."

Special regulations like minimum distance of 1,5m, seating orders, 3-G rule on campus (vaccinated, recovered, or tested).

The next conference on the 10<sup>th</sup> December 2021 said that it is a priority to keep the doors of the universities open and teach and study on campus.<sup>2</sup>

<sup>&</sup>lt;sup>1</sup> https://www.kmk.org/presse/pressearchiv/mitteilung/detail/News/kmk-praesenzbetrieb-ist-das-gebot-der-stunde.html

<sup>&</sup>lt;sup>2</sup> https://www.kmk.org/aktuelles/entscheidungen-der-kmk-in-der-corona-krise.html

### Internal policy development

In the following paragraph, the main activities regarding the covid-19 situation at htw saar are described.

In January, the Executive Board deals with the SARS-CoV-2 development for the first time. Planned business trips to China are prohibited on January 29, 2020 - the first measure to combat the Corona pandemic at htw saar. The university then develops a strategy, measures, and hygiene plan for dealing with the Corona epidemic at htw saar by February 26, 2020. On March 16, 2020, htw saar will enter a complete lockdown. The university's pandemic plan has been continuously adapted to the situation since then.

In mid-March 2020, the "Emergency Concept Online Teaching" came into force. The central element for teaching is the Moodle system. All lectures and seminars at htw saar were available online in it on the first day of lectures. In addition to online teaching, online examination procedures were also developed, supplemented with didactic accompanying material. The university's digitization process was supported by the Digitization and Processes department, which was prepared in 2019 and newly established at the beginning of 2020.

Lectures in the 2020 summer semester started on schedule in April despite the lockdown - all lectures and seminars were offered online.

In May the htw saar opened their doors again, but only for necessary things. The library for example is open again. Mensa stays closed, not expeditions and university sports. It is allowed to have classes on campus, but the motto is "As much digital as possible, as little presence as necessary".

In May, the Senate adopts the "Regulations for the Regulation of Studies and Teaching at the htw saar during the Coronavirus-SARS-CoV-2-Epidemic - Study and Teaching Regulations (SLBO)". This SLBO was valid until 30 September 2021 and included the following regulations:

- The form and duration of examinations may be changed; all regulations deviating from the ASPO annexes will be reviewed and approved by the faculty's examination committees after submission to the President's Office and Student Services.
- Examinations that are not passed in the summer semester of 2020 are deemed not to have been taken.
- Upon application, performances of passed examinations of the summer semester 2020 can be retroactively recorded as "passed" without a grade. Performances assessed in this way are not included in the calculation of the overall grade.<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> https://www.htwsaar.de/hochschule/aktuelles/corona

In July, htw saar is one of six universities nationwide that will be advised by the Higher Education Forum on Digitization in 2020/21. The universities will receive strategic advice on digitization in studying and teaching in a peer-to-peer process.<sup>4</sup>

In September the htw saar is preparing for the winter semester 2020/21 with a view to the Corona pandemic and is planning a responsible, gradual opening of the university for face-to-face teaching, taking all necessary protective measures into account. This semester started later than usual on the 2<sup>nd</sup> November 2020.

"Digital teaching will remain an elementary component of the winter semester 2020/21, as a renewed lockdown cannot be ruled out," said the htw saar executive board. "However, face-to-face teaching will be used where it is responsible as another building block for successful studies."

Thus, in addition to digital course offerings, on-site events will again take place in the winter semester. Exercises, seminars, and practical courses in small groups, for example, will again be offered in the presence. On-site appointments are also conceivable for events to deepen understanding. The same applies to consultations and office hours, which can also be held both digitally and on-site in the winter semester. Basic lectures and courses for larger groups will continue to be held digitally. The mensa is open again.

On-campus and in the university buildings everyone had to wear masks since November 2020.

Over Christmas time and in January the whole campus was closed. Every few weeks this rule was extended and the campus stayed close until May.

The exams of the winter semester 2020/21 should be replaced with alternative online formats, but some can still take place under the hygiene regulations at that time.

Because of the close border to France, some students and staff live there and as the changing risk area regulations, there were some difficulties with these cross-borders.

General study and assessment regulations for bachelor and master's programs (ASPO) were adapted in March 2021 and again in May 2021. A paragraph for remote assessment was added.

At the end of May, the libraries opened again. Then in the middle of June, the doors of htw saar are open again as a study place meaning that classes can take place on campus again, although most stay online, because of the fast change of regulation and organizational adaptions that needed to be made. Also, everyone on campus either had to be vaccinated, recovered, or tested.

Then in June 2021, the remote assessment regulations were published.

Due to legal reasons, the need for vaccination, recovery, or negative test did not apply for the assessment on campus. But the students are asked to provide a negative test.<sup>6</sup>

<sup>4</sup> https://www.htwsaar.de/hochschule/profil/strategie/htwsaar\_rechenschaftsbericht\_2020.pdf

<sup>&</sup>lt;sup>5</sup> https://www.htwsaar.de/hochschule/organisation/hochschulkommunikation/aktuell\_rss/htw-saar-rechnet-im-wintersemester-wieder-mit-mehr-praesenzveranstaltungen

<sup>&</sup>lt;sup>6</sup> https://www.htwsaar.de/hochschule/aktuelles/corona



Hochschule für Technik und Wirtschaft des Saarlandes University of Applied Sciences

The next winter semester 2021/22 took place on campus and the entrance was and still is controlled by security who check the vaccination, recovery, or test certificates. All lecture halls and seminar rooms were equipped for hybrid lectures.

These were the main regulations and changes of policies at htw saar during the Convid-19 pandemic.

Co-funded by the

Erasmus+ Programme

of the European Union

During the Covid-19 pandemic, the htw saar published different handouts for the lecturers. Guidelines for the design of online teaching were available in August 2020. Papers for data protection issues in web conferencing were published in May 2020 and another one in June 2021.7

This and more information can be found on the htw saar homepage. There is a special page for online teaching for lecturers. General strategic thoughts about online teaching are described, didactic guidelines are given, data protection notes, alternative assessment formats, information about Online Open Book Exams, tips for video production, and the possibilities for media didactic advice are listed there.8

In addition to this, the internal qualification offered workshops in the fields of eLearning, didactic, soft skills, internationalization, software, personal health, and many more. Some were implemented because of the shift to online learning and the effects of Covid-19.9

As a regular meeting, the so-called "DigiTeach" took place every two weeks during lunch break, now only once a month. Topics of the session are related to digital teaching. First, a short presentation is given and then there is enough time for an open discussion and exchange of ideas and challenges in online teaching.

As technical support, the htw saar offers their staff beside to the laptops they already have webcams and headsets for their home office. Even another monitor can be requested by the teachers.

<sup>&</sup>lt;sup>7</sup> https://www.htwsaar.de/htw/intranet/elearning/handreichungen-fuer-dozierende

<sup>&</sup>lt;sup>8</sup> https://www.htwsaar.de/elearning/online-lehre-dozierende

<sup>&</sup>lt;sup>9</sup> https://www.htwsaar.de/studium-und-lehre/lehre/interne\_qualifikation



# Survey results

## Preparation

#### University perspective

As pointed out in the chapter before, special workshops were offered for the teachers.

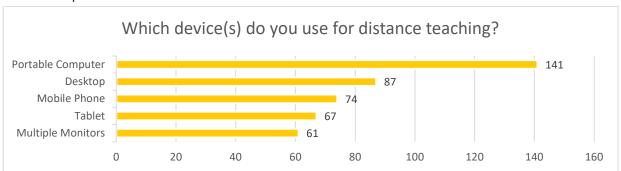
Some instructional videos for the Learning Management System Moodle and the web conferencing tool big blue button are available for teachers and students. The eLearning and Digitalisation team of htw saar can be contacted too if any technical issues occur.

During the pandemic, new staff members join the team at htw saar. Especially one media didactics job was occupied.

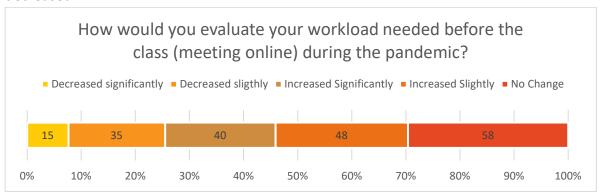
During the pandemic, some students and staff felt more stressed. Counseling services for all people at the htw saar can be contacted. This service was already implemented long before the pandemic and can be used at all times. If students have some financial difficulties, counseling and special funding will be offered.

#### Students perspective

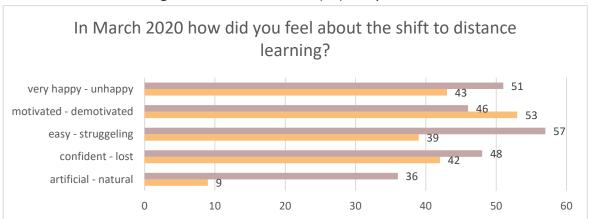
During the online learning semesters, the students used different devices. The most used device is the portable computer with 72%, followed by the desktop with 44%. Fewer students used mobile phones (38%) and tablets (34%) for distance learning. Only 31% of the participants even used multiple monitors.



The workload of most htw saar students needed before class increased during the pandemic (44%). For 30% of the students, the workload did not change and for 26 % the workload decreased.



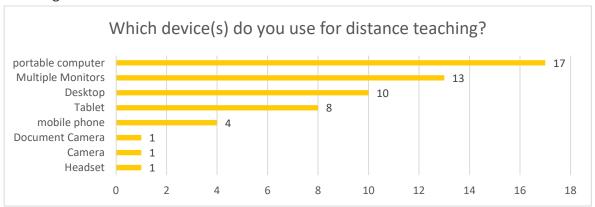
The feelings of htw saar students about the shift to distance learning in March 2020 varied a lot. 51 students were very happy with this shift and 43 students were unhappy. 46 students felt motivated, but more students (53) felt demotivated. For most of the students (57) the shift to distance learning was easy, but for 39 people it was struggling. On the one hand, 48 students feel confident, but on the other hand, 42 students felt lost. Regarding the feeling artificial or natural almost all students thought it felt more artificial (36). Only 9 students said the shift felt natural.



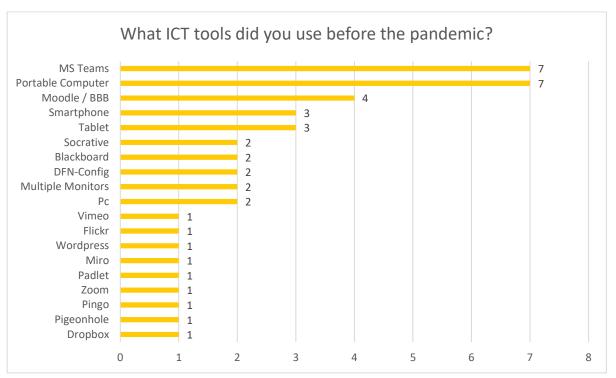
#### **Teachers perspective**

After taking a closer look at the student's point of view for the preparation, now the teacher's perspective is described in detail.

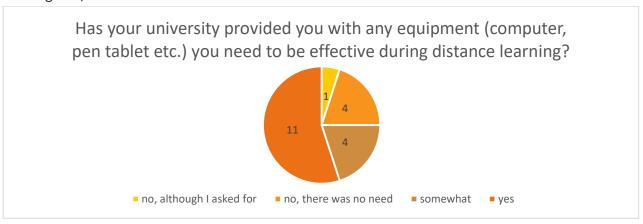
Most teachers used portable computers and multiple monitors as technical devices for distance teaching.



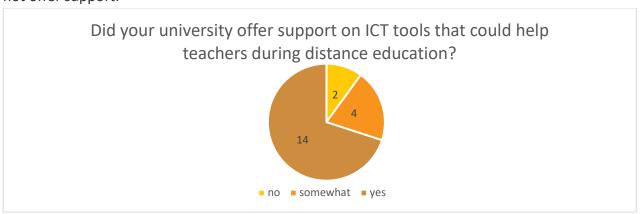
Even before the pandemic, one-third of the teachers at htw saar that answered the survey used Microsoft Teams. Some already-used BigBlueButton and Moodle. As technical devices, Protable Computers Smartphones, and Tablets are mentioned.



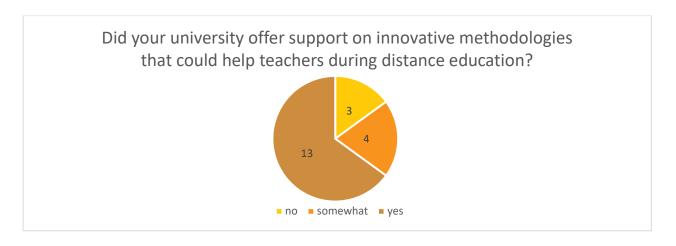
The htw saar provided more than half of the teachers with any equipment they needed to be effective during distance learning. Some teachers there were provided with equipment somewhat. Four said they did not need any and only one person did not get any equipment although he/she ask for it.



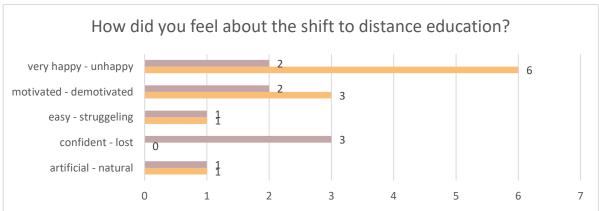
The majority of teachers said that the htw saar offered support on ICT tools. One-fourth mentioned that they were supported somewhat and the last two said that the university did not offer support.



Almost the same picture can be seen with the answers to the question if the university offered support on innovative methodologies that could help teachers during distance education. A large majority said yes.



Looking at the feelings of teachers about the shift to distance education it stands out that many feel unhappy. Some feel demotivated. In contrast to this, some teachers feel confident, motivated, and very happy about the shift.



#### Conclusions

The preparation questions of the survey are now summarized and the students and teacher results are compared.

For distance education, portable Computers and desktops are the most commonly used devices among teachers and students. Teachers quite often use multiple monitors too. In contrast, students use their smartphones regularly for distance education.

Taking a closer look at the feelings about the shift to distance education, both teachers and students felt on the one hand mostly demotivated but on the other hand also confident. All in all the picture is not that clear, because there are always many positive and negative associations, but in general, the students are happier and find it easy in contrast to the most unhappy teachers.

## Delivery

#### **University perspective**

After the switch to an online semester lecturers had a free choice on how to offer their teaching input. Depending on the lecturer there were synchronous and/or asynchronous study times. In the synchronous online session, the students were asked to switch on their cameras, regarding the size and format of the course the students switch on their cameras or kept it off. Because of privacy regulations, the lecturers could not force them to keep their cameras switched on.

From the head of the university mandatory tools like the learning management system Moodle and the integrated web conferencing system, BigBlueButton were strongly recommended. In addition, a video server called Panopto can be used by the lecturers to upload their recorded videos. This software is integrated into Moodle too.

Furthermore, the eLearning Department recommended the following tools for interaction: H5P, Polls: Socrative, Kahoot, Pingo, Mentimeter, and more tools: Miro, Padlet, ZUMPad, Slack/Trello, AnswerGarden, Pigeonhole, Actionbound.

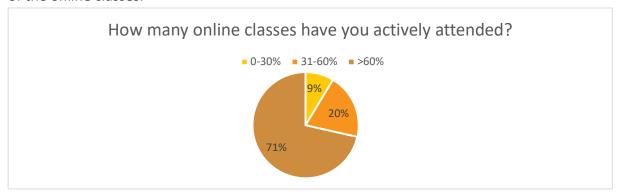
For recording and creating videos teachers could download a university license of the system Camtasia. They offered tips and tricks for recording videos.

As another web conferencing tool Adobe Connect is presented on the homepage.

For the whole internal communication between staff, lecturers, and professors Microsoft Teams is used as a communication tool.

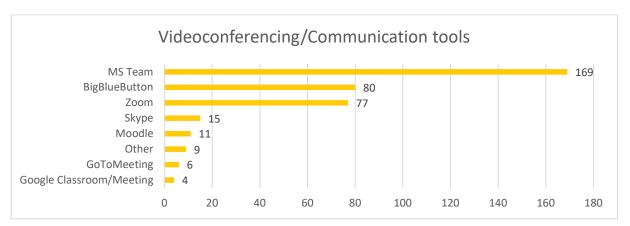
#### Student perspective

First of all, 71% of the students have actively attended more than 60% of the online classes. Online 20% have joined the classes between 31-60% and just 9% actively attended less than 30% of the online classes.

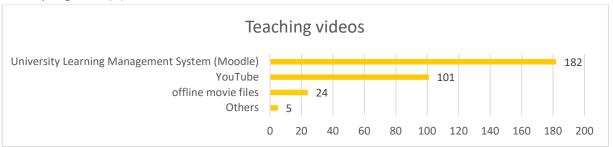


From the student's point of view, the common video conferencing tool was Microsoft Teams (169 students used MS Teams). Big Blue Button (80) and Zoom (77) are used quite often too. Other video conferencing tools like Skype, Moodle, GoToMeeting, Google Classroom, Facetime, Discord, Cisco, Youtube, Rocketchat, Whatsapp were mentioned only by a few students.

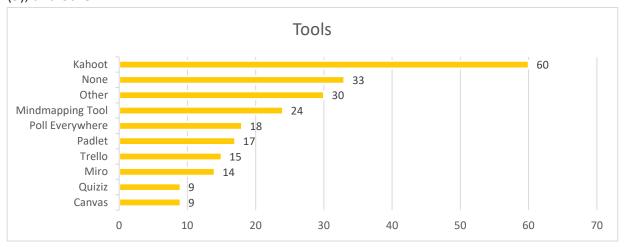




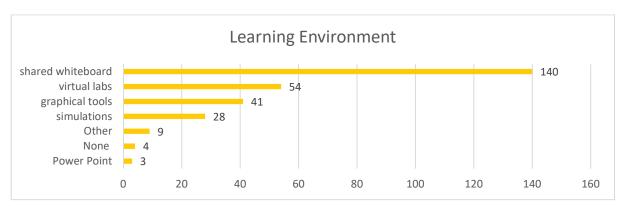
The htw students watched teaching videos via the University Learning Management System Moodle (182 students) and Youtube (101 students). Only a few used offline movie files (25) and other programs (5).



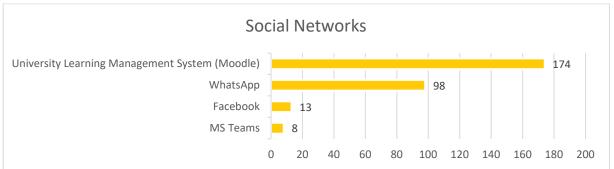
During class, Kahoot was the most used tool. 60 students mentioned the use of Kahoot. The next majority of students mentioned that no other tools were used during the lecture (33). Smaller groups of students mentioned that the teachers added the following tools to their lessons: mind mapping tool (24), Poll Everywhere (18), Padlet (17), Trello (15), Miro (14), Canvas, and Quiziz (9), and other.



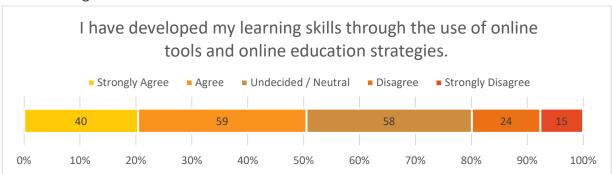
The learning environment of htw saar students was supplemented with shared whiteboards, 140 students mentioned. Then virtual labs (54), graphical tools (41), and simulations (28) were used. In the learning environment of 9 students, other scenarios were used. Four students said that nothing was used in the learning environment.



As a social network, the University Learning Management System Moodle was used by most htw saar students (174). After this tool, the students used WhatsApp (98) to communicate. Facebook (13) and MS Teams (8) were other tools the students used for social networking.

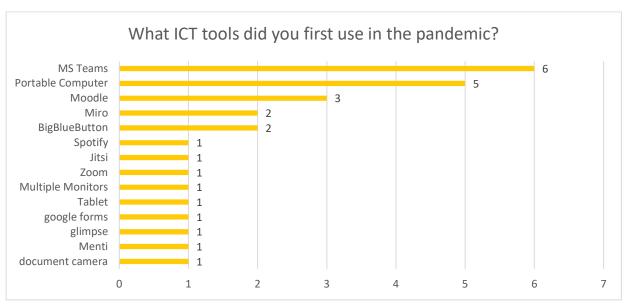


After taking a look at all technical solutions during the pandemic, we will take a look at the development of the learning skills of the students. Half of the students have developed their learning skills through the use of online tools and online education strategies. (20% strongly agreed, 30% agreed). 30% of the students were undecided whether they developed their skills or not. The rest of the students, 12% disagreed and 8% strongly disagree, that they developed their learning skills.

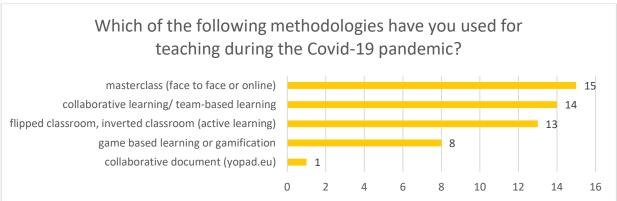


#### **Teacher perspective**

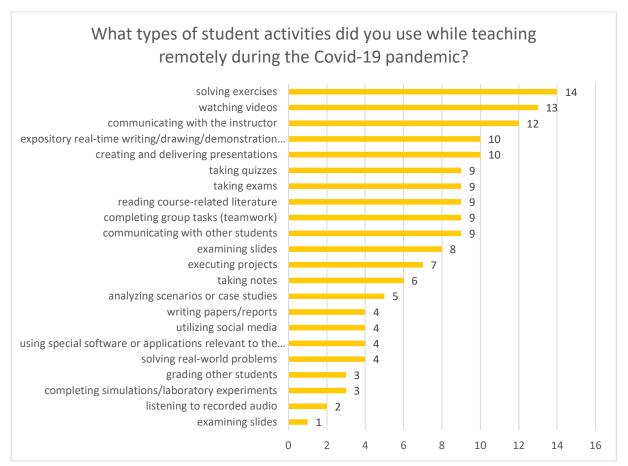
With the pandemic, teachers started using new ICT (Information and Communication Technologies) tools like MS Teams.



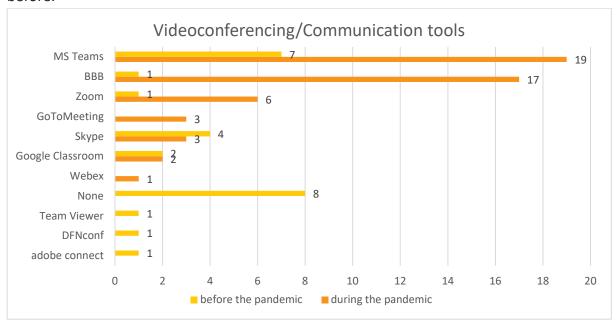
Different teaching methodologies were used during the Covid-19 pandemic. The most commonly used method among teachers is the masterclass, followed by collaborative learning and teambased learning methods. More than half of the teachers also used flipped and inverted classrooms. Eight teachers pimped up their classes with games based learning or gamification.



As student activities most of the teachers used solving exercises, watching videos and communicating with the instructor. The teachers used many different activities.

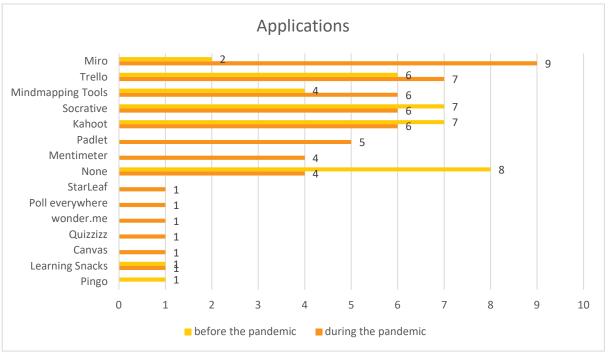


The following figures show the results of the question "What software tools have you used for online teaching before/during the Covid-19 pandemic?". The first figure was about the use of videoconferencing and communication tools. More teachers used MS Teams, Big blue button, and Zoom during the pandemic. Before the Covid-19 pandemic, most of the teachers at htw saar used no videoconferencing tools at all. Other than that, some used MS Teams or Skype before.

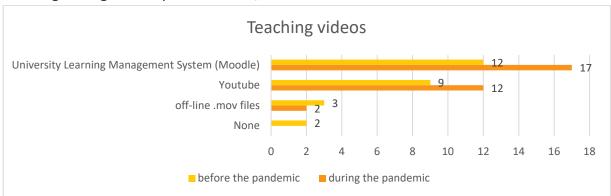


Taking a closer look at the applications htw saar teachers used, 40% did not use any application tools before the pandemic. Some used Socrative, Kahoot, Trello, or mind mapping tools. During the pandemic,

a much broader picture can be seen. 45% use Miro and many use Trello, mind mapping tools, Socrative, Kahoot, Padlet, and Mentimeter.

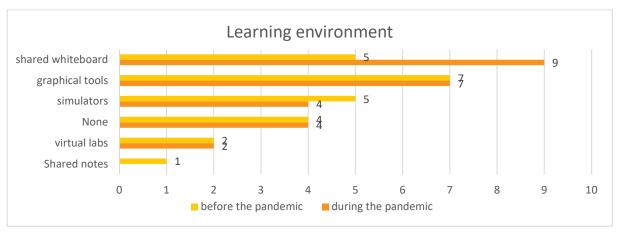


The ranking of the use of teaching videos among teachers before and during the pandemic stays the same. But many more teachers use at least any tools during the pandemic. Tool No. 1 is the Learning Management System Moodle, No.2 is YouTube and No. 3 are offline movie files.

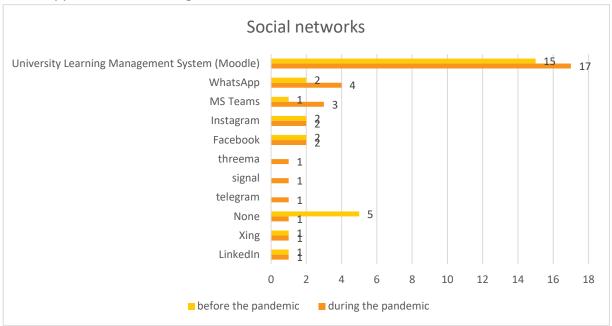


The next question was about the tools the teachers used in the learning environment. The largest difference can be seen with shared whiteboards. They are used more during the pandemic. The other tools like graphical ones, simulators, and virtual labs are almost used the same before and during the pandemic.





Finally, the htw saar teachers answered what social networks they use. 25% did not use any before the pandemic. But the other 75% used Moodle. The use of the university learning management system moodle increased during the pandemic up to 85%. Only a few teachers used WhatsApp, MS Teams, Instagram, or Facebook as social networks.



These were the results of the delivery questions to htw saar teachers.

#### Conclusions

The delivery questions of the survey are now summarized and the students and teacher results are compared.

The most commonly used tools among teachers and students at htw saar are Microsoft Teams, Moodle, BigBlueButton, and Kahoot. In detail the common used videoconferencing tools are MS Teams, Big Blue Button and Zoom. Here the ranking is the same for students and teachers. As a tool for teaching videos students and teachers used most of the time moodle and sometimes YouTube. The questions for used applications does not show any similarities among students and teachers. Most students say that eitehr kahoot or no tool was used. But in contrast to that teachers used Miro and Trello. Some teachers used kahoot too. Teacher and stundes say that in their learning environment shared whiteboards were used. For social networking moodle was used and students also use WhatsApp a lot.



#### Assessment

#### University perspective

The htw saar allowed the lecturers to do online exams. They published a handout for the lecturers in which alternative assessment formats especially in the LMS Moodle were described. The e-Learning team helped with the setup. These were the regulations for the exams at the end of summer semester 2020. After this exam period, the lecturers reported their experience with the online assessment, and another handout was published. It described the use of Online Open Book Exams. 10

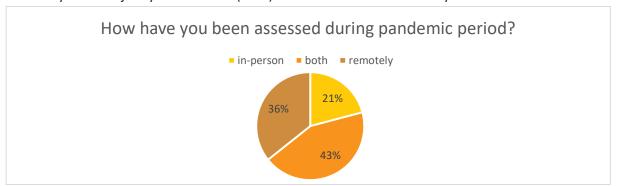
Other exams were written on campus. The htw saar rent a huge event hall in Saarbrücken where all the COVID19 regulations could be followed.

In June 2021 the law was adapted and online examination regulations were published. 11

At htw saar the students had the chance of a "free shot" at exams. If they fail the exam, no failed attempt will be added to their status of exams.

#### Student perspective

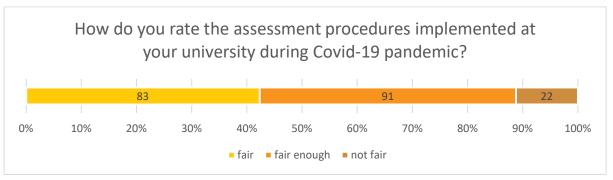
During the COVID-19 pandemic, the assessment procedures at htw saar were adapted. 21% of the students said they were assessed only in-person and 36% were assessed completely remotely. The majority of students (43%) were assessed in both ways.



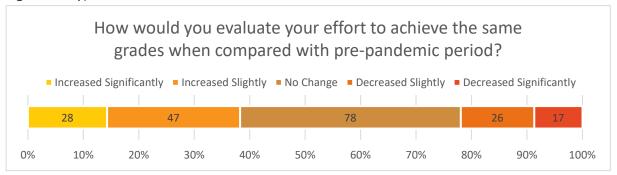
The students were asked how they feel about the assessment procedures implemented at htw saar during the Covid-19 pandemic. 42% said they were fair, another 47% said they were fair enough and only 11% said the assessment procedures were not fair.

<sup>&</sup>lt;sup>10</sup> https://www.htwsaar.de/htw/intranet/elearning/handreichungen-fuer-dozierende

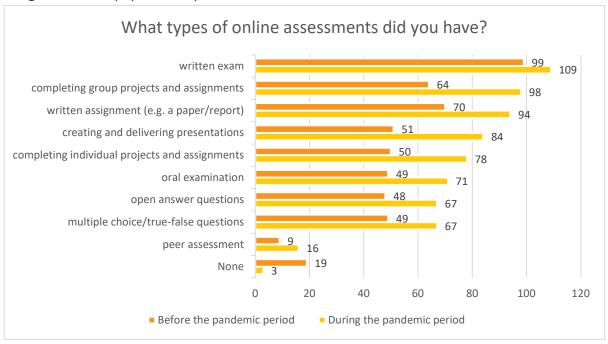
<sup>11</sup> https://www.htwsaar.de/htw/intranet/elearning/db21\_72\_s708712.pdf



Asking the students about their study effort 40% said that it did not change with the pandemic. But also 38% said they increased their study effort to achieve the same grades (24% increased slightly, 14% increased significantly). Almost one-quarter of the students (22%) answered that their study effort decreased in the pandemic period (13% decreased slightly, 9% decreased significantly).



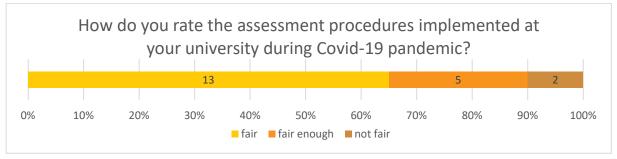
Before and during pandemic times almost the same online assessment types were used. Just 19 students mentioned that they had no online assessments before the pandemic period. But other than that all online assessments were more used during the pandemic than before. The top three online assessment methods are written exams, group projects/ assignments, and written assignments like papers or reports.



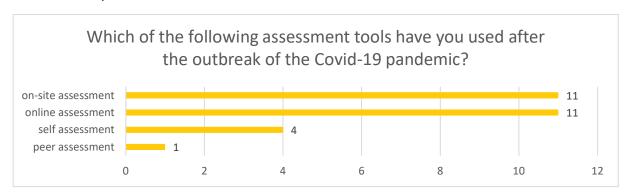


#### **Teacher perspective**

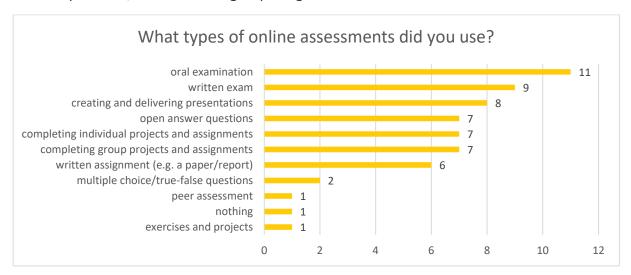
More than 60% of the teachers rate the assessment procedures implemented at the saar during the Covid-19 pandemic as fair procedures. Five say that they are fair enough and only two answer that they are not fair.



After the outbreak of the pandemic, teachers could use different assessment methods. Half of the teachers use on-site and online assessments. A few used self-assessment and only one teacher used peer assessment.



Specifying the types of online assessment the most commonly used method was oral examinations, followed by written exams and presentations. Seven teachers used open to answer questions, individual and group assignments.



As for overall evaluation procedures, most of the teachers evaluated the students remotely and in person. One-fourth only did it remotely and an even smaller group of teachers evaluated students only in person.

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To get an impression about the learning outcomes of the students the teachers were asked "How do you evaluate the achievement of learning outcomes by your students after switching to distance learning when compared to your previous experience?" Only three teachers answered that their students performed better during the pandemic. Eight said that there were no changes and the learning outcome stayed the same. But another nine teachers, almost half of the participants, answered that the students learning outcomes were worse than before the switch to distance learning.

#### Conclusions

The assessment questions of the survey are now summarized and the students and teacher results are compared.

Students think that the assessment methods are fair enough and teachers say that they are fair. In both groups only about 10% say that the methods are not fair.

Teachers and students showed that on-campus and online assessments were used during the pandemic. Most of the students and lecturers were confronted with both methods, in-person and online assessments.

Taking a closer look at the online assessment methods the views vary a bit. Students say that they mostly faced written exams and group assignments, and teachers answer that they used oral and written exams.

#### **Evaluation**

#### University perspective

To evaluate teaching and learning a survey on (digital) health literacy in relation to COVID-19 among university students was published in Germany in April 2020. Later on, the survey was globally distributed.<sup>12</sup>

In April 2020 another short survey was sent to the students to find out about their financial situation in the pandemic.

In August 2020 the htw saar students were asked to fill out a survey about studying and teaching in times of the corona-epidemic.

For the winter semester 2021/21 the htw saar made an anonymous short survey to find out what the vaccination status of the students is.

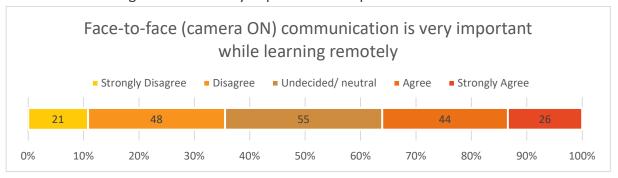
At the end of each semester, students have to evaluate the lectures and seminars in a survey, which is the same for the whole university for many years. The survey was adapted in the corona semesters and some guestions were added.

The lecturers at htw saar talked in regular meetings about the teaching situation in their faculties and exchanged their thoughts.

#### Student perspective

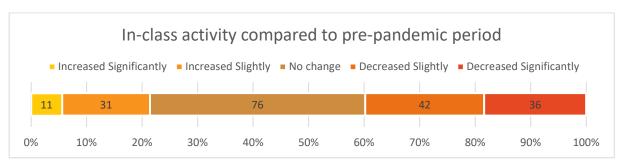
To evaluate the student's perspective on the study time during COVID-19 the following graphics show the results.

Asking the student whether face-to-face communication is important while learning remotely the results vary a lot, no clear picture can be seen. 30% are undecided or neutral. 35% disagree and another 35% agree that it is very important to keep the camera on.



Almost 40% of the students think that their in-class activity compared to the pre-pandemic period did not change. Another 40% say, that it decreased and only 20% of the students answer that it increased.

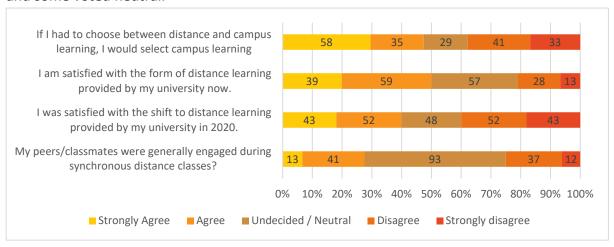
<sup>12</sup> https://covid-hl.eu/research/survey/



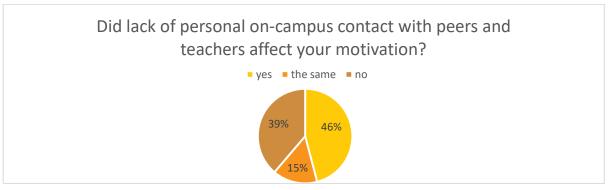
If the students had to choose between distance and campus learning, half of the students would select campus learning. In contrast to that 40% disagree/strongly disagree with this choice. A few are undecided. So, there is no clear picture of what the students want more.

Looking at the form of distance learning provided by the university half of the students agree that they are satisfied with that, but there is also a larger group who thinks neutral about that. Only about 20% disagree.

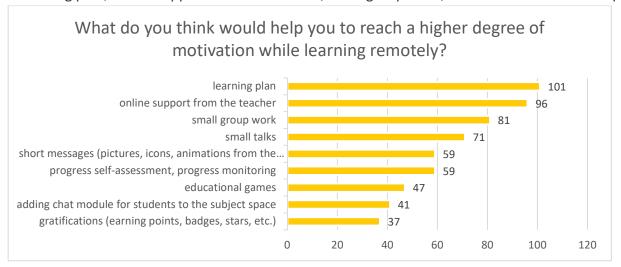
With the shift to distance learning in 2020 the students cannot decide. Some agree some disagree and some voted neutral.



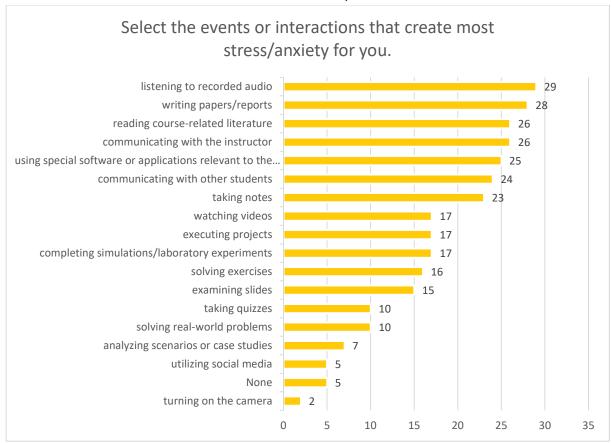
Looking at the effect of the lack of personal on-campus contact with peers and teachers the student's opinions vary a lot. On the one hand, almost half of the students said that it affected their motivation. On the other hand, almost 40% answered that it did not. A smaller group of students said that their motivation stayed the same.



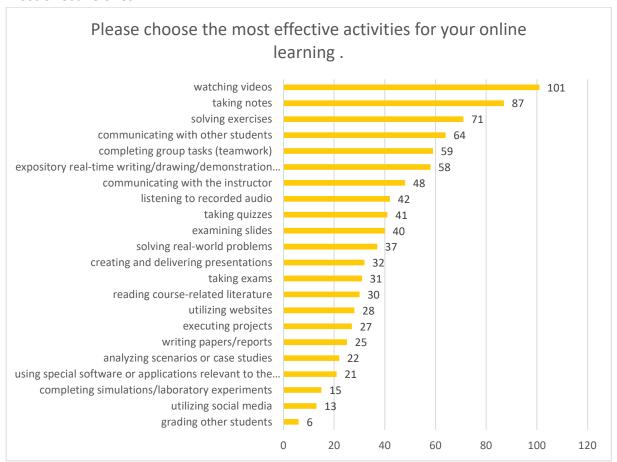
For reaching a higher degree of motivation while learning remotely the students mentioned that a learning plan, online support from the teacher, small group work, and small talks would help.



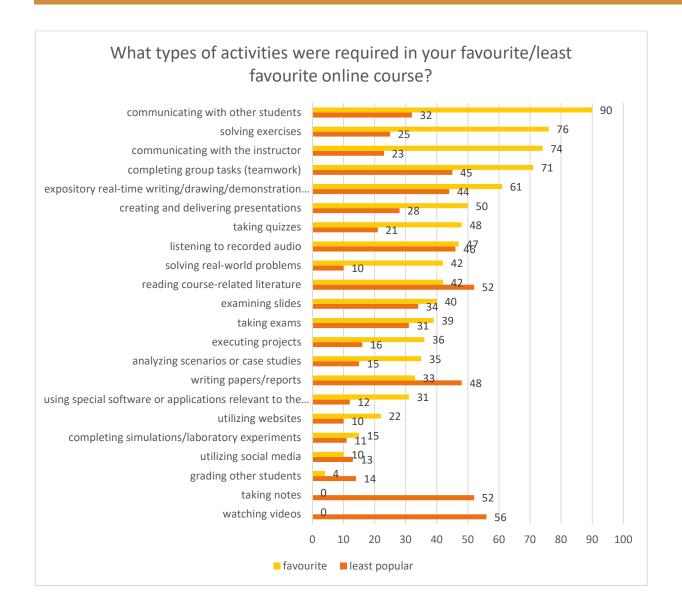
Students said that listening to recorded audio, writing papers/reports, and reading course-related literature creates the most stress and anxiety for them.



Asking about the effectiveness of activities for the student's online learning. They answered that watching videos, taking notes, solving exercises, and communicating with other students are the most effective ones.



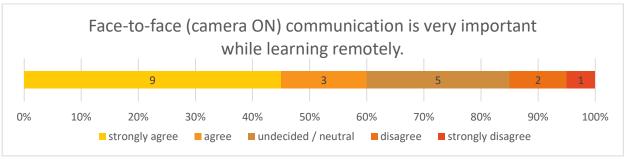
Looking at the most favourite online course of students, activities like communicating with other students and the instructor, solving exercises, and completing group tasks (teamwork) were used. In opposite the least popular online course used activities like watching videos, taking notes, reading literature, writing papers/reports, listening to the recorded audio.



#### **Teacher perspective**

Looking at the evaluation questions from the teacher's point of view the following results can be made.

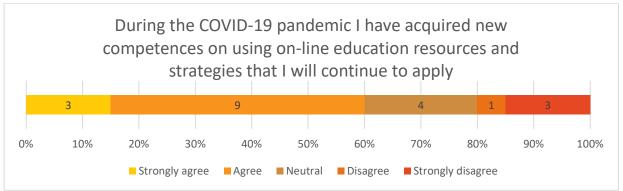
60% of the teachers agree with the sentence that face-to-face communication with a camera is very important while learning remotely. Another 25% are undecided and only three teachers disagree.



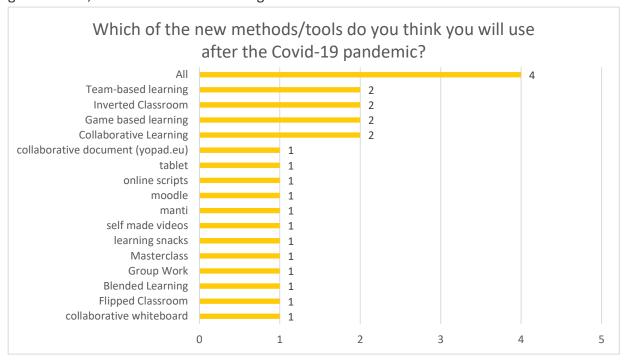
Almost all of the teachers agree that they developed their skills through the use of online tools and online education strategies.

n using online education

60% of the teachers say that they have acquired new competencies on using online education resources and strategies that they will continue to apply. Another 20% react neutral to this statement and the last 20% disagree.



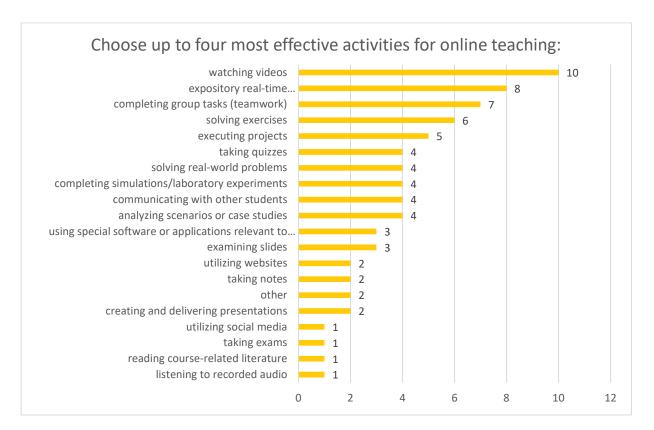
Asking about the continuous use of methods and tools which teachers got to know during the pandemic, four teachers say that they will use all methods after the pandemic. The most commonly used methods teachers will keep using are team-based learning, inverted classroom, game-based, and collaborative learning.



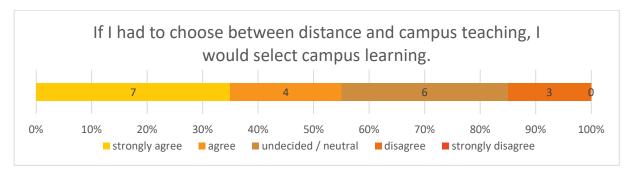
Some teachers mentioned that they even missed some tools and functionalities during the Covid-19 pandemic. They mentioned options like an easy-to-use (implemented) real-time survey tool, conduct lessons in precisions, good working tablet for annotations, polling tool, the functionality to switch on cameras of students, virtual 3D classroom. But ¾ mentioned that nothing was missed.

Another question was about the most effective activities for online teaching. Here watching videos was mentioned by half of the participants. After this, they mentioned expository real-time writhing/drawing/demonstration from the instructor, followed by completing group tasks and solving exercises. These were the four most effective activities from the teachers' point of view.





If the teachers had to choose between distance and campus teaching, they would select campus learning. More than half of the participants agree with this statement. A group of 30% of the teachers is undecided or neutral and only three teachers disagree.

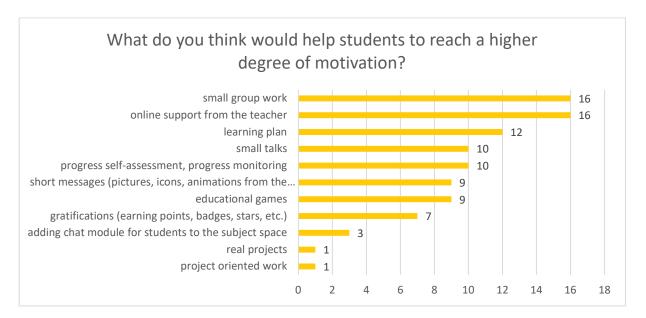


In contrast to this, the next question showed that 60% of the teacher prefer distance learning and 40% prefer physically attending classes.

The next questions deal with the point of view of the teachers concerning their students.

Most teachers agree with the statement "I have learned how to support students in their learning through digital tools". 30% react neutral and only one teacher disagrees.

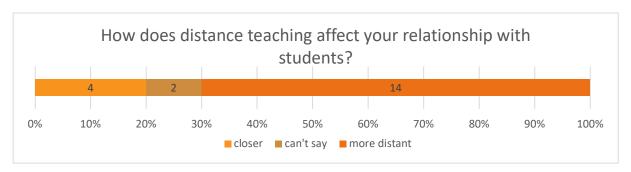
Asking about the motivation of students teachers select different methods to help the students reach a higher degree of motivation: small group work, online support from the teacher, and learning plans. Half of the teachers say that small talks and progress self-assessment and progress monitoring help to motivate the students.



Looking at the motivation of the teachers, 40% say that the lack of personal on-campus contact with students and other teachers affected their motivation. Almost half of the group says that it affected their motivation somewhat. Three teachers said that there was no effect.

Asking the teachers about the in-class activity of their students in online or blended seminars, they say that students spent less than 20% of the time interacting. Only ¼th of the teachers say that their students spent more than 50% interacting.

The relationship between teachers and students was effected too by distance teaching. The majority of teachers say that the relationship is more distant.



In the second semester of 2019/, 20 75% of the htw saar teachers say that their teaching was affected by the Covid-19 pandemic in the way that classroom teaching was replaced immediately by distance teaching and learning. Three teachers say that the pandemic did not affect their teaching and one person each say "most activities were suspended for some time and resumed once the institution developed solutions to continue teaching and learning through digital or self-study means" and "some classes (eg. practical classes, labs) were suspended until students were allowed back on campus".

Comparing the teaching quality in 2020/21 to 2019/2020 60% of the teachers answer that it got better. 35% evaluated that it stayed the same and for one teacher it got worse.



#### **Conclusions**

The evaluation questions of the survey are now summarized and the students and teacher results are compared.

Asking about the importance of switched on cameras the views of teachers and students vary. For teachers it is very improtant to keep the cameras on during online education and students are undecided.

Teachers and students agree an the most affective teaching method. Watching videos and solving exercises both hava a high ranking.

Students say that they liked communicating with students and the instructor, solving exercises and group work the most. Students liked watching videos least.

The motivation of almost everyone was effected by distance teaching. But students and teachers agree that for example online support from the instructors, small group works and learning plans can help the students to keep motivated during online education.



#### Recommendations

All in all one can say that the htw saar did a lot to survive the pandemic as good as possible. For teachers seminars and IT support were offered to help them with the switch to distance teaching. Also students could a expect a huge flexibility by the university, because special rules applied for the exams and fundings to finance their study time were offered.

Among students and teachers the opinion about distance education varied a lot. In many questions there were many people who support online teaching, many who think negatively about online teaching and also a large group who cannot decide what is better.

Clear is that the htw saar teachers have to use different teaching methods to support all their students and their individual situation.

To help the students not getting anxious teacher could talk more to them and offer idiviual coaching and help with assignments.

In the future students should have the opportunity to have online and on campus teaching. Maybe special online courses could be offered. But the focus of the htw saar stays on campus teaching, because it is a university of applied science in presence. Whole online degrees are offered by other Open Universities. The pandemic made and still makes it difficult to look in the future of teaching and studying at htw saar, but it is clear that the best of both worlds have to be combined to make education at htw saar ready for the future, on-campus and online.