



***Experiences and challenges of students during the 2020 campus lockdown***

*Results from student surveys at the University of Copenhagen*

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Front page image: *Word Cloud* generated from questionnaires

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## Summary

This report is an initial analysis of survey data collected at the University of Copenhagen in April and June 2020. The purpose of the survey was to learn more about the experiences and challenges of university students during the 2020 campus lockdown. Participating in the surveys were students at the Faculty of Health and Medical Science (April: N=1298, RR=17%; June: N=1360, RR=17%), The Faculty of Humanities (N=408, RR=5%), the Faculty of Theology (N=52, RR=9%), and the Biology study programmes (N=90, RR=9%). The low response rates are a significant limitation to the interpretation of the data, and although we believe that our sample is in many ways representative, our analysis is centred on identifying broader themes that sit well with present knowledge rather than over-interpreting minor variations in specific distributions.

### Summary of findings

**Few challenges related to technology use.** The majority of respondents *rarely/never* had problems finding a good Internet connection or using the required technology. However, around 1 in 6 respondents indicated that technical problems in the instructor's end happened *often/always*.

**Many respondents struggled with motivation.** Almost two thirds replied that they *often/always* had problems motivating themselves to study, with some local figures above 80%. And almost 70% felt *less* or *much less* motivated than before the lockdown. This is correlated with the respondents' preference for learning online or on campus, with the most motivated respondents preferring online and the least motivated preferring campus.

**Increased anxiety, loneliness and stress.** The majority of respondents reported that they, during lockdown, were more stressed, nervous, lonely and less hopeful about the future. We also see a clear correlation between prevalence of psychosocial issues and preference for campus based studies.

**Respondents missed the social and informal aspects of studying on campus.** Nine out of 10 respondents said that they miss having informal conversations with their fellow students, and 6 out of 10 miss informal conversations with their instructors. Some variation between faculties.

**Passive one-way lecturing dominated the semester.** Respondents reported that the active learning experiences were missing, and although many great and interactive learning experiences were reported in the open ended data, key indicators for student activating teaching did not improve between April and June.

**Advantages and disadvantages of live-streamed classes.** Almost all respondents had taken part in live-streamed classes. Generally satisfaction with the format, with the ability to ask questions and the subsequent sharing of a recording both having a positive influence on perceptions of live-streamed classes. Majority of respondents still prefer classes on campus, but many also argue that live-streaming and recording of less interactive lectures would be useful even after campus reopens.

**Online group work may continue for some.** Although respondents overwhelmingly report that they prefer face to face over online group work, there was still many respondents that reported that online collaboration and group work was one of the things that they were hoping to keep when campus reopens.

**Satisfaction with the online oral exams.** Although a majority of respondents responded that they would have preferred to do the oral exam face-to-face, their opinions of their online oral exams are generally positive in regards to overall experience, dialogue with examiners, technology use, and fairness of the grade. Some challenges related to visualizing ideas and group exams were identified. No clear picture if the format makes the students more or less nervous than normal oral exams.

### Summary of implications

**Spend time understanding the consequences of the lockdown.** Familiarity with the numerous evaluations of the spring lockdown can help instructors and admin staff prepare for possible short notice local campus closures and limited campus usage.

**Plan courses that promote active learning.** Invest energy and resources in the planning of courses where the activating elements are developed according to the challenges and affordances of the available technologies.

**Invest in capacity building of digital teaching skills.** Great online teaching requires experience and it is not the always same set of skills that are used when teaching a great campus course.

**Identify good online instructors and learn from them.** There are already many instructors at the University of Copenhagen who are experienced and very successful online educators.

**Build best practice for online oral exams.** Evaluate the experiences with online oral exams. There are many early insights and local success stories from across the University that should be identified, organised, and disseminated

**Keep in touch with students.** Design courses with feedback loops that can inform you how things are going and monitor their engagement with coursework. Collect data to avoid that widespread psychosocial, technical, or practical issues go unnoticed.

**Prioritize keeping spaces for reading/studying and group work open for students.** In case of partial or local campus lockdowns, prioritize to keep open spaces where students can safely go and study alone or in small groups.

**Consider how regulations and pedagogy influence motivation.** Remember that lockdowns and ill prepared online teaching can be detrimental to the motivation of normally highly motivated students

## About the survey

The report presents the University of Copenhagen part of a data collection project covering several institutions of higher education. The aim of this project is to collect data related to the experiences and challenges of university students during the campus closures in the spring of 2020.

The data presented here was collected in April and June of 2020. It includes responses from students at four of the University's six Faculties.

In the Data-sections below we have included extensive figures from the June dataset. This is done in the name of transparency, and in order to give the reader easy access to the data we refer to throughout the report. Whenever we have deemed it fruitful, we have also broken the data down on the department/study board level, so local decision makers and instructors can see the actual number of local respondents and get an idea about how their local data measure up against the more aggregated figures.

The findings, and especially the implications, come with a long list of limitations and reservations that are built into the methodology and data quality.

Our reading of the data is shaped by our knowledge of the existing body of research and established best practice, as well as data from other projects that are aiming to help us understand how students experienced the 2020 campus lockdown.

Data from the project will be shared as an open dataset, so it can be used in research projects that can help strengthen the capacity of universities to continue teaching in the event of future full or partial lockdowns.

We would like to extend gratitude to our project advisory board and university partners, the Independent Research Fund Denmark, and of course the students who shared their experiences with us by participating in the surveys.

## Contact

The report has been prepared in a collaboration between the Centre for Online and Blended Learning and the Department of Public Health at the Faculty of Health Sciences, University of Copenhagen.

If you have any questions or requests for specific data, please contact Lasse X Jensen on [lassej@sund.ku.dk](mailto:lassej@sund.ku.dk)

## Findings

With such an extensive and versatile dataset, the findings presented below are not exhaustive explanations or final conclusions, but rather a selection of the themes that we consider most relevant and enlightening in the current situation.

### Few challenges related to technology use

We asked the students three questions related to possible technical challenges. These challenges were generally less prevalent than the other issues we asked about, with the majority of respondents *rarely/never* having problems with finding a good Internet connection or using the required technology (Figures 1, 4). There are some variation across the university, and these numbers must be taken with some caution as the students with the biggest technical problems might be less likely to respond to an online survey.

When asking how often they experience that the instructor had technical problems when using the required technology the numbers were slightly less positive, and around 1 in 6 respondents indicated that it happened *often/always* (Figure 5).

### Motivation was a dominant challenge

In the April survey we included a multiple selection question with a long list of possible challenges that respondents could mark if they considered it a *great challenge* in their current situation. Across all study programmes “finding motivation to study” was the most prevalent challenge. In the June survey we included two questions about motivation, one asked how often they experienced problems motivating themselves to study, and one asked them to compare their level of motivation with the pre-lockdown period. Again in June, motivation was the greatest challenge, both in the aggregated data and across all study programmes. Across all respondents, almost two thirds replied that they *often/always* had problems motivating themselves to study, with some local figures above 80% (Figure 12). For the questions whether this was more or less than before the lockdown, almost 70% respond with *less* or *much less* (Figure 13) For both these figures the tendency is that bachelor students struggle more with low motivation than master students.

Breaking the figures for motivation down according to the respondents’ preference for learning online or on campus, we see that there is a strong correlation. For the group of respondents that experience the fewest problems with motivation, the majority prefer online learning, whereas the respondents that report the biggest motivation challenges almost all prefer campus based studies (Figure 43).

Low motivation is caused by a combination of many factors and more research is needed to determine who is the most at risk, what factors have strongest effect, and what interventions can be made to mitigate the problem. Many teaching choices and course designs can certainly motivate students, but the low motivation in spring is likely the perfect storm of many factors, some education related and others that are outside of the power of the university to influence.

### Increased anxiety, loneliness and stress

The June survey included a section with questions about the students’ psychosocial wellbeing. The questions were based on open ended replies from the April survey, which included a high number of reports of mental health related issues. The vocabulary we used was adapted from the ‘Core mental health questions’ proposed by the Coronavirus and Mental Health Measurement Working Group at

Johns Hopkins University, and included questions whether the respondents had felt more or less stressed; nervous, anxious and on edge; lonely; and hopeful about the future.

For each question the findings were primarily negative, i.e. the majority of respondents were more stressed, nervous, lonely and less hopeful about the future (Figures 16-19). However, keeping in mind that we cannot know if our sample is representative, these psychosocial data should be seen in connecting with other related project, e.g. the International Student Wellbeing Survey, which also collected data from University of Copenhagen students. For our purposes these data are most valuable for cuts, i.e. to see how these factors may influence the learning experience. We do not consider the psychosocial issues as being *caused by online learning*, but rather as being the result of a combination of personal traits and circumstances and the societal lockdown in general.

As with motivation, we see a clear correlation between prevalence of psychosocial issues and preference for campus based studies, giving us some insights into the way that these issues may have shaped the educational experience of students during the lockdown (Figure 44).

### Missing the social aspects of studying on campus

The open ended question that most respondents replied to, asked what they miss most about campus-based studies. One of the most frequent and salient themes of this data was that respondents missed the social and informal aspects of studying on campus. At campus the respondents feel part of a community and much of their social lives are tied up with the structure of being a university student and taking part in activities on and off campus with their fellow students. This theme is also found in two close ended questions of the June survey, where 9 out of 10 respondents say that they miss having informal conversations with their fellow students (Figure 15), and 6 out of 10 miss informal conversations with their instructors (Figure 14). These figures are the same across the university, with a tendency that the proportion of respondents at the Faculty of Humanities that miss the informal contact with instructors, to be a bit higher than that of other respondent groups in the survey.

### Passive one-way lecturing dominated the semester

Interactive and active learning experiences are difficult to plan – online or on campus – and something that works well on campus might not work well online. When we asked the students to rate their learning experiences with different typical formats – lecture videos, live-streamed classes, and online group work – they rated the passive lecture videos more positively than the more interactive and synchronous formats (Figures 21, 25, 32). However, we would caution against the conclusion that we should then stick to the easy and popular passive formats and ignore the more challenging teaching formats centred on dialogue, discussion, collaboration and active participation. For instance, a closer look at the data on lecture videos reveal that the respondents rate the learning experience more positively, when the lecture video was integrated in a learning activity, such as a subsequent discussion or quiz (Figure 21).

Throughout the open ended data, respondents report that the active learning experiences are missing. This was of course the case for many practical formats (e.g. lab exercises or field trips) that require access to tools and places, but also the regular interactive classroom sessions were either reduced in number or as one respondent put it, “just a second lecture about the same topic”.

A key indicator for this is the question whether respondents think *the instructors are good at involving the students in the courses*. In our pre-lockdown baselines from the 2018 Student Questionnaire, less

than 10% disagreed with that statement. In our data from the lockdown this number is close to 30% - and maybe surprisingly, we see no positive development between April and June (Figure 10).

The fact that the shift to remote teaching happened without warning goes a long way to explain why the more time-consuming and complicated interactive teaching formats were rarer than during normal times. Teaching great online courses requires experience and distinct skills. When moving courses online the interactive and activating elements of the course need to be re-imagined and planned according to the challenges and affordances of the available technologies. Maybe a classroom discussion does not translate well to a 20 person video call, but instead an asynchronous written discussion could take its place.

### Advantages and disadvantages of live-streamed classes

At first sight, live-streamed classes (e.g. via Zoom or MS Teams) seem like the easiest way to digitalize a classroom course, and in many ways video-based synchronous teaching was the lockdown normal. In the June survey, 9 out of 10 respondents had taken part in live-streamed classes (Figure 24).

When rating a recent learning experience with a live-streamed class, roughly half of respondents indicated it was *good* or *very good* (Figure 25). However, there is great variation between study programmes, as might be expected when the scoring relates to a specific class, and not the generalized experience of live-streamed classes. Roughly half of the respondents reported that the class was recorded and subsequently made available to students (Figure 27). This aggregate number, however, hides great differences between the Faculty of Humanity (22% reports it was recorded) and the rest of the university (around 60%). Crossing those variables, we found that live-streamed classes are also more positively rated when recorded and shared (Figure 25).

In fact, we found that respondents are strongly in favour of live-streamed classes being recorded for later use. When asked what elements of the spring studies that they hope to keep when returning to campus, the overwhelming majority of respondents pointed to the obvious advantages of having a recording of their lectures, both for later use when preparing for exams, and also for the added flexibility that you do not miss the lecture, just because you could not go to campus when it took place. Some worries, expressed in open ended answers, relate to the fact that recording of live-streamed sessions may keep some students from asking questions out of fear of being recorded asking a stupid question. However, the general picture is that the ability to ask questions is a great advantage, and almost all respondents report that asking questions was possible. The relatively few respondents, that reported that they could not ask questions during live-streamed classes, also had a less positive learning experience than the group where questions were allowed (Figure 25).

In the June survey we asked respondents to tell us about an experience with a live-streamed class that was helpful for their learning. Here many respondents point out that the relative anonymity meant that they felt less nervous asking questions, than they do at campus, and consequently asked more questions than they normally would. Some highlighted that it was preferable when two instructors were present, so one could monitor for questions in the chat. Another frequent theme was that the break out rooms were a positive experience – however with some disagreement among respondents whether it is preferable to be grouped randomly with ‘strangers’ or in a group you already work with.

Despite of these many positive aspects, the respondents overwhelmingly preferred classes on campus over live-streamed classes. This is consistent across all study programmes, again with a tendency for respondents at the Faculty of Humanities to be more campus-positive (Figure 29).

### Online group work may be here to stay

Although respondents overwhelmingly report that they prefer face to face over online group work (Figure 33), there was still many respondents that reported that online collaboration and group work was one of the things that they were hoping to keep when campus reopens. The reasons they gave was the added flexibility and convenience, especially during busy times.

The challenges reported in relation to online collaboration are similar to the experience of many staff members – it is harder to do in bigger groups, you need more structure to make it work well, and it is not really a replacement for the social connection that you have when sitting together.

Across the university there is variation in group sizes, with Biology and the Faculty of Health and Medical Sciences generally having larger groups than the Faculties of Humanities and Theology, but the aggregated data from all respondents show that roughly a third of groups are 2-3 members, a third is 4 members, and a third is more than four members (Figure 31). Although some respondents point out that online collaboration is more difficult for bigger groups, the quantitative data did not show a clear relation between group size and their reported quality of the learning experience (Figure 32).

### General satisfaction with online oral exams

We collected data about the students' experiences with online oral exams, but because of the timing of the survey many respondents took part in the survey before having had all their exams. Because of this, the report only presents the data broken down by faculty level.

Although a majority of respondents responded that they would have preferred to do the oral exam face-to-face (59% agree, 16% disagree, 25% neutral – Figure 41), their opinions of the online oral exam are generally positive, with a majority of respondents agreeing that the online oral exam was a good experience (72% agree – Figure 35), that the technology was easy to use (77% agree – Figure 36), that there was a good dialogue with the examiners (76% agree – Figure 37), and that the grade was a fair reflection of their ability (79% agree – Figure 40). The question with the lowest positive score was whether it was easy to visualize ideas with webcam and shared screen (46% agree – Figure 38). When asked whether the online format made them less nervous than at a normal oral exam the respondents were divided, with roughly a third disagreeing, a third agreeing and a third reporting no difference (Figure 39).

The theme of nervousness in connection with online oral exams also appeared in the open ended data. Some respondents say that they were less nervous because it felt less like an exam, and that doing it from home made them feel more safe and confident. However, for other respondents the home situation was less suitable for an online exam and that added a layer of uncertainty to the situation.

The online oral exams of the spring semester have been a first for most study programmes, and the open ended answers points at some challenges and good practices that can help improve the future use of the format. Uncertainty and unfamiliarity with the technology was a dominant theme, and the respondents preferred when the used software was one that they had been using throughout the

semester instead of a new unknown platform. Other respondents pointed out that online group exams were not easy, because it was hard to know when to talk without interrupting each other.

### From early enthusiasm to online fatigue

We collected data from students at the Faculty of Health and Medical Sciences in both April and June. Against our expectations almost all the questions we repeated between the two surveys show no or a negative development. This is surprising, because the University in many ways underwent a huge transformation during these months, with great improvements to the student facing services, support, and administration. As an example, in the April survey, respondents complained that their instructors used many different software for live-streamed classes – in the June survey almost everyone used Zoom (Figure 28). However these successes are not clearly showing in our data about the learning experience. The way respondents rated their experiences with lecture videos (Figure 21), live-streamed classes (Figure 25), online group work (Figure 32) and the general learning environment (Figures 6-10) show no signs that the University improved the online teaching during three months of lockdown.

One possible explanation may be that instructors at the Faculty of Health and Medical Sciences rarely teach the entire period from March to June, so the digital teaching experiences are spread out over a large number of instructors, many of whom taught their first online classes in May. Another contributing factor may be that the April data was influenced by both a feeling of crisis – lowering student expectations – and an enthusiasm for the possibilities of new technologies. During the spring this may have given place to a live-stream-fatigue that is also well-known for many University staff.

## Implications

This list of implications is our *translation* of the findings into some concrete points of action that can be taken at the University. Some relate only to (partial) lockdown situations, while others are relevant for digital learning more broadly speaking. They should not be read as a definitive list, but rather as input to the current discussions among instructors and decision makers at all levels.

### **Spend time understanding the consequences of the lockdown**

Throughout the spring and summer there have been numerous projects at the University of Copenhagen and beyond, that are investigating how the lockdown influenced different aspects of the university. This report presents just one of them. Familiarity with their findings can help instructors and admin staff prepare for possible short notice local campus closures and limited campus usage.

### **Plan courses that promote active learning**

Just like on campus, great online teaching activates the students. Often it is better to re-think the use of discussions, group work, presentations and small assignments, instead of trying to translate directly from campus to a live-streamed formats. Invest energy and resources in the planning of courses where the activating elements are developed according to the challenges and affordances of the available technologies. For a partial lockdown situations, where blended learning is possible, it may make sense to prioritize keeping the most interactive and activating elements in the classroom.

### **Invest in capacity building of digital teaching skills**

Great online teaching requires experience and it is not the always same set of skills that are used when teaching a great campus course.

### **Identify good online instructors**

There are already many instructors at the University of Copenhagen who are experienced and very successful online educators. Learning from best-practice is good, but sometimes learning from a colleague is better, because it is immediately meaningful, implementable, and less theoretical.

### **Build best practice for online oral exams**

Evaluate the experiences with online oral exams. There are many early insights and local success stories from across the University that should be identified, organised, and disseminated

### **Keep in touch with students**

Keeping up with the students during times of remote studies can be difficult. Design courses with feedback loops that can inform you how things are going and monitor their engagement with coursework. Collect data about student experiences and challenges to establish baselines and avoid that widespread psychosocial, technical, or practical issues go unnoticed.

### **Prioritize keeping spaces for reading/studying and group work open for students**

For many students the majority of time they spend on their studies is not in class. In case of partial or local campus lockdowns, prioritize to keep open spaces where students can safely go and study alone or in small groups.

### **Consider how regulations and pedagogy influence motivation**

Lockdowns and ill prepared online teaching can be detrimental to the motivation of normally motivated students. Some groups, e.g. younger students, may be more sensitive to the unfortunate effects.

## The dataset

This report presents data from several different surveys distributed to students at University of Copenhagen in April and June of 2020.

### Methods

The April survey was only distributed to students at the Faculty of Health and Medical Sciences. This survey took place 2-3 weeks after the lockdown was effectuated, and partly intended to register the *noise* of the drastic changes to their studies (and life in general) that students experienced in the second half of March. Based on this survey, the second questionnaire was developed, and distributed in June to four different groups of students, namely those on Faculty of Health and Medical Sciences, Faculty of Humanities, Faculty of Theology, and the Biology BSc and MSc study programmes. All surveys were hosted on SurveyXact.

An overview of the questions included in each questionnaire can be found in the appendices.

The open ended questions generated more than 270.000 words of free text responses. The data chapters in the end of this report also include short summaries of the open ended responses in the June survey.

For most of the close-ended questions we do not have any pre-lockdown baseline. The exceptions are five questions about the learning environment that are repeated from the Danish national Student Questionnaire (Da. *Læringsbarometer*) and one question repeated from the University's regular Study Environment Survey.

### Limitations, validity and representativeness

Response rates were generally low. The large difference in response rates between the two big faculties is primarily caused by the decision of the Faculty of Humanities to only share information about the survey as a news item on the University intranet. The Faculty of Health and Medical Sciences emailed the survey link to all students, and followed up with reminders to students that had not responded.

Table 1 shows the response rate for each of the surveys we distributed.

Target group	Period	Population	Respondents	Rate
Health and Medical Sciences	April	7.859	1.298	17%
Health and Medical Sciences	June	7.859	1.360	17%
Humanities	June	8.571	408	5%
Theology	June	575	52	9%
Biology	June	1.025	90	9%

*Table 1: Response rates*

It is important to ask ourselves, what we know about the students that were invited but did not respond to the survey. We know that they are much less diverse than the population as a whole. They are typically in their 20s, almost all live in commuting distance from a University of Copenhagen campus, and they are primarily full time university students. Respondents from the Faculty of Health and Medical Sciences (June) were asked about gender identity, and with 72.5% women, their distribution matches that of the entire student population of the Faculty well (75.9%).

However, the overall low response rate is important to keep in mind, because it cannot be ruled out that the students that chose to respond all share some specific experiences or opinions that are not representative for the student population as a whole. Furthermore, some specific groups, e.g. students writing their thesis, students in placements, or international students, may be underrepresented in the data, and with the limited personal data collected, we cannot make any claim as to the representativeness of the data in relation to the entire student population.

This has influenced our analysis in three ways. First and foremost, we do not give much importance to smaller differences or developments, but rather focus on the broad tendencies, identifying themes and meaningful connections. Secondly, we are reading the data in light of existing educational research as well as the emerging research on the effects of the lockdown at other educational institutions. Our findings are not dramatically different from that of similar data collection projects, and the suggestions we bring forward are to a large extent inspired by established best-practice for teaching online. And thirdly, by focussing our analysis on claims about the respondents, not the entire student population, our analysis has internal validity, despite its unknown representativeness. However, as is the case for both education research and evaluations of crisis situations, this is clearly a matter of working with the *possible data*, not the *ideal data*, and we encourage everyone reading this report to inform themselves broadly in the body of evaluations and research on the spring lockdown, and not use our findings as the be all end all, but rather as input in your own triangulation and meaning-making.

There are several other limitations to this study. For example, the lack of pre-lockdown baseline data for most of the questions we ask make it unclear if the patterns we see are related to the lockdown situation, or simply what you would always find when surveying students. Where possible, we have tried to include questions with known institutional or local baselines, or less elegantly, to ask respondents to implicitly indicate their own pre-lockdown baseline by asking about development. When available, external baselines are included in the figures presented below.

### Graphs and summaries in this report

This report primarily presents findings and data from the June survey. When April data is included, it is noted on the graph. For most of the graphs, we include the aggregated figure for all respondents, together with figures for the Faculties of Health and Medical Sciences, Humanities and Theology and the Biology study programmes. For the Faculty of Health and Medical Sciences we also include the figures broken down by study board, and for the Faculty of Humanities we include them broken down by Department. Because of the difference in recruitment methods and (consequently) response rate, the aggregated figure for 'all respondents' is primarily useful when we see very limited variation between study programmes. For this same reason we caution against over-interpreting small differences in inter-Faculty comparisons. We have included the actual number of respondents as labels on all graphs. That way it is easier for the reader not to put undue weight on stark differences that may be caused by a very small sample size.

For the open ended questions we have included a short summary of the most salient themes. These are clearly a much distilled version of the entire qualitative dataset, but for this report we have prioritized readability over comprehensiveness. The summaries were created through an iterative process of sorting student responses thematically, merging and splitting themes, and writing up the most frequent and interesting points.

## Data: Practical challenges

Student challenges related to technology use, home office and motivation

Figure 1

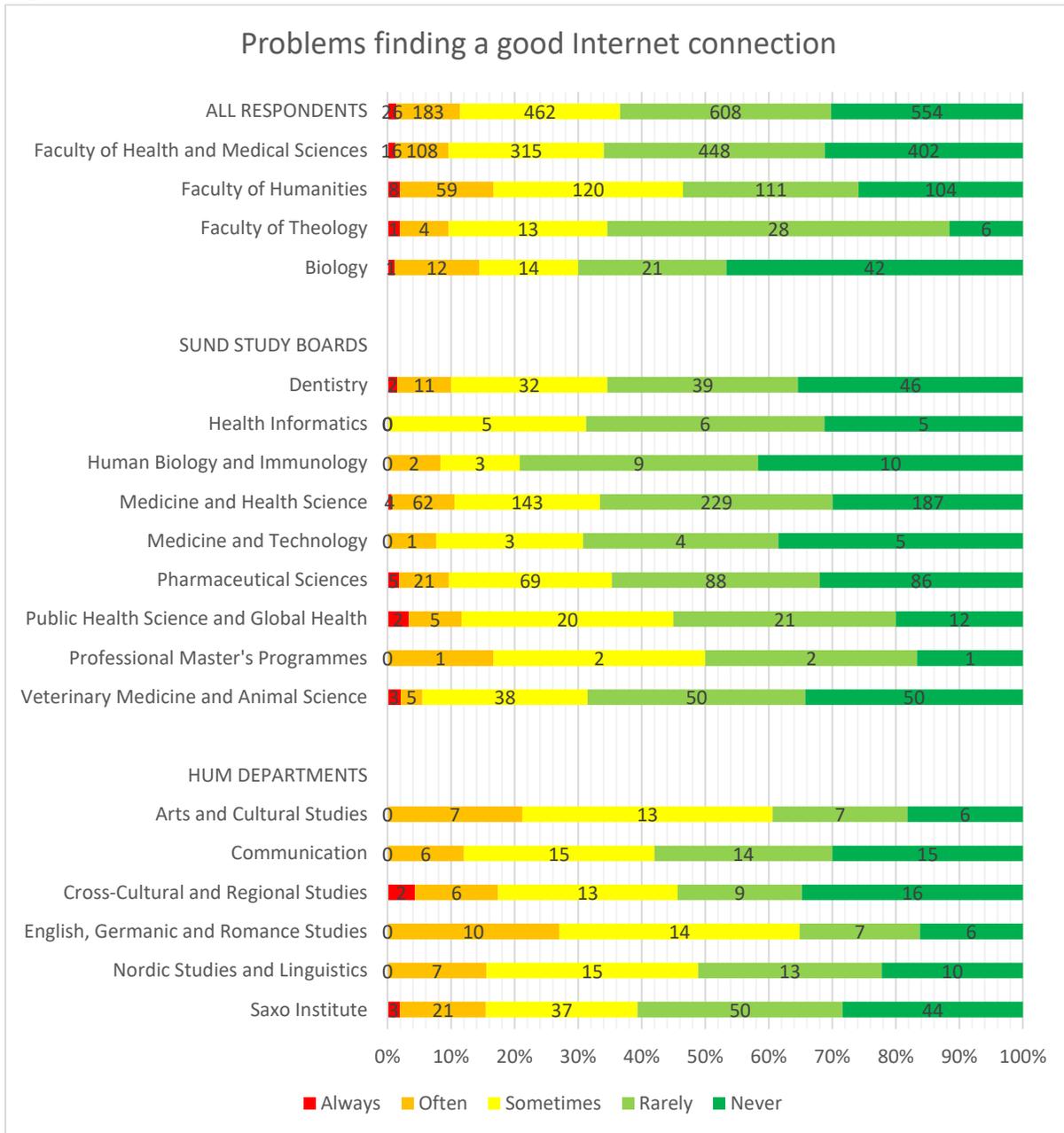


Figure 2

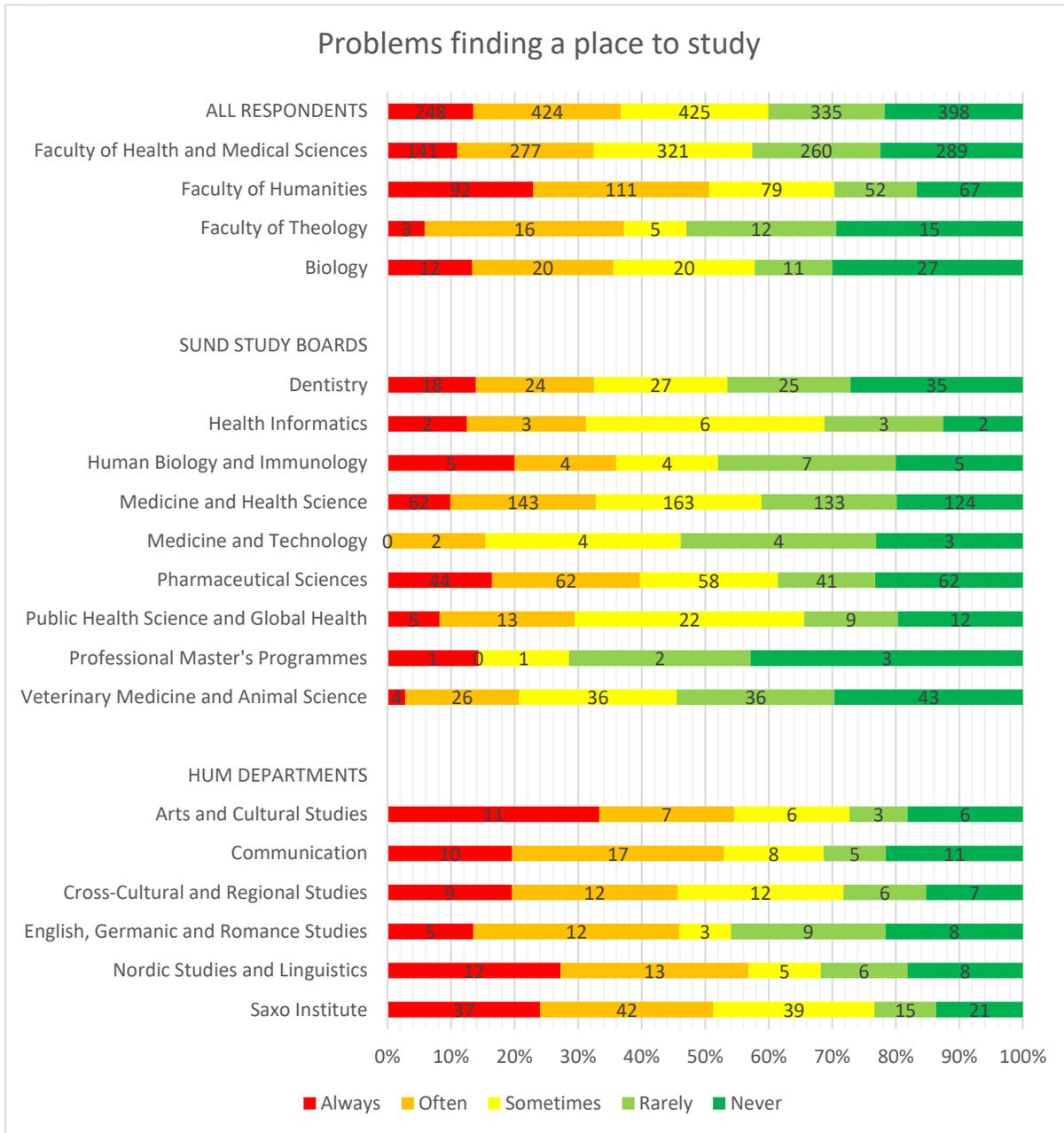


Figure 3

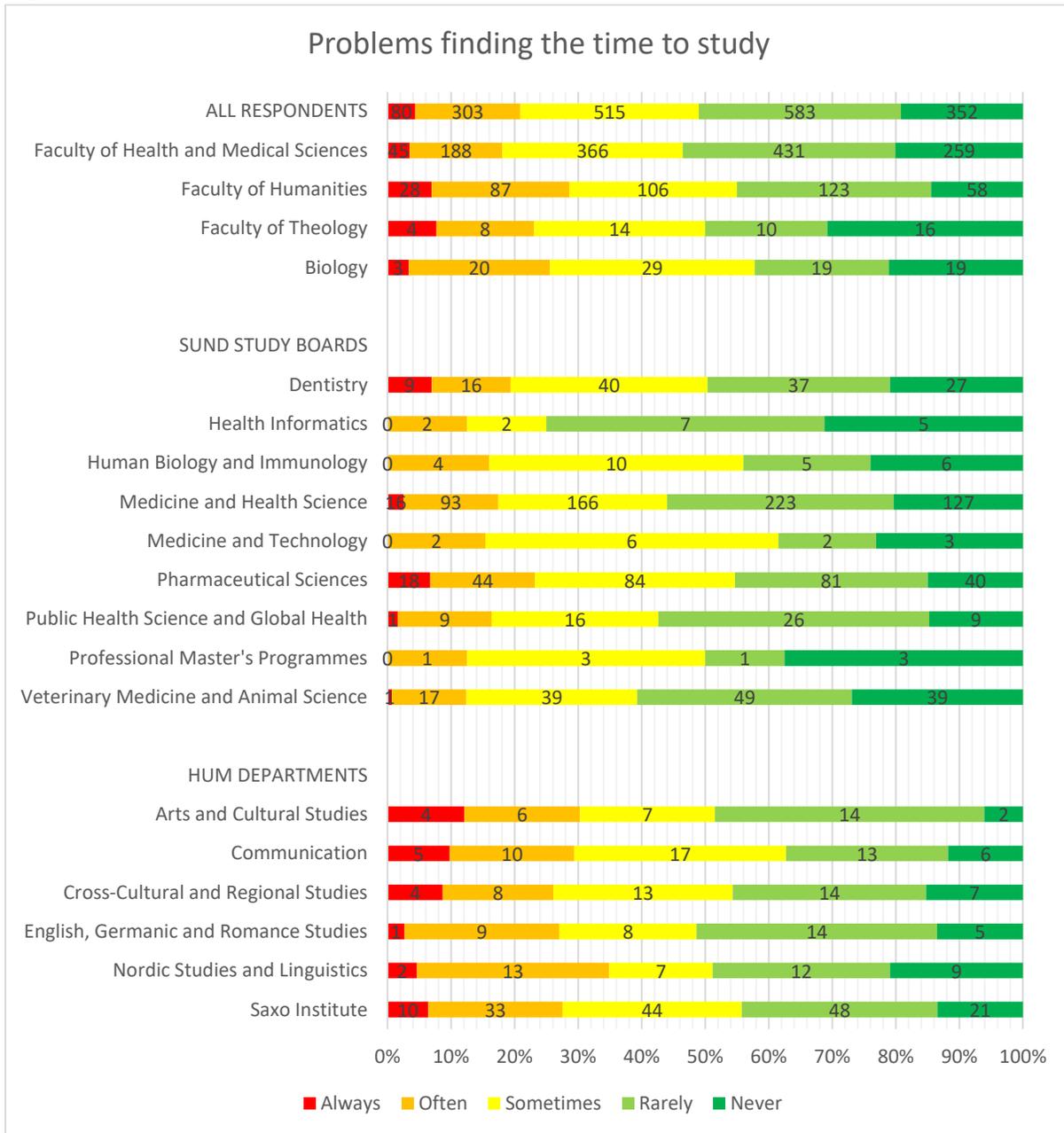


Figure 4

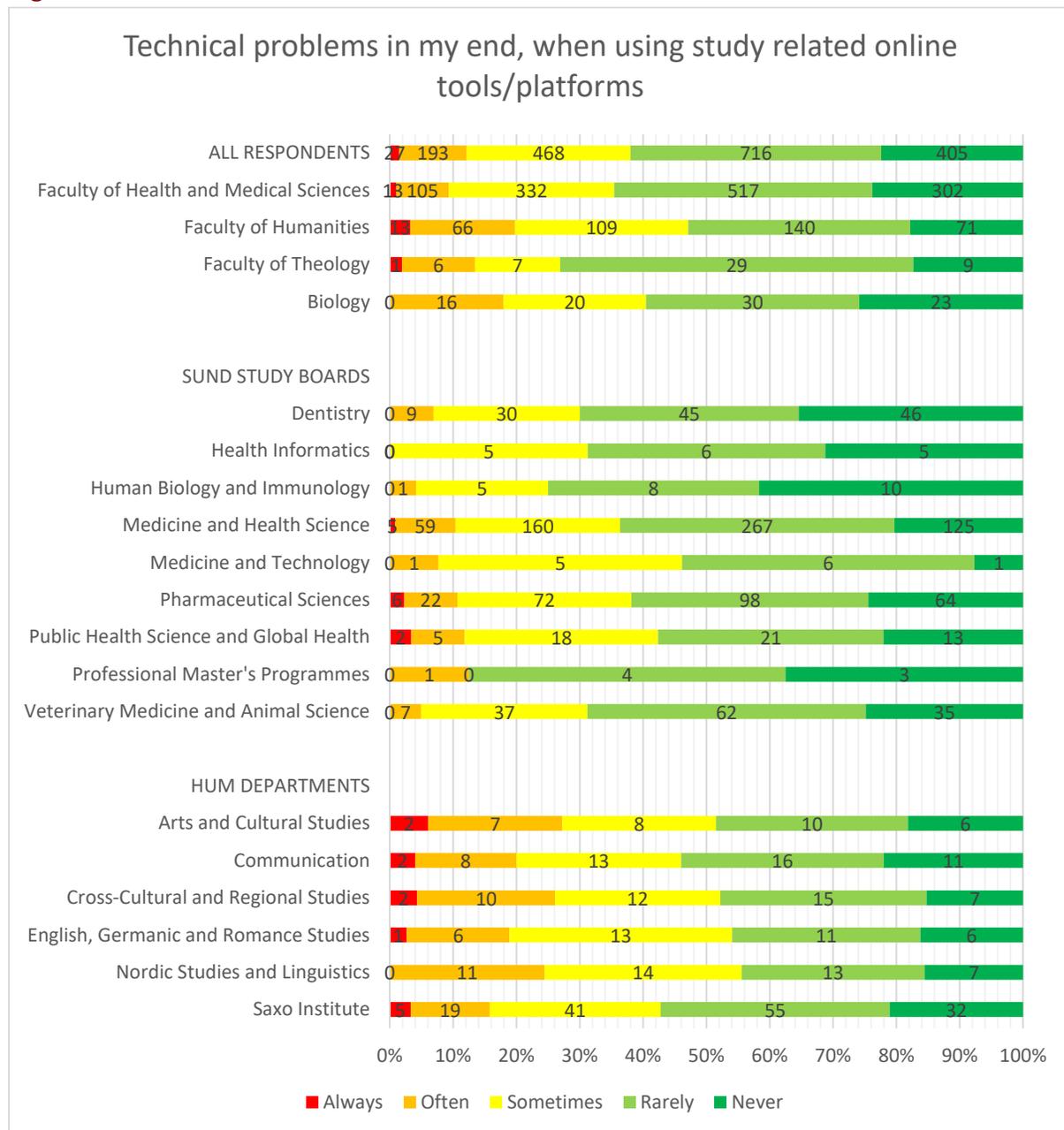
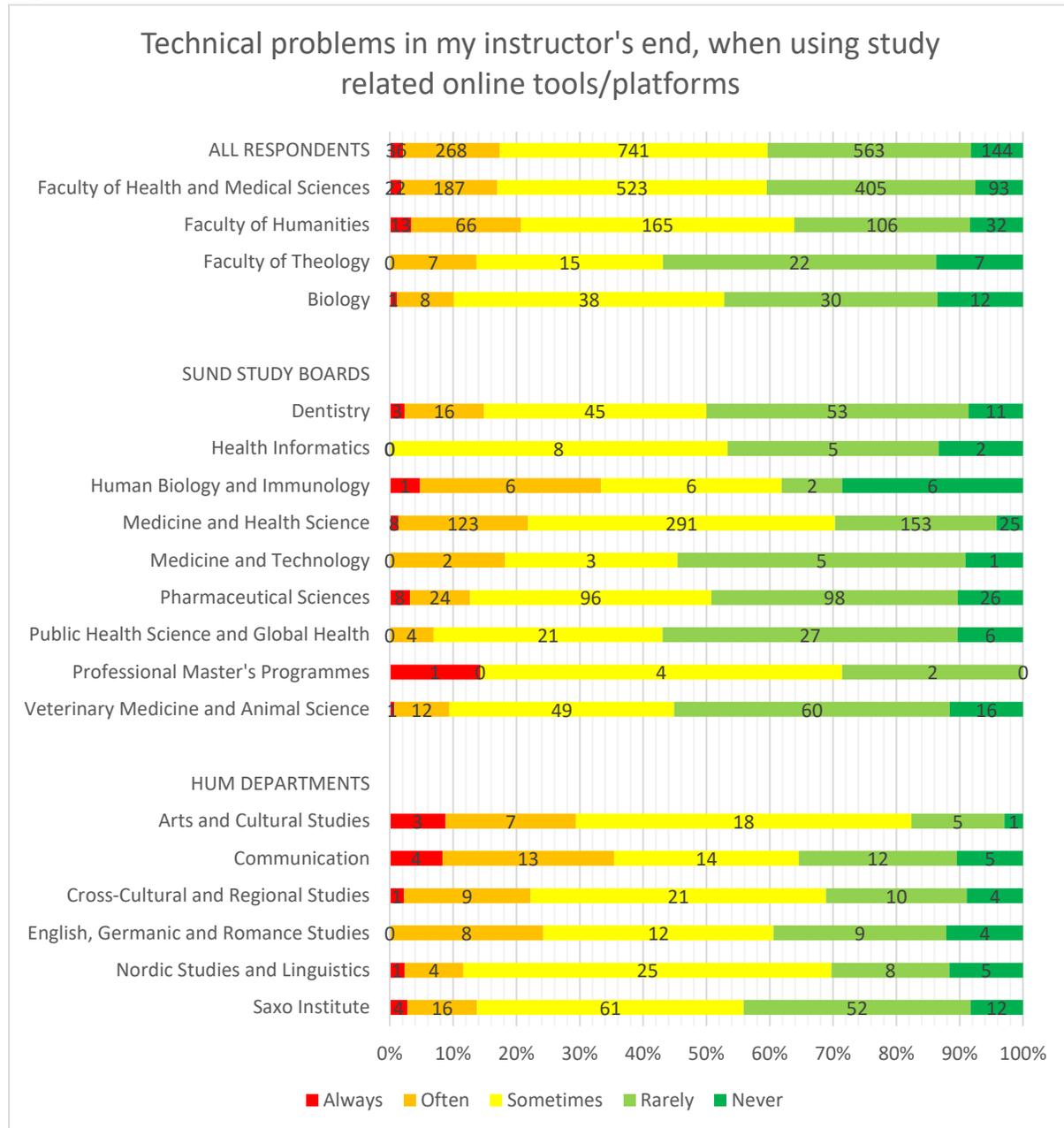


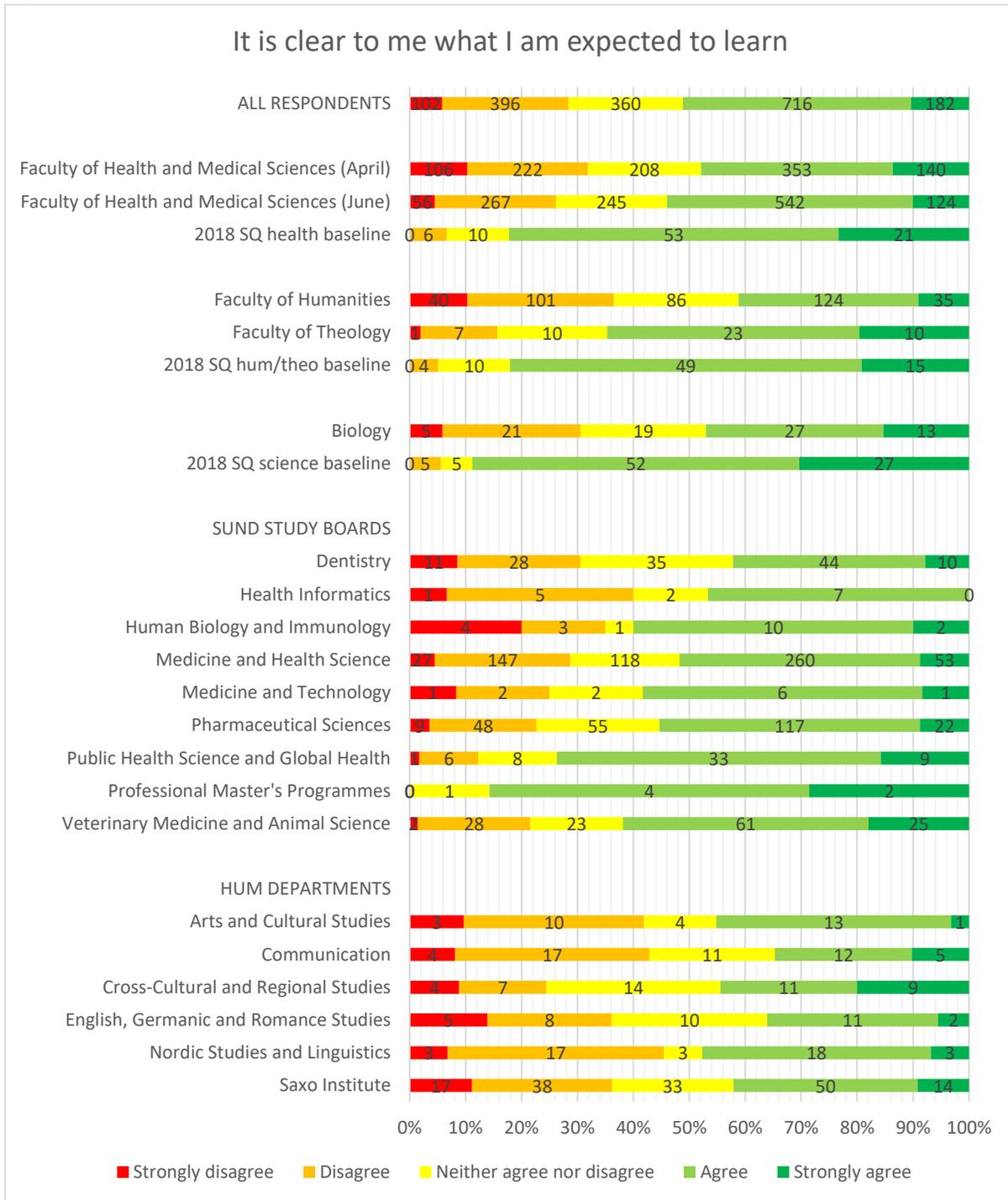
Figure 5



## Data: The Learning Environment

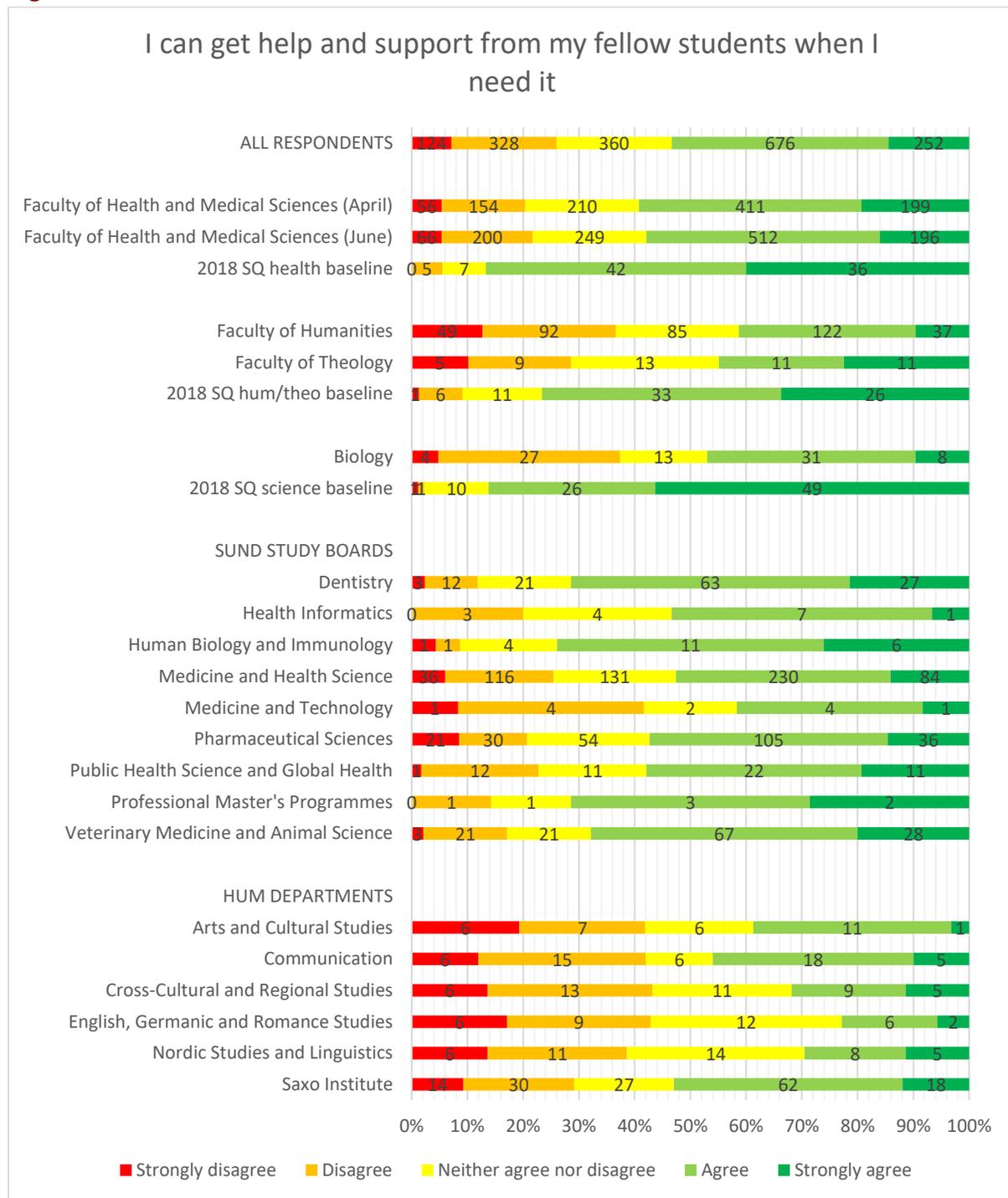
Key indicators about the learning environment from the Danish national Student Questionnaire (Da. *Læringsbarometer*) and the UCPH Study Environment Survey (Da. *Studiemiljøundersøgelsen*)

Figure 6



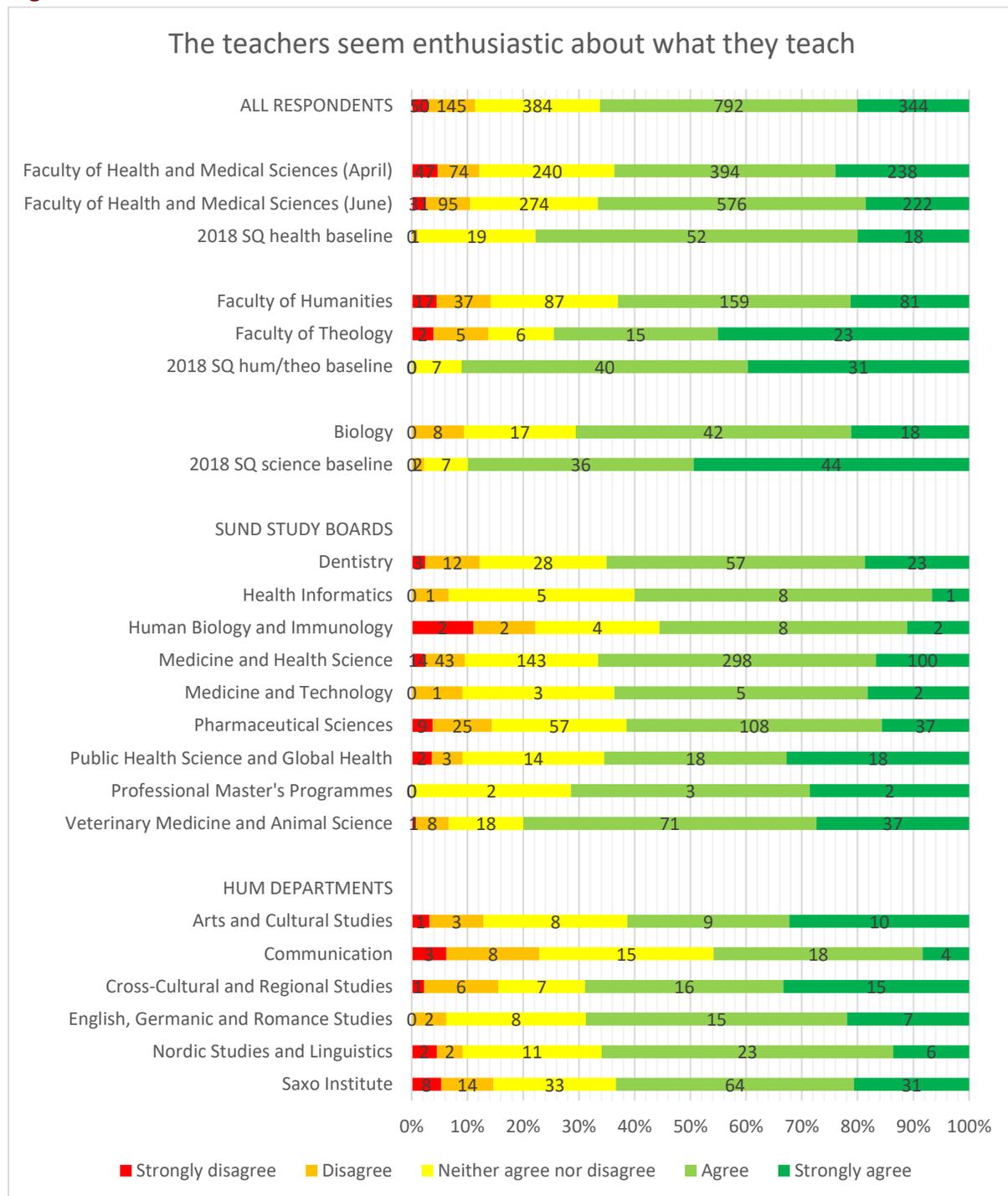
2018 SQ baselines are from the Danish national Student Questionnaire (Da. *Læringsbarometer*)

Figure 7



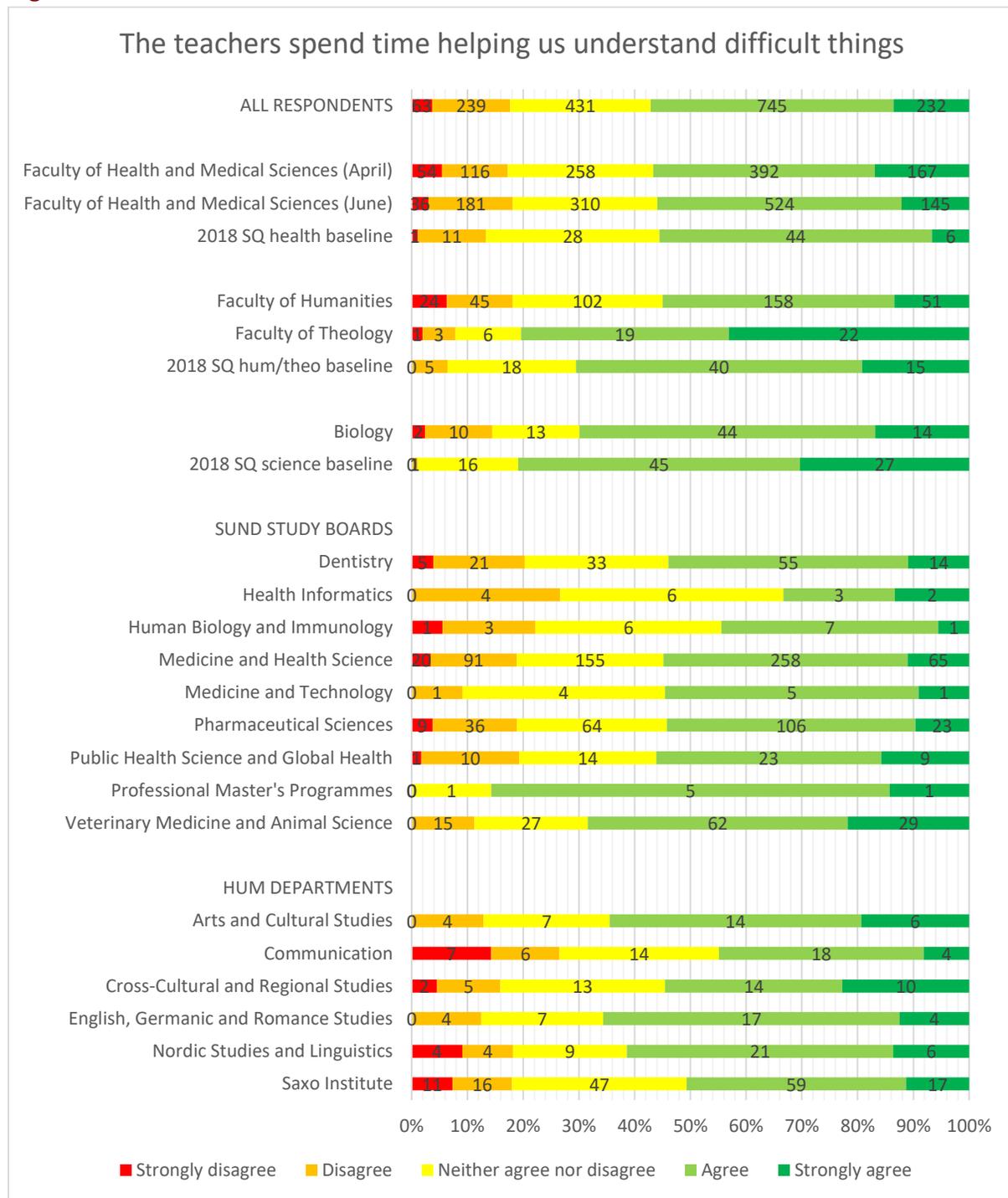
2018 SQ baselines are from the Danish national Student Questionnaire (Da. *Læringsbarometer*)

Figure 8



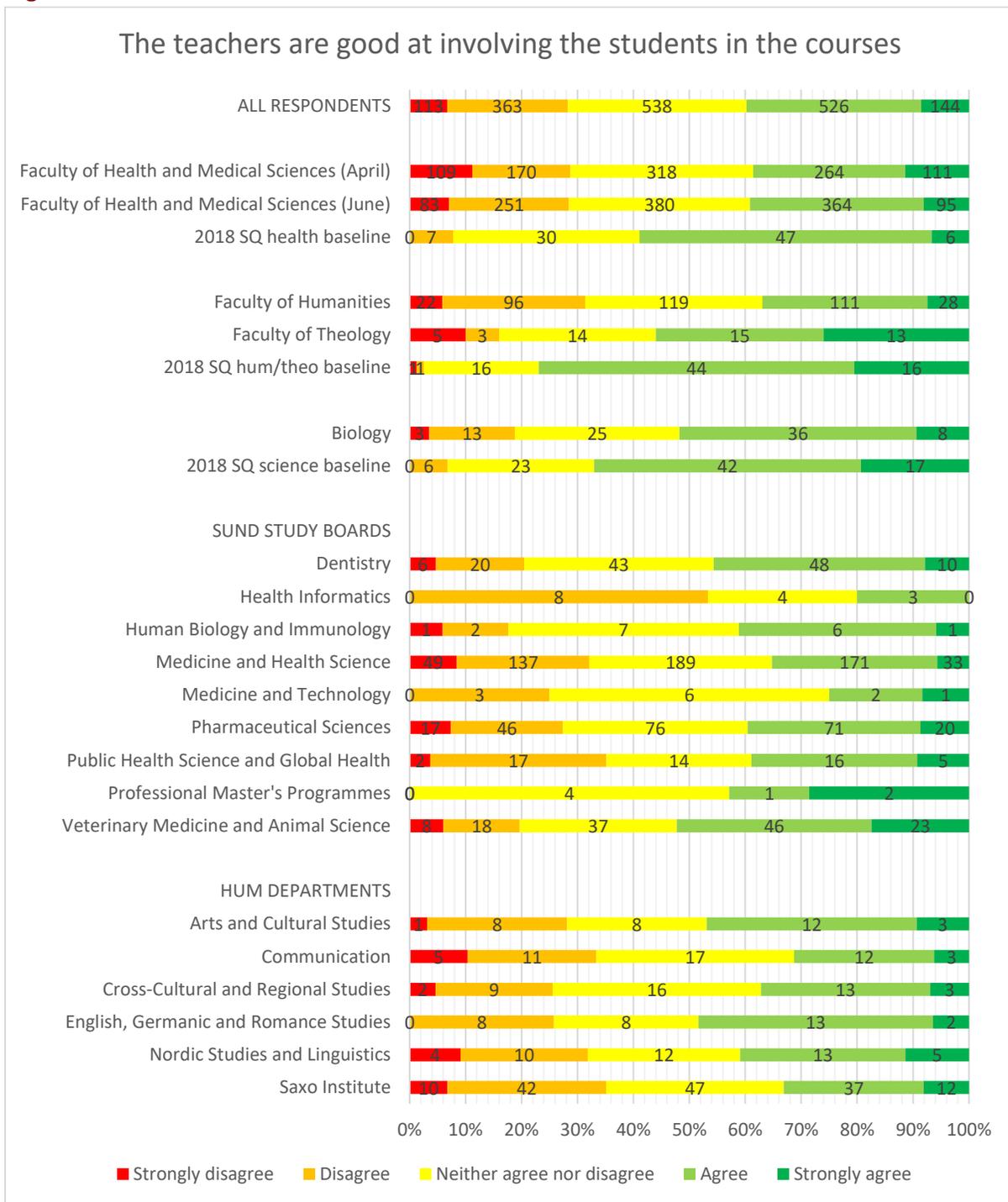
2018 SQ baselines are from the Danish national Student Questionnaire (Da. *Læringsbarometer*)

Figure 9



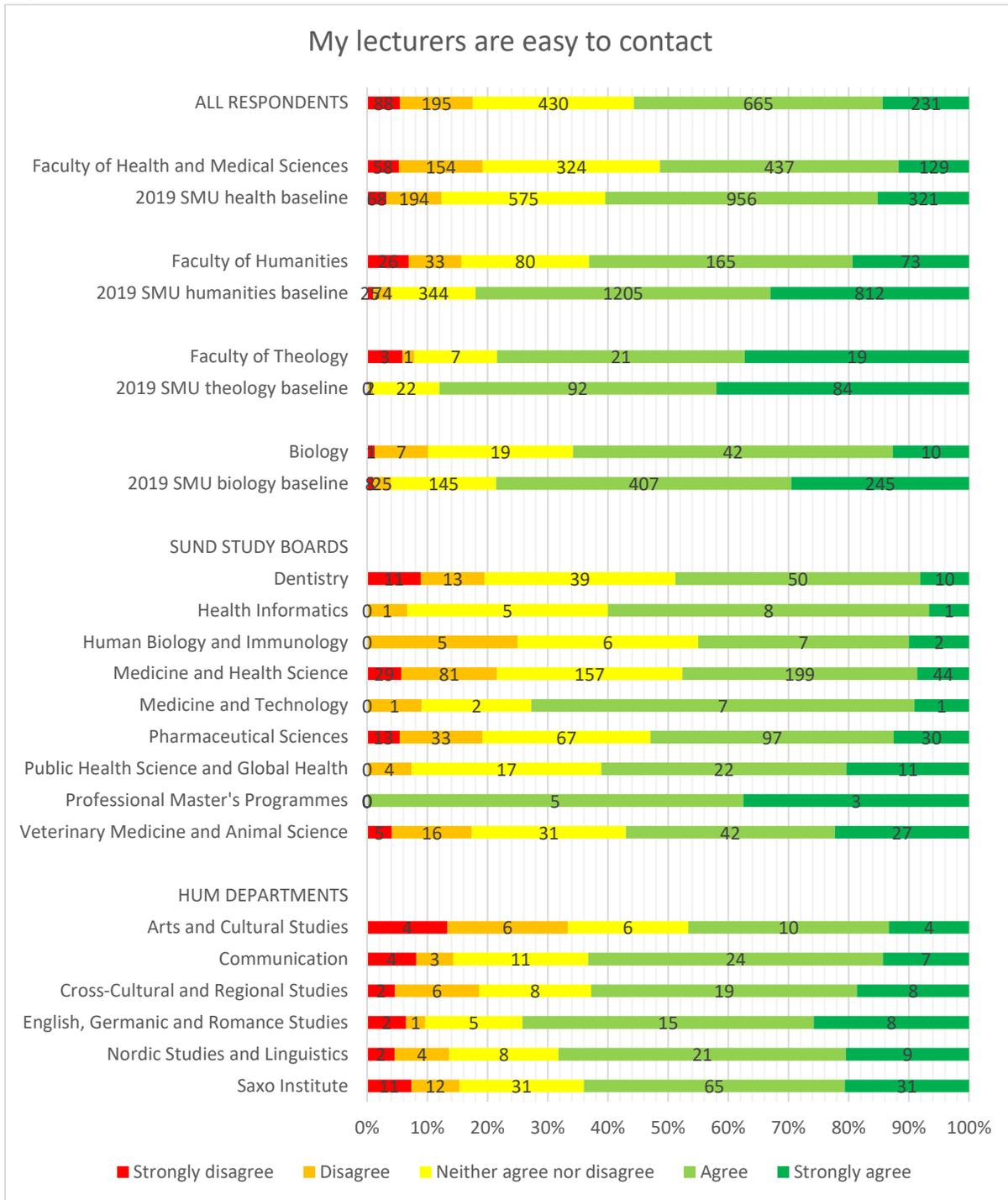
2018 SQ baselines are from the Danish national Student Questionnaire (Da. *Læringsbarometer*)

Figure 10



2018 SQ baselines are from the Danish national Student Questionnaire (Da. *Læringsbarometer*)

Figure 11



2019 SMU baselines are from the University of Copenhagen's Study Environment Survey (Da. *Studiemiljøundersøgelsen*)

## Data: Motivation

Students reporting on their motivation to study

Figure 12

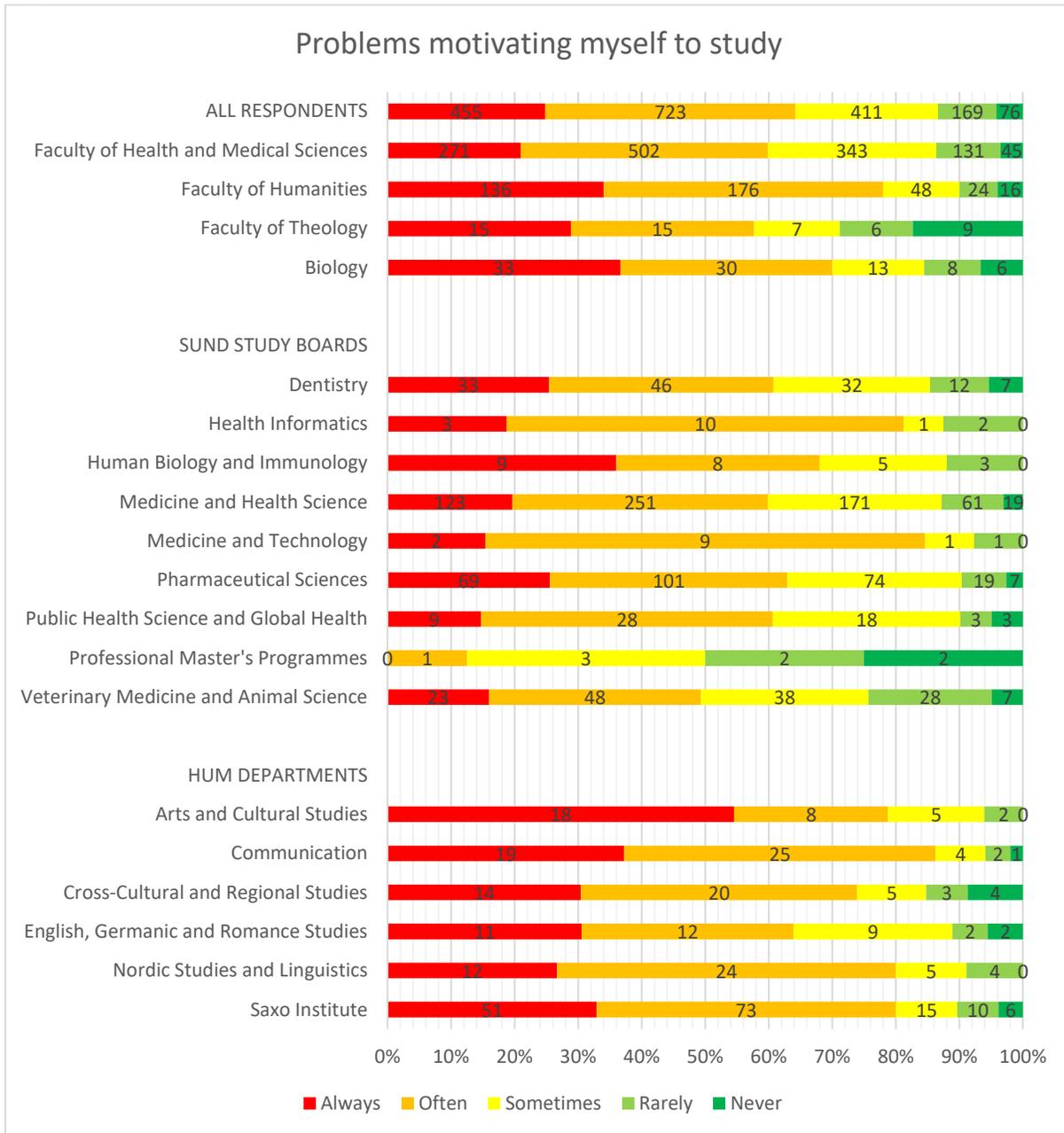
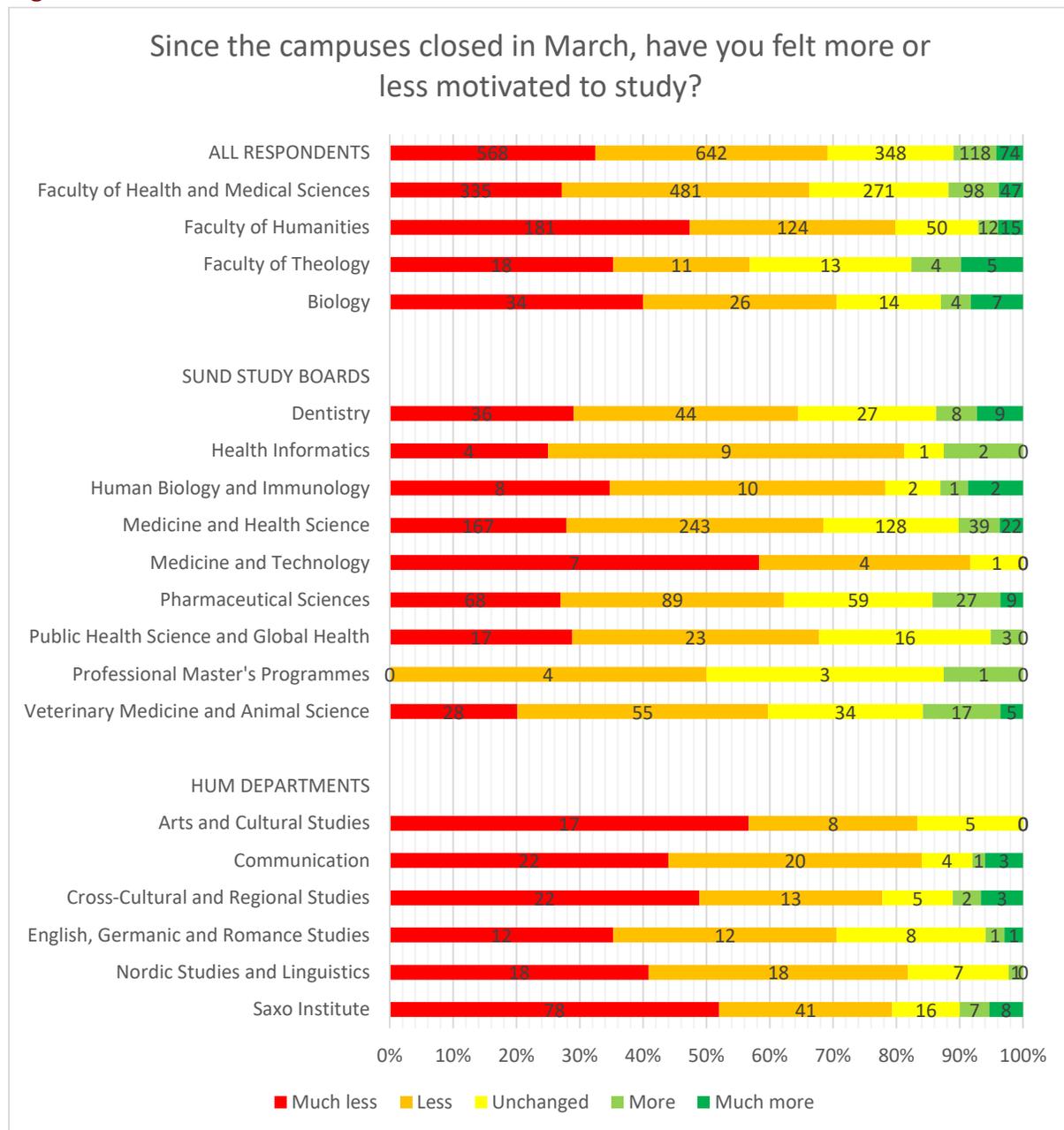


Figure 13



## Data: The social aspect

Students reporting on missing informal conversations with teachers and peers

Figure 14

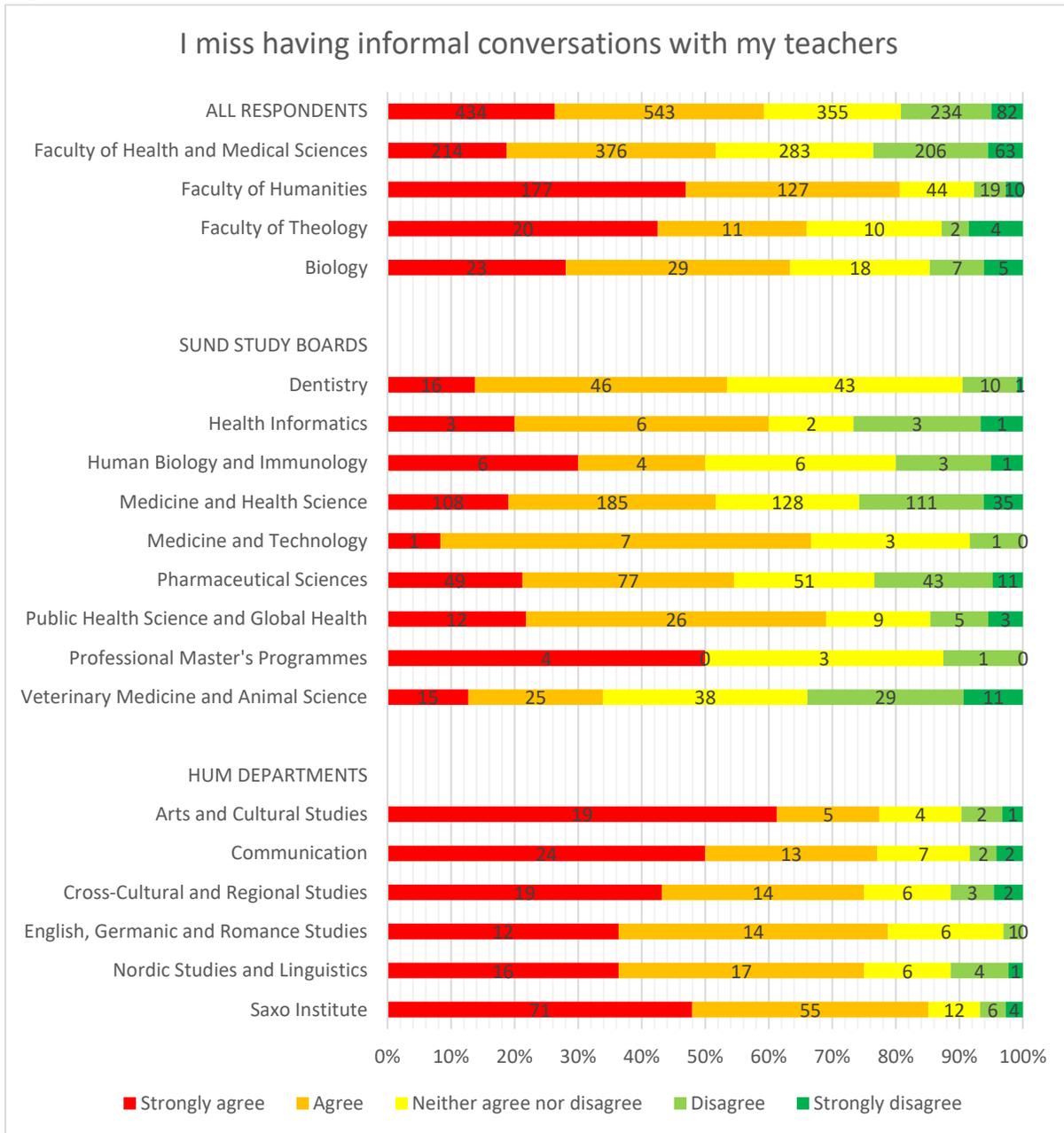
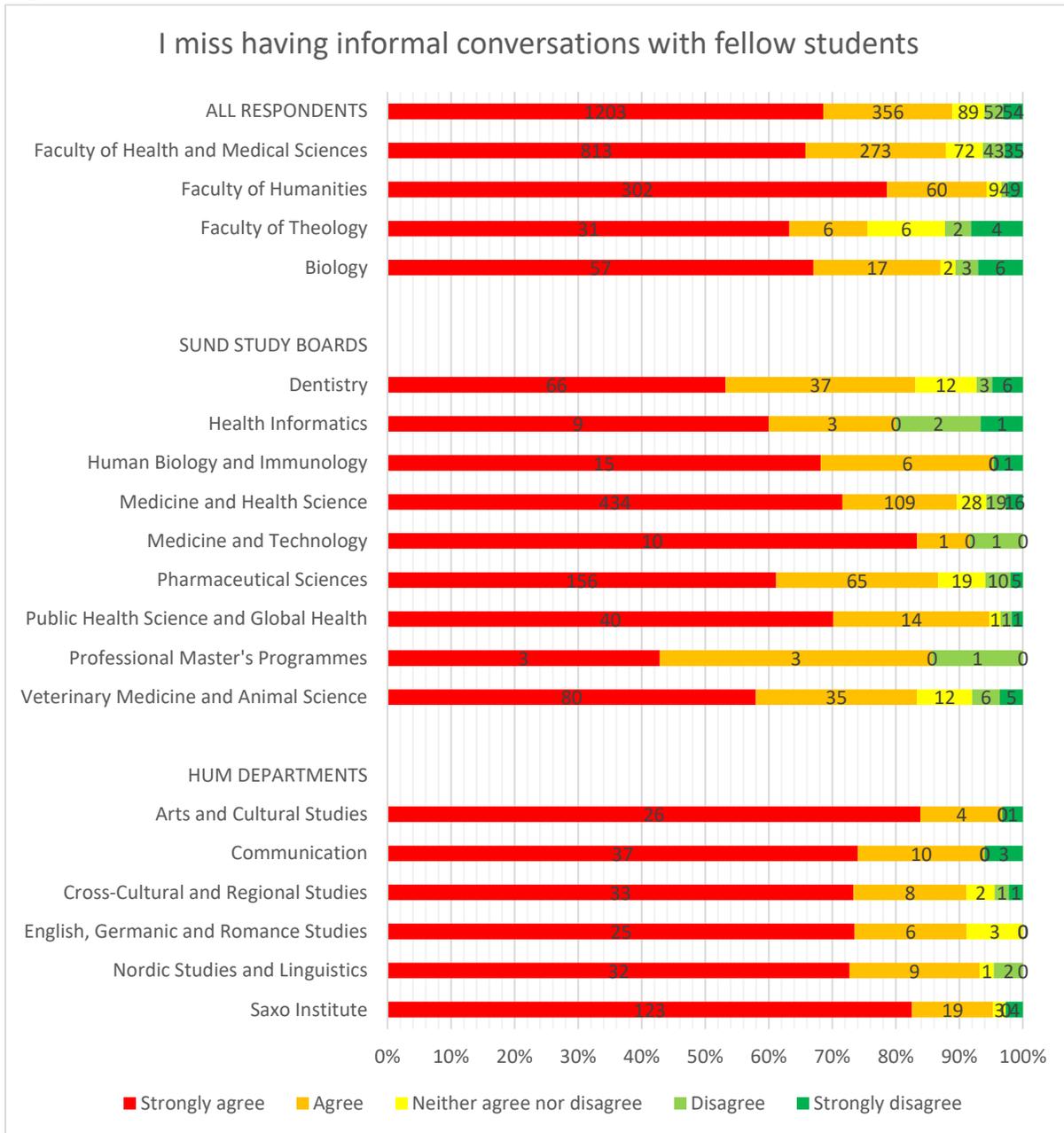


Figure 15



## Data: Psychosocial challenges

The prevalence of stress, anxiety, loneliness, hopefulness about the future, and motivation to study among students during lockdown

Figure 16

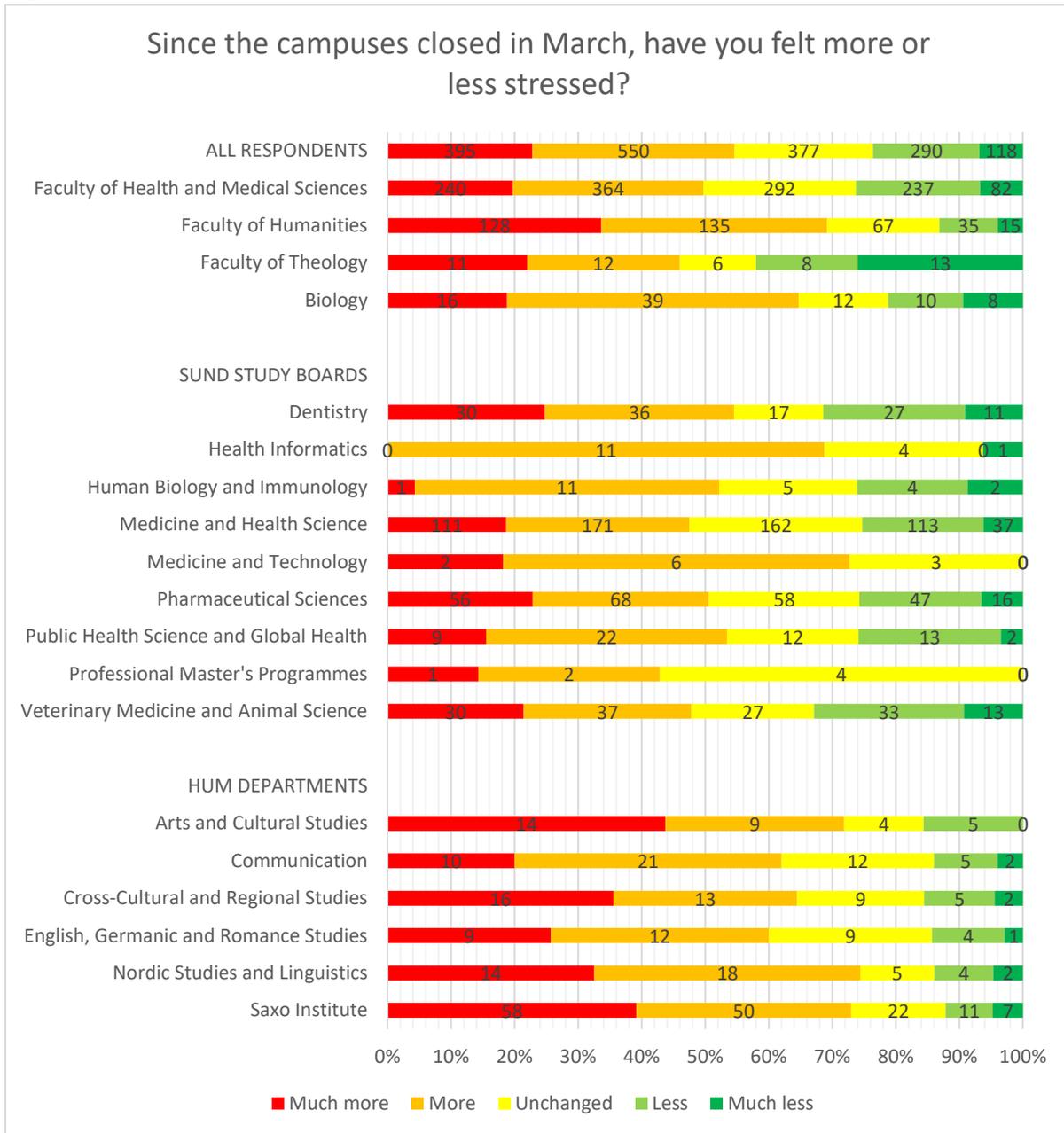


Figure 17

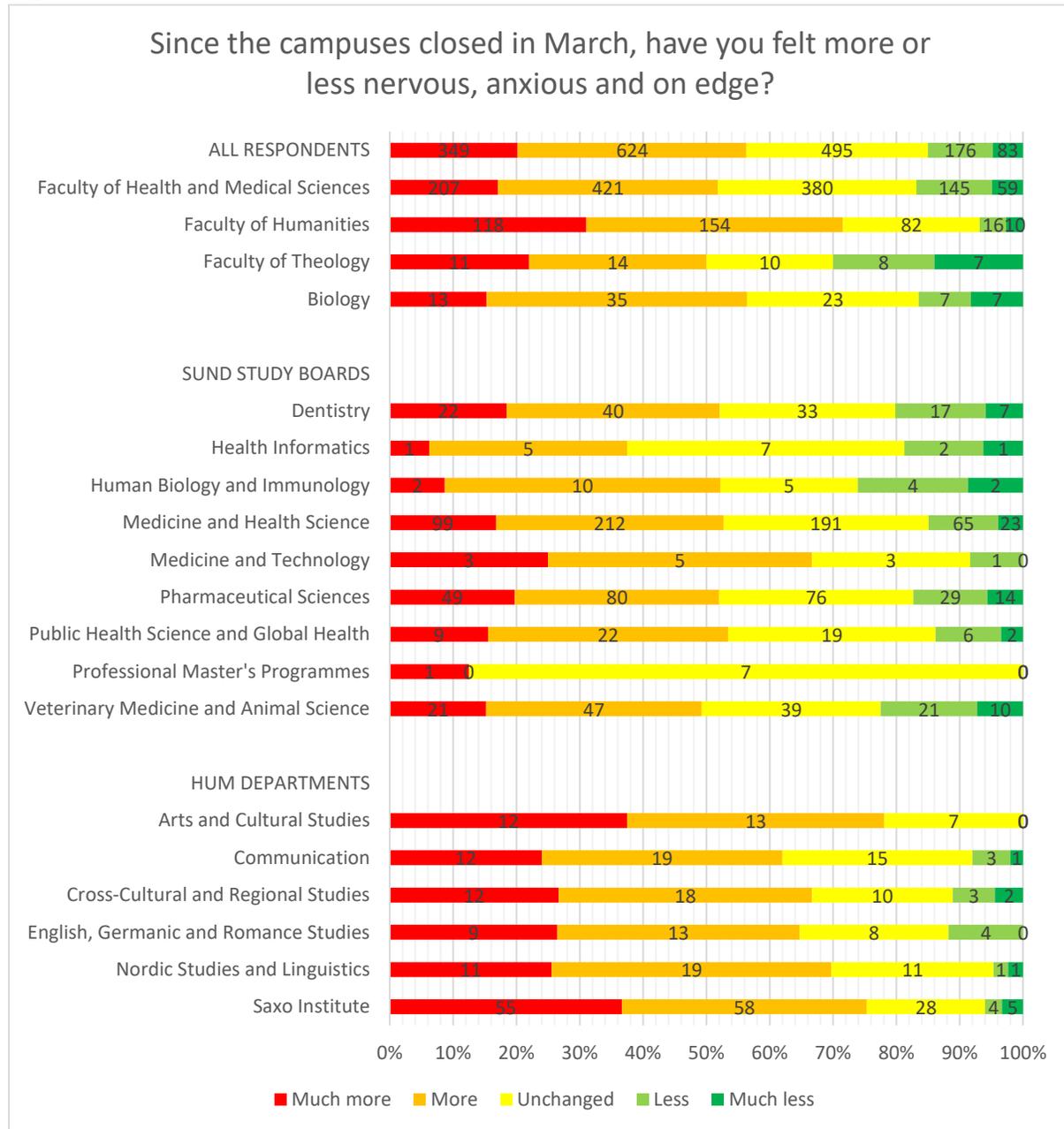


Figure 18

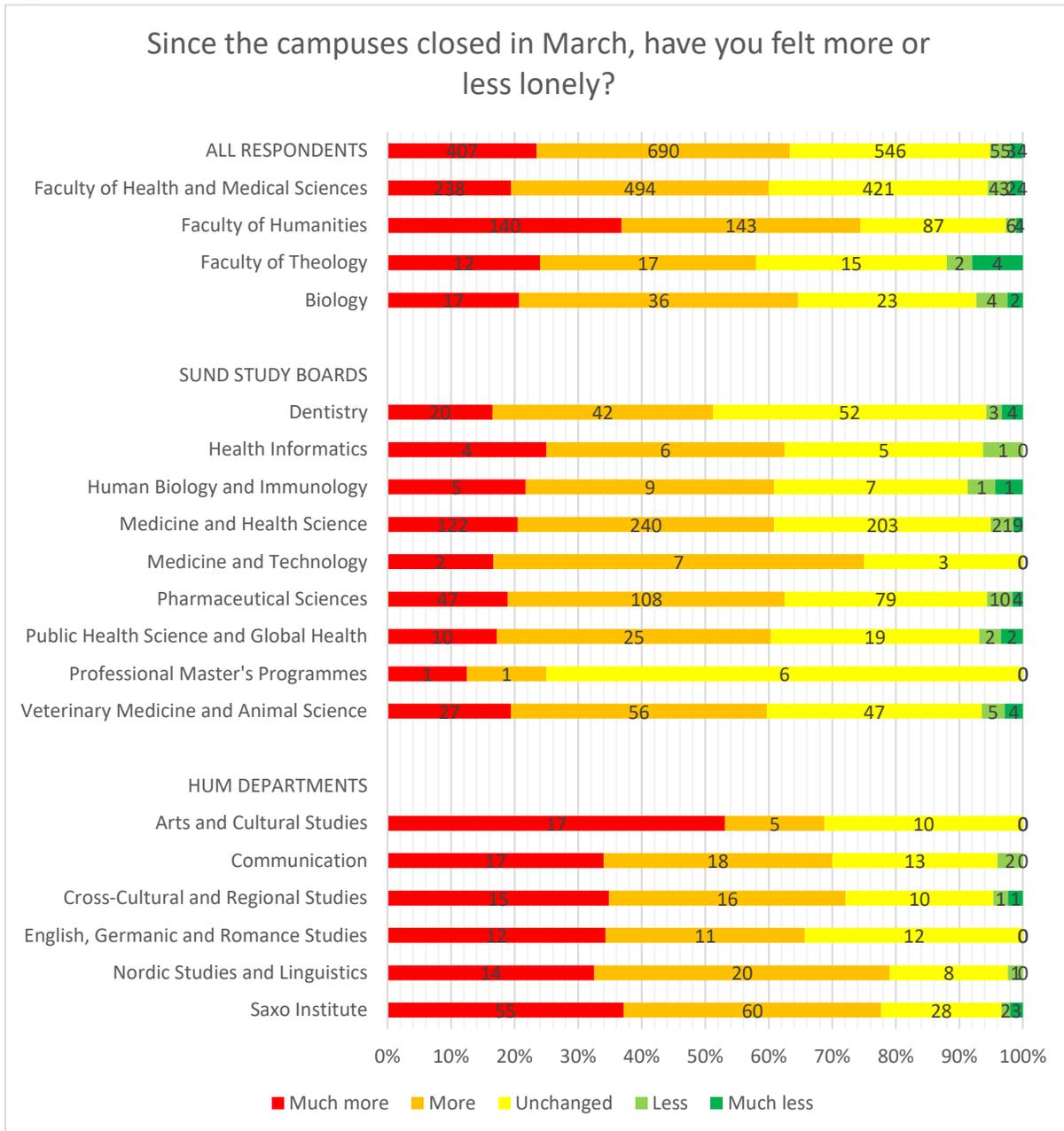
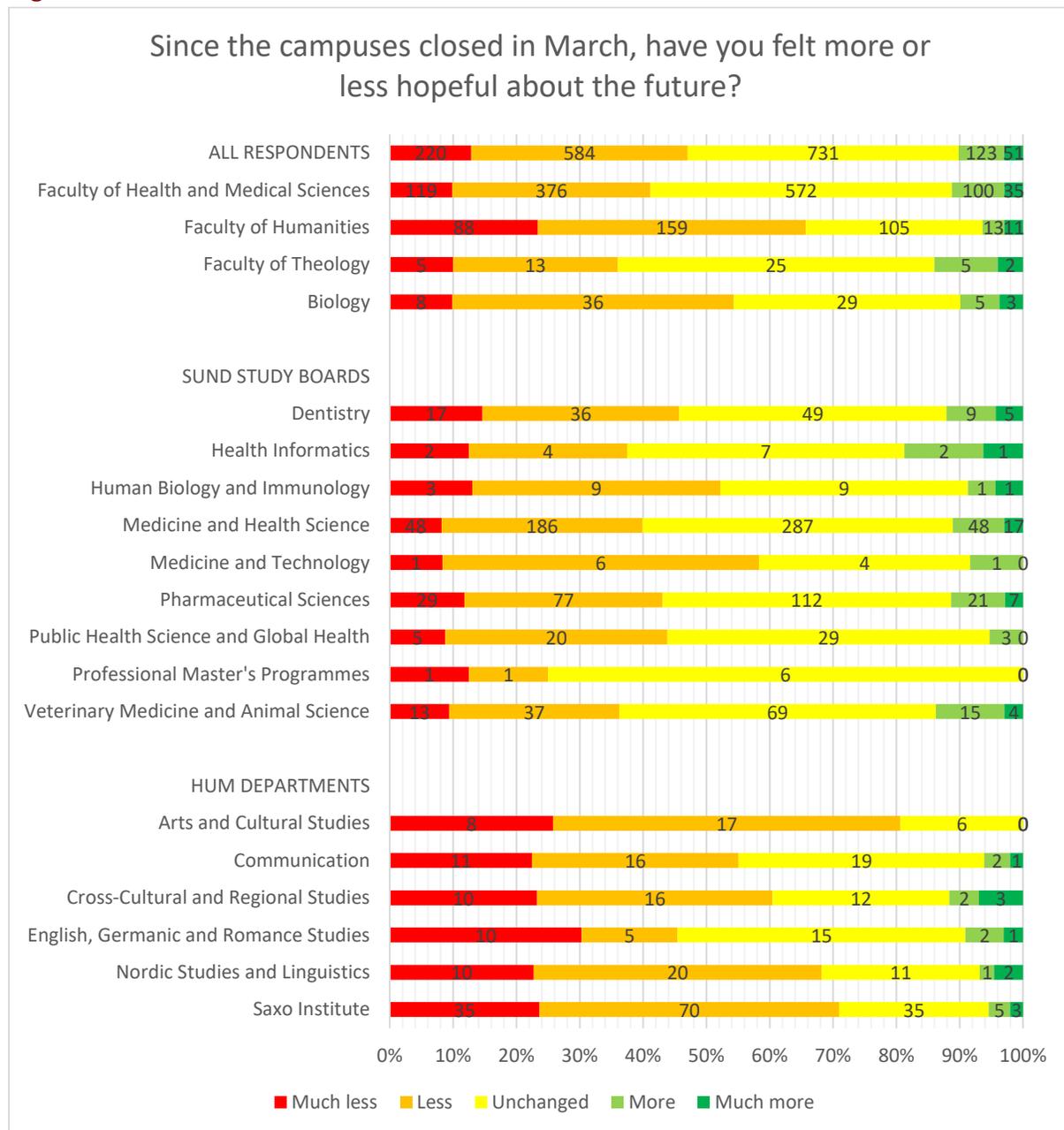


Figure 19



## Data: Lecture videos

Student experiences and preferences related to recorded lectures and other educational videos

Figure 20



A lecture video is any educational video that did not stream live while you were watching

Figure 21

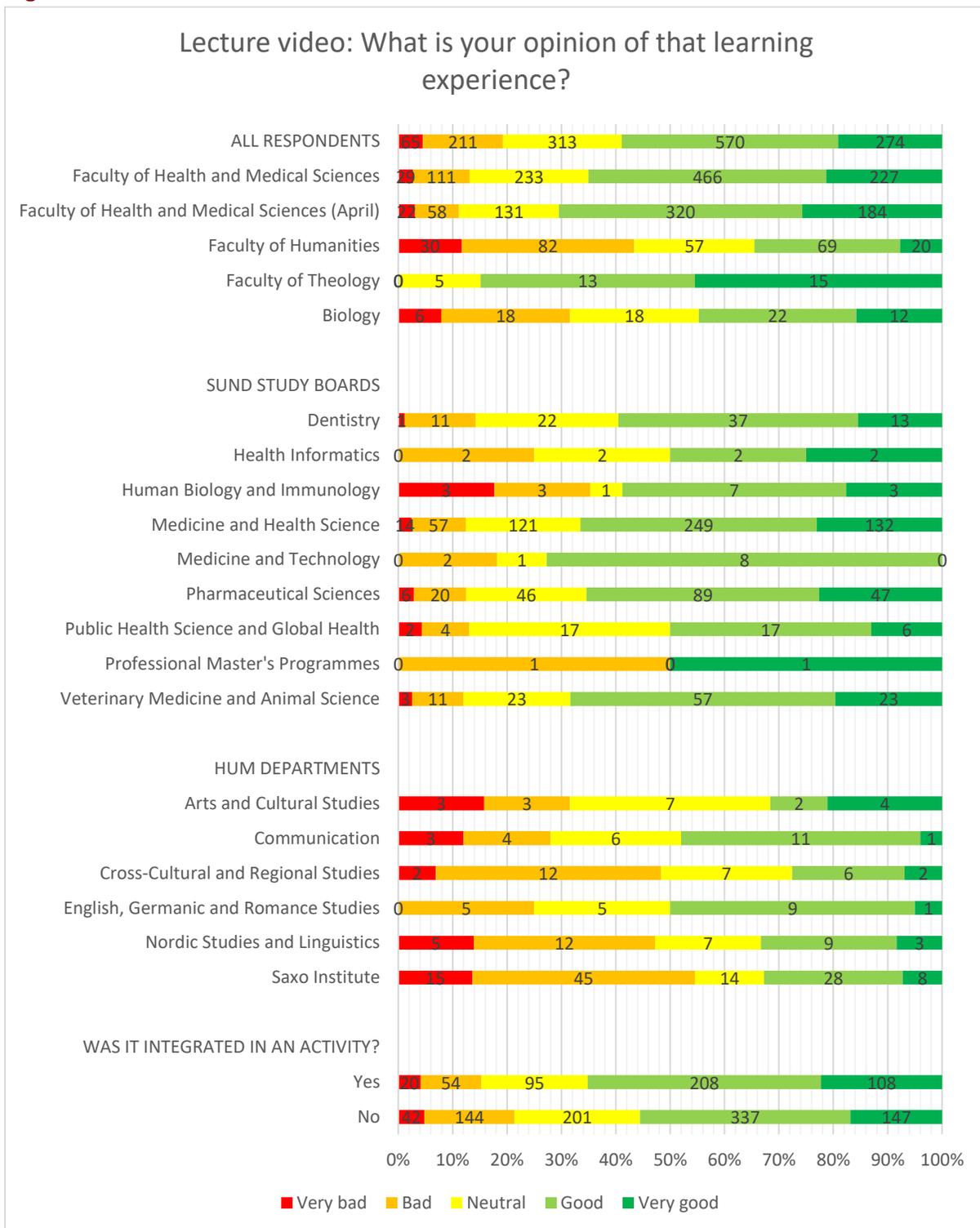


Figure 22

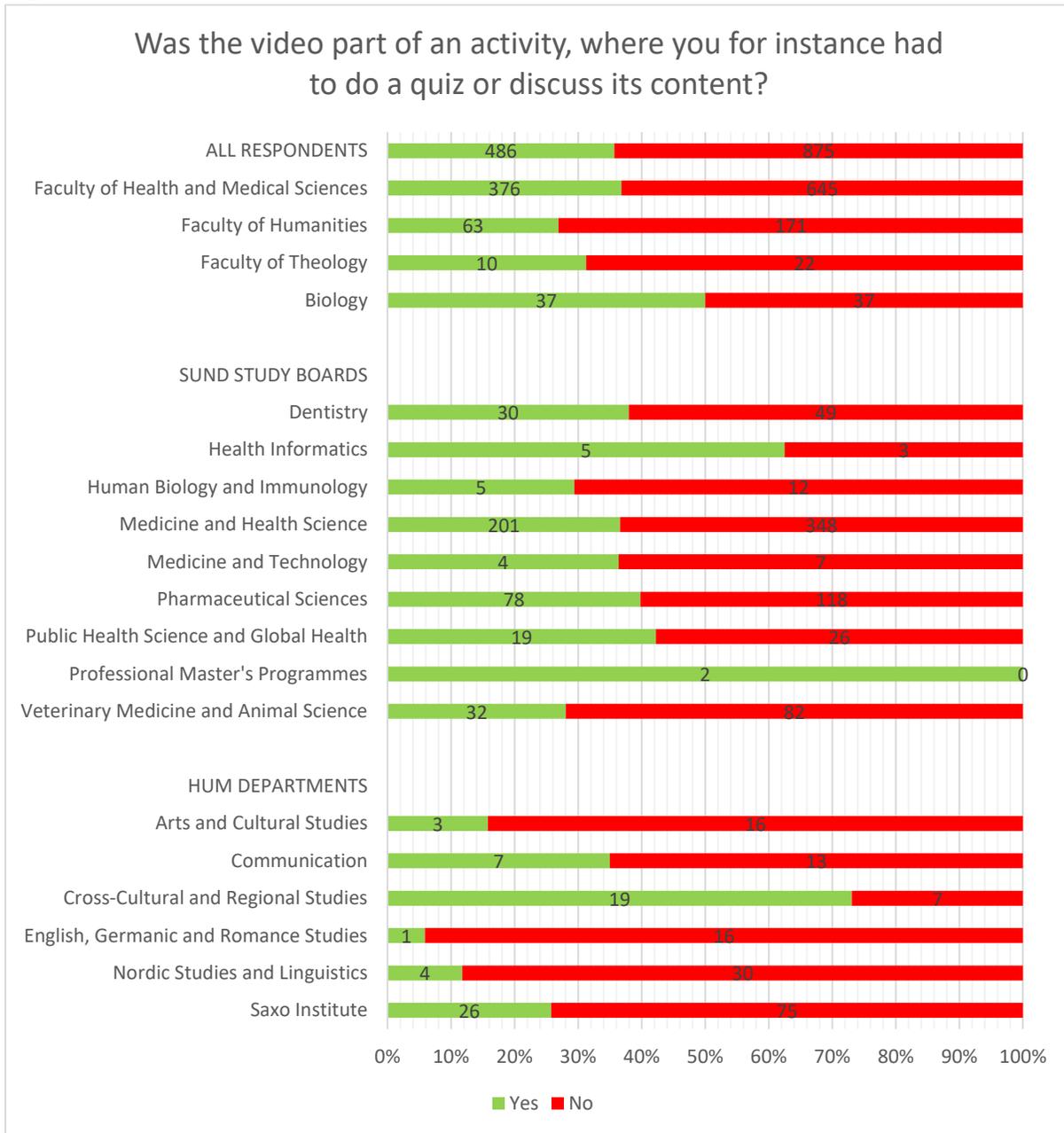
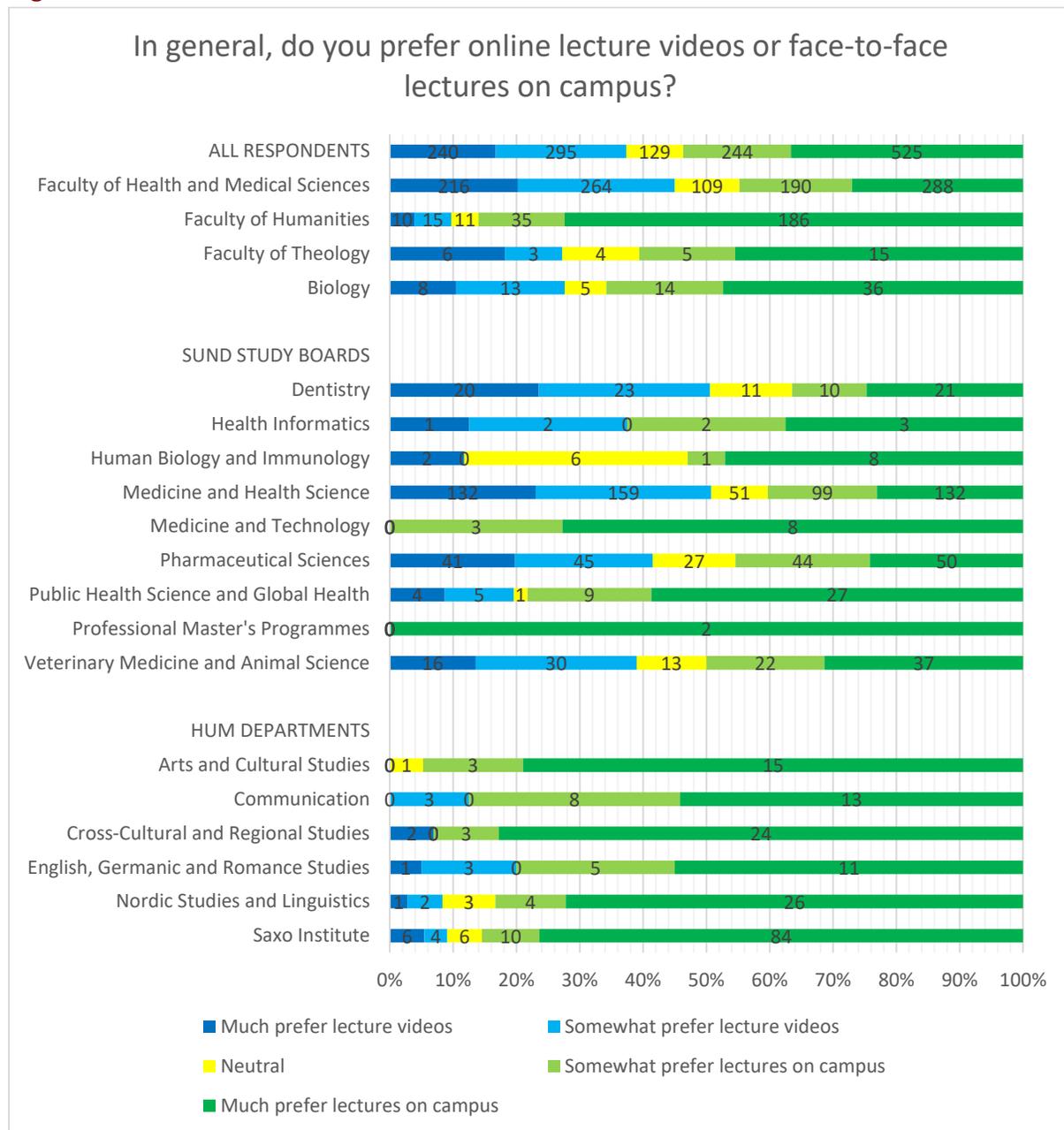


Figure 23



Open ended question: Can you tell us about an experience when a lecture video was helpful for your learning? What made it helpful?

Many respondents have the experience that lecture videos are helpful and a useful tool – especially in times where it is not an opportunity to receive teaching on campus. Below are presented the most prominent themes from the answers to the question: Can you tell us about an experience when a lecture video was helpful for your learning? What made it helpful?

#### **The ability to pause, speed-up and re-watch**

The most prevalent point that respondents make is the advantage of pausing, changing the speed, and the ability to re-watch the recorded lecture video. Many respondents appreciate the ability to watch the videos more than once, for example re-watching them in the exam period. Pausing the video makes it easier for the students to write notes throughout the video, and make sure they do not miss an important message. Changing the speed of the video according to the degree of difficulty of the lecture also made much sense for the respondents.

#### **The video lectures were efficient and on-point**

Many respondents find that the lecturers were more effective and precise in the lecture videos, than they are when giving live lectures. Because the videos were therefore shorter and denser in information, the video controls mentioned above also came in handy.

#### **The flexibility of asynchronous learning**

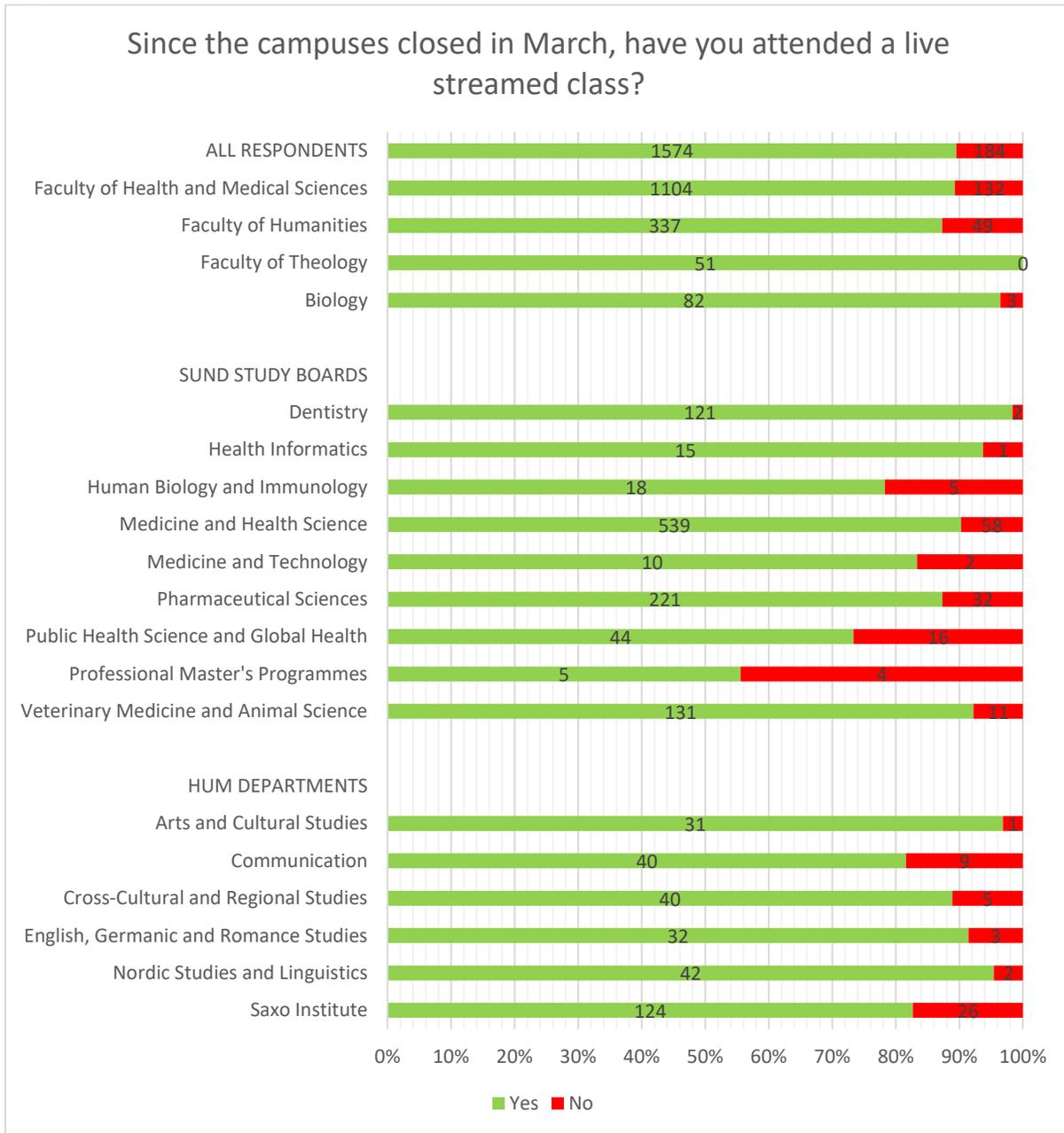
Lecture videos allow the students to plan their study calendar, and respondents pointed out that it makes it easier for them to fit their studies in around work and other responsibilities. Respondents who were primary caretakers of children mentioned that it worked out great for them and their families because it allowed them to study in the evening, especially during the period when kindergartens and schools were also under lockdown.

As this was the first open ended question, some respondents gave their more generalized opinion about online learning. These points are included in the summaries where they fit best.

## Data: Live streamed classes

Student experiences and preferences related to live streamed lectures and classes

Figure 24



A live streamed class is any online video-based teaching that takes place while you are watching it

Figure 25

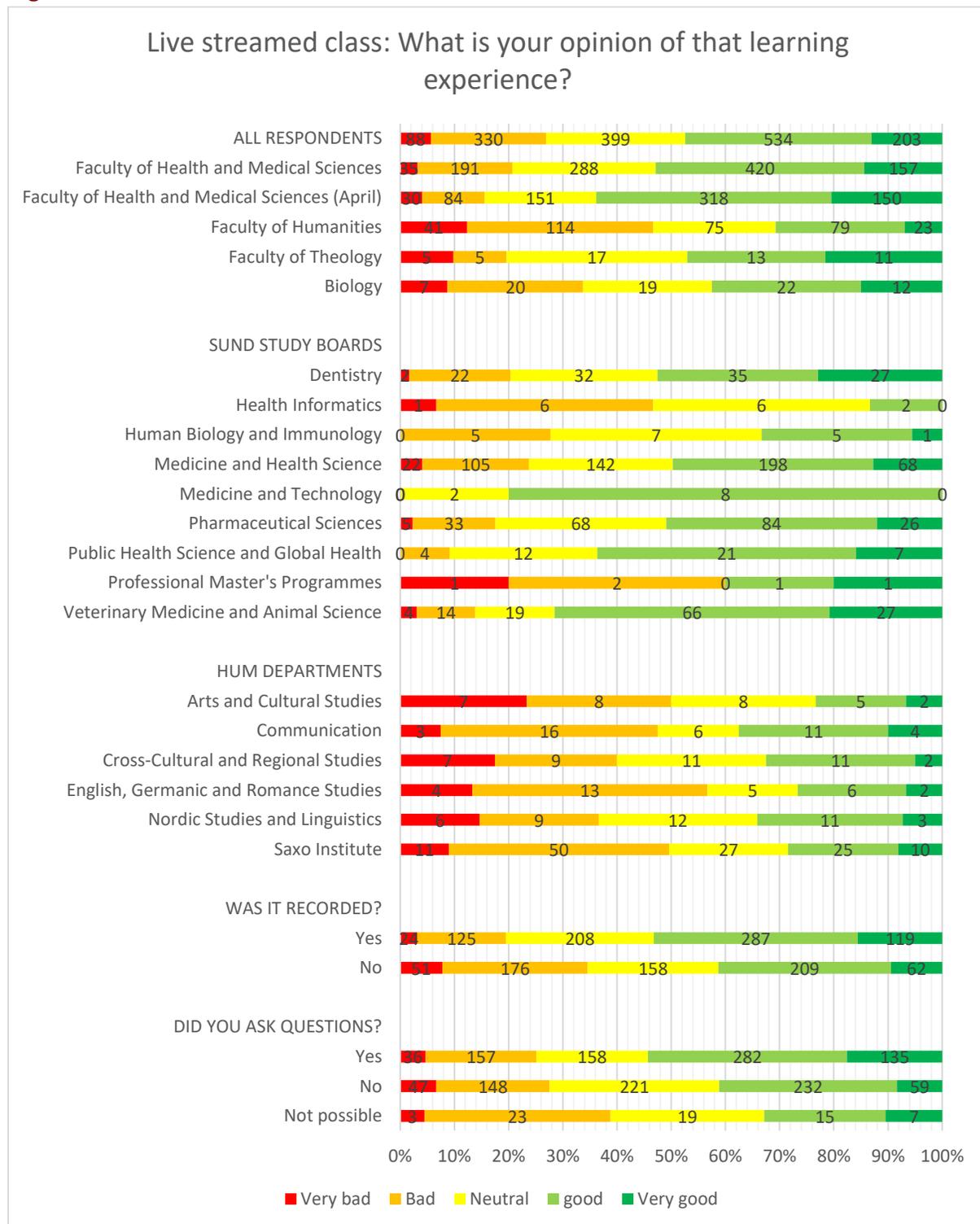


Figure 26

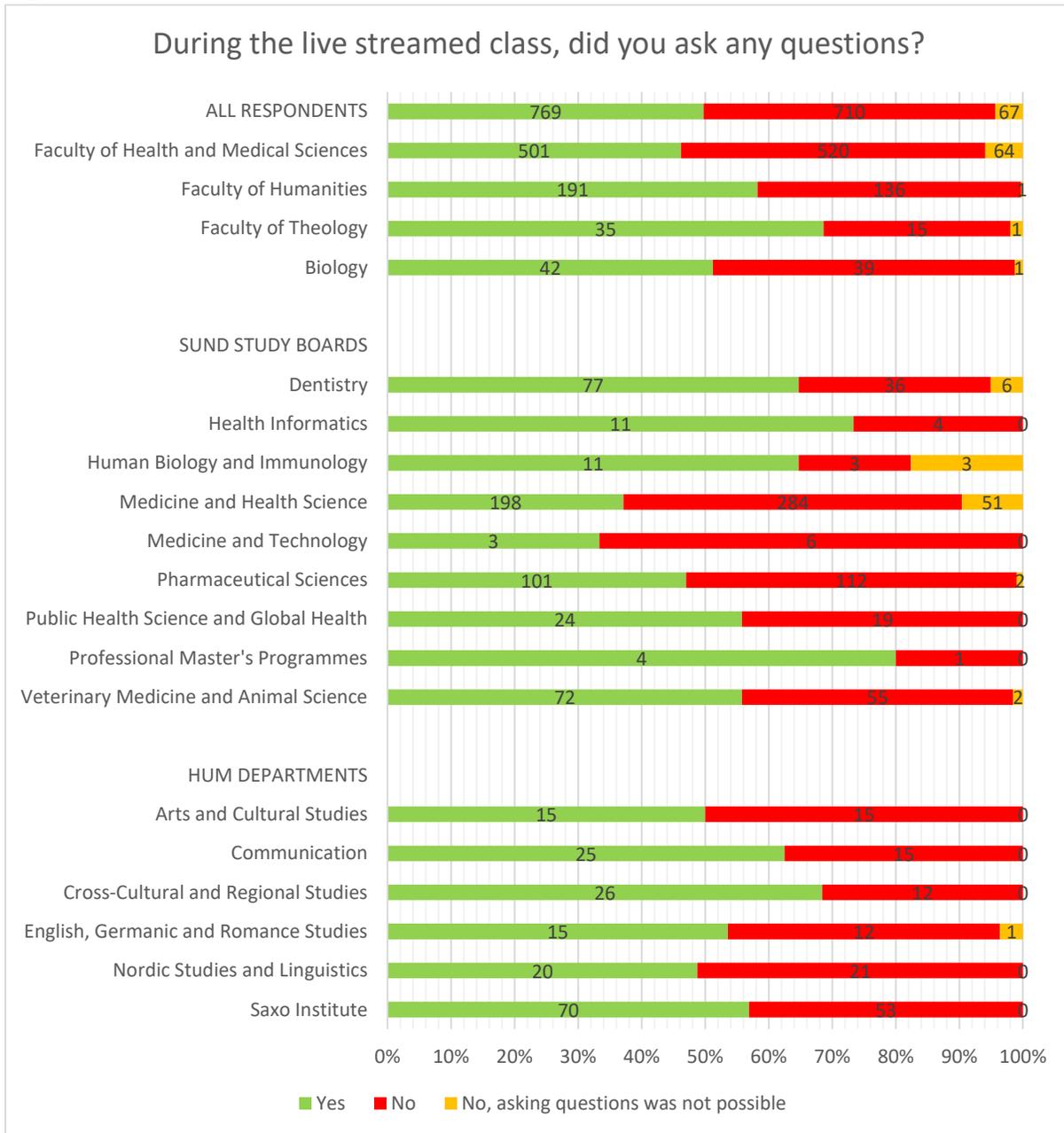


Figure 27

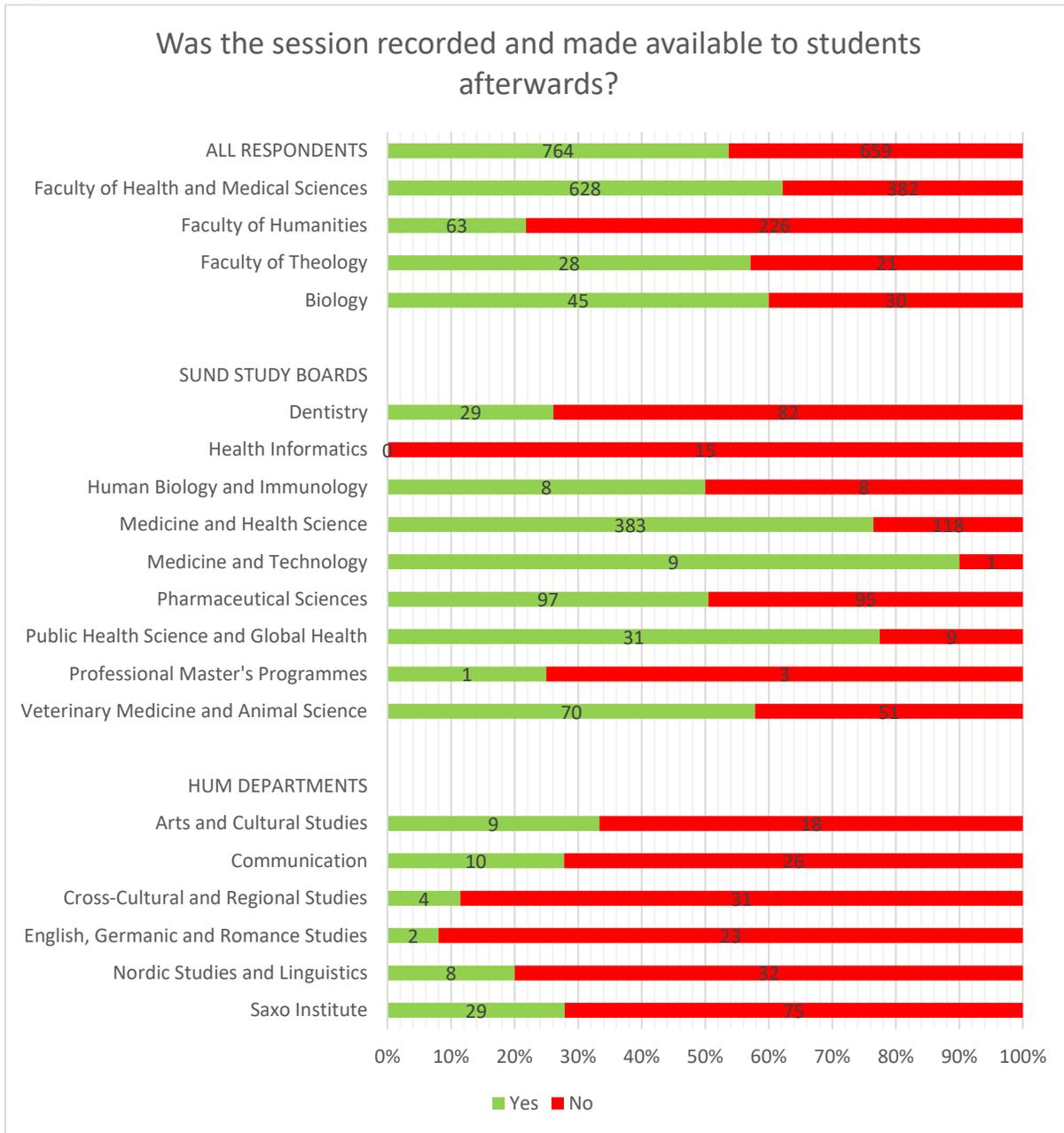


Figure 28

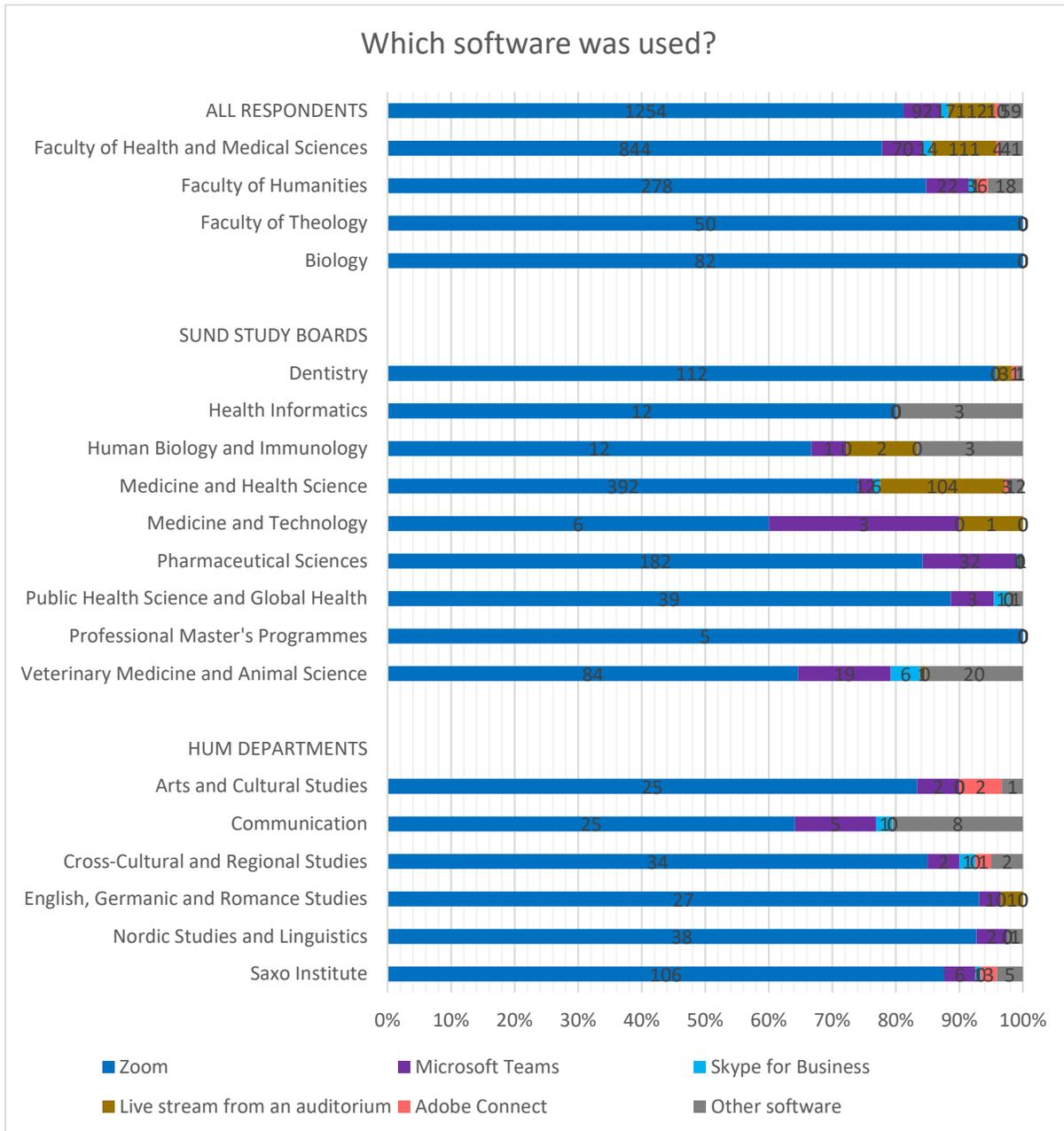
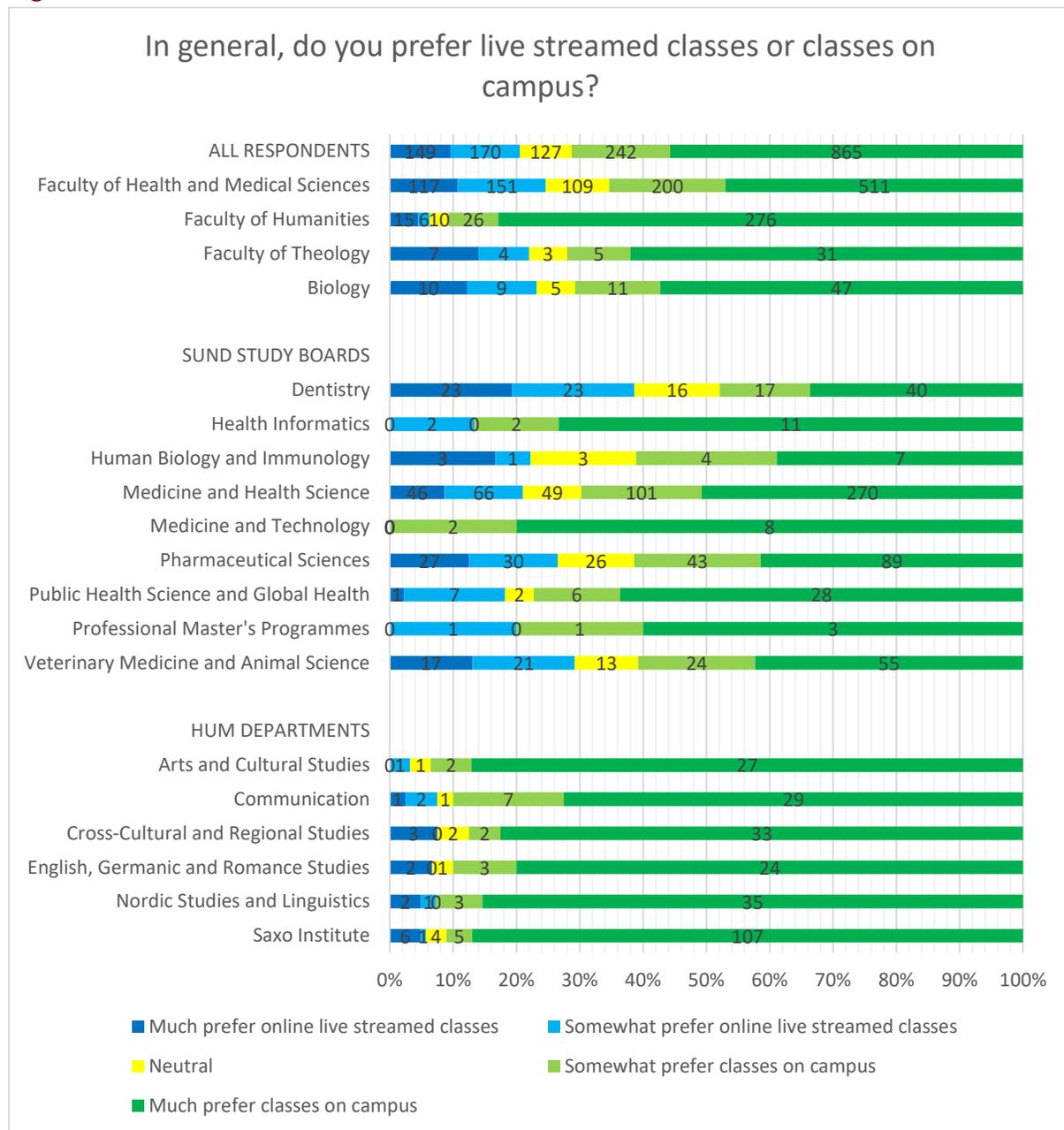


Figure 29



Open ended question: Can you tell us about an experience when a live streamed class was helpful for your learning? What made it helpful?

During the spring, live-streamed classes became almost synonymous with online teaching. Although only few instructors and students had tried it before the lockdown, it was embraced as the natural choice when quickly ‘translating’ a campus course to online teaching. Below we have summarized the many responses about live-streamed classes into a list of themes.

### **More interactions than in campus classes**

The respondents appreciated the possibilities to ask questions and participate more actively, and some of them pointed out that they even experienced that live-streamed lectures had more questions than at lectures on campus – both because instructors seemed to be more aware of making it interactive, and because students felt more safe asking questions. Other respondents considered the live-streamed classes to be a bad version of a campus lecture.

### **Break-out rooms are popular**

The break-out room function was popular, and respondents pointed out that it is a good way to activate all the students. Sometimes you end up in groups with people you do not know, which can be both an advantage, if you get to know and work with new people, and a challenge, if you get into a group that has a bad dynamic.

### **Student suggestions for good live-stream practice**

Respondents mentioned a number of preferences for what makes for good live-streamed classes. Some pointed out that they prefer when they can see the slides and the instructor at the same time, and not just one or the other. Some also suggested that it works well when there are two instructors, so one of them can focus on the questions that come up in the chat. Furthermore, many respondents mentioned that it is preferable if everyone has their videos on. Although it is an advantage when the sessions are recorded and made available afterwards, some respondents pointed out that the fact that you are recorded may keep some students from participating actively in the class.

### **More motivating than asynchronous formats**

According to many respondents, it is more motivating to participate in live-streamed classes than to watch a pre-recorded lecture video. Especially if students also turn on their videos, it can give a feeling of community that was missing during the lockdown. Furthermore, the fact that a live-streamed class takes place at a certain time creates some structure in the week/day that you do not get from asynchronous online learning. The live-element makes it harder to procrastinate.

### **Safer, quieter and better concentration at home**

Some respondents highlight that normal campus lectures are not always optimal place for learning – you may have a bad or uncomfortable seat and the other students can disturb you. These problems may be less frequent when studying online. However, other respondents point out that this is dependent on the student’s home situation. A few respondents with attention or anxiety disorders also highlight that they feel safer and more focussed in a live-streamed class than on campus.

## Data: Online group work

Student experiences and preferences related to online collaboration with peers

Figure 30

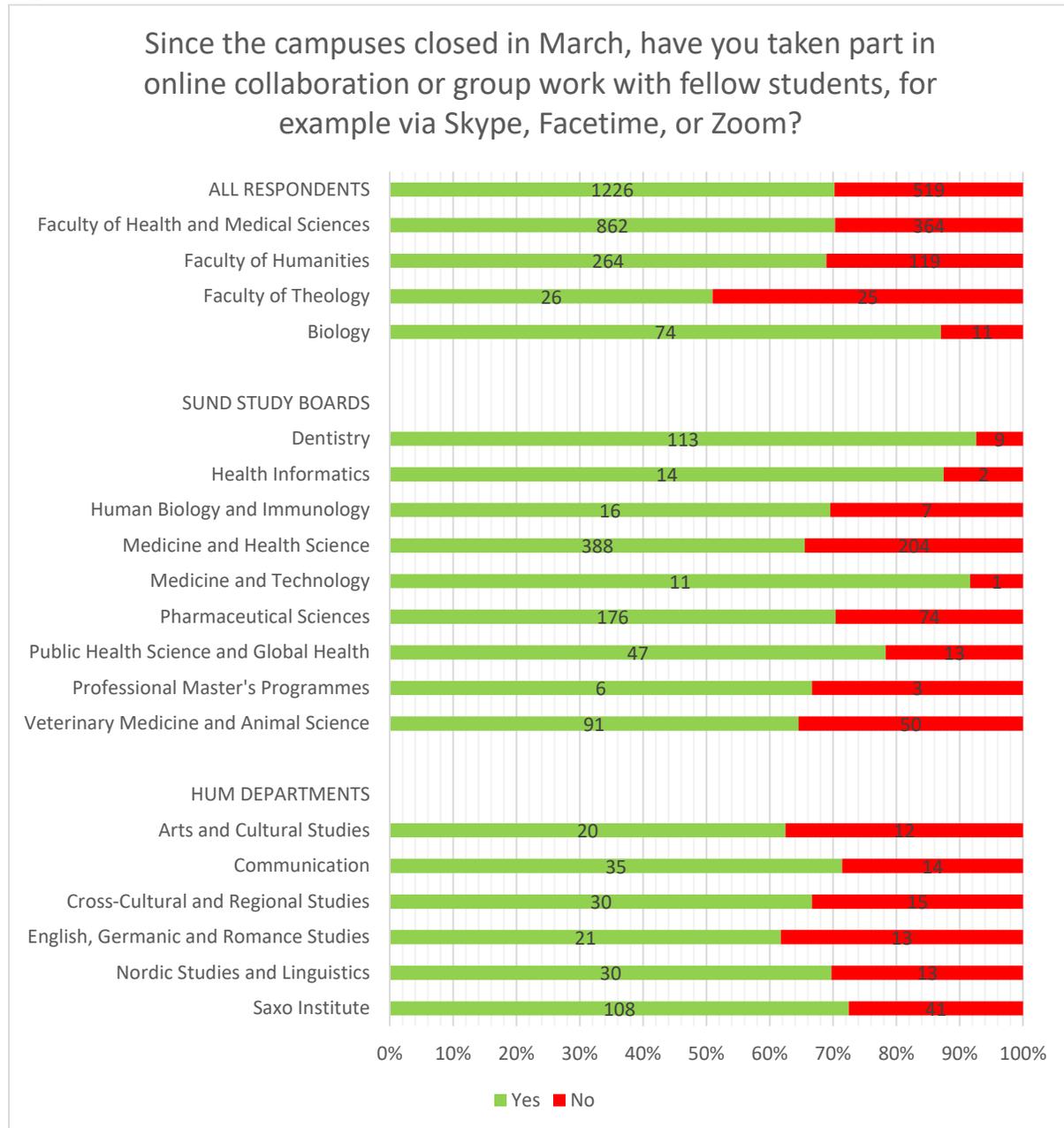


Figure 31

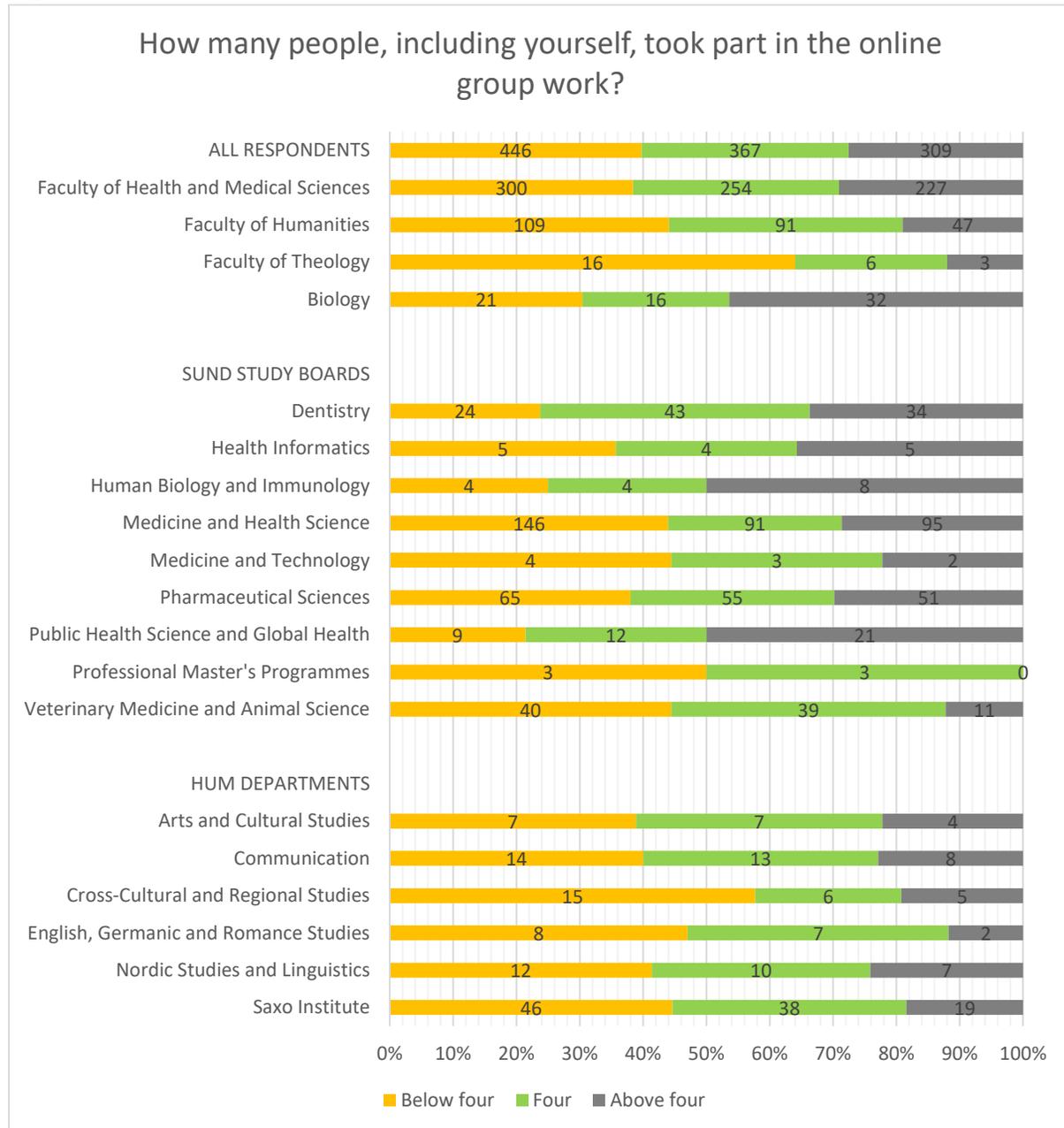


Figure 32

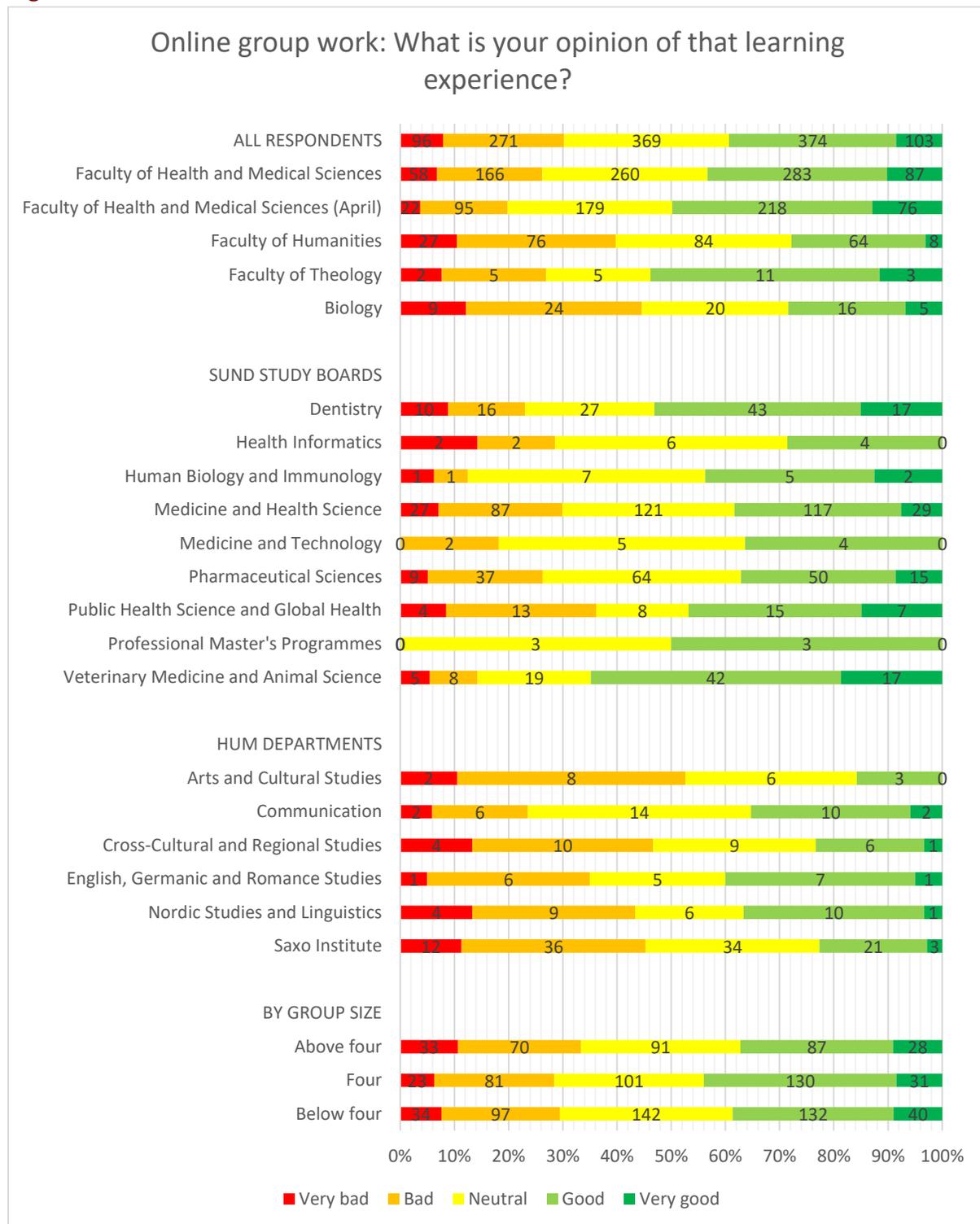
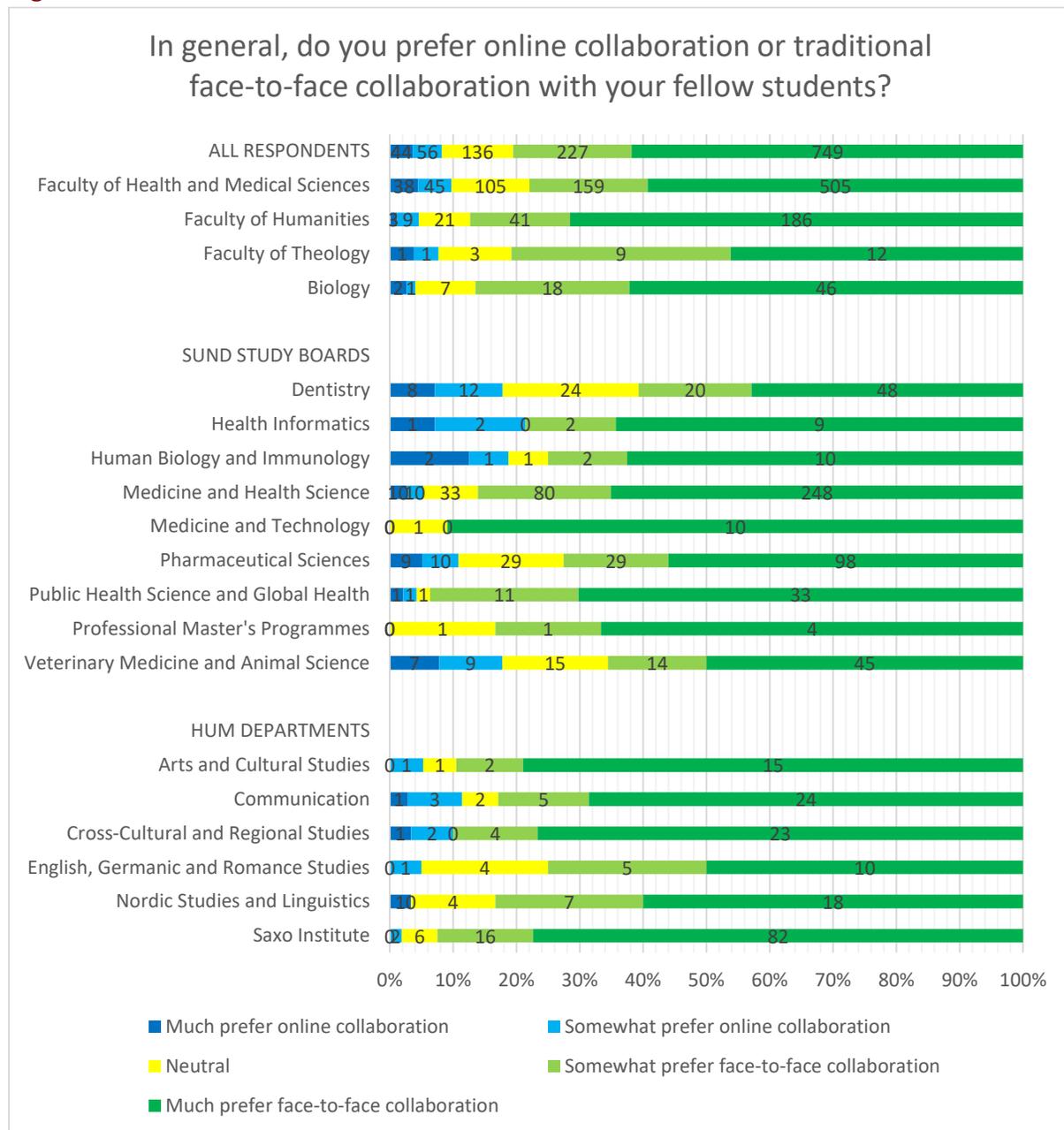


Figure 33



Open ended question: Can you tell us about an experience when online group work was helpful for your learning? What made it helpful?

The online group work described by respondents resemble the challenges and advantages that work-from-home employees across the world have experienced during lockdown. Below are the most prominent themes that respondents included in their answers, when we asked them to tell us about their experiences with online collaboration.

#### **Issues related to communication and collaboration**

Many respondents point out that collaboration online makes it harder for them to read the room and the body language and gestures of the other group members. Some report that it is not the same as meeting up in real life, and you generally get less out of online collaboration. There is general agreement that it works best if everyone have their videos on. Some point out that screen sharing and co-working in same document (e.g. Google Docs) worked well for them. Others found the tools insufficient.

#### **Group size**

Some respondents point out that the online collaboration is harder for bigger groups, and suggest that instructors use smaller groups for the group work in live streamed-classes.

#### **Flexibility and efficiency**

Some respondents point out that meeting online made it is easier to find a time that suits all group members. You also save time on transport. Some mentioned that the online meetings generally have less chit chat, and seem more efficient because you get straight to the point. Some also point out that meeting online can be more tiring.

#### **Group work during live-streamed classes**

Some respondents point out that is harder for the instructor to walk around between groups in break-out rooms and ask questions and give feedback and inspiration. It was also mentioned online teaching made it easier for students to skip class or tune out, with the consequence that their break out room groups did not work well.

#### **Should groups be random or chosen by students?**

There were different opinion as to whether random groups or student-chosen groups were the best basis for good online collaboration. With random groups you might get inspiration from students you do not normally work with, but it might also be hard to make it work online if you have never met face to face. In self-chosen groups you can choose people with whom you know you work well, and who share your working style and weekly schedule.

## Data: Online oral exams

Student experiences and preferences related to online oral exams

Figure 34

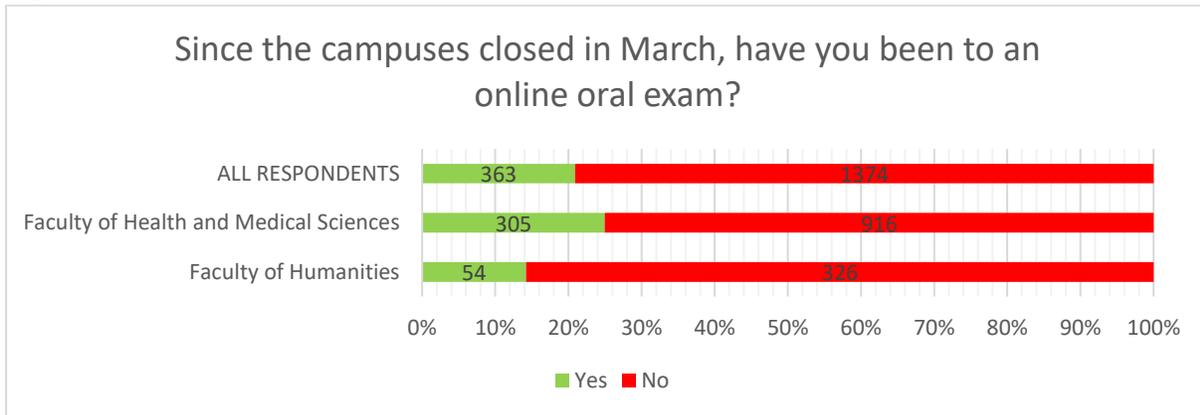


Figure 35

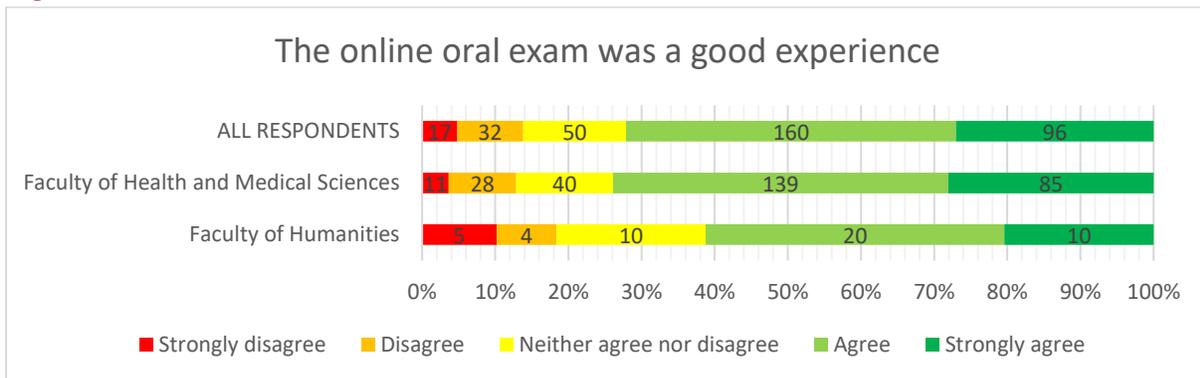


Figure 36

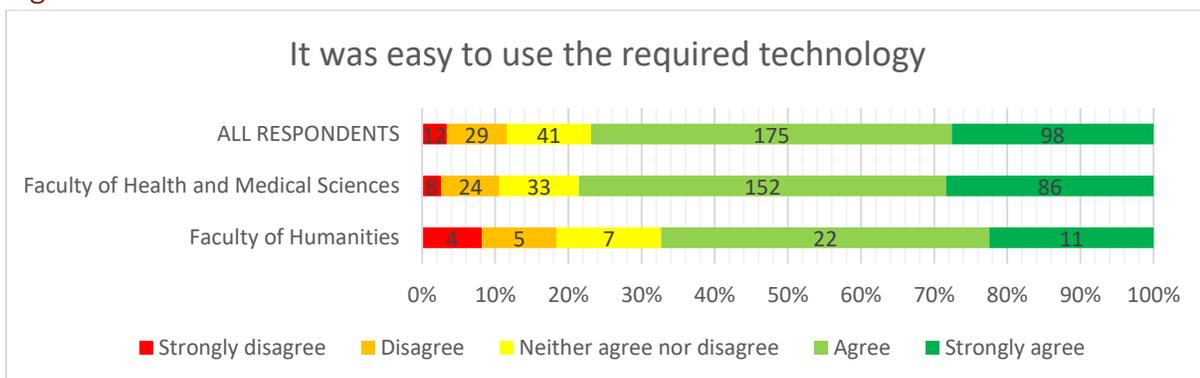


Figure 37

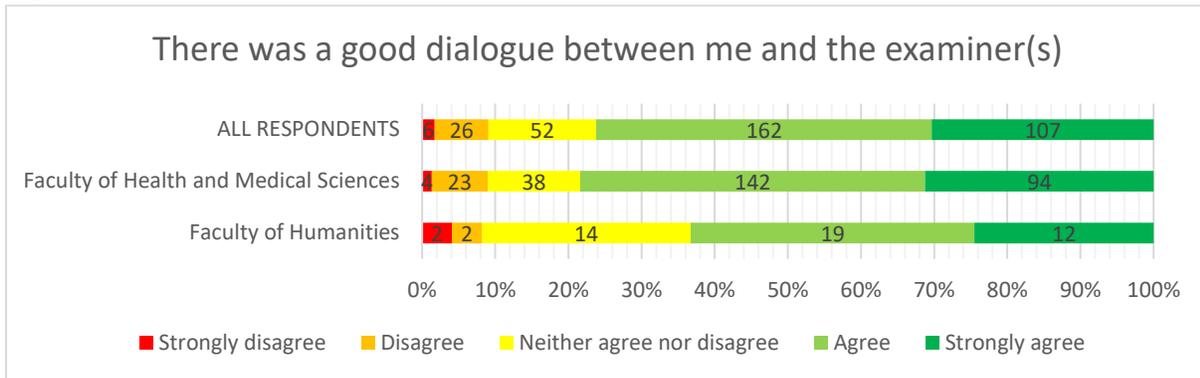


Figure 38

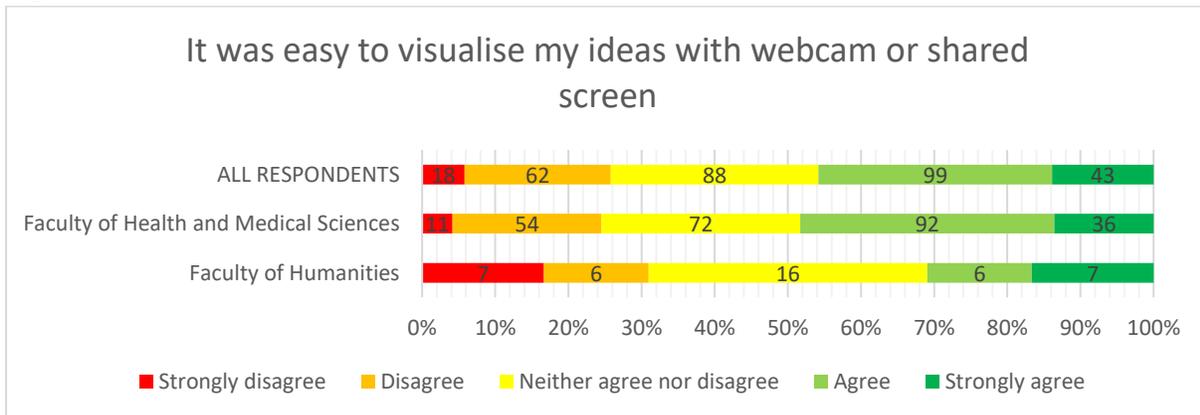


Figure 39

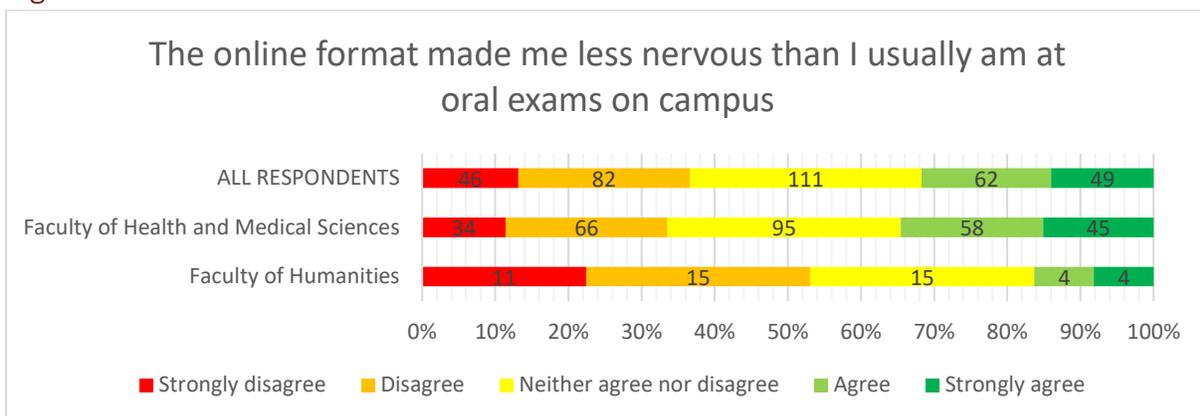


Figure 40

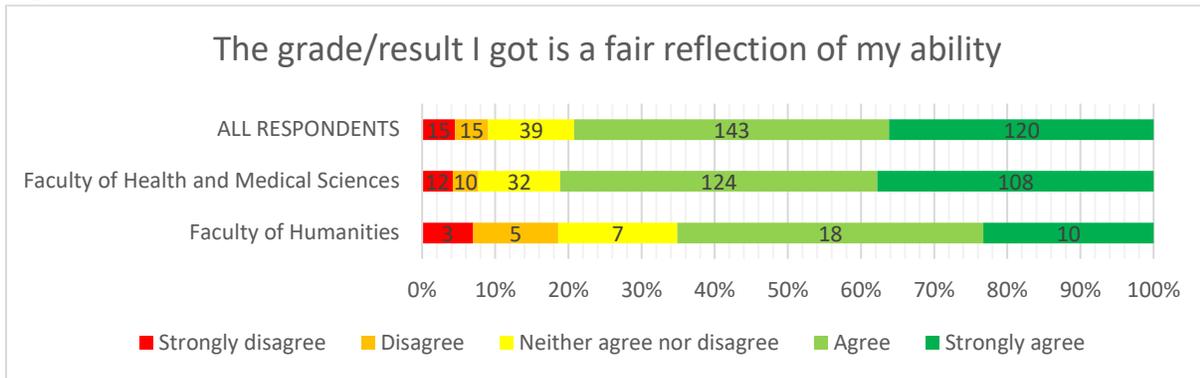
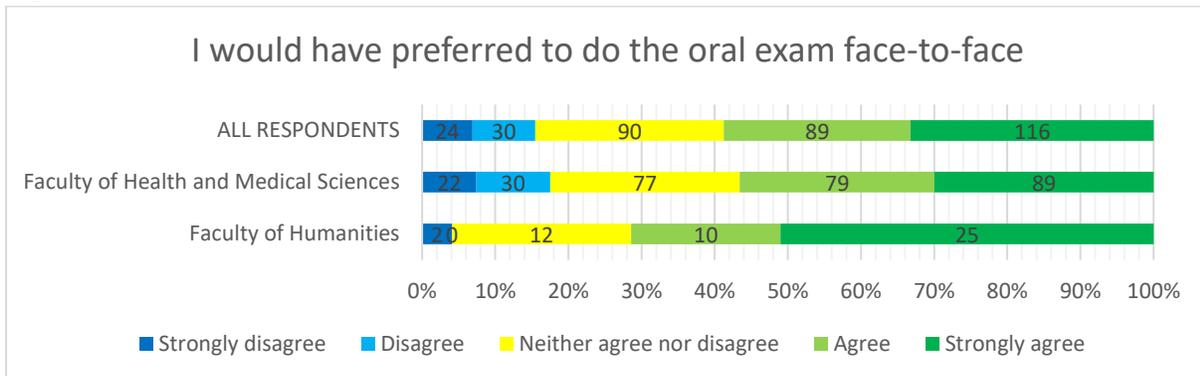


Figure 41



Open ended question: Is there anything else you would like to tell us about your online oral exam?

Because of the period of data collection, only a few students had experience with online oral exams, and consequently this was the open ended question with the fewest respondents. Below are the most salient themes in the respondents' responses to the question if there is anything else they would like to share with us regarding their online oral exam.

#### **A less stressful and nervous experience**

Some of the respondents report that they did not feel the same sort of "exam stress" as with traditional oral exams. They responded that they felt more safe and comfortable at home, and it did not feel like a usual oral exam, since they did not sit face to face with a censor and examiner. Simultaneously, they did not have to worry about possible complications with public transportation to campus, and therefore it was a less stressful experience.

#### **Technical difficulties and practical challenges**

Some respondents reported that they had a poor Internet connections, resulting in delays and a grainy video of censor and examiner. These technical difficulties can increase stress and nervousness in a high-stakes and vulnerable setting. Other respondents reported that their housing situation is not suitable for an oral exam. They find that it can be challenging to find a suitable place to sit without being disturbed by cohabitants and others.

#### **Challenges of video mediated interpersonal communication**

Many of the respondents state that presenting through an online video call (e.g. on Zoom, Microsoft Teams, or Skype for Business) can make it more challenging to read the non-verbal reactions of the censor and examiner. At the same time, it can also be difficult for students to use their own gestures fully. This can create a distance between student and examiners, which is different from the oral exam situation that they were otherwise used to.

Furthermore, they reported that group exams could be an extra challenge since it was difficult to feel your own group members, for instance making it hard to know when to speak without interrupting.

## Data: General Preferences

Student preference for online distance learning vs campus-based learning, and how this preference correlates with practical and psychosocial challenges

Figure 42

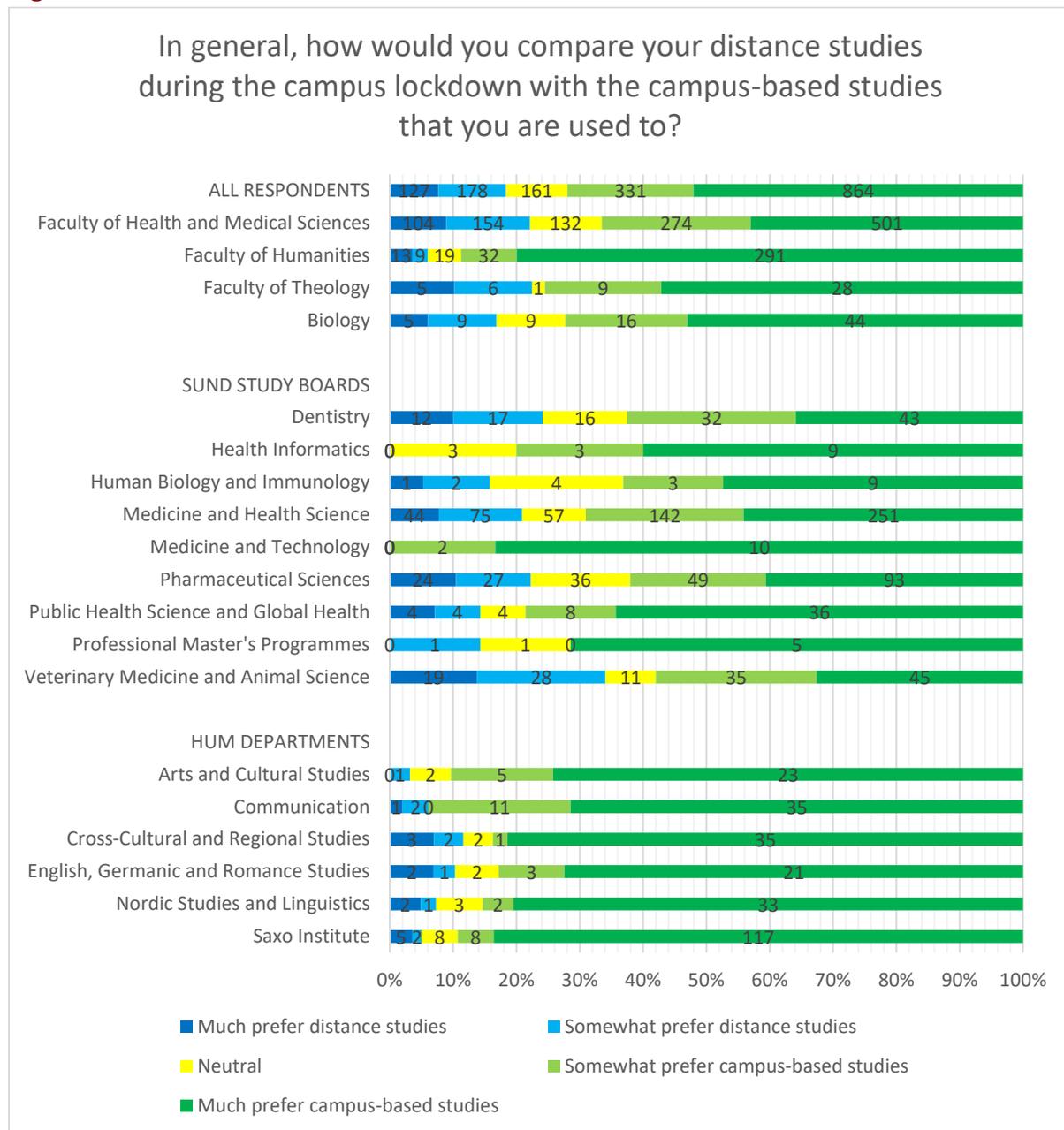


Figure 43

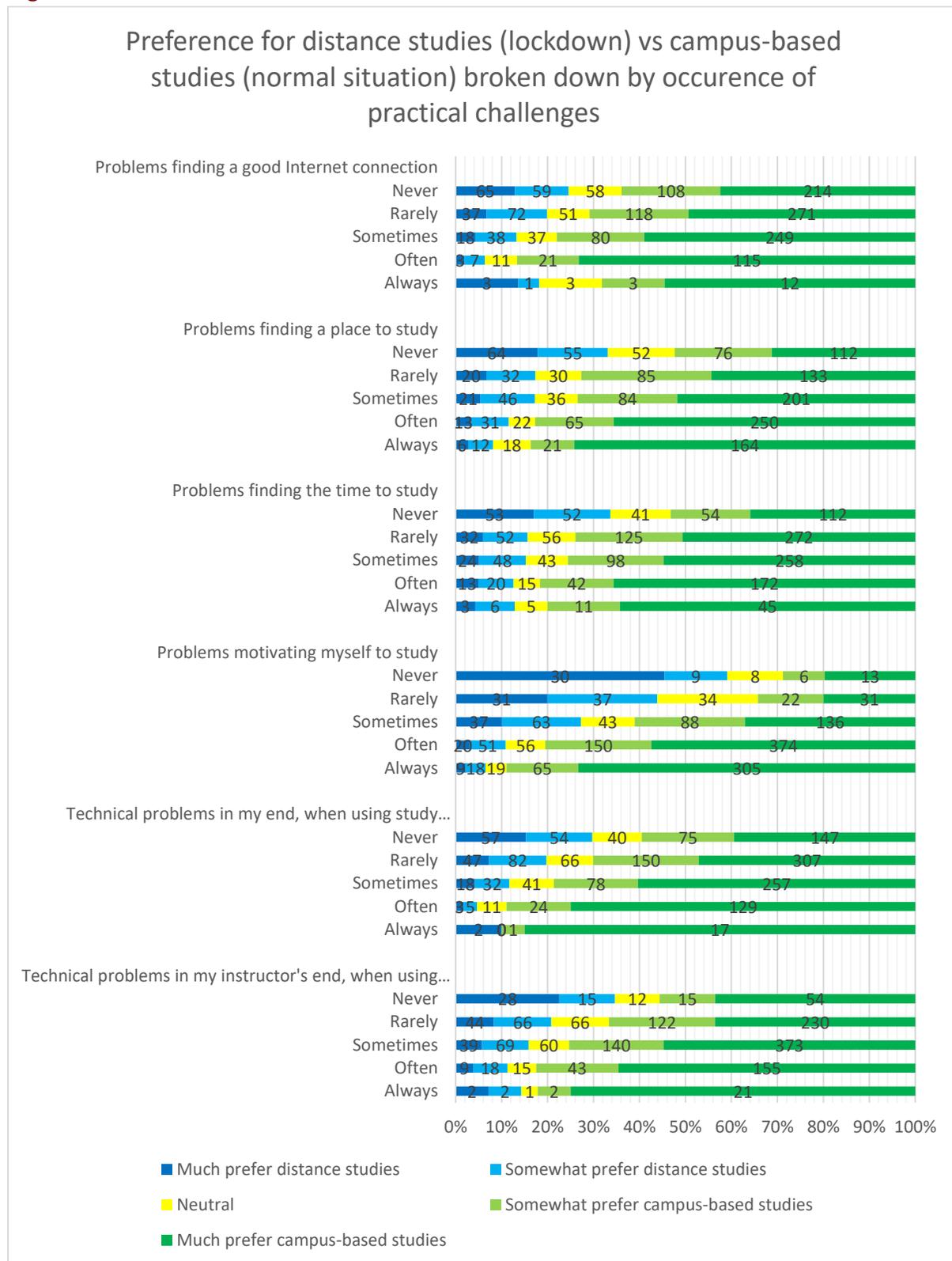
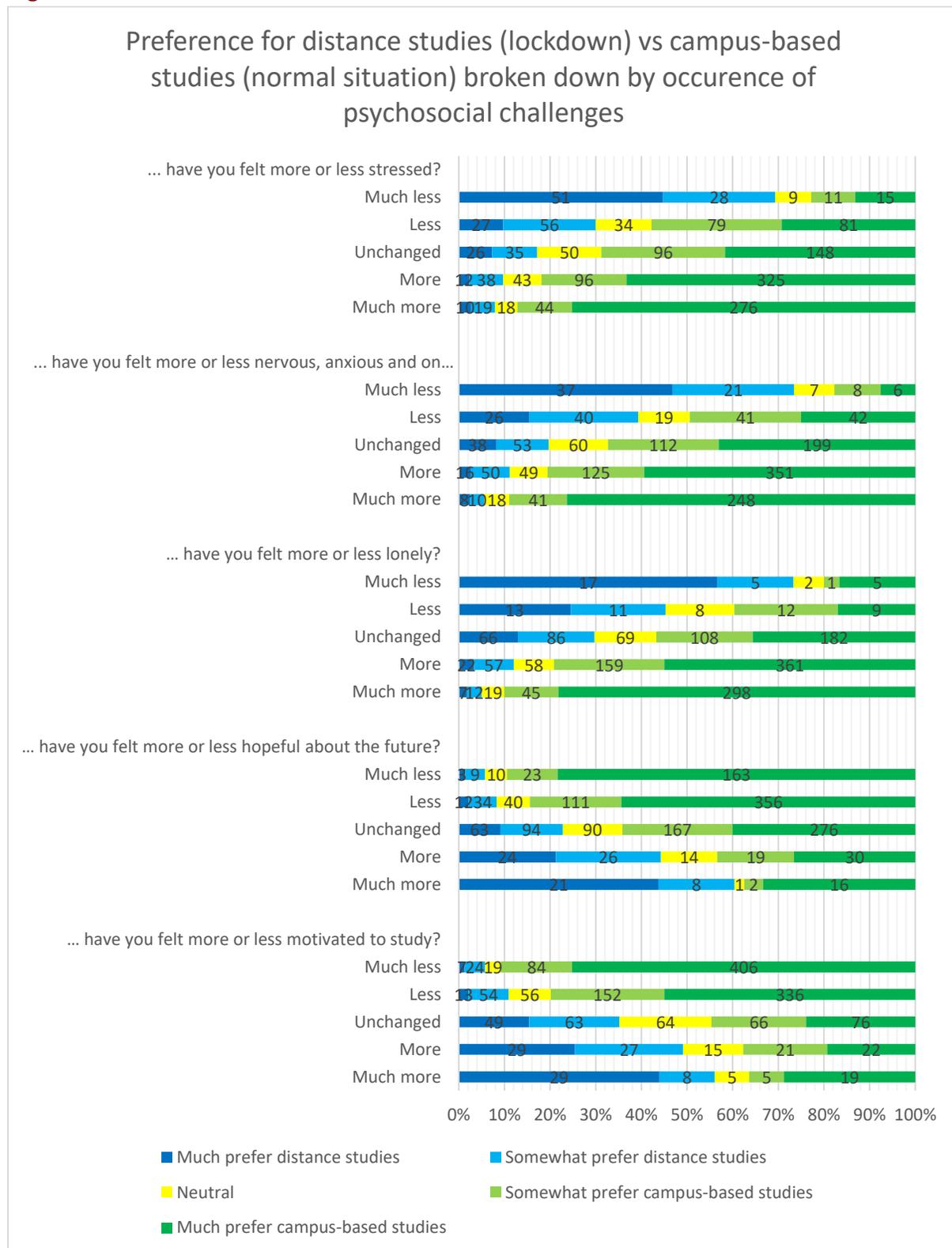


Figure 44



### Open ended question: What do you miss most about campus-based studies?

This open ended question was the one that generated most responses, and yet the recurrence of just a handful of themes is a sign that the shared event of the campus lockdown influenced their responses much more than the particulars of their different teaching/learning experiences. Below is a description of the most salient themes we identified in their responses to the question of what they miss the most from their campus based studies.

#### **A more structured daily life – and getting out of the house**

The respondents report that they miss the structure that arises from going to campus and not having to sit at home in front of the computer all day. When studying from home it becomes hard to distinguish between study time, work time and free time.

#### **The social and informal aspects of campus life**

Studying from home can also feel very isolating and many respondents pointed out that they primarily miss the social aspects of being on campus, such as the chats with fellow students during the breaks and the informal conversations with the instructors after class. At campus you are part of a community, and also the social events with students from other courses, or even at other campuses, are an important part of being a student, which was missing during the lockdown.

#### **Learning together in the classroom**

Many of the respondents report that they miss the interactions and feedback that they are used to from classroom teaching. They miss the easy and quick way of being able to ask the peer sitting next to you when there is something they do not understand, and some point out that classroom discussions are easier and more fruitful when you are in the same room. They also miss the immediate guidance and help from the instructor in lectures, classes and group work, as well as the informal talk with the instructor during the break or at the end of a class.

#### **The activating teaching formats**

The respondents present many aspects of campus teaching that they believe have been missing during the lockdown. Central here is the feeling that their online teaching is not as activating and interactive as what they have been used to from campus. Some point out that the so-called 'student activating teaching' is not really activating, when it takes place online. They also miss the more practical formats, like laboratories or contact to patients, of which many were cancelled because the university had no meaningful online equivalent to offer.

#### **Feeling motivated**

Motivation is a cross cutting theme, which is mentioned in relation to all the main themes listed above, underlining how motivation is influenced by a multitude of factors, and many respondents' motivation to study is intimately connected with the social life and structures campus.

Open ended question: Are there any parts of the distance learning experience that you hope to keep when campus-based studies start again? Which ones, and why?

Many respondents have the experience that active learning formats (such as discussions, presentations, and practical work) work much better on campus than they do online, and therefore they want interactive teaching formats to take place on campus in the future. There are a number of respondents who do not want to keep anything, they think that the online teaching has been insufficient, and they are simply looking forward to returning to campus. Below are the three most salient themes in the respondents' responses to the question if there are any parts of the online distance learning experience that they hope to keep when campus reopens.

#### **Simultaneous live streaming of campus lectures**

Many respondents suggest that we live stream all campus lectures so they are simultaneously available live on campus and online e.g. through Zoom or on the Absalon LMS. It would create more flexibility, especially for the students with a long commute who could then study from home on some days, instead of going all the way to campus.

#### **Recording of and sharing of campus lecture recordings**

The most prevalent theme in the answers to this question is that all lectures should be recorded and posted online, so you can re-watch them during the exam period or watch them if you e.g. were ill or for some other reason did not have the opportunity to be present on campus. A further advantage that was mentioned is that you can revisit the lecture several times if there are things you missed or that was difficult to understand when you heard it the first time. This will create more flexibility for the students, and at the same time be helpful when preparing for classes and exams. One worry mentioned by some respondents was that this could lead to less attendance on campus, which in turn could weaken the social aspects of being on campus with your fellow students.

#### **Online group work**

Some respondents report that they want to occasionally keep doing online group work. This is especially relevant at busy times when it is difficult for the study group to find a day to meet on campus that suits everyone.

## Appendix: April questionnaire

The English language version of the April questionnaire included the following questions:

- Which study programme are you in?
- Since the university closed down, most study activities have been either cancelled/postponed or made available as online distance learning. What best describes your studies during the past 2-3 weeks?

### Challenges

- During the past 2-3 weeks of distance learning, what have been the biggest challenges in your studies? (select as many as needed)
- What did you do to overcome these challenges?

**Elements of online teaching: Pre-recorded lectures.** Pre-recorded is any lecture video that did not stream live while you were watching. If you have watched several pre-recorded lectures, then just consider the most recent one.

- During the past 2-3 weeks of distance learning, have you watched a pre-recorded lecture?
- What is your opinion of that learning experience?
- How would you compare that experience to traditional face-to-face lecture?
- Why?

**Elements of online teaching: Live-streamed lecture.** Live streamed is any online lecture that takes place at the same time as you are watching it. If you have watched several live streamed lectures, then just consider the most recent one.

- During the past 2-3 weeks of distance learning, have you watched a live streamed lecture?
- What is your opinion of that learning experience?
- During the live streamed lecture, did you ask any questions?
- How would you compare that experience to traditional face-to-face lecture?
- Why?

**Elements of online teaching: Online Group Work.** If you have taken part in several online group work sessions, then consider the most recent one.

- During the past 2-3 weeks of distance learning, have you taken part in online group work, for example via Skype, FaceTime, WhatsApp or other video/audio/text chat?
- How many people, including yourself, took part in the online group work?
- What is your opinion of that learning experience?
- How would you compare that experience to traditional face-to-face group work?
- Why?

**Elements of online teaching: Written Online Discussions.** If you have taken part in several written online discussions, then consider the most recent one.

- During the past 2-3 weeks of distance learning, have you taken part in a written online discussion, e.g. in the Absalon course room?

- What is your opinion of that learning experience?
- How would you compare that experience to traditional classroom discussions?
- Why?

#### **General comparison of online and campus teaching**

- In general, how would you compare your distance studies during the past 2-3 weeks with the campus-based studies that you are used to?
- What do you miss most about campus-based studies?
- Are there any parts of the distance learning experience that you hope to keep when campus-based studies start again? Which ones, and why?

**Learning environment.** Considering only the past 2-3 weeks, to what extent do you agree or disagree with the following statements...

- It is clear to me what I am expected to learn
- I can get help and support from my fellow students when I need it
- The teachers seem enthusiastic about what they teach
- The teachers spend time helping us understand difficult things
- The teachers are good at involving the students in the courses

#### **Final question**

- Do you have anything you would like to tell us about your recent experience with online distance learning that has not been covered in the survey?

## Appendix: June questionnaire

The English language version of the June questionnaire included the following questions:

- Which study programme are you in?
- Which gender do you identify with? [only SUND-survey]
- Since the campuses closed in March, most study activities have been either cancelled/postponed or made available as online distance learning. What best describes your studies during this period?

**Practical challenges.** Since the campuses closed in March, how often do you experience the following study related challenges...

- Problems finding a good Internet connection
- Problems finding a place to study
- Problems finding the time to study
- Problems motivating myself to study
- Technical problems in my end, when using study related online tools/platforms
- Technical problems in my instructor's end, when using study related online tools/platforms

**Learning environment.** Considering only the period since the campuses closed in March, to what extent do you agree or disagree with the following statements...

- It is clear to me what I am expected to learn
- I can get help and support from my fellow students when I need it
- The teachers seem enthusiastic about what they teach
- The teachers spend time helping us understand difficult things
- The teachers are good at involving the students in the courses
- My lecturers are easy to contact
- I miss having informal conversations with my teachers
- I miss having informal conversations with fellow students

### Psychosocial challenges

- Since the campuses closed in March, have you felt more or less stressed?
- Since the campuses closed in March, have you felt more or less nervous, anxious and on edge?
- Since the campuses closed in March, have you felt more or less lonely?
- Since the campuses closed in March, have you felt more or less hopeful about the future?
- Since the campuses closed in March, have you felt more or less motivated to study?

### Elements of online teaching: Lecture videos

- Since the campuses closed in March, have you watched a lecture video? A lecture video is any educational video that did not stream live while you were watching
- What is your opinion of that learning experience?
- Was the video part of an activity, where you for instance had to do a quiz or discuss its content?
- In general, do you prefer online lecture videos or face-to-face lectures on campus?
- Can you tell us about an experience when a lecture video was helpful for your learning? What made it helpful?

### **Elements of online teaching: Live streamed classes**

- Since the campuses closed in March, have you attended a live streamed class? A live streamed class is any online video-based teaching that takes place while you are watching it
- What is your opinion of that learning experience?
- During the live streamed class, did you ask any questions?
- Was the session recorded and made available to students afterwards?
- Which software was used?
- Which software was used? - Other software (indicate below):
- In general, do you prefer live streamed classes or classes on campus?
- Can you tell us about an experience when a live streamed class was helpful for your learning? What made it helpful?

### **Elements of online teaching: Online group work**

- Since the campuses closed in March, have you taken part in online collaboration or group work with fellow students, for example via Skype, FaceTime, or Zoom?
- How many people, including yourself, took part in the online group work?
- What is your opinion of that learning experience?
- In general, do you prefer online collaboration or traditional face-to-face collaboration with your fellow students?
- Can you tell us about an experience when online group work was helpful for your learning? What made it helpful?

### **Elements of online teaching: Online oral exams**

- Since the campuses closed in March, have you been to an online oral exam?
- The online oral exam was a good experience
- It was easy to use the required technology
- There was a good dialogue between me and the examiner(s)
- It was easy to visualise my ideas with webcam or shared screen
- The online format made me less nervous than I usually am at oral exams on campus
- The grade/result I got is a fair reflection of my ability
- I would have preferred to do the oral exam face-to-face
- Is there anything else you would like to tell us about your online oral exam?

### **General comparison of online and campus teaching**

- In general, how would you compare your distance studies during the campus lockdown with the campus-based studies that you are used to?
- What do you miss most about campus-based studies?
- Are there any parts of the distance learning experience that you hope to keep when campus-based studies start again? Which ones, and why?