

Questionnaire survey of students' experiences during the COVID-19 lockdown

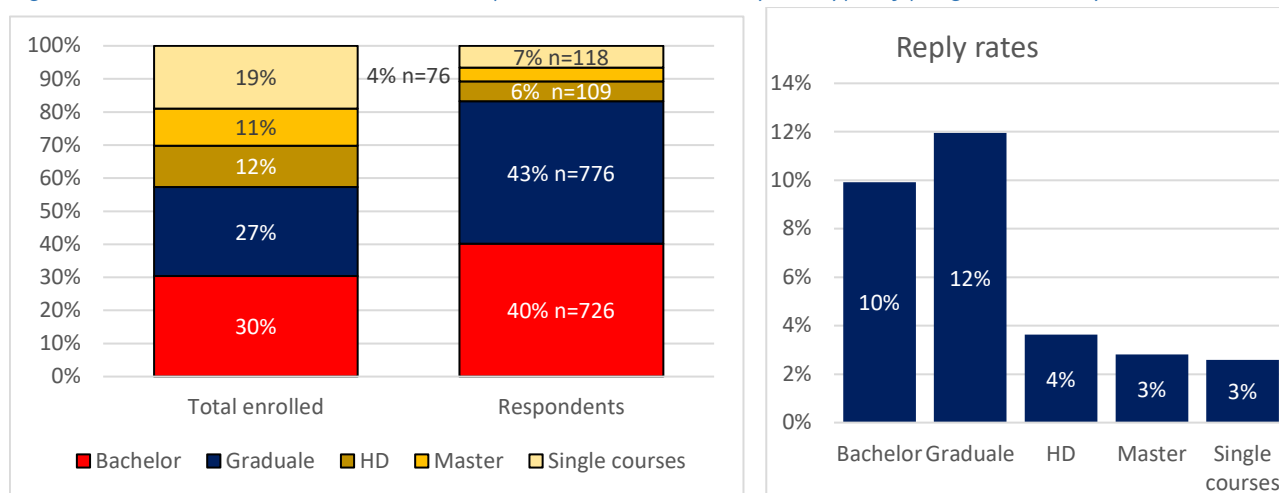
Michael Møller Nielsen. Teaching and Learning

1. The survey and reply rates

CBS has established a project group to collect information on the experiences at CBS during the COVID-19 lockdown in the spring 2020. The main purpose of this is to get input for supporting partly online teaching in the fall as well as a potential second lockdown in the fall. The group consists of Annemette Kjærgaard, Sine Zambach, Mette Franck and Michael Møller Nielsen. On June 16 the group distributed a questionnaire developed by Mette Franck to all students at CBS. The questionnaire was sent to 25.720 students but only 1.805 answered the questionnaire resulting in an overall reply rate of 7%.

Figure 1.1 below shown how all students and how the respondents are distributed on the type of programmes they are enrolled in. The Figure shows that students in single courses and in the Master and HD programmes are underrepresented in the respondent group, while bachelor and graduate students are overrepresented. This signals that the reply rate is bigger for bachelor students and students at the graduate programmes. Actually, the reply rate is 10% for bachelor students and 12% for students at the graduate programmes. The students in the HD and the Master programmes as well as students in single courses only have a reply rate of 3-4%.

Figure 1.1 Total enrolled students and respondents distributed by the type of programme they are enrolled in.



Because of the low reply rates, it is doubtful that the results are representative for the whole student population. Nevertheless, there is good reason to believe that the response patterns, i.e. correlations between the answers to different questions and differences in answers conditioned by the students' background, which can be found in the material, would also be present in surveys that are more representative.

2. Summery

- The vast majority of respondents (82%) experienced reduced contact with their fellow students, just as almost half had less contact with family and friends.
- In particular, the reduced contact with fellow students is associated with a greater sense of loneliness than usual among the students. But it also seems that the lockdown situation in itself has created an increased sense of loneliness among the students. Thus, many (40%) of the respondents who did not experience reduced contact with either fellow students or family and friends experienced an increased feeling of loneliness.
- The increased feeling of loneliness, which applies to approx. 60% of the respondents, is also associated with a reduced wellbeing among the students. The COVID-19 situation seems also in this case in itself to have reduced students' wellbeing. First, a large proportion (approximately one third) of the respondents who have not felt more lonely than usual have had a general poorer wellbeing. Second, we observe a remarkable correlation between the international students' wellbeing and how serious the COVID-19 situation was in their home country. This suggests that the COVID-19 situation in itself has created concern and poor wellbeing among the students.
- The wellbeing of the students strongly correlates with their study motivation, which is generally greatly reduced compared to before (70% of the respondents experienced a reduced study motivation). However, the study motivation does not only correlates with the wellbeing of the students. The more of the students' classes that have been affected by the COVID-19 lockdown, the more the study motivation is negatively affected.
- Not surprisingly, the time students think they spent studying is strongly influenced by their study motivation. However, although the study motivation has decreased for the vast majority of the respondents, there are slightly more respondents who answer that they have spent more time on their study activities than respondents who answer that they have spent less time on their study activities.
- The study motivation and the perceived learning outcome also correlate strongly. Negatively affected study motivations goes hand in hand with reduced perceived learning outcomes. More than half (52%) of the respondents have – in their own view – experienced reduced learning outcomes during the COVID-19 lockdown.
- How the COVID-19 lockdown has affected the perceived learning outcome does not correlate with students actual grades. In general, the respondents have had better grades in the spring of 2020 than they had before. However, this could be explained by the fact that more grades are given for projects (e.g. bachelor projects and thesis) in the spring semester, and grades in projects use to be higher than in more traditional exam formats. This could also explain why there is no correlation between the lockdown's effect on the perceived learning outcome and the changes in the grades received. The students who in the spring of 2020 have worked on a bachelor project or thesis have typically not experienced that their learning outcomes were affected by the COVID-19 lockdown, but their grades are (primarily because they are project grades) somewhat higher than their previous grades.
- However, data also suggest that the more experienced (in terms of studying) the students are, the more their grades increased during the lockdown. Data also show that the more of the classes that were affected by the lockdown, the less the grades have increased. This suggests that the general COVID-19 lockdown had a positive effect on the exam results (grades are higher). This could be due to a quieter period with less partying and fuss, leaving more time and concentration for studying.

On the other hand, switching to online teaching seems to have affected exam results in a negative way (because grades raised less the more of the students' classes were affected by the lockdown).

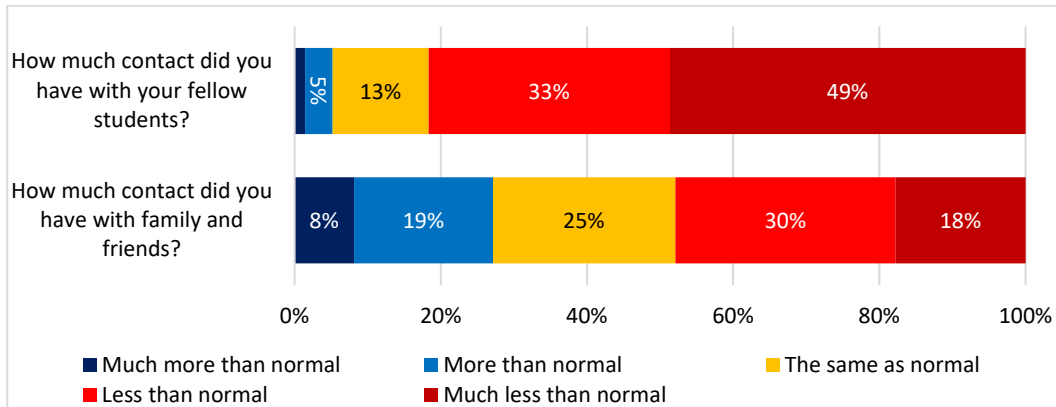
- Two thirds of the respondents have been in contact with their instructors during the lockdown and the majority rate this contact as just as good as before. Of those who did not have this neutral assessment of the contact, the majority felt that the quality of the contact with the instructors has become lower.
- Likewise, two thirds received supervision during the spring semester. Half of them find that the online supervision was poorer than the normal supervision, while 43% believe it has remained unchanged.
- The respondents' assessment of any changed examination formats is quite neutral. There are just as many who have positive assessments of new examination formats, as there are having negative assessments.
- Even taking into account the unusual circumstances, respondents have a predominantly negative assessment of the online teaching. In total, 45% give a negative assessment of the online teaching while 25% give a positive assessment. Especially bachelor students and Danish students give negative assessments.
- Finally, the respondents indicate that the type of online teaching that in their opinion works best is videos that the instructors have recorded in advance. The type of online teaching that respondents believe has worked worst is discussion forums.

3. Students' wellbeing

3.1. Contact to family, friends and fellow students

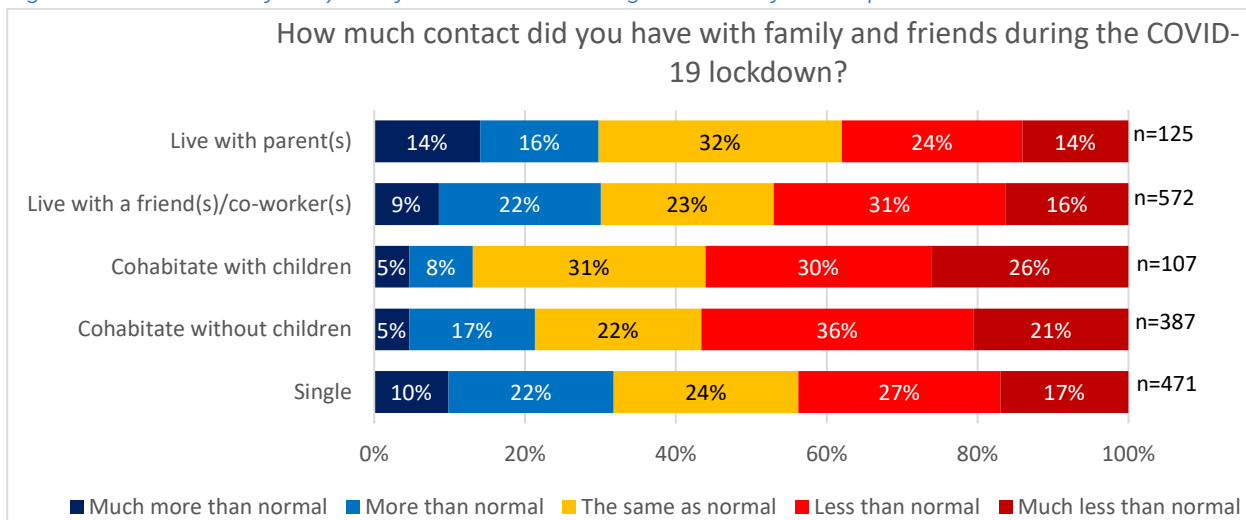
Students' wellbeing suffered significant damage during the COVID-19 lockdown. As shown in Figure 3.1 below 82% of the respondents experienced reduced contact to fellow students and nearly half (48%) experienced reduced contact to family and friends. Few, 5 percent, experienced an increased contact to fellow students while more than a quarter of the respondents had increased contact to family and friends.

Figure 3.1. Contact to family, friends and fellow students during the COVID-19 lockdown



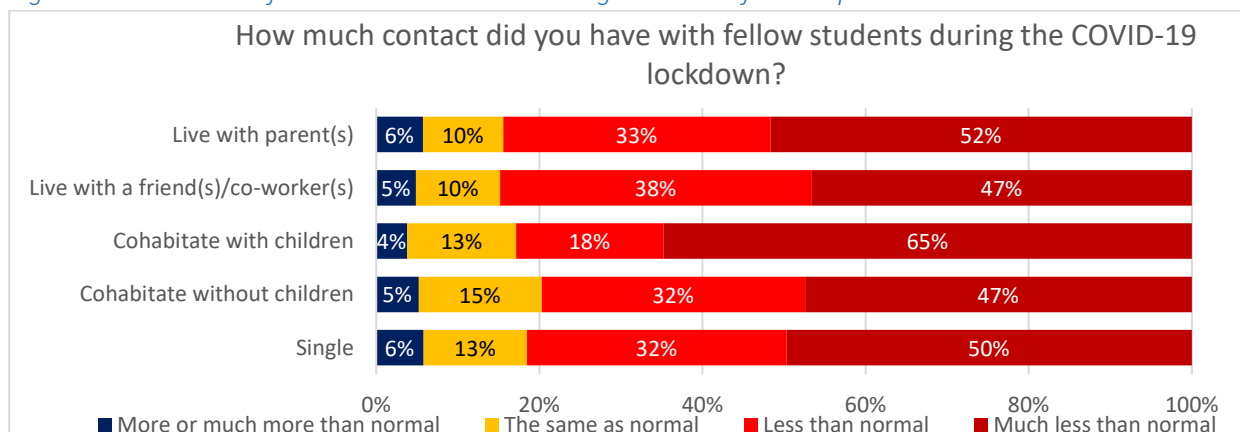
The ability to keep contact to family and friends are somewhat dependent on the living situation of the students. Respondents who live as cohabitates (with or without children) are more likely to have reduced contact to family and friends than respondents who live as single, in a shared flat with a friend or co-worker or with parents (Figure 3.2 below).

Figure 3.2. Contact to family and friends and the living situation of the respondents



Turning the attention towards the contact to fellow students, we find no special differences between respondents with different living situations. The only noticeable difference is that respondents who are cohabitates with children more often report “Much less contact” rather than just “Less contact” to the question about the contact to fellow students (Figure 3.3 below).

Figure 3.3. Contact to fellow students and the living situation of the respondents

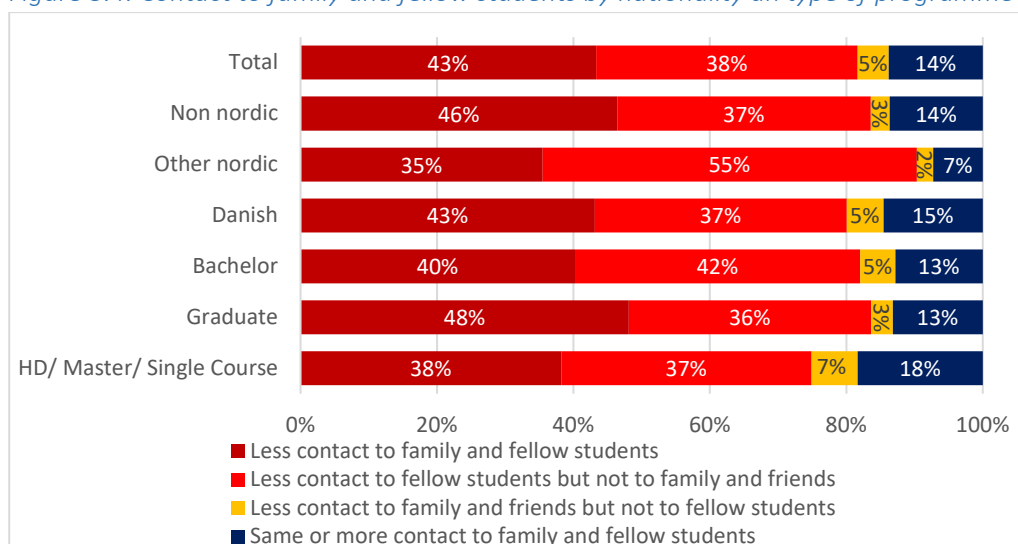


When looking further into students’ social isolation during the COVID-19 lockdown it is useful to combine the respondents’ ability to maintain contact to family and friends and to fellow students into four groups:

- (1) Respondents who have had less contact to both family and friends and to fellow students
- (2) Respondents who have had less contact to fellow students but not to their family and friends.
- (3) Respondents who have had less contact to family and friends but not to fellow students.
- (4) Respondents who have had the same or more contact to both family and friends and to fellow students.

If we look at how isolated students were during the COVID-19 lockdown dependent on their nationality and the type of programme they are enrolled in we find no significant differences. It seems that respondents with other Nordic nationality than Danish to a higher degree keep the same contact as normal to family and friends than other groups do. This could be interpreted that way that the Nordic students normally keep contact with family and friends by phone or social media and that this form of contact largely is maintained to the same extend during the COVID-19 lockdown (Figure 3.4).

Figure 3.4. Contact to family and fellow students by nationality an type of programme



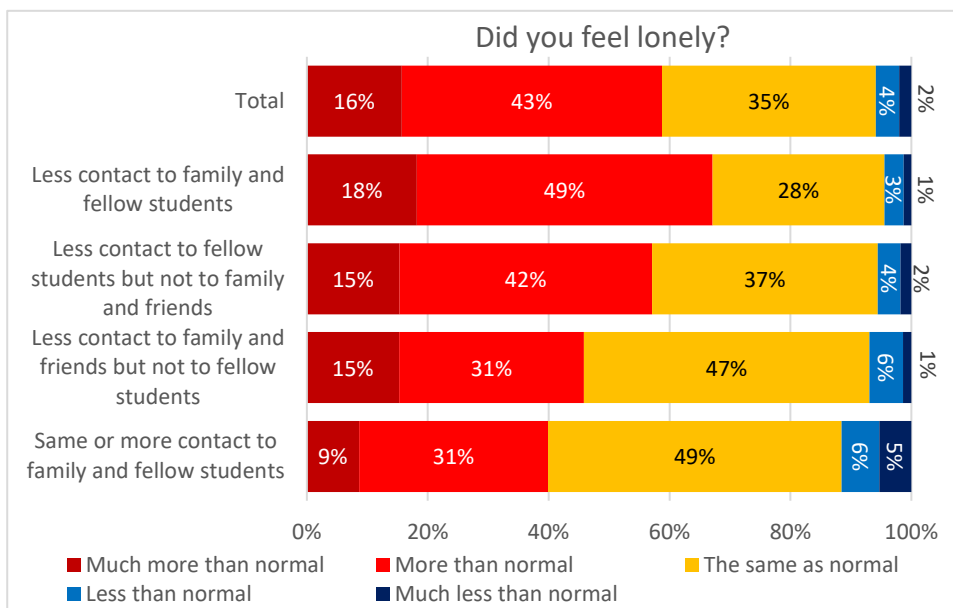
Another point worth mentioning is that bachelor students more frequently keep the same amount of contact to family and friends as normal, than students at the graduate level do. However, this is mainly

because far more students at the graduate level are cohabitates with or without children than students at the bachelor level are.

3.2. Feeling lonely

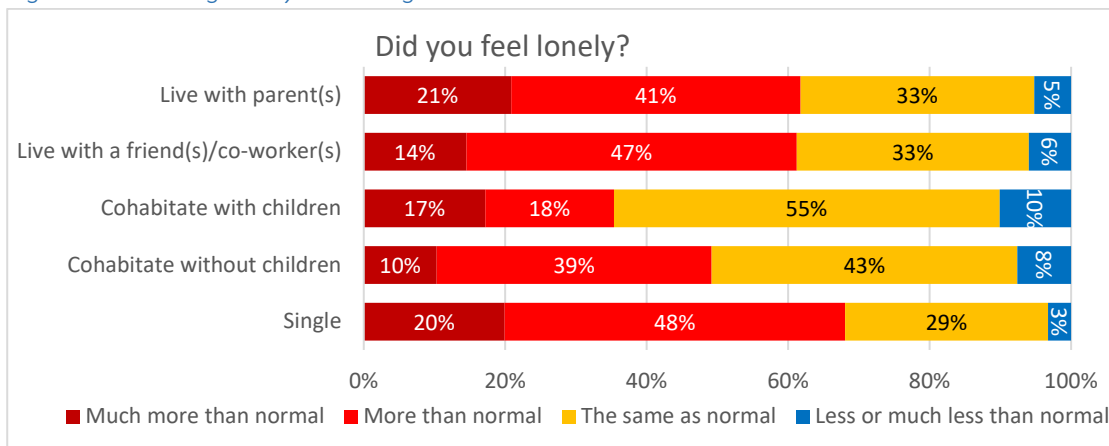
The students have had a significant sense of loneliness during the COVID-19 lockdown. All in all 59% of the respondents felt more lonely than normal and only 6% felt less lonely than normal. The sense of loneliness is – not surprisingly – somewhat dependent on the contact to fellow students and family and friends. Of those who had less than normal contact to both family and friends and to fellow students, two thirds felt more lonely than normal. It seems to be worse if the contact to fellow students is reduced than if the contact to family and friends is reduced. 57% of those who had less contact to fellow students but not less contact to family and friends experienced an increased sense of loneliness while only 46% of those who experienced less contact to family and friends but not to fellow students felt more lonely than normal.

Figure 3.5. Feeling lonely and contact to family and fellow students



It is also noteworthy that 40% of those who experienced more or same contact to both fellow students and to family and friends also felt more lonely than normal. It seems like the overall situation created by the COVID-19 lockdown in itself promoted an increased feeling of loneliness among the students.

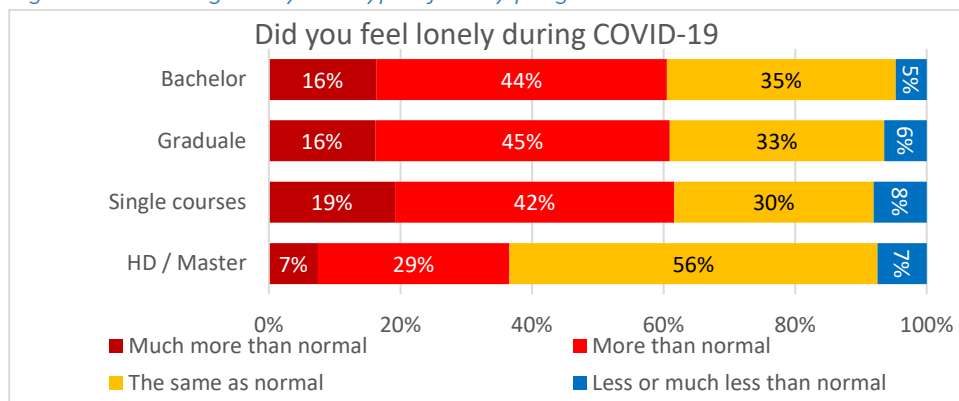
Figure 3.6. Feeling lonely and living situation



The living situation seems to be important to the sense of loneliness (Figure 3.6 above). Students living as cohabitates – and especially those who have children – seem to be least affected by the lockdown. Although the respondents living as cohabitates suffered most in terms of reduced contact to family and friends this did not lead to increased sense of loneliness. Students living as singles are those who feel lonely to the greatest extent (Figure 3.6 above).

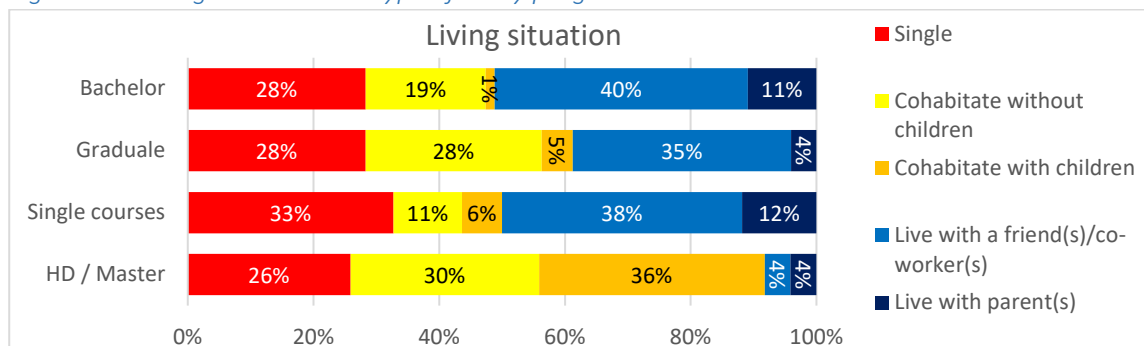
The sense of loneliness is of similar strength on the graduate’s level and the bachelor’s level while it seems to be less prevalent in the HD and Master programmes.

Figure 3.7. Feeling lonely and type of study programme



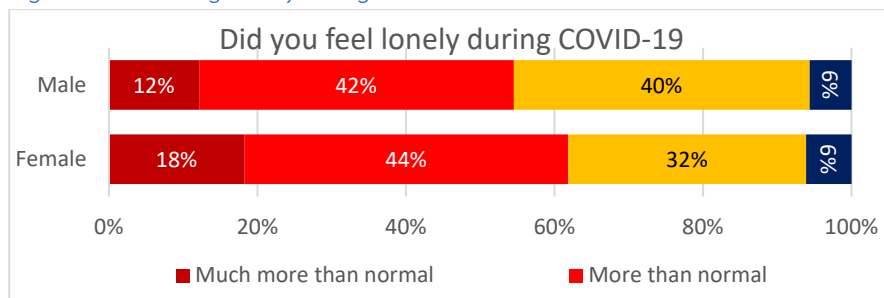
This is (of course) explained by the fact that students in the HD and Master programmes to a far greater extent are living as cohabitates (Figure 3.8).

Figure 3.8. Living situation and type of study programme



Finally, female respondents to a greater extent feel lonely than male respondents (Figure 3.9 below) while nationality, age or being a 1st year student in itself have no influence on the sense of loneliness.

Figure 3.9. Feeling lonely and gender.

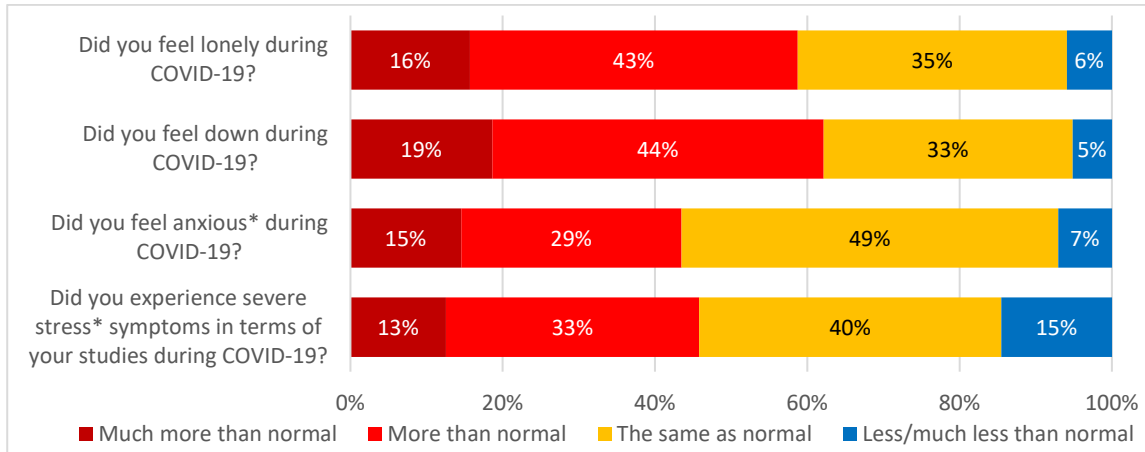


3.3. Feeling lonely and wellbeing

Students report that they felt down during the COVID-19 lockdown to the same extent as they report that they feel lonely. To a lesser extent, they report that they have been anxious or had severe stress symptoms.

While 53% of the respondents to a higher degree than normal have felt down during the lockdown period only about 45% had felt more anxious or had more severe stress symptoms than normal. However, this is not surprising, as it must be considered more serious to be anxious or have severe stress symptoms than just feeling down.

Figure 3.10. Students' wellbeing during the COVID-19 lockdown



Nevertheless, the answers to the three questions on wellbeing (besides feeling lonely) correlates strongly with each other. Therefore, the effect of the lockdown on students' wellbeing is summarized based on the 3 questions:

- Did you feel down during COVID-19?
- Did you feel anxious during COVID-19?
- Did you experience severe stress symptoms in terms of your studies during COVID-19?

If a respondent has answered "More or much more than normal" to all three questions, the respondent's wellbeing is categorized as "Strongly reduced wellbeing".

If a respondent has answered "More or much more than normal" to at least one of the questions and "The same as normal" to one or both of the two other questions (not answering "Less or much less than normal" to any of the three questions), the respondent's wellbeing is categorized as "Moderate reduced wellbeing".

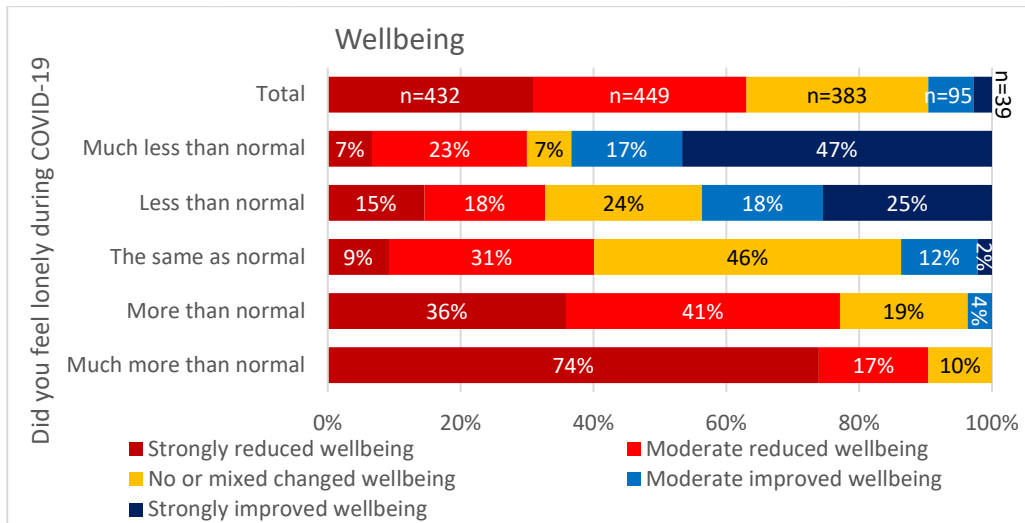
If a respondent answered "The same as normal" to all three questions or have answered "More or much more" to some of the questions and "Less or much less" to some of the other questions, the respondent's wellbeing is categorized as "No or mixed changed wellbeing".

If a respondent has answered "Less or much less than normal" to at least one of the questions and "The same as normal" to one or both of the two other questions (not answering "More or much more than normal" to any of the three questions), the respondent's wellbeing is categorized as "Moderate improved wellbeing".

Finally, if a respondent has answered "Less or much less than normal" to all three questions, the respondent's wellbeing is categorized as "Strongly improved wellbeing".

With this definition of students wellbeing Figure 3.11 shows that students' wellbeing correlates closely with their sense of loneliness.

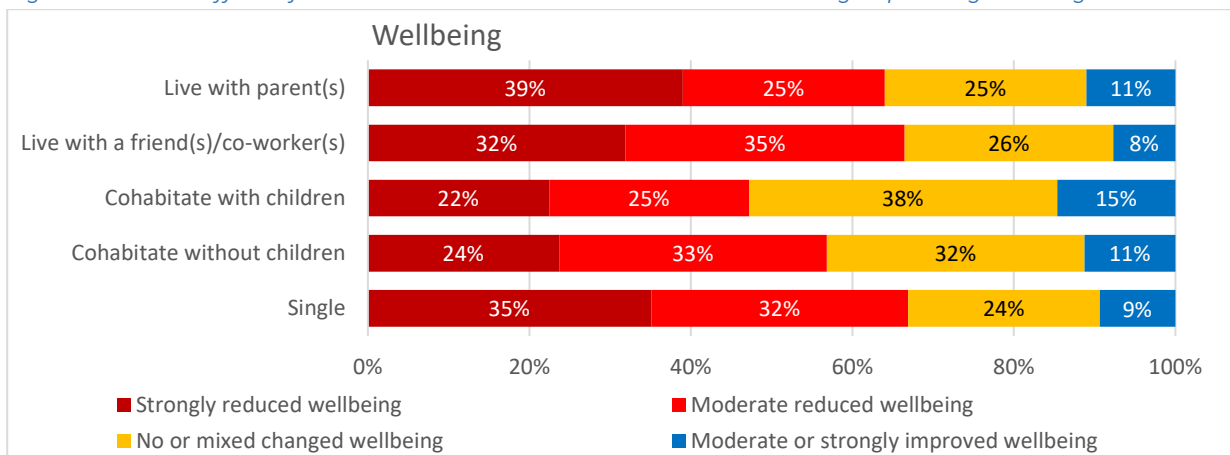
Figure 3.11. The effect of the COVID-19 lockdown on students' wellbeing



We also observe that 63% of the respondents are categorized as having a strongly or moderate reduced wellbeing during the COVID-19 lockdown.

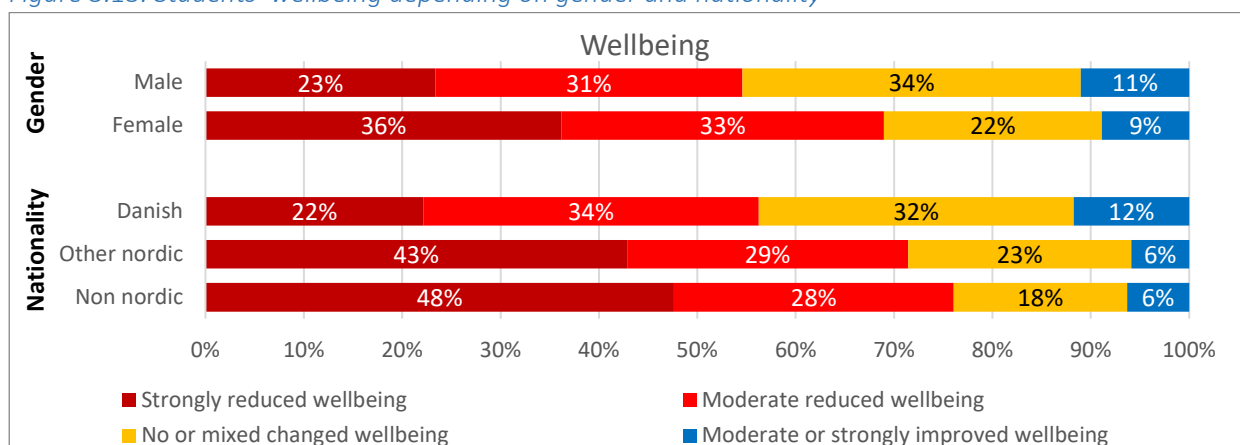
As wellbeing and the sense of loneliness closely correlates, we find some of the same relations between wellbeing and background factors as we found in the case of feeling lonely. Still cohabiting respondents have experienced the lowest reduced wellbeing

Figure 3.12. The effect of the COVID-19 lockdown on students' wellbeing depending on living situation



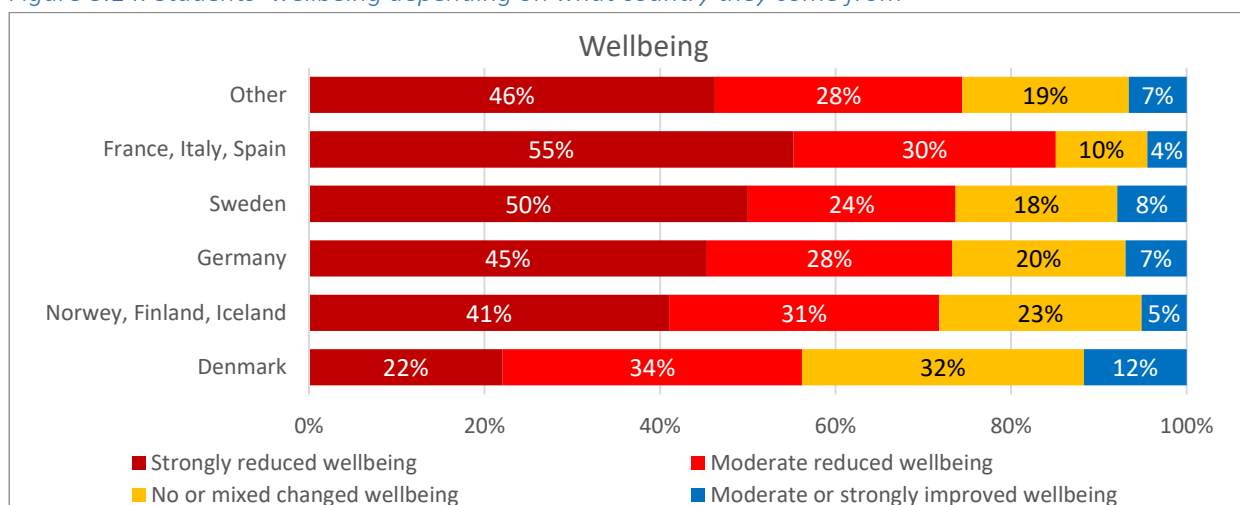
Likewise, female students are more affected on their wellbeing than male students are. However, in the case of wellbeing nationality plays an independent role, which is contrary to what we found in relation to loneliness. Students of non-Nordic nationality suffer most from reduced wellbeing and students with Danish nationality suffer least from reduced wellbeing. One hypothesis could be that the longer the physical distance to family and close friends the more the student will worry about the health situation. It should also be stressed that the COVID-19 epidemic was much more severe in other parts of Europe (especially Italy, France, Spain) than in Denmark. Sweden (as a Nordic country) was also hit harder in terms of number of infected and deaths than Denmark. It is likely that the health situation in the student's home country will affect how much students worry about family and friends back home.

Figure 3.13. Students' wellbeing depending on gender and nationality



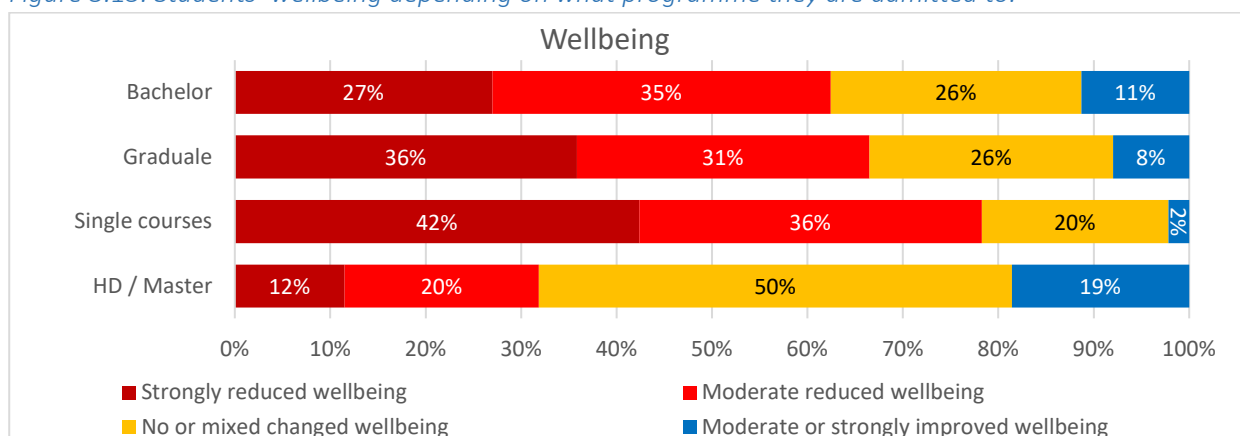
The hypothesis that the epidemic situation in the home country of the students matters is illustrated by splitting other Nordic countries into Sweden and other Nordic countries (Norway, Finland and Iceland) and splitting non Nordic countries into Germany (a country not very hard hit by COVID-19), Italy, France and Spain and other countries. Figure 3.14 below shows that students from France, Italy and Spain are most negatively affected, and then comes students from Sweden followed by students from Germany. Students from Norway, Finland and Iceland are the least affected international students but are still much more affected than students from Denmark are.

Figure 3.14. Students' wellbeing depending on what country they come from



Finally, the type of programme also matters to the effect of the COVID-19 lockdown on students' wellbeing (Figure 3.15 below). Students on the HD and Master programmes are much less negatively affected than students at the ordinary bachelor and graduate programmes. This is not entirely explained by students' living situation. It thus appears that the wellbeing of students in continuing education is less affected than full-time students' wellbeing are. Apparently, students at the graduate level are more affected than students at the bachelor level and students taking single courses are more affected than full-time students are. But these differences are largely explain by the fact that there are more international students in the group just taking single courses and that there are more international students at the graduate level than there are at the bachelor level.

Figure 3.15. Students' wellbeing depending on what programme they are admitted to.

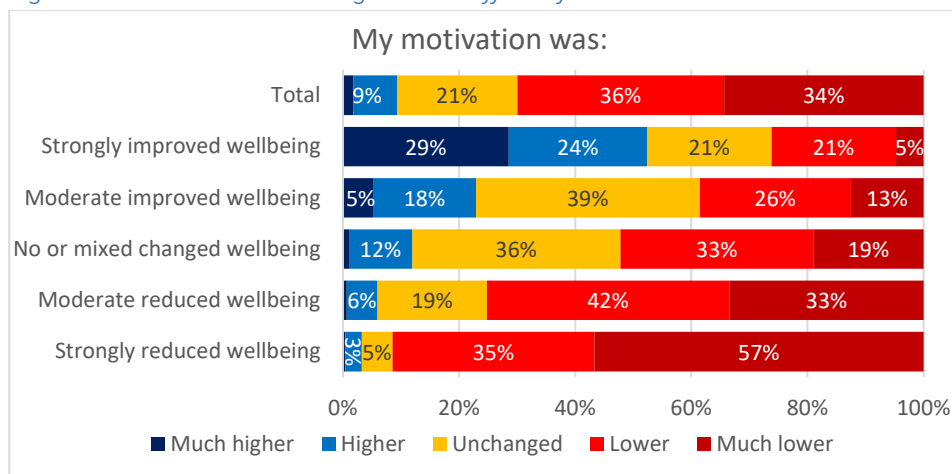


4. Students' motivation, study effort and learning

4.1 Motivation

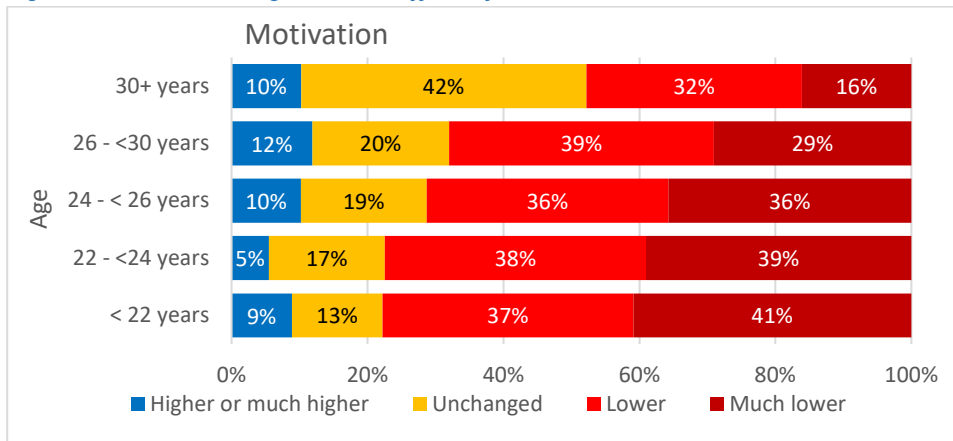
Students' wellbeing – as defined above – have great impact on their motivation for studying. Of the respondents who experienced a strongly reduced wellbeing 92% replied that their motivation was lower or much lower than normal. Overall, 70% of all respondents found that their motivation had been lower or much lower than normal. Of those who experienced an improved wellbeing, 32% had lower motivation and 35% had higher motivation.

Figure 4.1. Students' wellbeing and the effect of the COVID-19 lockdown on motivation.



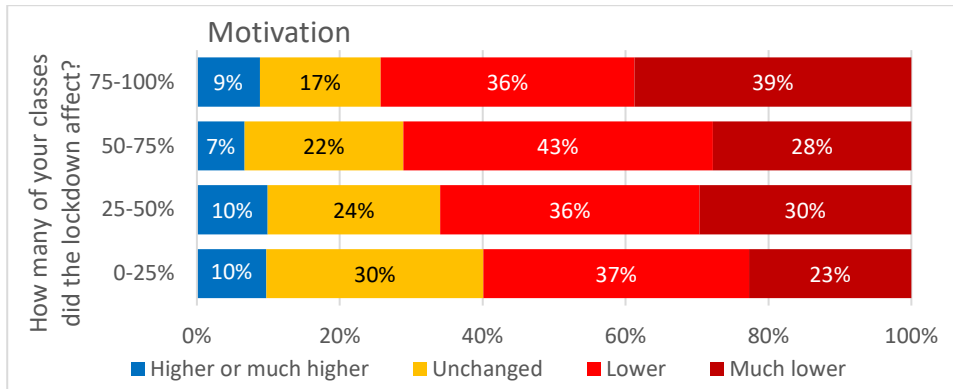
Students' wellbeing is the far most decisive factor to explain their motivation. It seems, though, that Danes and students with other Nordic citizenship are a little more sensitive to their wellbeing in the sense that if they have a reduced wellbeing their motivation will be negatively affected to a higher degree than students from non-Nordic countries. Age also seem to play an independent role to motivation. Young students tend to experience lower motivation than older students do (Figure 4.2 below).

Figure 4.2. Students' age and the effect of the COVID-19 lockdown on motivation.



The switch to online teaching negatively affects motivation. There is a significant correlation between how many of students' classes (excluding supervision) the lockdown affected and students' motivation.

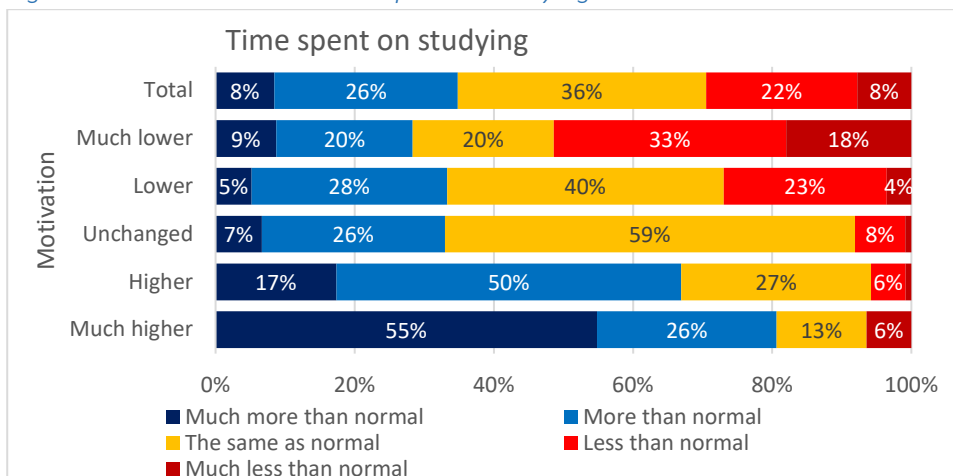
Figure 4.3. Classes affected by the lockdown and the effect of the lockdown on motivation.



4.2. Work effort

Further, students' motivation has quite strong impact on their study efforts. First, we observe that the effect of the lockdown on time spent studying is very symmetric. Eight percent has spent much more time studying than normal and another eight percent has spent much less time studying than normal.

Figure 4.4. Motivation and time spent on studying.

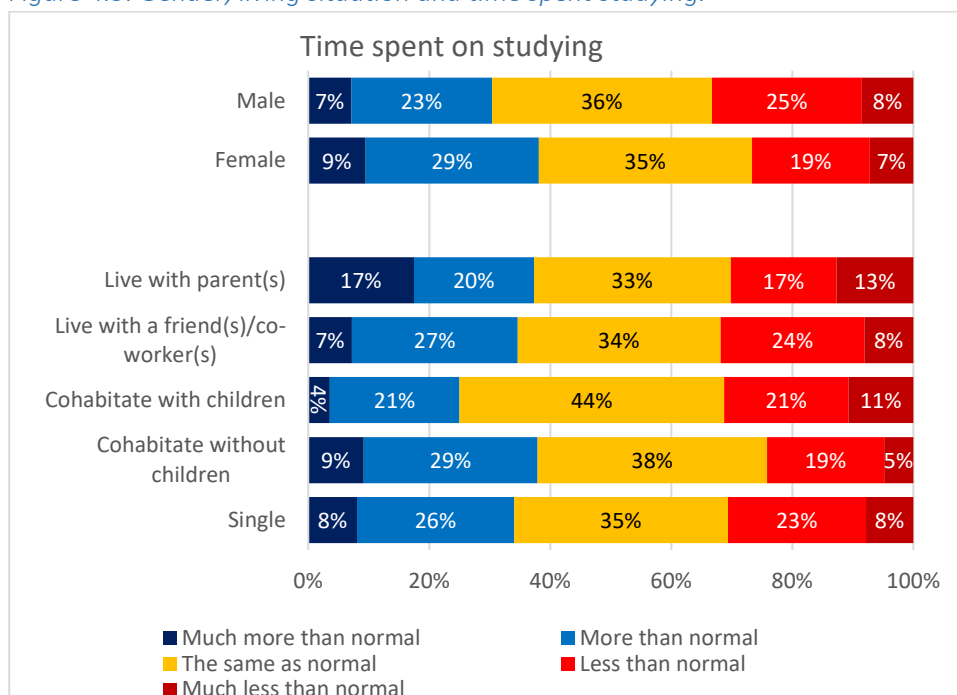


Approximately a quarter has spent less time studying and another quarter has spent more time studying. The last third of the students have spent the same time studying as normal.

Second, we observe that less than 10% of the students who had higher or the same motivation have reduced their study efforts, while half of the students who had much lower motivation than normal had reduced their study efforts.

Motivation is the single factor that has the greatest impact on the study effort. To a lesser degree gender and living situation also plays a role. Students with children have less frequently increased their study efforts than other student have. More male students have reduced their study effort and less male students have increased their study efforts compared to female students.

Figure 4.5. Gender, living situation and time spent studying.



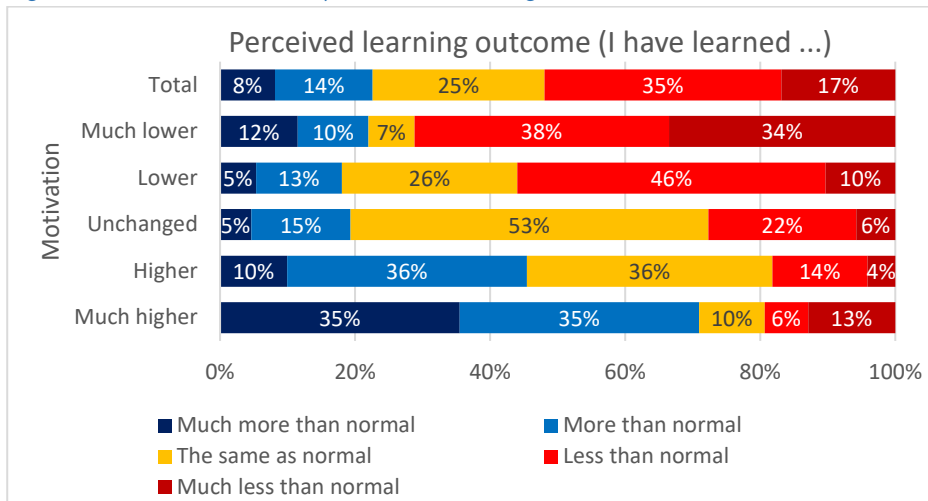
It is curious that it is especially the male students living with children whose study efforts are negatively affected by the lockdown.

Other factors, such as age, nationality, type of study programme, year of admission or how many of the classes that were affected by the lockdown seem not to have significant effect on how the study efforts are affected by the lockdown.

4.3. Perceived learning outcome

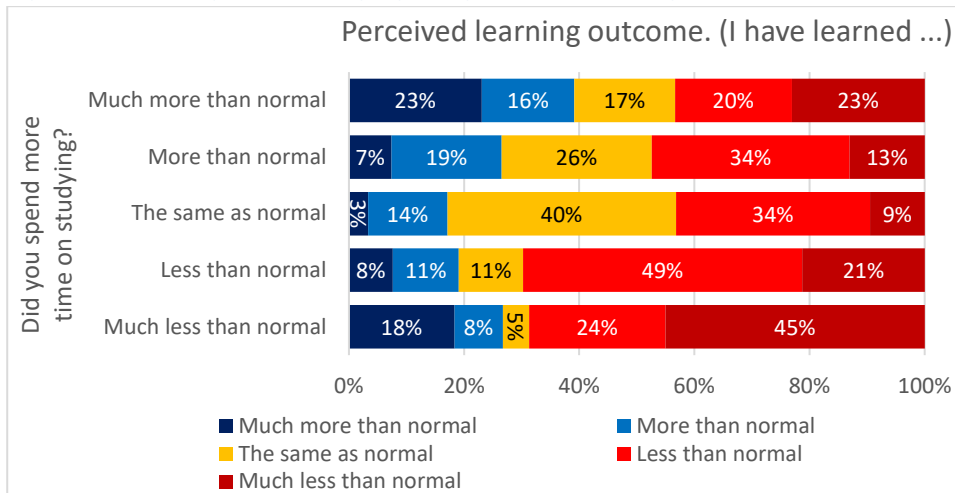
Most students (52%) think that the COVID-19 lockdown has reduced their learning outcome. One quarter think that their learning outcome was unaffected while 22% think that their learning outcome increased due to the lockdown. Once again, motivation is the most important factor explaining the perceived learning outcome. 62% of those who experienced higher motivation also think that their learning outcome increased while only 20% of those who experienced lower motivation feel they learned more than normal. Students' wellbeing has no significant impact on the perceived learning outcome. Nor age, living situation, type of programme, year of admission, or gender have any impact.

Figure 4.6. Motivation and perceived learning outcome.



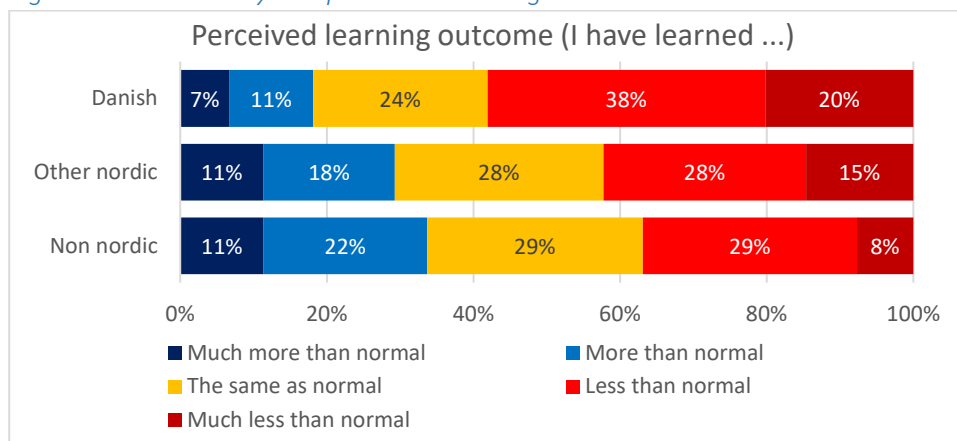
Time spent on studying also correlates with the perceived learning outcome but not at all to the same degree as motivation. Further, it should be noticed that motivation and study effort strongly correlates so that 92% of those who spent less time studying also experienced lower motivation. Whether time spent on studying has any impact on the perceived learning outcome or it is entirely explained by motivation should be tested in a regression model, including background factors (age, gender, programme etc.), time spent on studying and motivation. In such a model both time spent on studying and motivation have a significant effect on the perceived learning outcome, but the estimated effect of motivation is just over 3½ times as strong as the estimated effect of time spent on studying.

Figure 4.7. Time spent on studying and perceived learning outcome.



The only other factor that seems to have any impact on students' perceived learning outcome is nationality. Thus, Danes seem to be more negative affected in terms of their assessment of their learning outcomes.

Figure 4.8. Nationality and perceived learning outcome.

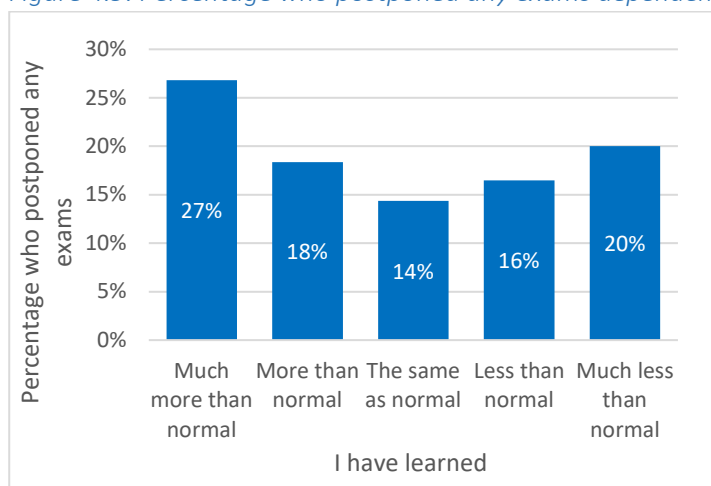


4.4. Perceived learning outcome and actual study results.

With the objective of analyzing the relations between students' subjective experiences during the COVID-19 lockdown and their exam results their grades have been collected from STADS (study administrative system). Grades are divided in grades obtained by the students before the spring of 2020 and grades obtained in the spring of 2020. Information on grades only applies for students in the bachelor's and graduate's programmes. Furthermore, the students were asked whether they have postponed any exams, including e.g. their thesis or bachelor project due to the COVID-19 lockdown.

Postponement of exams is not related to the students' perceived learning outcomes in a way that would be expected. Respondents who perceived that they learned much more than normal more frequently postponed some exams than other students, while the group that did not perceived any changes in their learning outcomes least frequently postponed any exams.

Figure 4.9. Percentage who postponed any exams dependent on perceived learning outcome.

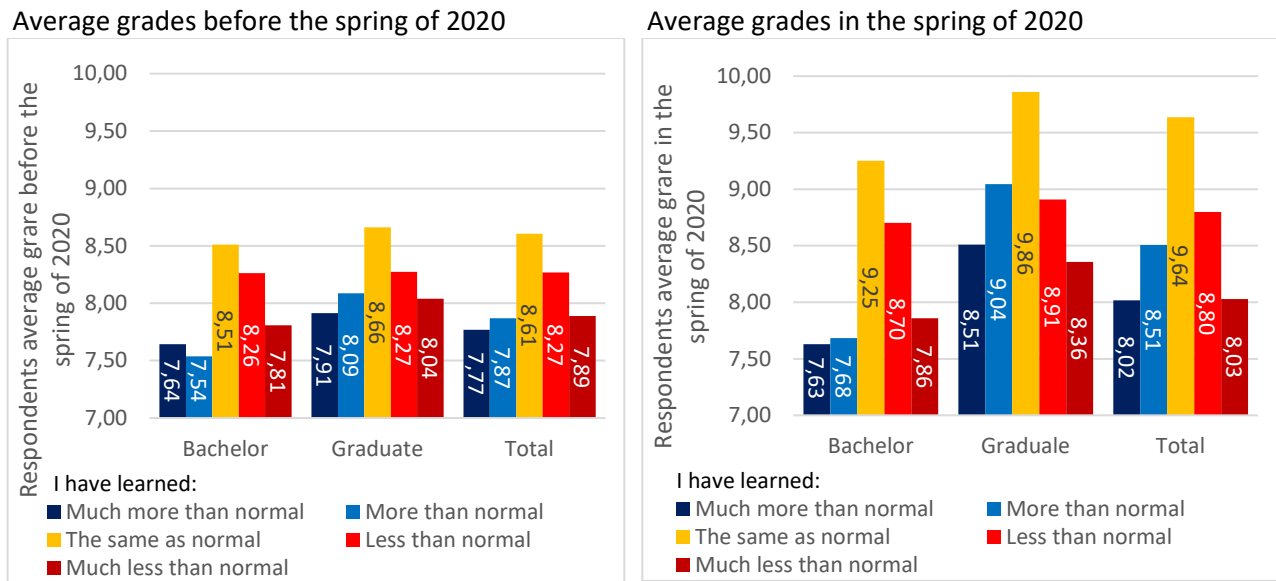


Surprisingly, we find the same pattern when we look at the grades. Those who do best for exam are those who believe that their learning outcomes are unchanged. This applies both for the exam results before the spring of 2020 and for the exam results in the spring of 2020. It also applies for both the bachelor's level and the graduate's level, and it applies for 1st year students as well as for students admitted before 2019.

Another point we observe from Figure 4.10 below is that the general grade level is higher in the spring of 2020 than it was before. However, this is difficult to draw more far-reaching conclusions on because many

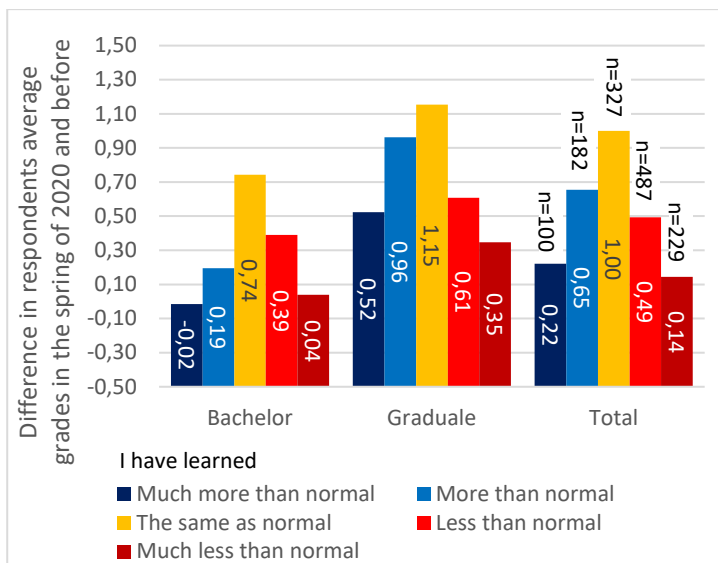
grades in the spring semester are grades in projects or home assignments rather than in sit-in exams and it is a well-known fact that grades are higher in projects and home assignments than in sit-in exams.

Figure 4.10. Average grades before and in the spring of 2020 dependent on perceived learning outcome.



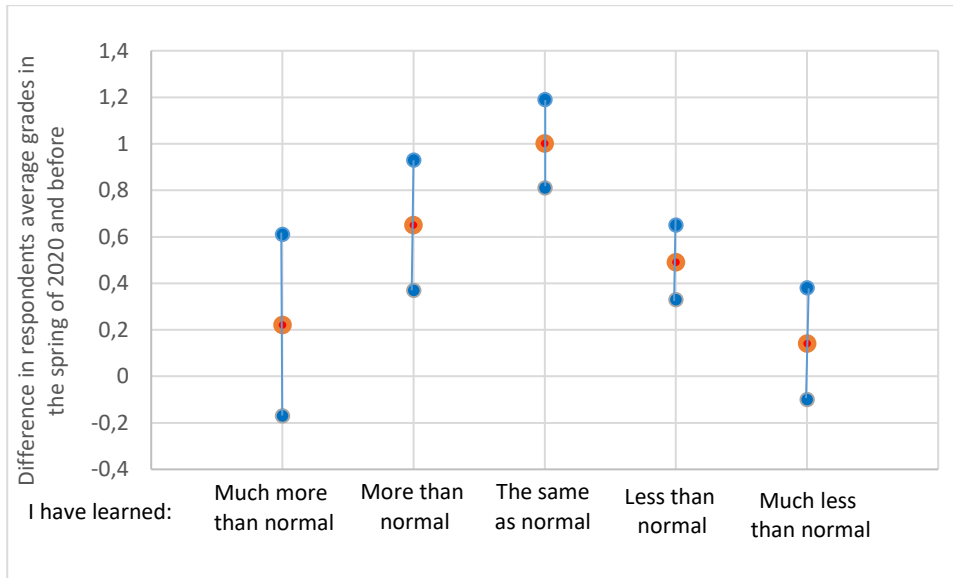
Based on the average grades obtained before the spring of 2020 and in the spring of 2020 it is easy to calculate the difference between the grades obtained in the spring of 2020 and the grades obtained before. We would expect that this difference should correlate with the perceived changes in the learning outcome in that way that the more the perceived learning increases, the bigger difference in average grades should be observed. This is not the case. Again, we find the same pattern where students who do not feel that their learning outcome have changed have the biggest gain in exam grades, and students who feel they have learned much more than normal have no more gain in exam grades than the students who feel that they have learned much less than normal.

Figure 4.11. Changes in average grades from before to the spring of 2020 dependent on perceived learning outcome.



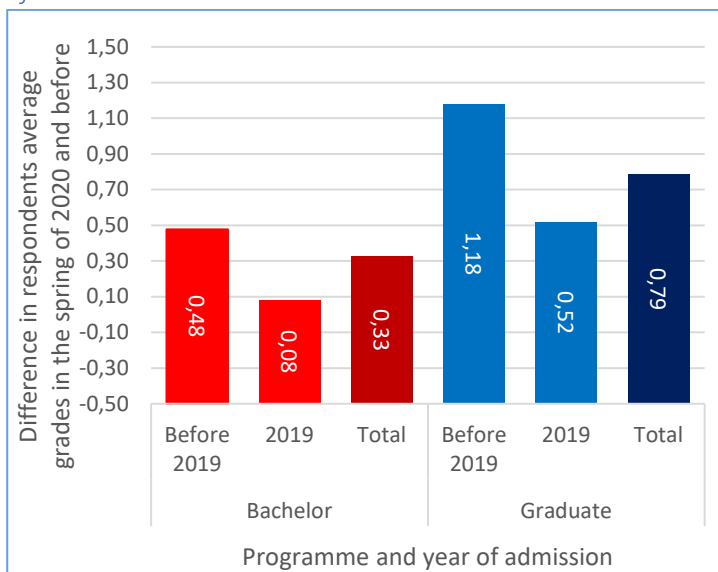
Even though the absolute number of students who experienced increased learning outcomes is considerably lower than the number of students who perceived that they had lower learning outcomes, the pattern seems quite statistically safe. If we calculate the 95% confidence interval on each difference in grades before and after the lockdown, we get no suspicion of a statistical coincidence.

Figure 4.12. Changes in average grades from before to the spring of 2020 dependent on perceived learning outcome. All students at bachelor and graduate programmes. Including the 95% confidence interval.



If we look for other factors to influence the gain in exam grades we find that the level of the study programme and the year of admission matters. As show in Figure 4.13 below graduate students have greater increase in their exam grades than bachelor students and 1st year students have smaller increase in their exam grades than other students.

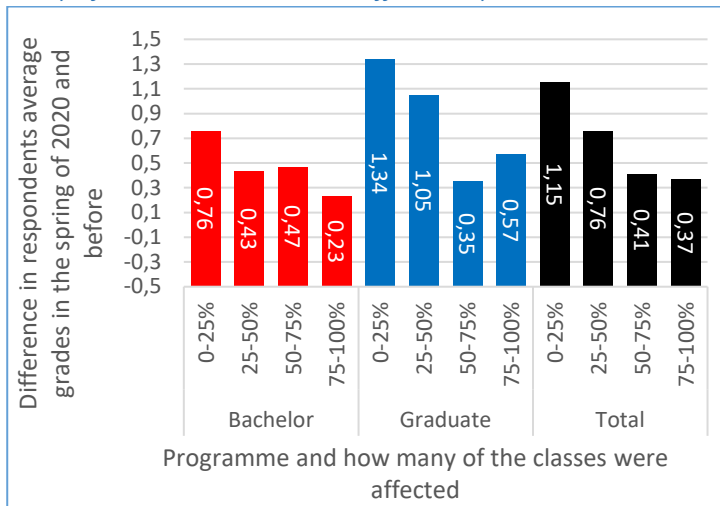
Figure 4.13. Changes in average grades from before to the spring of 2020 dependent on study level and year of admission.



This observation suggests that more experienced students better managed the lockdown situation than less experienced students did.

We also find that it matters how many of the classes were affected by the lockdown. Those who experienced that only a minor part of the classes was affected realized a greater gain in the exam results than the students whose classes were strongly affected.

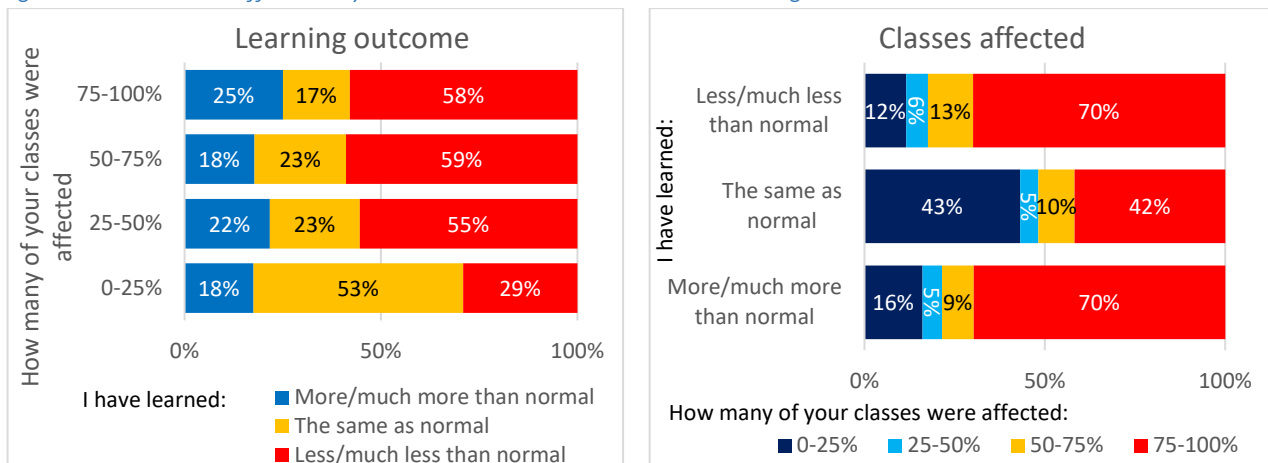
Figure 4.14. Changes in average grades from before to the spring of 2020 dependent on study level and how many of the classes that were affected by the lockdown.



This observation suggests that the general COVID-19 lockdown had a positive effect on the exam results. This could be due to a quieter period with less partying and fuss, leaving more time and concentration for studying. On the other hand, the switch to online teaching seems (in general) to have affected exam results in a negative way. However, another explanation could be that the less classes were affected the more of the study activities were projects (e.g. bachelor projects and thesis) and as mentioned above grades are higher in projects than in sit-in exams.

At the same time the observation is partly an explanation of why students who answer that they learning outcome were unaffected by the COVID-19 lockdown had the greatest gain in exam grades. It turns out that more than half of the students whose classes were unaffected answer that the COVID-19 lockdown not affected their learning outcome. Thus, those who experienced an unaffected learning outcome is, more often students with few classes affected by the lockdown and that would typically be students writing their thesis or their bachelor project.

Figure 4.15. Classes affected by the COVID-19 lockdown and learning outcome

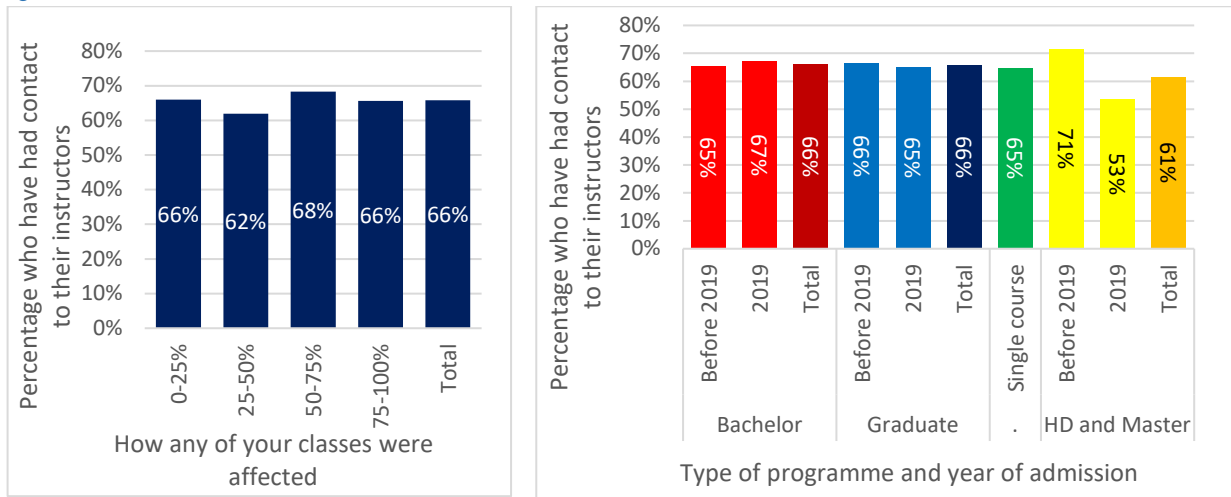


5. Students' assessment of online teaching

5.1 Contact to instructors

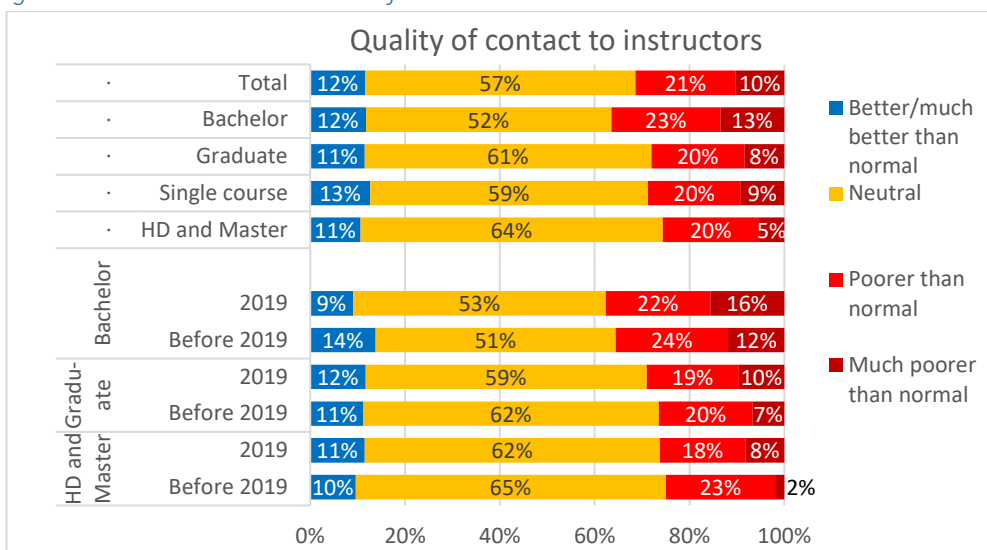
Independent on how many of the students classes were affected approximate two thirds of the students have had contact to their instructors. Overall, students' contact to their instructors seems also independent on the type of programme and the year of admission. The only notable thing is that 1st year students on the HD and Master's programmes have had a little less contact with their teachers.

Figure 5.1. Students contact to their instructors



The majority (57%) of students assess the quality of their contact with the teachers as neutral compared to before the lockdown. There are a few more who assess that the contact with the instructors has become worse (31%) than who assess that the contact has improved (12%). More bachelor students seem to have experienced a decline in the quality of the contact to their teachers than other students. The same holds true for 1st year students. Apparently, the less experienced students seem to have a bigger risk of losing a proper contact to their instructors.

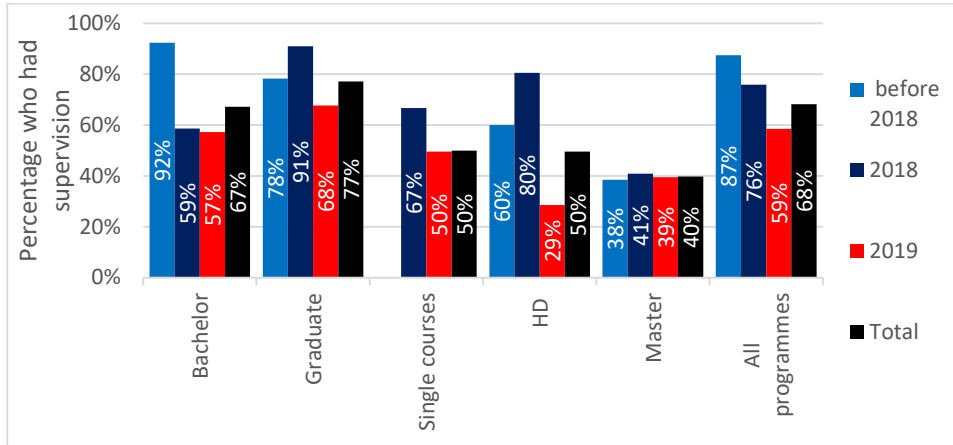
Figure 5.2. Students assessment of the contact to their instructors



5.2 Assessment of the supervision

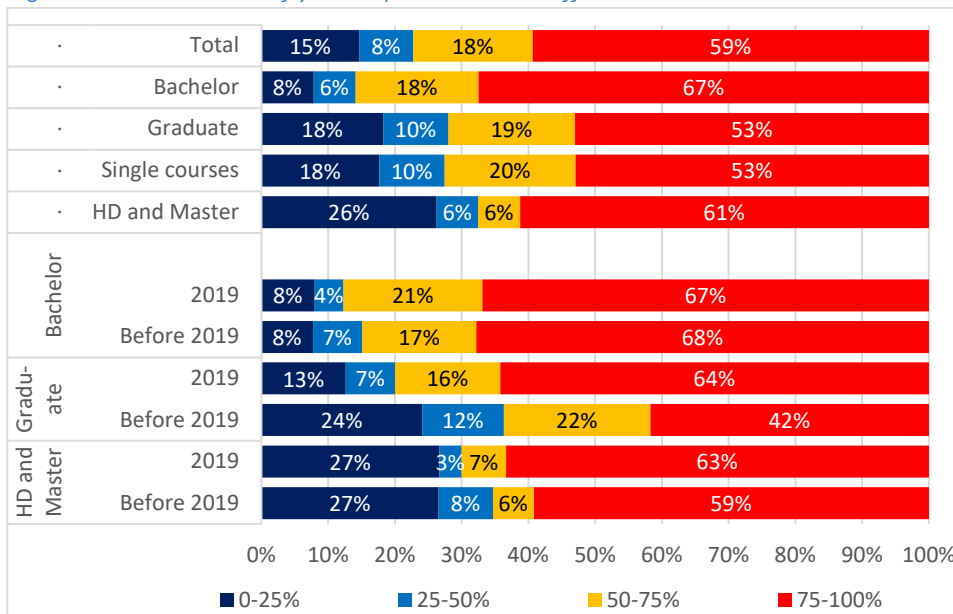
A little more than two thirds of the respondents have received supervision during the spring semester. Students at the graduate level had supervision to a greater extent than other students. More than 90% of the bachelor students admitted before 2018 (third year students writing their bachelor project) and more than 90% of the students at the graduate level admitted in 2018 (second year students writing their thesis) have had supervision during the spring semester. Students in the Master programmes have least frequent had supervision.

Figure 5.3. Percentage who had supervision during the spring semester



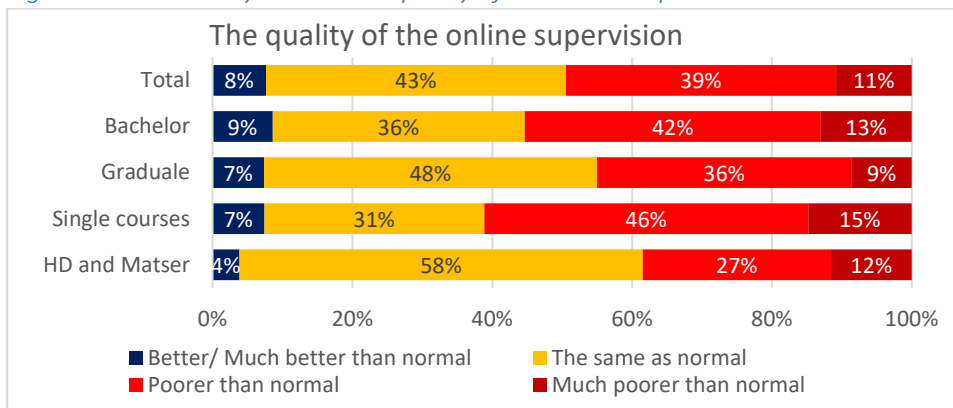
The COVID-19 lockdown affected all the supervision of nearly 60% of the respondents who had supervision in the spring semester. It is remarkable, that the least affected were students at the graduate level admitted before 2019 (i.e. students writing their thesis).

Figure 5.4. How much of your supervision was affected



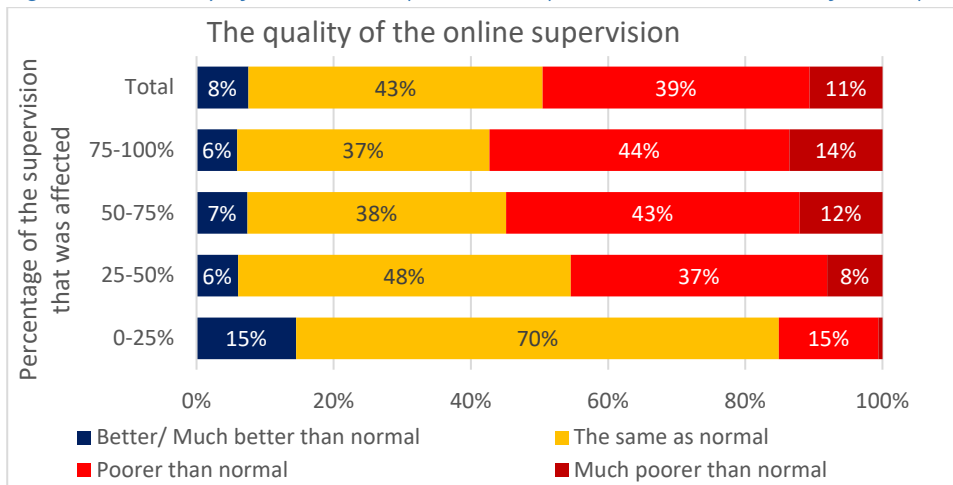
Exactly half of the respondents assess the quality of the online supervision as poorer than normal and only 8% think that the online supervision was better than normal (Figure 5.5. below). Bachelor students rate the supervision a little more negatively than students at the graduate level do. This is mainly explained by the fact that the supervision of the students writing their thesis were less affected by the lockdown.

Figure 5.5. How will you rate the quality of the online supervision



Thus, the assessment of the online supervision turns out to be somewhat dependent on the extent to which the supervision was affected.

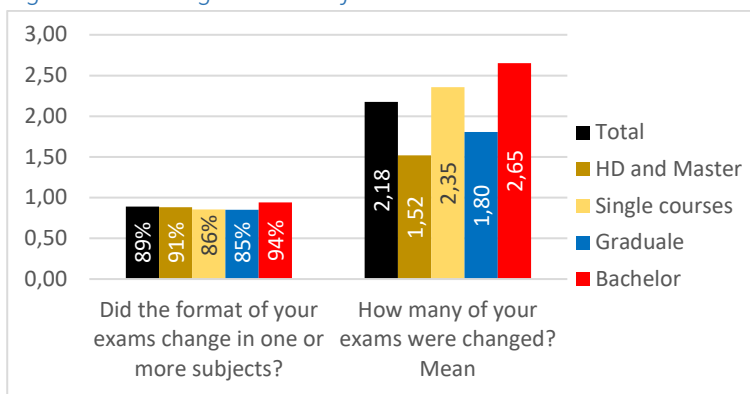
Figure 5.6. Quality of the online supervision dependent on how much of the supervision that was affected



5.3 Assessment of the exam formats

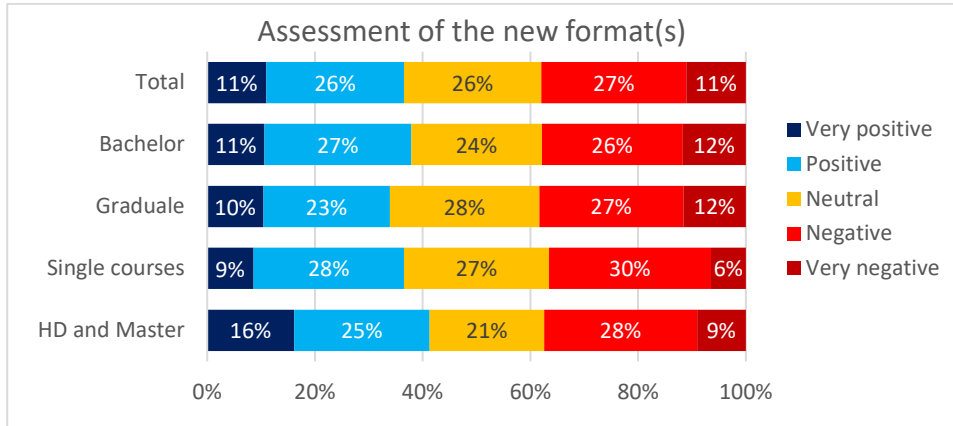
Close to 90% of the respondents experienced that the exam format was changed in one or more of their exams. In average, students had the exam format changed in a little more than two exams. The bachelor students are the ones that have had the most exams reorganized, probably because they have more exams than for instance students at the graduate level do.

Figure 5.7. Changes in exam formats



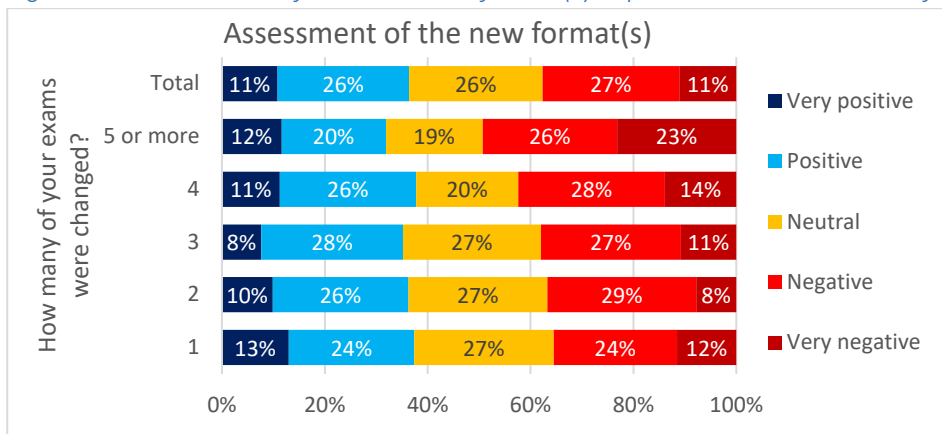
When assessing the new examination format(s), the answers are very symmetrical in the sense that an equal number of respondents have a positive and a negative attitude towards the changes. There does not appear any significant differences between the groups of study programmes.

Figure 5.8. What is your overall assessment of the new exam format(s)



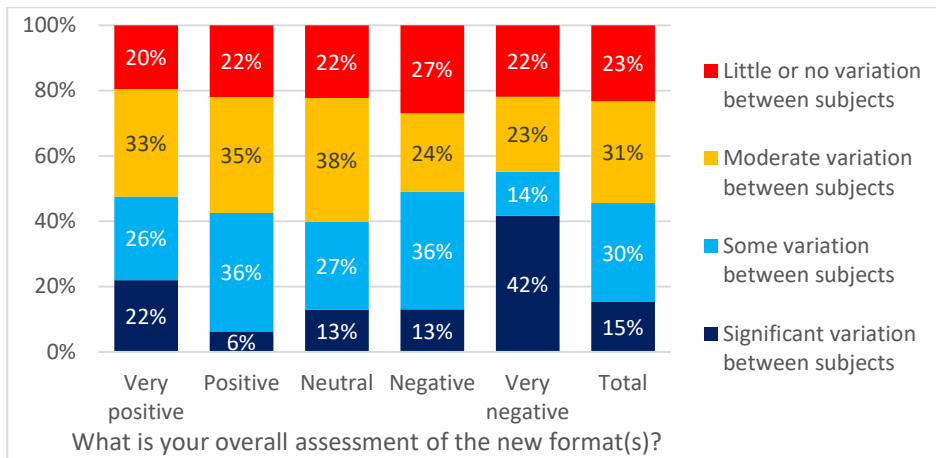
However, there seems to be some (but not especial strong) correlation between the number of exams with changed format and the assessment of the new format(s). Students have a more negative attitude toward the new formats the more number of exams were changed.

Figure 5.9. Assessment of the new exam format(s) dependent on the number of exams changed



A little curious, respondents answer that they assessment of the new formats is based on more variation between subjects the more extreme their assessments are. Thus, Figure 5.10 below shows that 42% of the respondents with a very negative assessment of the new exam formats indicates that their assessment is based on significant variation between subjects and 22% of the respondents with a very positive assessment indicates significant variation. Only 13% of the respondents with a neutral assessment indicates that they have based their assessment on significant variation. Immediately, one would expect it to be the other way around. It would be more obvious to expect that respondents who have a neutral assessment of the exam formats have based this assessment on significant variations (some are better and some are worse than the original planned formats) while a very negative or a very positive assessment more likely was based on a more uniform experience that all formats had become worse or better.

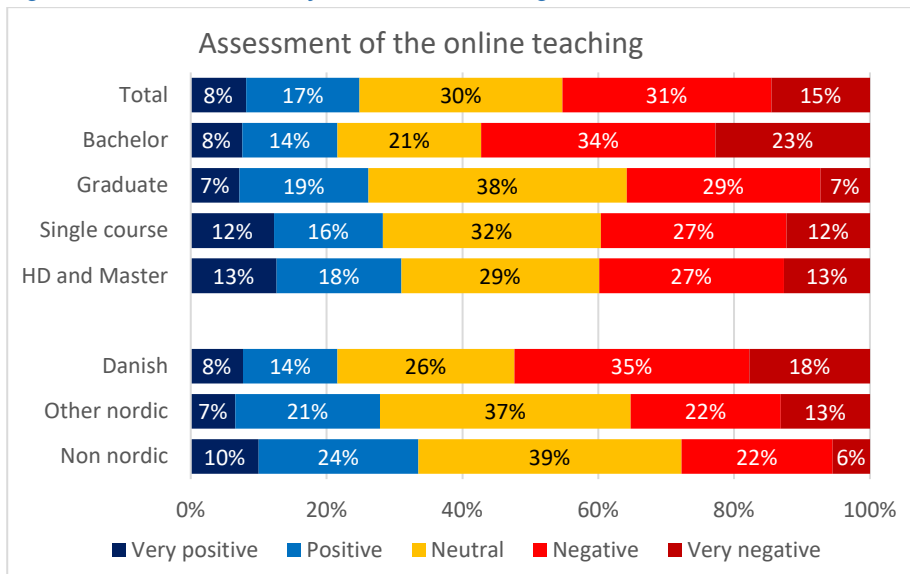
Figure 5.10. Assessment of the new exam format(s) dependent on how much variation this assessment is based on.



5.4 Assessment of the online teaching

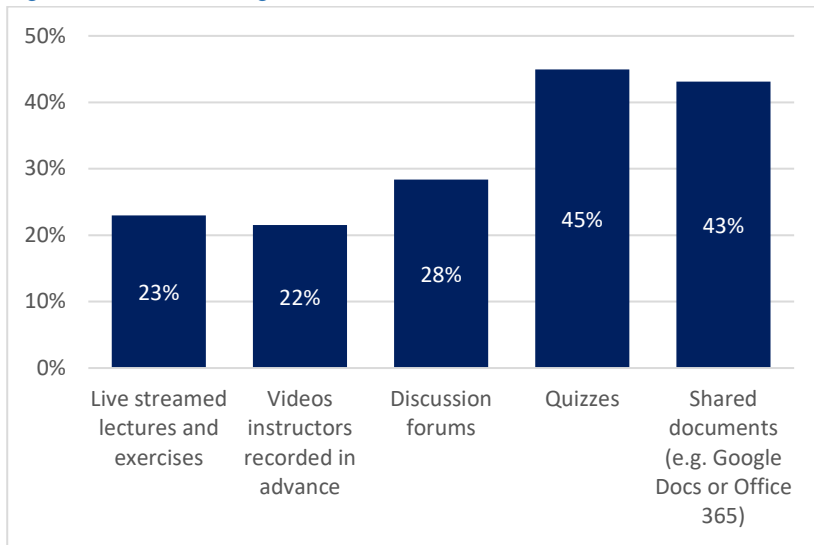
A little less than half of the respondents have a negative or very negative assessment of the online teaching given the unusual circumstances. One quarter of the respondents have a positive assessment. Bachelor students seem to have the most negative assessment. The difference between bachelor students and students at the graduate level is at least partly explained by the fact that Danish students have a more negative attitude towards online teaching than international students have and there are much more international students at the graduate level than at the bachelor's level.

Figure 5.11. Assessment of the online teaching.



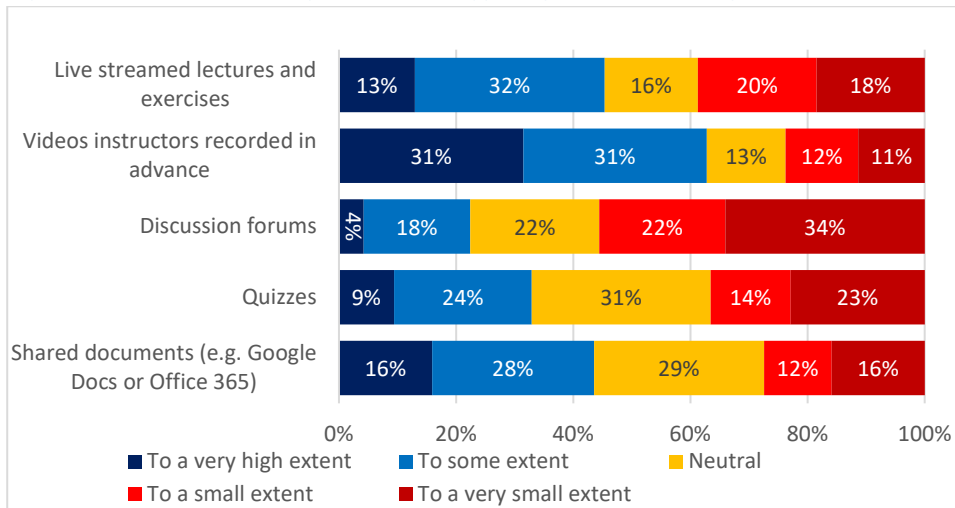
Looking at the respondents' assessment of the various types of online teaching, Figure 5.12 below shows that a little less than a quarter of the respondents was unable to answer the questions. This is consistent with the fact that 20% of the respondents had only 0-25% of their classes affected by the lockdown. The Figure also shows that about twice as many has been unable to answer the questions regarding quizzes and shared documents. This could be interpreted as quizzes and shared documents have been less applied in the online teaching.

Figure 5.12. Percentage who answer don't know/not relevant



Further, from Figure 5.13 we conclude that the respondents liked best the videos that the instructors have produced in advance and that discussion forums is the type of online teaching that most students dislike.

Figure 5.13. Assessment of the various types of online teaching



The pattern shown in Figure 5.13 is remarkably similar at both the bachelor and the graduate level. The students in the Master and HD programmes also assess discussion forums lowest whereas they like live-streamed lectures better than students in the ordinary bachelor and graduate programmes.