

# CENTRAL INSTRUCTOR SURVEY

## ABOUT THE DIGITAL 2020 SUMMER SEMESTER



**Result report to the Vice President for Studies and Education**

Online Version

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November 2020

*SC report on the Central Instructor Survey about the digital 2020 summer semester (online version)*

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**Last updated:** November 2020

**Version:** 01

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## EXECUTIVE SUMMARY

### Background

Due to the COVID-19 pandemic, teaching in summer semester 2020 at TU Berlin was switched to digital formats only within just a few weeks. This central survey for all instructors at TU Berlin, commissioned by the vice president for studies and education, served both to record the instructors' experiences of organizing and implementing online teaching in the digital 2020 summer semester and their assessment of the specific challenges and potential this provided as well as the need for action for the upcoming 2020/21 winter semester. The objective of the survey was to obtain a comprehensive understanding and sound assessment of the 2020 digital summer semester at TU Berlin from the instructors' perspective. The survey was conducted and evaluated by the "Quality Assurance, Evaluation & Research" working group in the Qualitätspakt Lehre team (QPL) in cooperation with Strategic Controlling (SC3).

### Method

**Questionnaire:** The online questionnaire for the Central Instructor Survey was designed in discussion and coordination with instructors from all status groups, the ZEWK online teaching team and the faculty advisors for studies and teaching in May and June 2020. It contains questions about the following core areas: *evaluation of TU Berlin's crisis management, conditions for and requirements of implementing online teaching, organization and execution of online teaching, organization of examinations, workload, compatibility, prospects and need for action (winter semester 2020/21).*

**Target group & field phase:** The survey was directed at instructors of all status groups (professors, research and teaching assistants, and tutors) regardless of the type of financing (budget vs. third-party funding). A total of 3933 persons with teaching responsibilities were contacted by email via TU Berlin's central mailing service, including freelance teachers and third-party employees. Additionally, calls to participate in the survey during the field phase of the survey (21.07.-16.08.2020) were made via the TU website and social media channels as well as via multipliers in the faculties and central institutions of TU Berlin.

**Ratio of sample and population:** To calculate the response rate, we assume a population of 3022 instructors. The difference is due to the proportion of research assistants without teaching responsibilities (36 %). Due to the unquantifiable number of semesters of teaching leave for professors and instructors who had already completed their teaching responsibilities in winter semester 2019/20 and who did not regularly offer any courses in summer semester 2020, it can be assumed that the population is even smaller, though not exactly quantifiable. A total of 714 people participated in the survey, which is a response rate of 24 %.

In the sample, professors are overrepresented and tutors underrepresented, the instructors of all faculties are well represented, with Faculty IV slightly underrepresented and Faculty VI slightly overrepresented.

## Key results

### General conditions in the summer semester: Working from home

- **Working conditions at home** are assessed by more than half of the respondents as *very good to good* (56 %); however, for 40 % of the respondents, these only meet their requirements *partially or to a small extent* and for 3 % *not at all*. More than a third of the instructors surveyed (35 %) also state that their working conditions worsened overall during the digital summer semester.
- Instructors consider the **technical equipment of their home office** as the biggest problem. The respondents refer to a very high proportion of private equipment used for work-related tasks (mean score 70 % of all equipment used), with 63 % having made private purchases in order to be able to work from home. The following **shortfalls in working equipment** still exist: headset (31 %), webcam (18 %), and access to TU drives (83 %).
- There are specific differences between the status groups regarding the general conditions in home office.

### Online teaching

- Regarding the devices and tools used to implement digital teaching, only 11 % of the instructors surveyed had the required **prior knowledge** at the beginning of the pandemic to deal with the situation. However, the **information, training and advisory services** offered during the 2020 summer semester were used by a significantly higher proportion (57 %) than before the outbreak of the pandemic (33 %).
- The three most frequently used online teaching formats were 1. ISIS courses, 2. webinars/livestreams (synchronous), 3. audio and video recordings (asynchronous). Frequency of use differs from faculty to faculty.
- 38 % of all respondents report (significantly) increased **dropout rates of students during the semester**; this also differs from faculty to faculty.
- In synchronous courses in particular, the **frequency and quality of communication** with students (significantly) decreased (> 50 %). 61 % of the instructors assessed the transfer of knowledge as much less effective than under regular classroom teaching conditions.
- The **acceptance of the use of online teaching tools** has risen significantly to 26 %. For the upcoming 2020/21 winter semester, only 5 % of all instructors surveyed prefer "exclusively face-to-face teaching".

### Examinations

- **Effects on examinations:** 41 % of all professors and teaching assistants had to cancel written or oral examinations during the examination period (March/April 2020). The majority of the examinations could be repeated during the summer semester, for those 68 % of the respondents report (significantly) fewer participants and 21 % (significantly) worse performances.
- Dissatisfaction with the organization of examinations increased during restricted in-presence operations: June (14 %), current examination period July/August (32 %).
- Satisfaction with the organization of examinations differed from faculty to faculty.

## Workload

- The workload for instructors in the digital summer semester considerably increased. Preparation and implementation of online teaching took up an average of 61 % of the instructors' working time (43 % before the outbreak of the pandemic).
- The high additional workload occurs, with an increasing delimitation of employment, at the expense of personal free time (overtime) as well as the time available for research, working on theses, and other professional activities.

## TU Berlin crisis management

- Overall, the crisis management is rated positively as *appropriate to the circumstances/scope of action, committed and prudent* (62-75 %).
- The three most important information sources are: 1. Information letters of the Crisis Committee, 2. the Weekly Bulletin of the President and 3., the website of TU Berlin.
- The greatest dissatisfaction is related to the *organization of administrative processes* (55 % little or not satisfied at all), *the information on the provision of technical equipment* (32 %) and the *accessibility* (findability, structure, currency) of *relevant and current information on the TU Berlin website* (29 %) and *access to the TU workplace* (31 %). There are differences in status groups and faculties.

## Conclusion by Strategic Controlling (SC)

From the perspective of the majority of instructors, TU Berlin has on the whole mastered the imposed digital online semester well. Considering the given circumstances, the TU Berlin's crisis management was positively evaluated by a clear majority.

In the light of the development of the current pandemic with no foreseeable end, the following aspects should be discussed with regard to a short- and medium-term improvement of the prerequisites and conditions for good teaching at TU Berlin (see Need for action):

### Dealing with overtime, workload and equipment shortfalls:

- The additional workload resulting from online teaching leads to a high burden on the instructors in the form of overtime on the one hand and less time for research/working on theses and papers etc. on the other. In this context, it is recommended that a discussion be held in the Executive Board and in the faculties on how to deal with this situation and to find solutions to the expressed need for relief (with the same personnel budget) and that the University's scope for action and the measures introduced will be communicated to the instructors.
- Equipment deficits among both instructors and students which continue to persist should be seen as critical for the implementation of online teaching. The real extent of this shortfall should be recorded for the instructors at faculty or department level and possibilities to compensate for this should be sought throughout the University. There should be regulations for dealing with private resources and purchases to ensure the ability to work from home and all University employees should be informed and instructed centrally.

## Online teaching

- The **dropout rates** of students in courses have risen significantly in some cases and must be seen as critical. This development should be continuously monitored in the upcoming semesters and the reasons investigated, e.g., in the planned central student survey.
- The survey indicates a significant reduction in the number of **participants in examinations**. This trend should be formatively observed in the upcoming semesters in order to assess whether the feared examination backlog (also due to the agreed regulation regarding recording exam attempts) will occur and, if necessary, to be able to react to the increased stress on instructors and students this would likely lead to.
- Communication and interaction between instructors and students, as well as among students, is a major challenge and suffers especially in synchronous courses. Therefore, for the upcoming semesters, specific training and advisory services should be provided to instructors in order to promote communication with students even under pandemic conditions.

## Organization of administrative processes

- There are clear indications that the work of the administration has become considerably more difficult under pandemic conditions. There are no empirical findings so far on the ability of the administration to work from home or under pandemic conditions. It is recommended that the effects of the pandemic on the work of the administration are assessed in a survey of administrative and technical staff in order to be able to react specifically to existing problems.

# 1 DESCRIPTION OF THE SAMPLE

## Data quality

- **25 % of all instructors were reached:** Response  $\geq 24\%$  taking into account research assistants without teaching responsibilities and teaching personnel (in total) without teaching obligations in the 2020 summer semester (sabbatical semester, contact hours per week already fulfilled in the winter semester)
- High response rates (mean score = 83 %), hardly any discontinued surveys (2 % = response rate < 60 %)
- **High demand for reporting** by the respondents: **7019** free text comments from 621 respondents (**87 %**), i.e., an average of 11 additional free text comments per person (see Appendix 1)

## Composition and representativity of the sample

### Status group & faculty affiliation

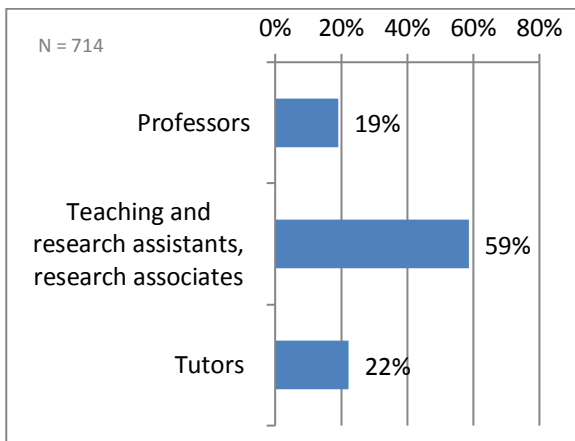


Fig. 1.1: Distribution of status groups (sample)

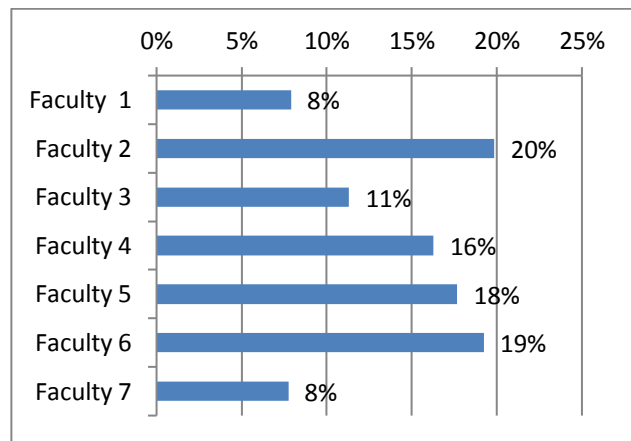


Fig. 1.2: Distribution of faculties (sample)

Table 1.2: Comparison of the distribution of status groups and faculties in population and sample			
		Share of population	Share of sample
<b>Status</b>	Professors	13%	19%
	Research assistants	54%	59%
	Tutors	34%	22%
<b>Faculty</b>	Faculty I	6%	8%
	Faculty II	18%	20%
	Faculty III	15%	11%
	Faculty IV	22%	16%
	Faculty V	17%	18%
	Faculty VI	14%	19%
	Faculty VII	8%	8%

\* Population = all persons contacted (N = 3933, incl. freelance teachers and third-party funded employees) minus 911 research assistants without teaching responsibilities (proportion of teaching research assistants (total) according to studies of research assistants: 64 %: population minus 36 % (of 2529 research assistants contacted))



- Representativity of status groups: professors significantly overrepresented, tutors underrepresented
- Representativity of faculties: Faculty IV is slightly underrepresented in the sample

### Gender & Age

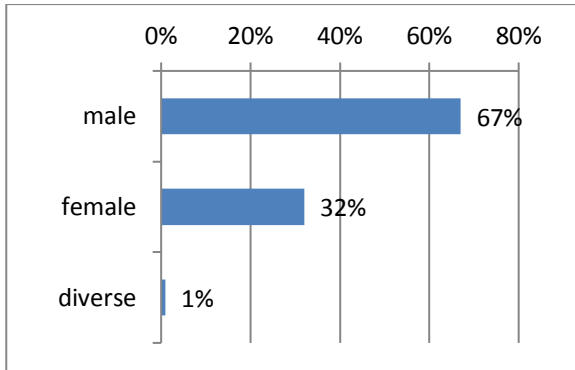


Fig. 1.3 Gender distribution (sample)

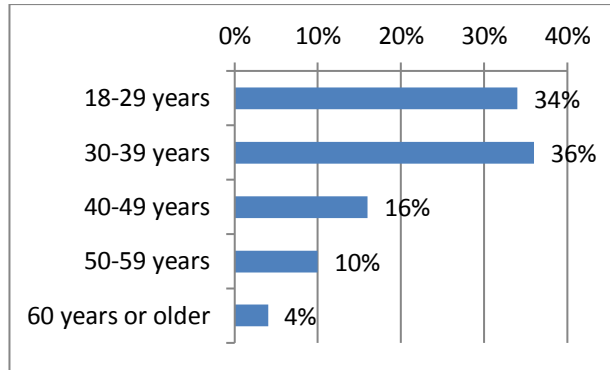


Fig. 1.4 Distribution of age groups (sample)

## 2 GENERAL CONDITIONS IN HOME OFFICE

### Effects of pandemic

- March - May 2020 (essential-only presence operations): 68 % of all respondents felt *very strongly to strongly affected* in their professional and private everyday life during this period (14 % felt *little or not affected at all*)
- May - August 2020 (restricted presence operations): 45 % of all respondents felt *very strongly to strongly affected* in their professional and private everyday life during this period (25 % felt *little or not affected at all*)
- At the beginning of the coronavirus pandemic: 44 % of all respondents considered themselves *very well to well* able to conduct their courses online, 28 % only *partially*, 29 % *hardly or not able at all*

### Equipment in the home office

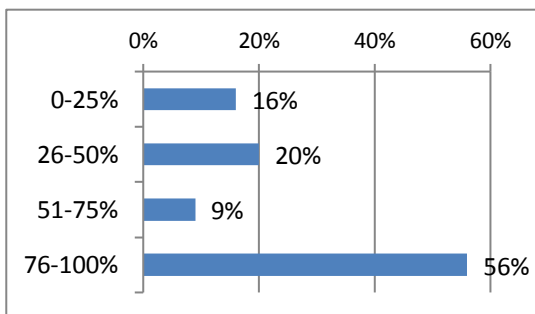


Fig. 2.1 Share of private/privately purchased equipment in the home office

N = 696, mean score = 70 percent, median = 80 percent

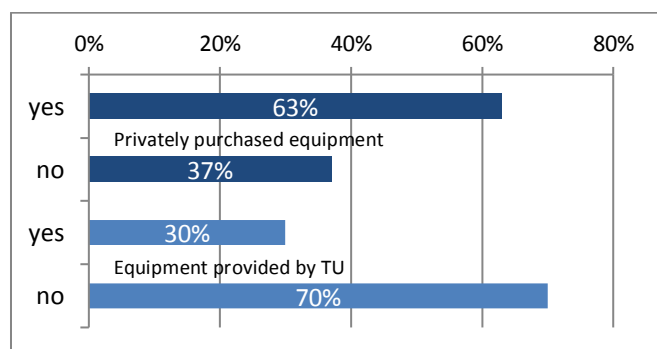


Fig. 2.2 Private purchases to be able to work (N = 690) & additional equipment provided by TU in summer semester 2020 (N = 684)

- Mean value “Share of private equipment for working tasks” (70 % total sample) reveals strong differences in status groups: tutors = 94 %; research assistants = 66 %; professors = 51 %
- Private purchases were carried out by 50 % of the tutors and two thirds of the professors and research assistants in order to be able to work
- Professors in particular are equipped to work
- Equipment shortfalls in home offices (not available) mainly concern headset (31 %); webcam (18 %); access to TU drives/ VMWare Horizon Client (83 %); own desk (11 %)
- When the survey was conducted, only 2 % of the surveyed instructors were working continuously and 6 % were working predominantly at their TU workplace

### Ability to work from home

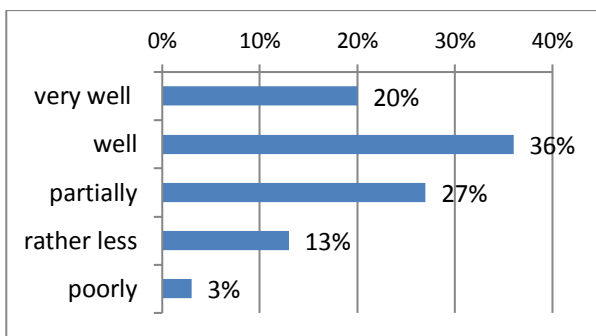


Fig. 2.3 How do the working conditions at home meet your work requirements? (N = 709)

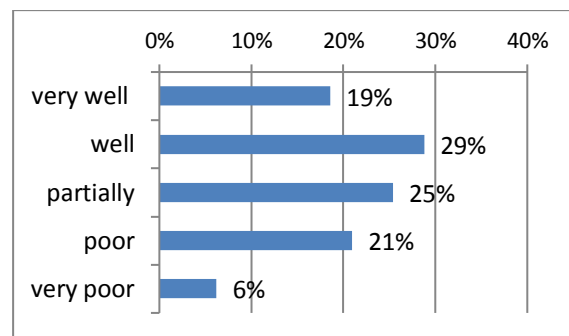


Fig. 2.4 How do you assess your ability to work in terms of concentration and efficiency? (N = 677)

- Research assistants rated their ability to work from home the best (52 % = very/bad; 30 % very/good), tutors the worst (28 % = very/bad; 30 % very/good)
- 35 % of all respondents report that their working conditions have worsened overall

### Free text comments concerning GENERAL CONDITIONS IN HOME OFFICE

(357 free text comments  $\cong$  50% of respondents)

#### Positive aspects | Working from home

- 71 % of the comments (36 % of all respondents) include statements on the opportunities and potentials of working from home. The higher degree of flexibility in terms of time and space (38 %) and the increase in digitalization (14 %) are regarded as particularly positive.

#### Negative aspects | /Working from home

- 92 % of the comments (46 % of all respondents) include information about problems and challenges when working from home. Almost half of the comments (48 %) concern lack of equipment or use of private equipment and lack of health protection (ergonomic workplace) at home, which leads to problems with online teaching (20 %).
- Another 20 % report a lack of contact (with students/colleagues) and 17 % mention problems of compatibility as major challenges.

### 3 ONLINE TEACHING in the 2020 summer semester

#### Prior knowledge of online teaching

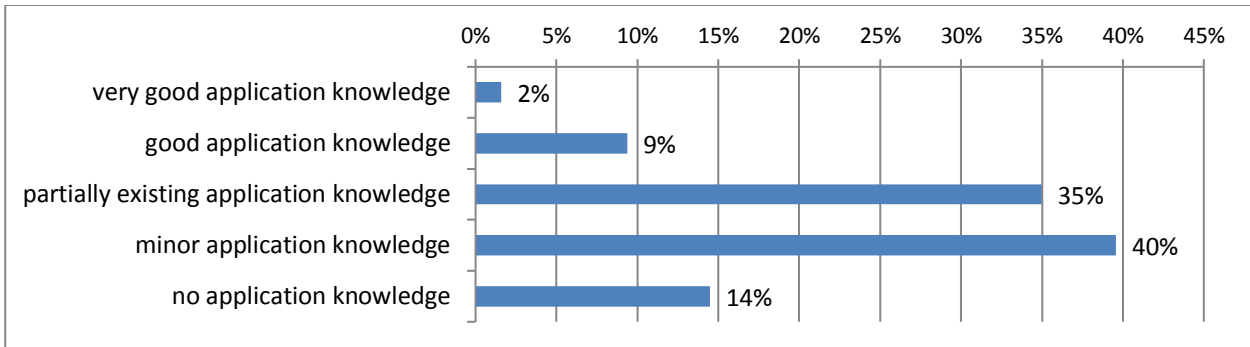


Fig. 3.1 Hands-on knowledge of online teaching tools prior to the outbreak of the coronavirus pandemic

- Fig. 3.1: The index is based on the frequency of use of online teaching tools relevant for dealing with the digital semester before the start of the pandemic, categorization is based on the school grade system
- 11 % of the instructors had good initial conditions for the start of the digital semester (measured by this figure), more than half (54 %) were in fact hardly or not at all prepared for the requirements

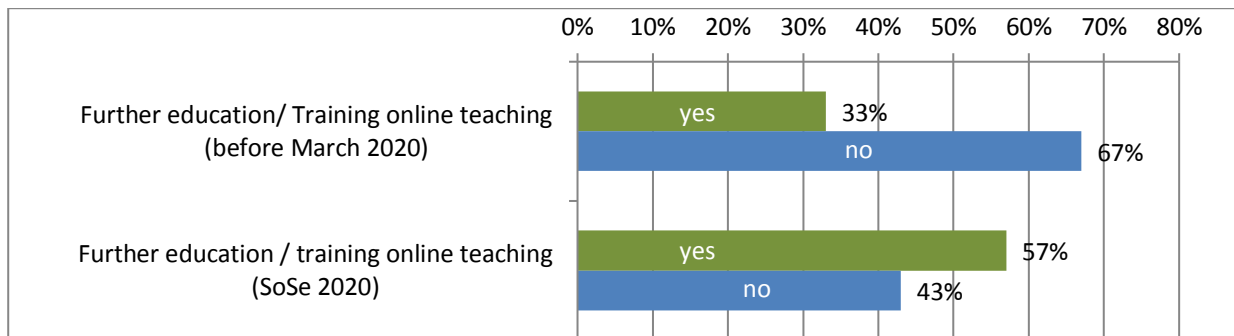


Fig. 3.2: Completion of further education/training on online teaching before and during the coronavirus pandemic

- Fig. 3.2: Almost 60 % of the respondents used the services offered by the ZEWK, innoCampus or DZHL at least once during the summer semester, for the time before the outbreak of the pandemic only a third of the respondents indicate that they had already taken part in further training courses for online teaching
- High satisfaction with the training/information or advisory services used (74 % = very/satisfied)
- Looking back, how well did you assess your ability to conduct your course(s) digitally at the time of the decision to implement a digital summer semester? Very good = 14 %, hardly/not at all = 29 %

## Implementation of online teaching

### Teaching scenarios: Real use of online teaching tools

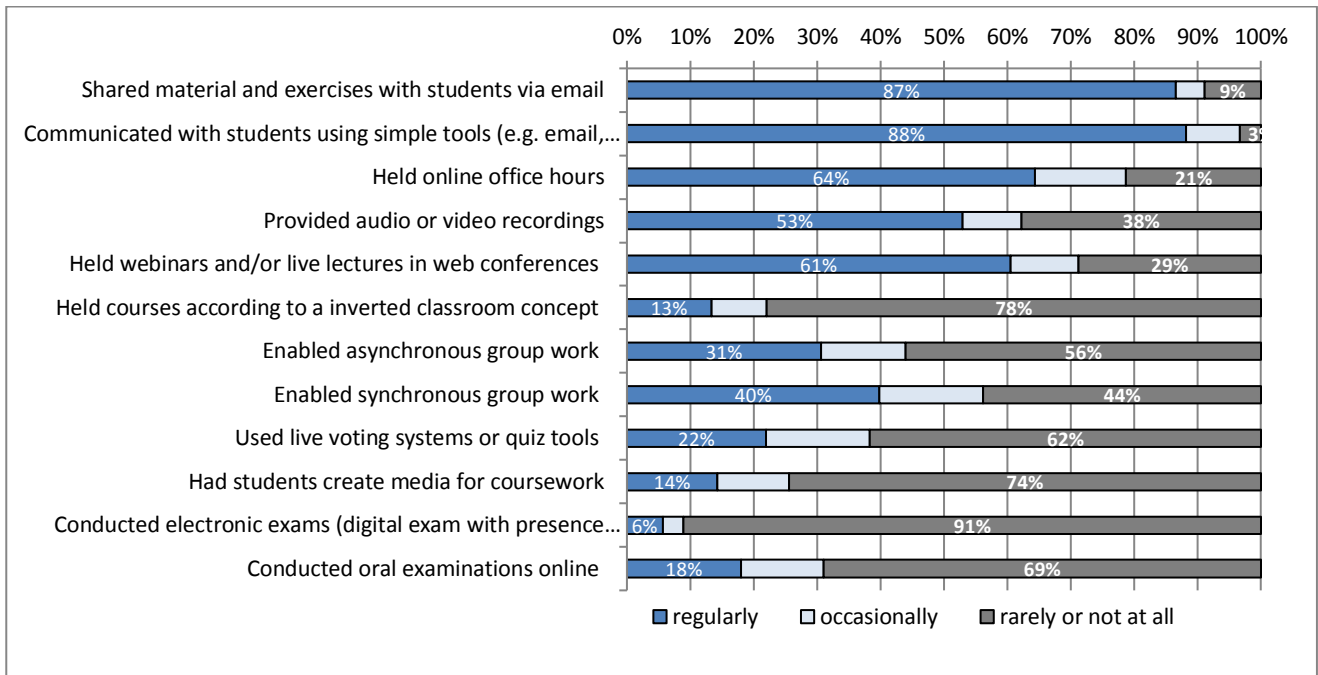


Fig. 3.3 Frequency of use of tools & instruments for online teaching

- **Technical implementation** of online teaching: 68 % of the respondents were able to achieve their goals, 30 % only partially; [free text comments](#) (N = 169/ 24 %). Problems arose in particular from 1. the lack of necessary classroom teaching elements (29 %), 2. missing or inadequate technical equipment (for instructors and students (22 %) as well as functional problems with online tools, such as WebEx, ISIS/Moodle or Zoom (17%)
- **Didactic implementation** of online teaching: 48 % of the respondents were able to achieve their goals, 45 % only partially; [free text comments](#) (N = 247/ 35 %). Problems arose mainly (74 %) during teaching with practical relevance and a high proportion of discussion, as well as through a lack of feedback and little interaction.
- Satisfaction with the digital implementation of own teaching: 15 % completely satisfied; 11 % dissatisfied or not satisfied at all
- Best tool for synchronous online teaching: **ZOOM** (for 78 % of the respondents)
- Suitability for implementation in **online mode**: **Lectures** (total: 42 %; mostly: 34 %)
- **In-PRESENCE teaching** necessary: Internships/projects/field trips (82 % low to no suitability); face-to-face tutorials: 50 % of all surveyed tutors consider online tutorials to be little/not suitable (mean score: 45 %)

## Changing numbers of participants and dropout rates in own courses compared to regular courses in the past semesters

	significantly higher	higher	same	lower	significantly lower
Number of participants (N = 589)	17%	19%	39%	17%	9%
Dropout rate in the course of the semester (N = 516)	16%	22%	45%	11%	6%

### Communication & interaction with students

- Synchronous courses: frequency (54 %) and quality (52 %) of communication decrease (significantly)
- Asynchronous teaching formats: frequency of communication increases (50 %)
- **Transfer of knowledge** assessed as (significantly) worse (61 %)
- **Feedback**: 87 % of all instructors received student feedback on their courses, 31 % received *sufficient student feedback* (32 % *occasionally*, 31 % *only occasionally*, 6 % *not at all*)
- **Satisfaction**: 34 % of the instructors are very/satisfied with the communication/interaction with their students, 29 % are partially satisfied, 37 % are not satisfied at all

### Free text comments on communication / online teaching (213 comments $\triangleq$ 30 %)

- 30 % of the respondents made comments on the topic of communication and interaction in online teaching. 44 % of all comments in the questionnaire cluster on online teaching deal with this topic. However, only 12 % of them emphasize positive aspects, while 88 % report problems and tremendous challenges.
- These problems are mainly 1. the distinct passivity/anonymity of students (incl. few active students, high dropout rates), 2. the low communication and interaction with and among students (motivation and activation of students) and 3. the near impossible assessment of the transfer of knowledge.

### Free text comments concerning ONLINE TEACHING

(1679 comments by 547 persons  $\triangleq$  3 comments/person, 77 % of all respondents)

The respondents providing comments (N = 547) commented on the following topics, additionally the percentage of the respective persons providing comments in the total sample is indicated:

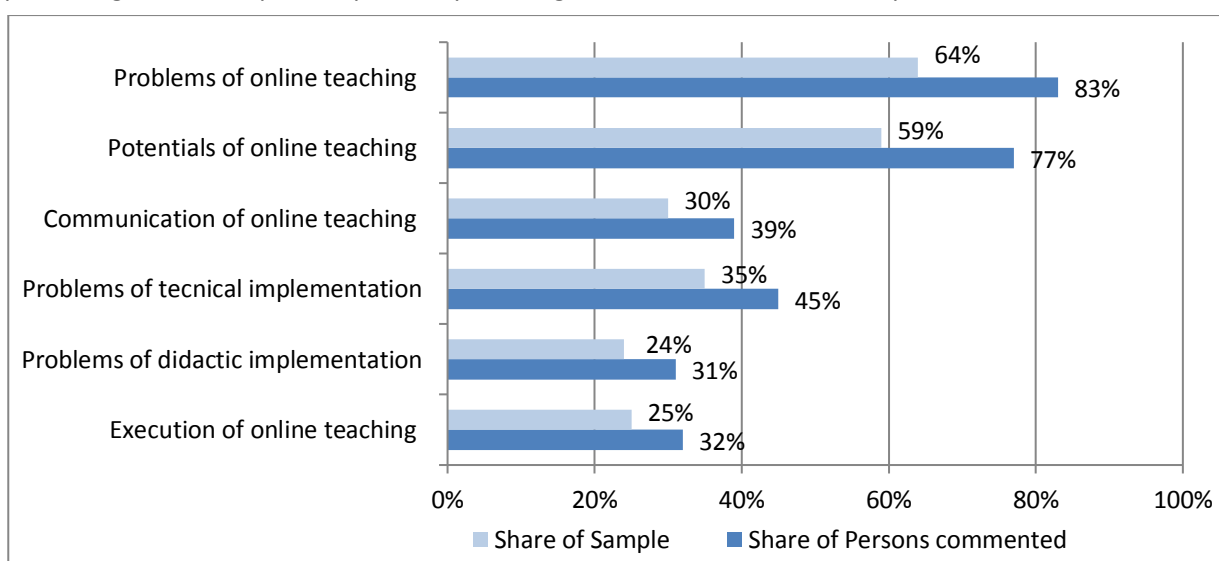


Fig. 3.4 Distribution of free text answers to individual free text questions about online teaching

Table 3.3 Evaluation of free text questions: Problems and opportunities of online teaching	
<b>Challenges/problems of online teaching (% share of comments &gt; 10 %)</b>	
Communication/interaction with students (activation, passivity, anonymity, lack of contact)	63 %
No assessment of the transfer of knowledge possible	20 %
High extra expenditure of time, not enough personnel resources	13 %
<b>Potentials of online teaching (% share of comments &gt; 10 %)</b>	
Spatial/temporal flexibility	37 %
Asynchronous formats have potential for individual learning	32 %
Potentials lie in efficiency/reusability/sustainability of produced teaching materials	15 %
Looking forward, there is a chance for better (online) teaching, hybrid formats	13 %

### Acceptance of online teaching

Fig. 3.5 Changes in personal attitude towards the use of online teaching (N = 693)

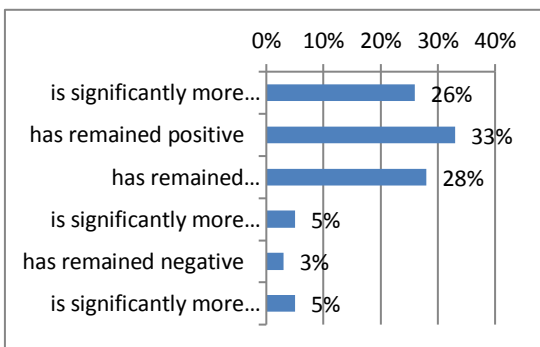
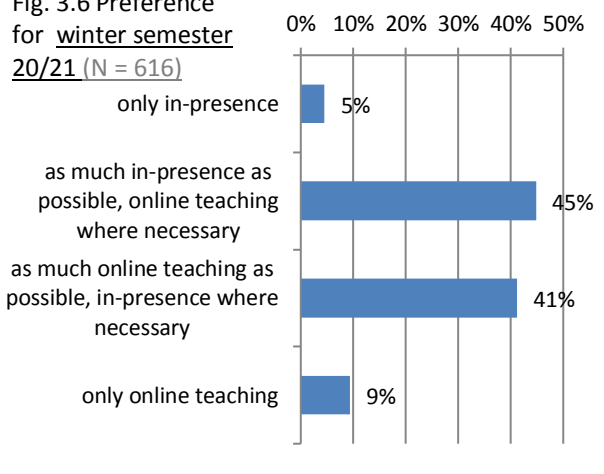


Fig. 3.6 Preference for winter semester 20/21 (N = 616)



- Fig. 3.5: There is a disproportionately high number of respondents from Faculties II (36 %) and IV (20 %) and a disproportionately high number of tutors (37 %) in the group “consistently ambivalent /negative, clearly more negative” (N = 81)
- Fig. 3.6: There is a disproportionately high number of responses from Faculty VI in the group “as much classroom teaching as possible” (free text comments include many requests from the area of architecture for classroom teaching/classroom teaching elements (studios/presentations)
- Fig. 3.6: Faculty V is disproportionately represented in the group “as much online teaching as possible”

## 4 EXAMINATIONS

### Examinations in the 2019/2020 winter semester

Canceled examinations due to the coronavirus pandemic (March/April 2020)	Made up in summer semester 2020			(significantly) fewer participants	(significantly) worse performances
	yes	partly	no		
<b>Written examinations:</b>	31 %	11 %	24 %	<b>68 %</b>	<b>21 %</b>
<b>Oral examinations:</b>	22 %	44 %	20 %	<b>40 %</b>	12 %

- 42 % of all surveyed professors and research assistants canceled written examinations or oral examinations in the winter semester, most of them are employed in Faculties II (20 %) and IV (21 %), the fewest instructors with canceled examinations belong to Faculties I (3 %) and VII (10 %)
- Postponed examinations in June 2020: satisfaction with the organization of examinations during restricted presence operations is high (62 % = very/satisfied; 14 % = not satisfied at all)

### Examinations during the 2020 summer semester

- 70 % of all surveyed professors and research assistants carried out written examinations or oral examinations in the summer semester
- Still canceled/postponed examinations, though to a lesser extent: written examinations (13 %), oral examinations (6 %)
- Satisfaction with the organization of the examinations during restricted presence operations decreases significantly (45% = very/satisfied; 31% = not satisfied at all)
  - The greatest dissatisfaction can be found in Faculty II (36% of all respondents in Faculty II = not/not satisfied at all), greatest satisfaction in Faculties IV (68%), VII (64%)

### Greatest challenges for examinations during restricted presence operations

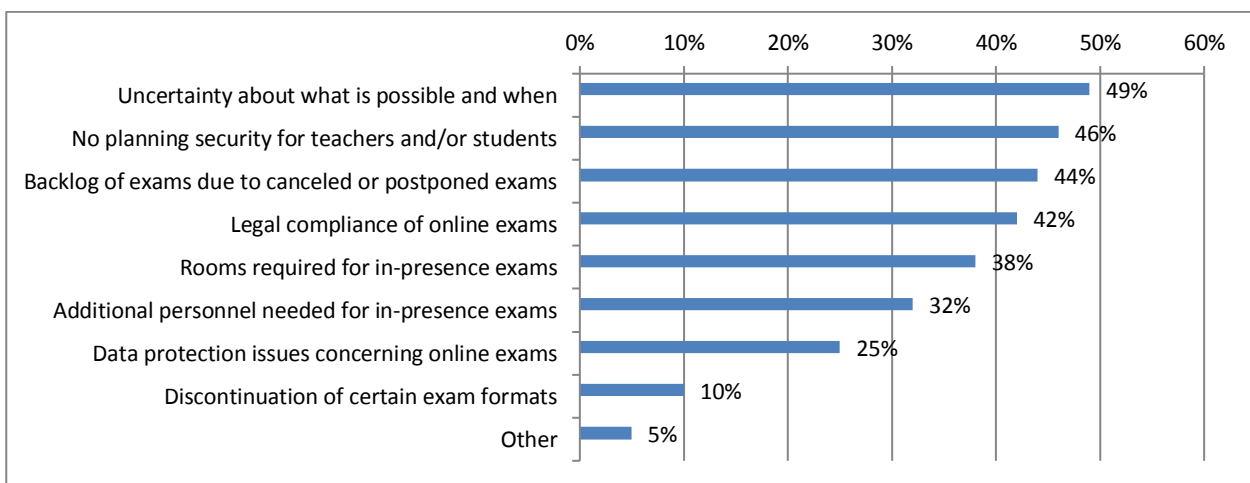


Fig. 4.1 Challenges for examination operations

- The free text comments on the question “Are there any other/further challenges?” also describe the problems with examination registrations, the health risks of in-person examinations and compliance with hygiene regulations, cheating and fraud attempts, the additional effort required and technical problems with online examinations

### Free text comments concerning EXAMINATIONS

(274 free text comments  $\cong$  38 %)

<b>Table 4.2 Evaluation of free text questions: Potentials &amp; challenges concerning EXAMINATIONS</b>	
<b>Challenges/problems of examinations (% share of comments &gt; 10 %)</b>	
Need for improvement in examination planning and administration (space, time, form)	30 %
Criticism of online examinations / fundamental wish for in-person operations	11 %
More assistance with the design/implementation of online examinations	10 %
Furthermore: spatial planning, standardized tools for online examinations, communication/information by TUB must be improved, online examinations: ensuring Internet connection, implementation of the hygiene concept	
<b>Potentials of examinations (% share of comments &gt; 10 %)</b>	
Online examinations (if requirements are met)	39 %
Spatial/temporal flexibility of instructors/students	28 %
New/improved/versatile forms of examination (not only memorization)	17 %
Furthermore: need for digitalization of examination administration, testing of technical possibilities, hybrid forms of teaching in the future	



## 5 WORKLOAD

### Additional expenditure of time

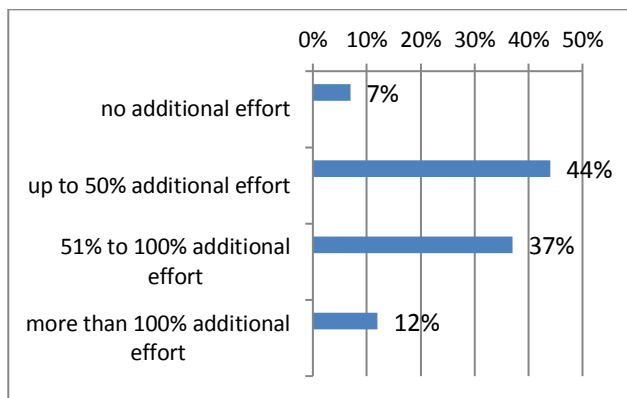


Fig. 5.1 Compared to regular teaching in the past semesters, how much more time do you think was spent on the digital implementation of your teaching this semester? (100% = double effort, 0% = no additional effort); N= 649 (categorized) mean score = 75%, median = 50%

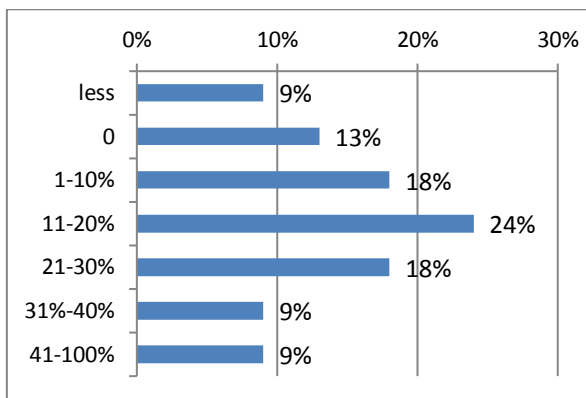


Fig. 5.2 Additional amount of working time spent in the summer semester on teaching  
N= 535 mean score = 18%, median = 20%

- Proportion of working hours devoted to teaching responsibilities increased significantly: mean score before the coronavirus pandemic = 42 % - mean score summer semester = 61 %; percentage of working time devoted to research and qualification-based work decreased significantly: mean score before the coronavirus pandemic = 55 % - mean score summer semester = 38 %
- A (much) higher amount of work arose especially in the following areas: 1. Preparation of media and therefore preparation of own courses (76 %), 2. Organization of examinations (72 %), 3. Coordination with colleagues, administration, organization (72 %)

### Free text comments about workload

(228 free text comments  $\cong$  32% of respondents)

Table 5.1 Evaluation of free text questions concerning WORKLOAD	
Problems concerning online teaching additional work in preparation and implementation (concentration)	39 %
Problems concerning high workload in (self) administration, additionally due to the administration's inability to work	23 %
Problem concerning overtime, including unpaid	13 %
No / little time for qualification work (PhD/studies)	10 %
Overtime including in research	8 %
The overtime will be compensated/reduced in the future	7 %

## Extension of work beyond regular working hours

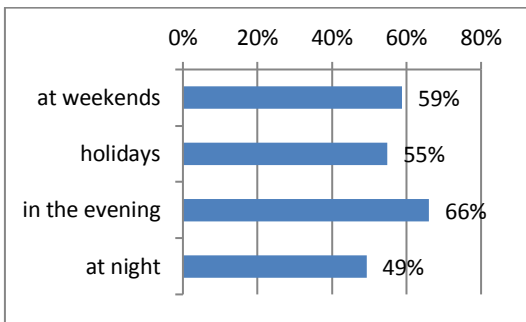


Fig. 5.3 Share: Work "much more often" exceeds regular working hours

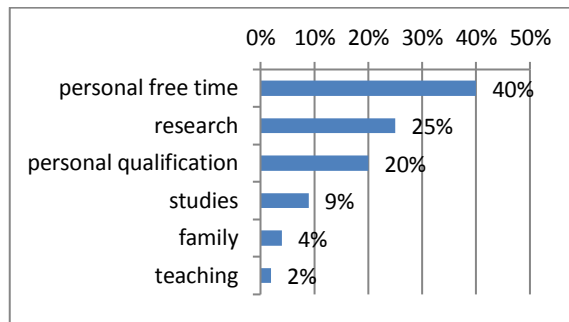


Fig. 5.4 Time reductions due to overtime

- Fig. 5.3: The delimitation of work beyond regular working hours affects all status groups equally<sup>1</sup>
- Significant effect of "multiple stresses" on the delimitation of work: of all persons exposed to multiple stresses, i.e., in particular persons with children in their own households, 78 % (deviation from the mean score + 19 %) work significantly/ more frequently on weekends, more than 65 % (deviation from the mean score + 10 %) work significantly/ more frequently on public holidays, more than 74 % (deviation from the mean score + 8 %) work significantly/ more frequently in the evening and more than 57 % (deviation from the mean score + 8 %) work significantly/ more frequently at night

## 6 COMPATIBILITY

### Multiple strains

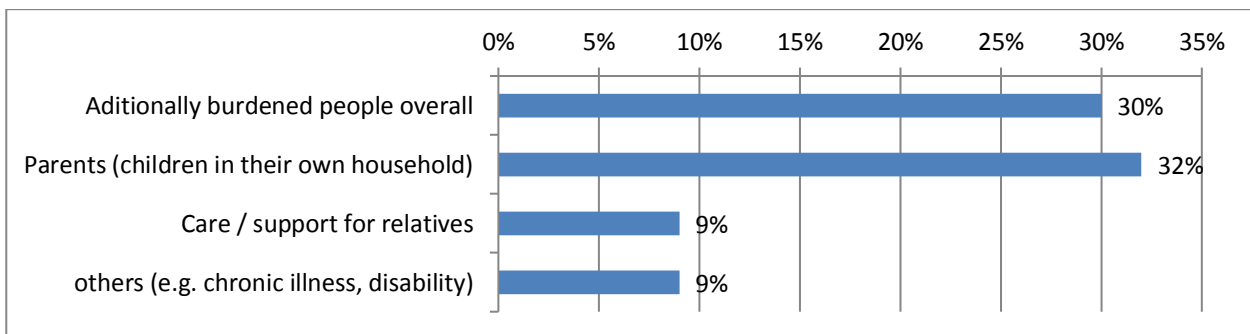


Fig. 6.1 Distribution of parenthood, care responsibilities and health restrictions in the sample

- 30 % of all respondents have at least one strain (children below 18 years of age in their own household, care responsibilities, health restrictions)
- Multiple strains are not gender-specific, but depend on age
- Persons aged between 30 and 49 years represent 73 % of all respondents with multiple strains

<sup>1</sup> In all status groups, more than 55 % of the respondents work significantly/more frequently on the weekends, more than 50 % significantly/more frequently on holidays, more than 60 % significantly/more frequently in the evening and more than 45 % significantly/more frequently at night.

## Strains due to coronavirus (March – August 2020)

<b>Table 6.1 Characteristics of the strains caused by the consequences of the coronavirus pandemic: Age group, gender</b>			
<b>Age group, N = 677</b>	<b>very strong to strong strain</b>	<b>existing stress</b>	<b>little to no strain</b>
18-29 years	44.2%	31.2%	24.7%
30-39 years	46.7%	32.0%	21.3%
40-49 years	68.2%	23.4%	8.4%
50-59 years	40.6%	31.9%	27.5%
60 years or older	53.8%	15.4%	30.8%
<b>Gender (dichotomous), N = 635</b>			
male	46.7%	29.4%	23.8%
female	50.7%	31.9%	17.4%

- The data demonstrate the degree of continuous corona-related strains since March 2020
- There are age and gender-specific differences
- In the group of those respondents who state that they have felt continuously (very) strongly stressed, the proportion of women is 40 % (men 60 %); in the group of respondents who said they felt only little or no stress, the proportion of women is only 24 % (men: 76 %)² => significant deviation from the distribution in the sample

### Use of paid leave & offers of the Family Services Office

- 14 % have taken advantage of 10-20 days paid leave
- Only 2 % of all parents (with children in their own household) and persons who are responsible for care have made use of the support services offered by the Family Services Office although 63 % of the target group are aware of these services

### Free text comments about compatibility

(109 free text comments  $\hat{=}$  15% of respondents)

<b>Table 6.2 Evaluation of free text questions concerning COMPATIBILITY</b>	
Need for compensation/recognition of overtime (time compensation, contract extension)	19 %
Need for solutions for parents/persons with care responsibilities (e.g., in the case of partial school closures)	17 %
Compliance with times for qualification (working hours), no time for PhD	15 %
Equipment for home office (incl. health problems due to unsuitable chairs or similar)	9 %
Home office is an advantage	8 %
Problem: lack of regulated working hours (delimitation, availability)	7 %
Problem: Administration	6 %

<sup>2</sup> Column percentages not shown separately in the table

## 7 TU BERLIN CRISIS MANAGEMENT

### Main source of information

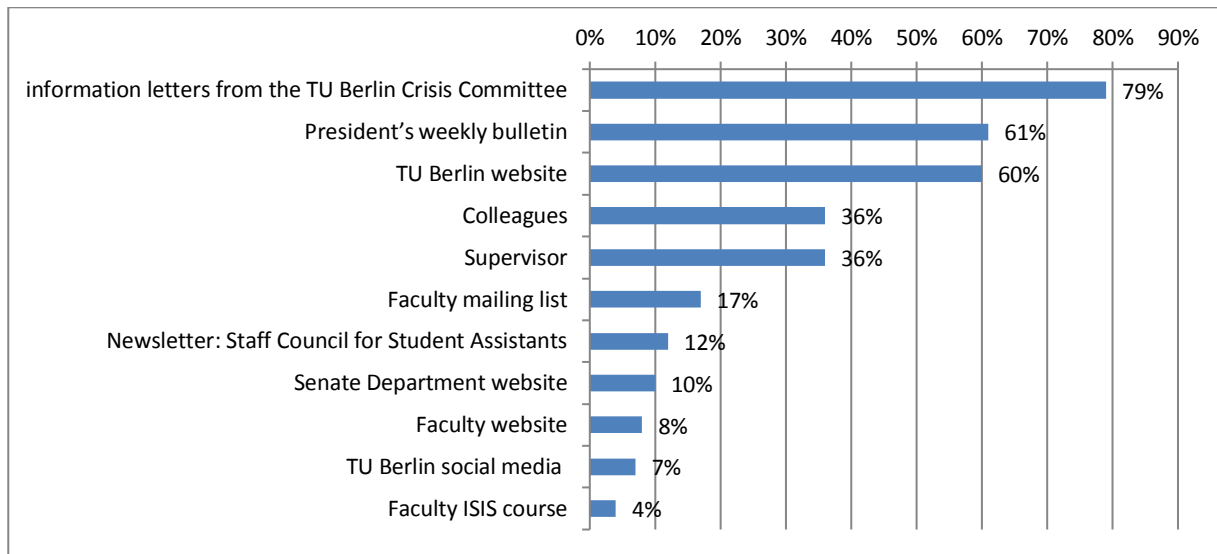


Fig. 7.1: What was the main way you kept up-to-date with the University's coronavirus pandemic-related measures/ regulations/procedures?

### Satisfaction with TU crisis management

Table 7.1 Satisfaction with "Information & Communication" and "Organization and Implementation"			
Information & Communication: Satisfaction with...	completely/ very satisfied	satisfied	little/not satisfied at all
the provision of information about decisions made by TU Berlin and the implementation of applicable rules on essential-only operations or restricted presence	63%	18%	14%
information about existing support offers to conduct online teaching	58%	25%	18%
information about the provision of technical equipment (software/hardware/online tools)	45%	23%	32%
the accessibility of information via websites/email (findability, structure, currency)	47%	24%	29%
the University's communication with its employees	50%	25%	26%
the University's public communication	31%	15%	13%
Organization & Implementation: Satisfaction with...			
the implementation of essential-only operations at TU Berlin	57%	20%	23%
the organization of restricted presence in TU Berlin buildings	56%	23%	21%
the accessibility of your TU workplace (since mid May 2020)	51%	18%	31%
the organization of administrative processes (e.g., human resources, examinations, finance)	25%	20%	55%
existing support offers (advising, trainings, material, hardware loans) to conduct online teaching	53%	30%	17%

- With regard to information/communication (status groups): the highest percentage of dissatisfied persons (27 %) is found in the group of tutors (research assistants= 16 %; professors = 22 %)
- With regard to organization/implementation (status groups): percentage of satisfied tutors amounts to only 21 % (percentage of satisfied research assistants = 50 %; percentage of satisfied professors = 35 %)

## Characteristics of TU crisis management as described by instructors

	<b>completely (fully)</b>	<b>partly</b>	<b>little/not at all</b>
Appropriate for the circumstances	75%	13%	12%
Commensurate with the University's scope of action	67%	19%	14%
Involved	67%	21%	12%
Prudent	62%	23%	15%
Exemplary	59%	23%	18%
Appreciative & understanding towards University members	56%	20%	24%
Reasonable & transparent	55%	19%	26%
Foresighted	55%	22%	23%
Structured & coordinated	48%	25%	27%
Pragmatic & flexible	46%	21%	33%

## 8 NEED FOR ACTION FOR THE UPCOMING SEMESTERS

Do you see a need for institutional action/change on the part of TU Berlin to improve the requirements and conditions for teaching during winter semester 2020/21?

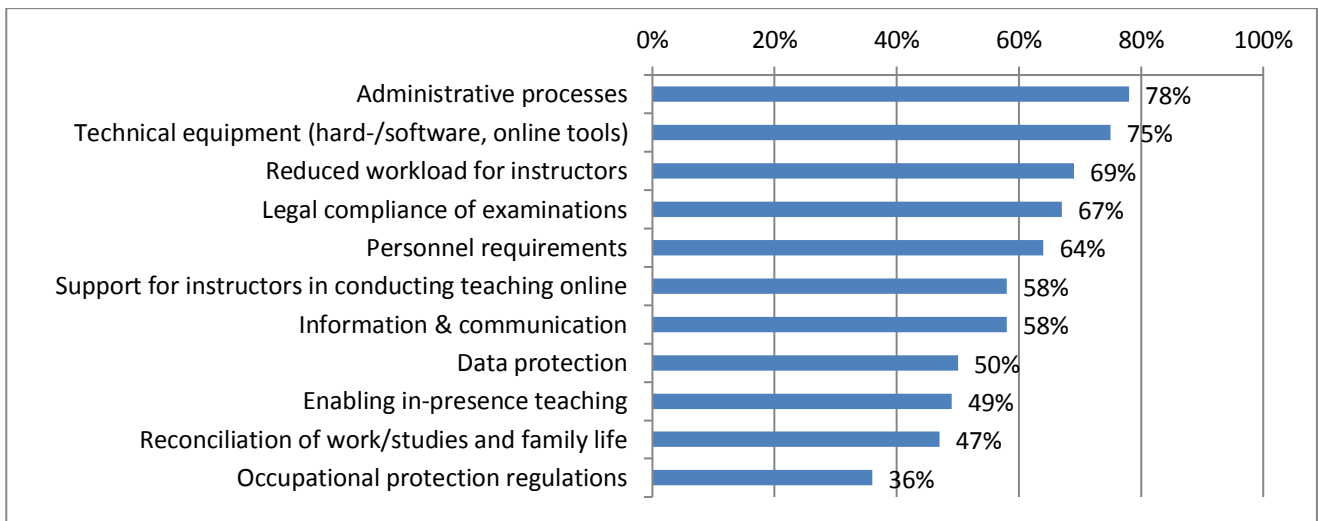


Fig. 8.1 Need for action structured by fields of action

## Free text comments questions in the questionnaire cluster NEED FOR ACTION

(2210 free text comments of 558 respondents  $\hat{=}$  78 % of all respondents, 4 comments/person)

<b>Table 8.1 Evaluation of the relevant free text questions in the cluster NEED FOR ACTION</b>
<b>Where exactly do you see a need for action? Administration (N = 277)</b>
<ul style="list-style-type: none"> <li>• Most comments are not distinguishing, but refer to the administration in general (51 %)</li> <li>• The following areas of the Central University Administration are specifically named (60 %): Human Resources (23 %),</li> <li>• Examinations/Examination Offices (18 %), Finance/Budget/Research Department</li> <li>• Lack of digitalization of processes (31 %), accessibility &amp; communication (18 %), processing times (14 %)</li> </ul>
<b>Where exactly do you see a need for action? Technical equipment (N = 363)</b>
<ul style="list-style-type: none"> <li>• 80 % relate to technical equipment, especially hardware and software/licenses, including in many cases IT equipment and infrastructure</li> <li>• 52 % of the purchase requests refer to equipment in the <b>home office</b></li> <li>• 45 % identify concrete problems, in particular the reimbursement of private purchasing costs, financing of home office equipment, also of tutors; missing information, e.g., offer/availability of (loan) equipment, responsibilities for processing procurements, reimbursement of costs</li> </ul>
<b>Where exactly do you see a need for action? Reduction in workload for instructors (N = 247)</b>
<ul style="list-style-type: none"> <li>• 40 % think that a further digital semester can only be guaranteed if the additional workload is compensated for by more personnel (teaching/technical support)</li> <li>• 26 % request relief by <b>taking into account the additional workload</b> in KapVO, LVVO or in the teaching load; extension of temporary contracts of research assistants that have to interrupt their qualification work</li> <li>• 19 % wish to have their <b>overtime recognized and compensated</b>, e.g., through overtime compensation (time recording also for research assistants/tutors), payment for overtime or consideration in the curriculum/commitment</li> <li>• Relief from other tasks, especially administrative tasks</li> </ul>
<b>Where exactly do you see a need for action? Personnel requirement (n= 212)</b>
<p>The expressed urgent need for personnel is particularly related to:</p> <ul style="list-style-type: none"> <li>• in general instructors (50 %), especially tutors (30 %)</li> <li>• the relief of the administration (21 %), as well as: administrative capacities to deal with the additional administrative workload</li> <li>• Also frequently: personnel for IT support and online teaching support (ZEWK, innoCampus)</li> </ul>
<b>Where exactly do you see a need for action? Support with online teaching (N = 163) by:</b>
<ul style="list-style-type: none"> <li>• Expanding and adapting the further education and training offered by ZEWK/innoCampus (35 %) <ul style="list-style-type: none"> <li>○ Tailored to the needs, if necessary subject-specific, also didactically specific to online teaching formats</li> <li>○ Exchange/publication of best practice examples</li> <li>○ Furthermore: Services for tutors; ISIS training</li> </ul> </li> <li>• Additional student assistant/tutor positions (23 %) or personnel for the technical implementation/support of the online teaching formats (11 %)</li> <li>• Improvement of the instructors' hardware equipment (14 %)</li> <li>• Available, informed IT support (11%)</li> </ul>
<b>Where exactly do you see a need for action? Communication (N = 206)</b>
<ul style="list-style-type: none"> <li>• 57 % identify the need for centrally available, current, clear and structured information for all status groups simultaneously (also in English; first internally, then externally)</li> <li>• 27 % wish to receive information more quickly (especially examinations) or clear communication about planned procedures in different areas</li> <li>• Also frequently: transparent processes of decision-making; information on technical solutions</li> </ul>

## 9 CONCLUSION – DIGITAL SUMMER SEMESTER

### Free text comments concerning CONCLUSION – DIGITAL SEMESTER

(442 free text comments  $\cong$  62% of respondents)

- 51 % of all respondents additionally described positive experiences
- 52 % of all respondents additionally mentioned problems and challenges
- 29 % of all respondents expressed additional praise
- 27 % of all respondents also expressed additional criticism

#### Positive experiences (N = 363)

- Digital semester turned out better than expected (29 %)
- Accelerator for modernization & digitalization of teaching, online teaching is fun (23 %)
- Acquisition of new skills (16 %)
- Spatial/temporal flexibility has advantages (13 %)

#### Praise (N = 206)

- TU in general: managed the situation well (30 %)
- Engagement of ISIS/InnoCampus/IT Support (18 %)
- Praise for the Executive Board (17 %)
- Praise for the ZEWK/Online Teaching team (10 %)

#### Negative experiences/challenges (N = 377)

- Problem to achieve or maintain high teaching quality (19 %)
- Problem concerning overtime/workload (17 %)
- Compatibility (14 %)
- Coronavirus (isolation, lack of contact, home schooling, risk group) 13 %
- Lack of time/time management (12 %)

#### Criticism (N = 195)

- Communication and information (18 %)
- Administration (15 %)
- Digitalization must be improved (14 %)
- Success is achieved at the expense of the (committed) instructors (11 %)
- Students get left behind (10 %)

## APPENDIX 1: OVERVIEW OF FREE TEXT COMMENTS

FREE TEXT COMMENTS	N = Comment group	N = Comments	N = Persons	Comments/persons	% sample (714)
<b>EQUIPMENT</b>	<b>612</b>		<b>515</b>	<b>1.2</b>	<b>72%</b>
Private purchase		419	419		
Provided by TUB		202	202		
<b>BASIC CONDITIONS</b>	<b>582</b>		<b>357</b>	<b>1.6</b>	<b>50%</b>
Potentials		254	254		36%
Problems		328	328		46%
<b>ONLINE TEACHING</b>	<b>1679</b>		<b>547</b>	<b>3</b>	<b>77%</b>
Implementation		175	175		25%
Problems with didactic implementation		169	169		24%
Problems with technical implementation		247	247		35%
Communication		213	213		30%
Potentials		420	420		59%
Problems		455	455		64%
<b>EXAMINATIONS</b>	<b>335</b>		<b>274</b>	<b>1.2</b>	<b>38%</b>
Other problems		32	32		12%
Potentials		151	151		21%
Problems		148	148		21%
<b>WORKLOAD</b>	<b>228</b>		<b>228</b>	<b>1</b>	<b>32%</b>
<b>COMPATIBILITY</b>	<b>239</b>		<b>209</b>	<b>1.1</b>	<b>29%</b>
Comment about compatibility		110	110		15%
Comment about paid leave		129	129		18%
<b>NEED FOR ACTION</b>	<b>2210</b>		<b>558</b>	<b>4.0</b>	<b>78%</b>
Technical equipment		363	363		51%
Information and communication		206	206		29%
Legal certainty for examinations		157	157		22%
Data protection		133	133		19%
Employment regulations		114	114		16%
Relief for instructors		249	249		35%
Support with online teaching		162	162		23%
Enabling face-to-face teaching		230	230		32%
Personnel requirement		214	214		30%
Administrative processes		277	277		39%
Compatibility		85	86		12%
other		20	20		3%
<b>CONCLUSION: DIGITAL SEMESTER</b>	<b>1134</b>		<b>442</b>	<b>2.6</b>	<b>62%</b>
Positive experiences		362	362		51%
Problems/challenges		373	373		52%
Praise		205	205		29%
Criticism		194	194		27%
<b>Total</b>	<b>7019</b>		<b>621</b>	<b>11.3</b>	<b>87%</b>



