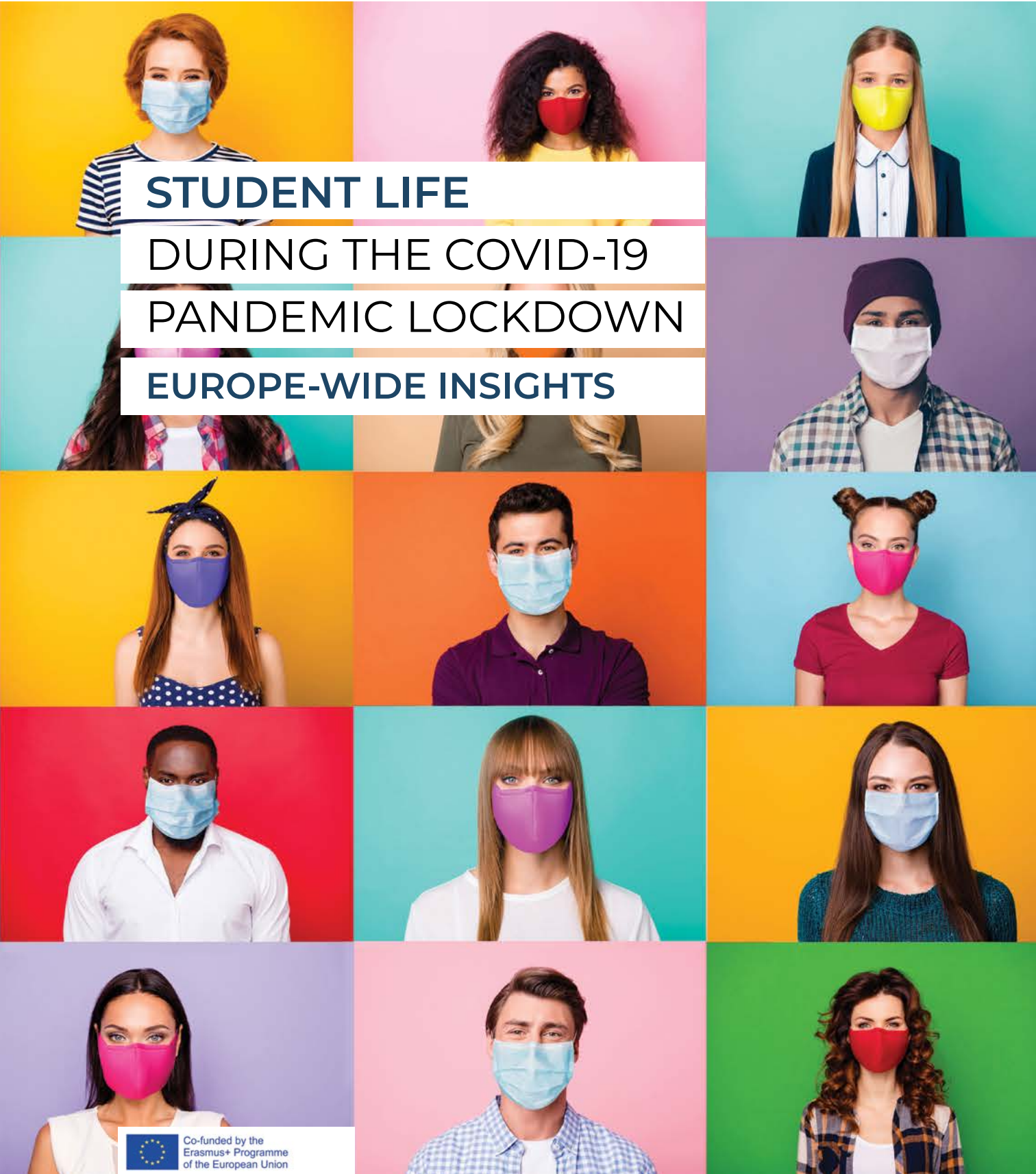




STUDENT LIFE

DURING THE COVID-19 PANDEMIC LOCKDOWN

EUROPE-WIDE INSIGHTS



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IMPRINT

STUDENT LIFE DURING THE COVID-19 PANDEMIC LOCKDOWN: EUROPE-WIDE INSIGHTS

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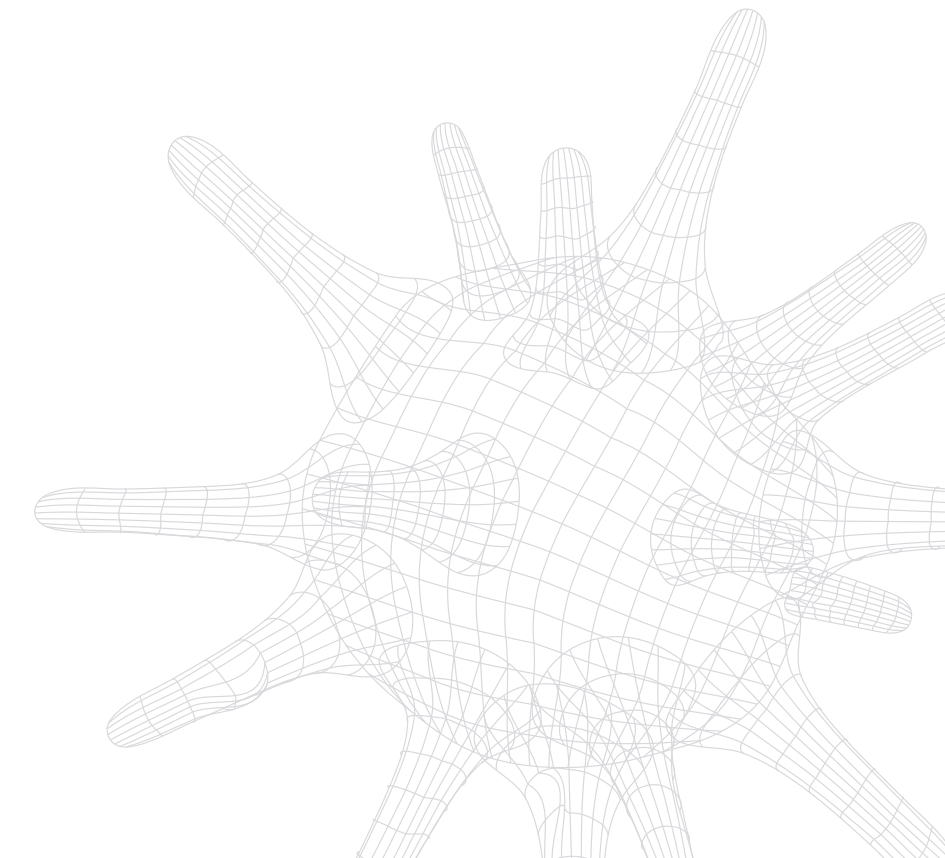
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INTRODUCTION

The COVID-19 pandemic which has swept across Europe has made changes to many facets of life from working conditions to freedom of movement. Education has been one of the sectors disrupted by the crisis with educational provision both in Europe and globally having gone on-line. In higher education, on the one hand, this new moment has highlighted certain advantages to on-line studying including lower living costs for students who would otherwise study away from their family home. On the other, it has underlined inequalities between students particularly in relation to differences in terms of digital skills, support networks and home environment resources.

This report presents insights on student experiences during lockdown due to the COVID-19 pandemic based on questionnaire responses given by students studying in Europe in April 2020. The research focused on the capacity of students, understood as a diverse group, to have reasonably positive academic outcomes in a disaster context such as the COVID-19 pandemic, as well as the role of their academic environment, social networks, emotional make-up, knowledge and skills and material resources in enabling such experiences. At the very end of the report, we provide insights on students' responses to open questions which covered the advantages and disadvantages of on-line studying during the pandemic, problems students encountered and suggestions for improvement.

The structure of the report is as follows:



First, we lay out information about the study and present data on the social and academic characteristics of the students who took part in the study.



Then, we present the questionnaire findings in 6 thematic blocks:

- academic life
- networks of support
- emotional well-being
- skills and infrastructure for studying from home
- life circumstances, and
- correlates of student adjustment during the COVID-19 pandemic lockdown



At the very end of the report, we provide insights on students' responses to open questions which covered the advantages and disadvantages of online studying during the pandemic, problems students encountered and suggestions for improvement.

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MAIN FINDINGS

For around two thirds of students who accessed the questionnaire (72,61%) on-site classes were cancelled due to the COVID-19 pandemic.

LECTURES

Students were exposed to a variety of formats replacing on-site lectures: online with the lecturer lecturing in real time (74,61%), lecturers sending their presentations to students (44,51%), online with a video recording of the lecturer lecturing (32,10%) and online with an audio recording of the lecturer lecturing (20,58%). For a small minority of students (3,75%) no online lectures had been organized as part of their course.

The dominant method of online lectures was with the lecturer lecturing in real time (59,73%). For the majority of students, the preferred method of online lectures is with the lecturer lecturing in real time (57,43%), which suggests that most students like to have face-to-face lecturer-student interaction.

SEMINARS

Students were exposed to a variety of formats replacing on-site seminars: online with the lecturer lecturing in real time (45,09%), through written communication with the lecturer (26,76%), online with a video recording of the lecturer lecturing (12,51%) and online with an audio recording of the lecturer lecturing (7,9%). The dominant method of seminar provision was online with the lecturer involved in real time (38,03%). In comparison to lectures, a higher proportion of students (15%) reported that there was no online provision of their seminars. Just as with lectures, students' preferred method of online seminars is with the lecturer involved in real time.

PRACTICAL CLASSES

Students were exposed to a variety of formats replacing on-site practical classes: online with the lecturer lecturing in real time (41,77%), through written communication with the lecturer (23,01%), online with a video recording of the lecturer lecturing (12,56%) and online with an audio recording of the lecturer lecturing (6,18%). The dominant format was online with the lecturer involved in real time (37,9%). For 20,23% of students i.e. a fifth of students there was no online provision of practical classes. Again, just as with lectures and seminars, the preferred method is with the lecturer involved in real time.

In all teaching forms, the preferred method of content delivery is with the lecturer involved in real time. Challenges related to holding practical classes online were particularly highlighted by students. Whereas only 3,75% of students reported that no replacement lectures had been organized as part of their course, a higher proportion of students reported the same for seminars (15%) and practical classes (20,23%).

SUPERVISIONS

For a third of students there were no planned supervisions for this term. When supervisions had been organized they took on different forms: via e-mail (52,9%), via video-call (36,87%), via voice call (13,74%). Students' preferred format for supervisions is via video-call which further confirms that students prefer face-to-face interaction with academic staff.

ASSESSMENT

On average, students agreed that their lecturers had provided course assignments on a regular basis, responded to their questions in a timely manner and were open to



students' suggestions and adjustments of online classes. To a lesser extent, however, they agreed that lecturers had provided feedback on their performance on the assignments and informed students what their exams will look like in the new situation.

WORKLOAD

Most of the students indicated that their study workload was larger than before on-site classes were cancelled (50,74%). Only 19,04% said that their workload was smaller than before whereas 25,46% reported no changes in their perceived study workload. Students indicated that their workload had increased because teachers compensated the lack of on-site classes with additional assignments.

SUPPORT NETWORK

Students are more likely to talk to a close family member about the COVID-19 crisis, followed by a close friend. A very small proportion of students would turn to institutional sources of support such as administrative staff (1,5%).

During the COVID-19 pandemic, students had daily communication with their close family members and close friends. They also had weekly communication with colleagues from their course and lecturers. Communication with administrative staff was much less frequent.

9,1% of students indicated that they do not have several people they can trust to help solve their problems.

Students who were living in their family homes reported higher levels of bonding social capital in comparison to students who were living in rented accommodation or student hall/dorm. Also, students who suffered from health impairments reported lower bonding social capital.

An overall conclusion for this section is that for many problems students may have, they do not rely on institutional provision for solutions.

EMOTIONAL WELLBEING

Students have frequently felt frustrated, anxious and bored in relation to their academic activities since on-site classes were cancelled. The results indicate that students' well-being during the COVID-19 pandemic might have been negatively affected.

Lower levels of general well-being were reported by female students, those who have difficulties paying their study costs, students with mental health problems and students who do not have a quiet place to study. In particular lower levels of general well-being were reported by students who do not have a supportive social network.

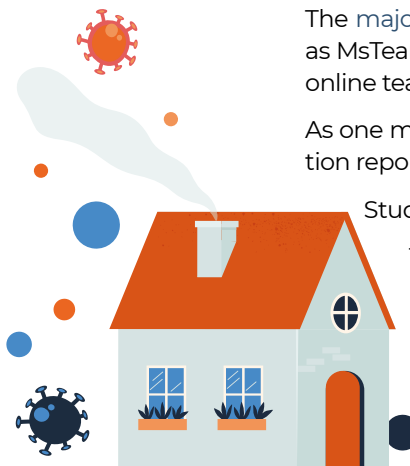
SKILLS AND INFRASTRUCTURE FOR STUDYING FROM HOME

The majority of students (80,7%) feel confident in using online teaching platforms such as MsTeams, Zoom and similar. However, 7,9% indicated their lack of confidence in using online teaching platforms.

As one might expect, students in the field of Engineering, manufacturing and construction reported higher levels of digital capital compared to all other groups of students.

Students who suffered from any type of health impairment had lower digital capital.

The majority of students have their own computer (89,3%), however only 41% reported they always have a good Internet connection. 0,5% do not have their own computer. The majority of students often or always have a quiet place to study, whereas 3,3% of students do not have a quiet place to study. The majority also have a desk (79,2%), however 3,2% of students do not have a desk to work on. Only a third of students reported that they always have access to course study material.



LIFE CIRCUMSTANCES

More than a quarter of students indicated they were worried about their health most or all of the time. Balancing care responsibilities with studying as well as the costs of living was indicated as a concern most or all of the time by around a fifth of students.

Students who lived in rented accommodation and a student hall/dorm reported a higher frequency of worrying about costs of studying and living in comparison to students who lived in their family homes or some other accommodation.

Older and part-time students, students who do not pay tuition fees as well as students who reported having health impairments worried to a greater extent about their costs of studying and living.

WORKING WHILE STUDYING

Out of the students who have been working or were planning to work this term, 28,9% lost the job temporarily, while 12,2% lost their job permanently. For students for whom working is a necessity to cover costs of studying this is a risk factor. Indeed, students who lost their job permanently had lower levels of capability to cover the costs of studying and living compared to all other groups of students.

TUITION FEES

For students paying tuition fees, the majority (75,3%) answered that their fee payment has remained the same at their institution. For some students, flexible ways of paying fees was introduced (13,8%) and 1,8% reported their institution had cancelled fee payment for this term.

SCHOLARSHIPS

For students who receive scholarships, the majority (87,4%) answered the amount of their scholarship had remained the same. However, for almost one tenth of students the crisis has had an adverse effect on their scholarship status and their scholarship payment had either been postponed (4,10%), cancelled (2,9%) or reduced (2,6%).

SATISFACTION WITH TEACHING AND ADMINISTRATION

Students were mostly satisfied with how supportive lecturers have been since on-site classes were cancelled. They were less satisfied when it comes to the organization of their seminars and practical classes.

On average, students who were older, who had greater capability to cover costs of studying and living, those who were not paying tuition fees as well as part-time students reported greater levels of satisfaction. In addition, higher levels of satisfaction with teaching and administration were reported by students who did not suffer from any chronic illness, mental health problems or other health problems, as well as by students who had better access to home facilities for studying. Finally, students with greater digital and bonding social capitals and those who worried less about costs, health or balancing between care responsibilities and studying were also more satisfied.

STUDENT ADJUSTMENT

47,43% of students indicated their performance as a student had changed for the worse since on-site classes were cancelled.

In general, after all other predictors are statistically controlled for, younger students, students who do not have a quiet place to study, a good Internet connection and material for studying at their disposal, as well as students with lower levels of digital and social bonding capital, consistently reported lower adjustment during the COVID-19 pandemic lockdown. In addition, students who reported having mental health problems consistently had lower scores on all indicators of adjustment.

3

METHODOLOGICAL NOTES

3.1. ABOUT THE STUDY

An online questionnaire, launched on SurveyMonkey, was filled in by undergraduate and Master's, full-time and part-time students studying at European higher education institutions in April 2020. The questionnaire was launched by the European Students Union on April 21 and was accessible until May 3 2020. Participation in the study was voluntary and anonymous.

The questionnaire was constructed by a team of researchers from the University of Zadar in Croatia. It consisted of 7 parts which included 31 closed-type questions and 5 open questions.

- **Part 1:** Students' socio-demographic and academic characteristics (e.g. gender, age, educational level of parents, student status, field of study)
- **Part 2:** Academic life (experiences with teaching, workload and assessment)
- **Part 3:** Infrastructure and skills for studying from home (e.g. access to a desk, a computer, a quiet place to study, confidence in using online teaching platforms)
- **Part 4:** Networks of support
- **Part 5:** Emotional life (general well-being and experienced emotions)
- **Part 6:** Life circumstances (e.g. employment, care responsibilities, tuition fees, scholarships)
- **Part 7:** General reflections on studying from home

In total, 17,116 respondents from 41 European countries accessed the questionnaire. Countries which had a higher number of respondents include Portugal (6,652), Romania (3,110), Croatia (2,029) and the Czech Republic (1,768). Out of the initial sample, 12,336 (or 72,61%) of them reported that their on-site classes were cancelled due to COVID-19 pandemic. However, after filling out the socio-demographic and academic characteristics block of questions, 9,196 students continued with the survey. The total number of students who responded to a particular question varied between different questions, which resulted in variation in the total number of responses, meaning that a certain amount of missing values is present. This fluctuation in the total amount of responses is common in research like this.

It is important to note that although some of the analysed factors (e.g. socio-demographic characteristics, academic characteristics, health impairment etc.) were related to indicators of students' academic adjustment and well-being during lockdown, many of the identified effects were rather small in size and therefore conclusions are tentative.

3.2. PROFILE OF THE SAMPLE

3.2.1 Gender

Table 1 presents the distribution of the gender of the respondents showing that a higher number of female (66,4%) compared to male (32,1%) and non-binary (0,4%) students filled in the questionnaire.

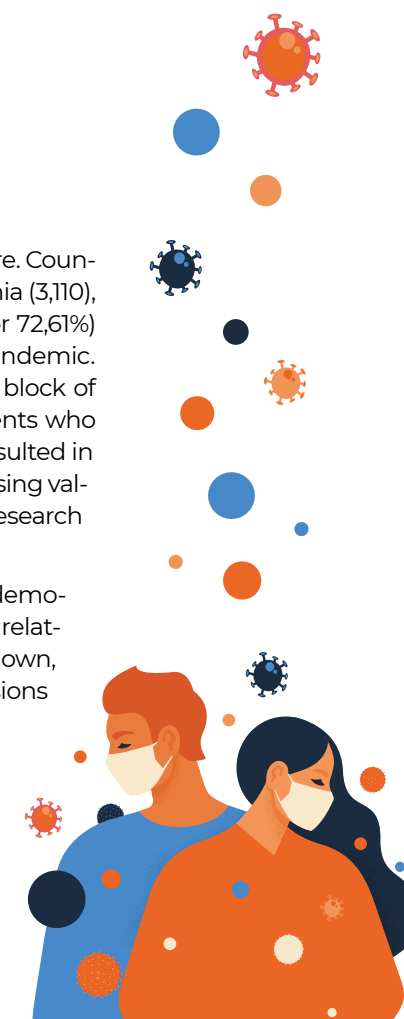


Table 1
Gender

Gender	N	%
Man	3990	32,1
Woman	8250	66,4
Non-binary	54	0,4
Prefer not to say	92	0,7
Other	29	0,3
Total	12425	100

3.2.2. Age

Students were on average 22.58 years old (SD=5.03).

Table 2
Age distribution of students who accessed the survey

Age	N	%
Less than 22	6609	53,1
22 to 24	3738	30,0
25 to 29	1167	9,4
More than 30	844	6,8
Missing values	85	0,7
Total	12443	100

Note
Age categories have been aligned with the Social and Economic Conditions of Student Life in Europe report (https://www.eurostudent.eu/publications#result_anchor)

3.2.3. Education level of respondent's parents

The education level of the respondents' parents shows that the majority of students who completed the questionnaire have parents with minimally secondary schooling.

Only a little over one tenth of students have parents with primary schooling.

Table 3
Education level of parents

	Parent 1	Parent 2
Primary schooling	14,4	12,9
Secondary schooling	43,5	46,6
Tertiary education	42,1	40,5
Total	100	100

3.2.4. Student status and year of study

Most of the respondents are full-time students (92,6%) and only 7,4% are part-time.

Student status	N	%
Full time	11465	92,6
Part time	918	7,4
Total	12383	100

Table 4
Student status

79,6% of respondents are undergraduate students, and 15,3% are master level students.

Year of study	N	%
Undergraduate year 1	3435	27,7
Undergraduate year 2	2864	23,1
Undergraduate year 3	2616	21,1
Undergraduate year 4	952	7,7
Master's year 1	1284	10,4
Master's year 2	608	4,9
Other	635	5,1
Total	12383	100

Table 5
Year of study

3.2.5. The distribution of the main field of study

Social science (19,4%) and technical science (18,2%) students are the most represented in the sample, followed by students in health and welfare (17,2%) and education (14,5%).

Main field of study	N	%
Education	1801	14,5
Arts and Humanities	1281	10,3
Social Sciences, Business and Law	2409	19,4
Natural Life Sciences	779	6,3
Engineering, Manufacturing and construction	2258	18,2
Agriculture and veterinary medicine	528	4,3
Health and welfare	2134	17,2
Services (tourism, sports, transport)	556	4,5
Total	12398	100

Table 6
Main field of study

3.2.6. Ability to cope with study costs

Financial problems can have an adverse effect on academic experiences. Regarding the question about the costs of study, more than half of the respondents reported struggling with the financial aspect of their studies: 65,4% of the students indicated having some difficulty in paying their overall costs of study. However, covering their costs of study does not seem to be a problem for 34,6% of respondents.

Table 7
Dealing with costs of study

Costs of study	N	%
With great difficulty	1430	11,5
With difficulty	2735	22,2
With small difficulty	3925	31,7
Quite easily	2419	19,6
Easily	1225	9,9
Very easily	630	5,1
Total	12015	100

3.2.7. Health difficulties

Health difficulties can adversely affect academic experiences. Among questionnaire respondents, 80,7% of respondents did not indicate any difficulty in that respect. It is worth noting that 12,9% reported some sort of mental health problem. This could be due to the effects of the lockdown during the pandemic, but it could have also preceded it.

Table 8
Impairments

Impaired in studies	N	%
No health problems	10043	80,7
Chronic illness	384	3,1
Mental health problems	1539	12,9
Physical disabilities	225	1,8
Other health problems	576	4,6

3.2.8. Accommodation

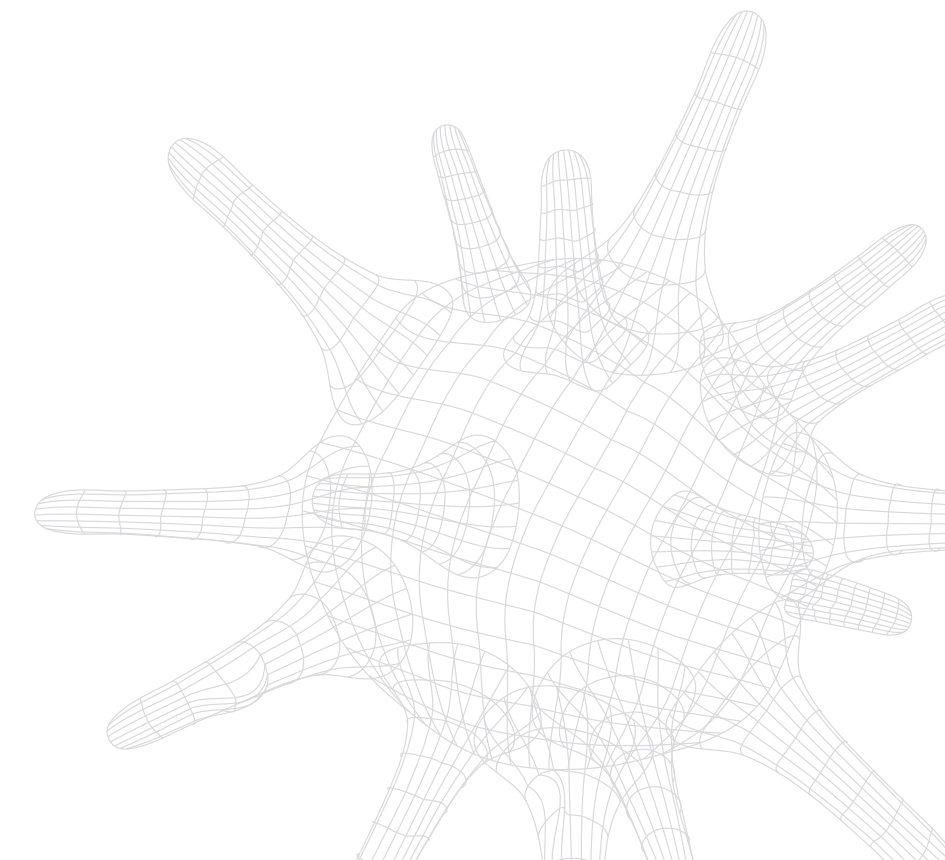
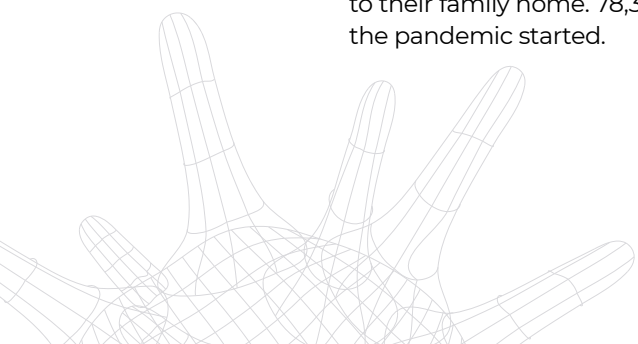
Before the pandemic, most of the students were living outside of their family home (55,9%) whereas 44,1% lived in their family home. It seems, however, that after classes were cancelled and quarantine measures were introduced, many students went back to their family home. 78,3% of the respondents have been living with their parents since the pandemic started.

Where students lived before the pandemic	N	%
Family home	5471	44,1
Rented accommodation	4133	33,3
Student hall/dorm	2462	19,8
Other	352	2,8
Total	12427	100

Table 9
Accommodation before the pandemic

Where students lived since the pandemic started	N	%
Family home	9732	78,3
Rented accommodation	1719	13,8
Student hall/dorm	645	5,2
Other	331	2,7
Total	12418	100

Table 10
Accommodation since the pandemic



4

EMPIRICAL FINDINGS AND INTERPRETATION

4.1. ACADEMIC LIFE

This part of the questionnaire assessed how the COVID-19 pandemic lockdown affected students' experiences with teaching (lectures, seminars, practical classes and supervisions/mentorship), workload and assessment, their satisfaction with different aspects of their course, as well as evaluations of their own performance and their beliefs about their academic success.

Out of the total number of students who accessed this part of the questionnaire (N=16,989), the majority of them (N=12,336 or 72,61%) reported that their on-site classes (those taking place in the location/campus of their study institution) had been cancelled, while 3,585 (21,10%) reported that their on-site classes had not been cancelled. The rest of the sample either did not respond to this question or responded as "not applicable" (N=1195 or 6,29%). Among those students whose on-site classes were cancelled, at the time of filling in the questionnaire, the majority of them (70,78%) reported that their on-site classes had been cancelled 5 to 7 weeks ago (i.e. in March 2020).

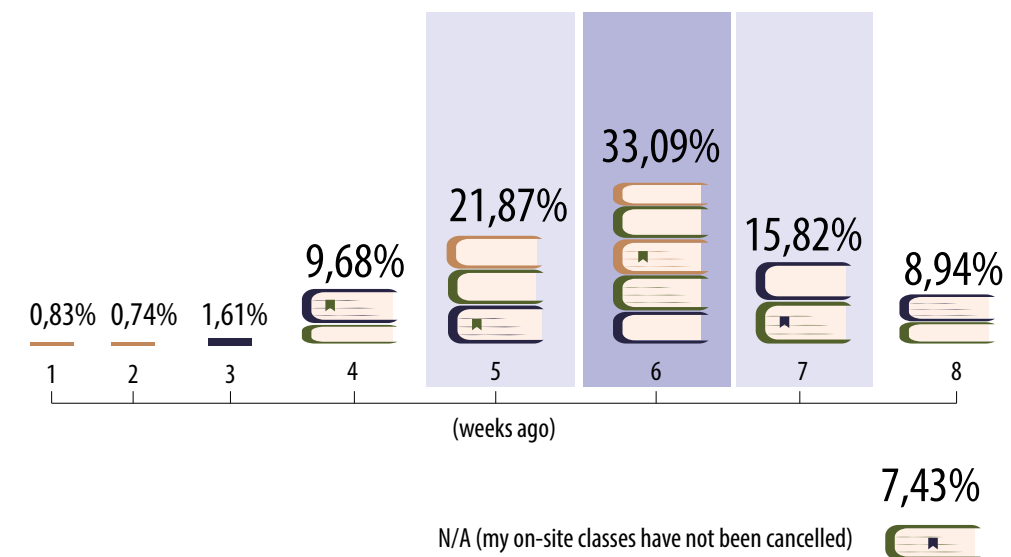


Figure 1
Time of cancellation of on-site classes

4.1.1. Organization of lectures

The COVID-19 pandemic has caused lectures to be organized in diverse ways. Most of the students reported that they had experience of lectures held online with the lecturer lecturing in real time (N=6849 or 74,61%), which was followed in frequency by lecturers sending presentations of lectures to students (N=4086 or 44,51%). A third of the students also had the experience of online lectures with a video recording of a lecturer lecturing and a fifth reported having had online lectures with an audio recording of a lecturer lecturing. 941 students (10,25%) reported that some of their on-site lectures had not been replaced by a different format.

Next, students reported that online lectures with the lecturer lecturing in real-time was the dominant form of online lectures (N=5476 or 59,73%) which was followed by lecturers

sending presentations of lectures to students (N=1804 or 19,68%). 344 students (3,75%) noted that none of their lectures had been replaced by any kind of online method.

The dominant forms of lectures did not always overlap with the preferred ways of lectures. Most of the students reported that they prefer online lectures with the lecturers lecturing in real time (N=5257 or 57,43%). Only 974 (or 10,64%) students reported that sending presentations of lectures is the preferred form of online lectures. In other words, students prefer to have face-to-face teacher-student interaction. For more details, please see [Table 11](#).

Table 11
Lectures since on-site classes were cancelled

	Variety of lectures*		Dominant method of online lectures		Preferred method of online lectures	
	N	%	N	%	N	%
Online with the lecturer lecturing in real time	6849	74,61	5476	59,73	5257	57,43
Online with a video recording of the lecturer lecturing	2947	32,10	676	7,37	1946	21,26
Online with an audio recording of the lecturer lecturing	1889	20,58	327	3,57	368	4,02
Lectures replaced by lecturers sending their presentations to students	4086	44,51	1804	19,68	974	10,64
No online lectures have been organized	941	10,25	344	3,75	-	-
Not applicable (e.g. I do not have lectures this term)	569	6,20	456	4,97	480	5,24
Other	393	4,28	85	0,93	128	1,40
Total	9180	-	9168	100	9153	100

N – number of students who chose particular answer category; % - percentage of students who chose particular answer category
*Students were allowed to choose multiple answer categories

4.1.2. Organization of seminars

With regard to the organization of seminars, most of the students had the experience of their seminars being held online with the lecturer lecturing in real time (N=4124 or 45,09%) which was followed by written communication with the lecturer (N=2448 or 26,76%). Importantly, 1369 students (15%) reported that their seminars had not been replaced with any online format. Again, students reported that online seminars with the lecturer involved in real-time was the dominant method (N=3472 or 38,03%) which was followed by written communication with the lecturer (N=1401 or 15,35%). Finally, most of the students reported that their preferred method is online seminars with the lecturer involved in real-time (N=4150 or 45,51%). In other words, just as with lectures, they prefer face-to-face teacher-student interaction. For more details, please see [Table 12](#).

	Variety of seminars*		Dominant method of online seminars		Preferred method of online seminars	
	N	%	N	%	N	%
Online with the lecturer involved in real time	4124	45,09	3472	38,03	4150	45,51
Online with a video recording of the lecturer	1144	12,51	364	3,99	1077	11,81
Online with an audio recording of the lecturer	731	7,99	189	2,07	262	2,87
Through written communication with the lecturer	2448	26,76	1401	15,35	1031	11,31
No online seminars have been organized	1758	19,22	1369	15	-	-
Not applicable (e.g. I do not have seminars this term)	2236	24,45	2259	24,75	2506	27,48
Other	162	1,77	75	0,82	93	1,02
Total	9147	-	9129	100	9119	100

Table 12
Seminars since on-site classes were cancelled

N – number of students who chose particular answer category; % - percentage of students who chose particular answer category
*Students were allowed to choose multiple answer categories

4.1.3. Organization of practical classes

Similar to the organization of online lectures and seminars, most students reported that they had the experience of online practical classes with the lecturer involved in real time (N=3825 or 41,77%). This method was followed in frequency of responses by the organization of practical classes through written communication with the lecturer (N=2107 or 23,01%). However, 1851 students (20,23%) reported that they had the experience of practical classes not being replaced by an online version.

Again, dominant methods were online practical classes with the lecturer involved in real time (N=3468 or 37,90%) followed by written communication with the lecturer (N=1129 or 12,34%). For 20,23% of students, no online practical classes had been organized. As with the lectures and seminars, the students' preferred method is online practical classes with the lecturer involved in real time (N=4255 or 46,63%). For more details, please see [Table 13](#).



Table 13
Practical classes since on-site classes were cancelled

	Actual method of online practical classes*		Dominant method of online practical classes		Preferred method of online practical classes	
	N	%	N	%	N	%
Online with the lecturer involved in real time	3825	41,77	3468	37,90	4255	46,63
Online with a video recording of the lecturer	1150	12,56	450	4,92	1227	13,45
Online with an audio recording of the lecturer	566	6,18	131	1,43	186	2,04
Through written communication with the lecturer	2107	23,01	1129	12,34	831	9,11
No online practical classes have been organized	2255	24,62	1851	20,23	-	-
Not applicable (e.g. I do not have seminars this term)	2065	22,55	2018	22,05	2365	25,91
Other	266	2,90	104	1,14	262	2,87
Total	9158	-	9151	100	9126	100

N – number of students who chose particular answer category; % - percentage of students who chose particular answer category
*Students were allowed to choose multiple answer categories

4.1.4. Organization of supervisions/mentorship

Most of the students reported that they communicated with their supervisor or mentor via e-mail (N=3375 or 36,87%), while their preferred way of communicating with their supervisor or mentor is via video-call (N=3120 or 34,11%). For more details, please see Table 14.

Table 14
Supervisions/mentorship since on-site classes were cancelled

	Actual organization of supervisions/mentorship*		Preferred organization of supervisions/mentorship	
	N	%	N	%
Via video-call	3375	36,87	3120	34,11
Via voice-call	1258	13,74	792	8,66
Via e-mail communication	4842	52,90	2524	27,60
Not applicable (e.g. I do not have supervisions/mentorship this term)	2826	30,88	2622	28,67
Other	223	2,44	88	0,96
Total	9153	-	9146	100

N – number of students who chose particular answer category; % - percentage of students who chose particular answer category
*Students were allowed to choose multiple answer categories

4.1.5. Assessment and responsiveness

To evaluate issues of assessment and lecturer responsiveness during the COVID-19 pandemic and online classes, students were asked to rate their agreement with several statements that describe different assessment modalities by using a Likert-type scale with five points (1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree). As can be seen in Table 15, students gave relatively high rates to all of the questions regarding assessment: on average they agree that their lecturers have provided course assignments on a regular basis, responded to their questions in a timely manner and were open to students' suggestions and adjustments of online classes. However, their ratings on questions regarding feedback on their performance on a given assignment and information about what exams will look like were lower (M=3.32 and M=3.11, respectively).

	N	Mean	Median	Mode	Range
Have provided course assignments (e.g. readings, homework, quizzes) on a regular basis	8672	3.91	4	4	1-5
Have provided feedback on my performance on given assignments	8639	3.32	4	4	1-5
Have responded to my questions in a timely manner	8618	3.77	4	4	1-5
Have been open to students' suggestions and adjustments of online classes	8521	3.60	4	4	1-5
Have informed me on what exams will look like in this new situation	8589	3.11	3	4	1-5

Table 15
Students' ratings of assessment modalities since on-site classes were cancelled

4.1.6. Workload

Students were asked to evaluate the amount of their study workload during the COVID-19 pandemic. Out of 9132 students who answered this question, the majority of them reported that their study workload was larger than before on-site classes were cancelled (N=4609 or 50,47%). Only 1739 students (19,04%) said that their study workload was smaller than before while 2325 students (25,46%) reported no changes in their perceived study workload. These results are depicted in Figure 2.

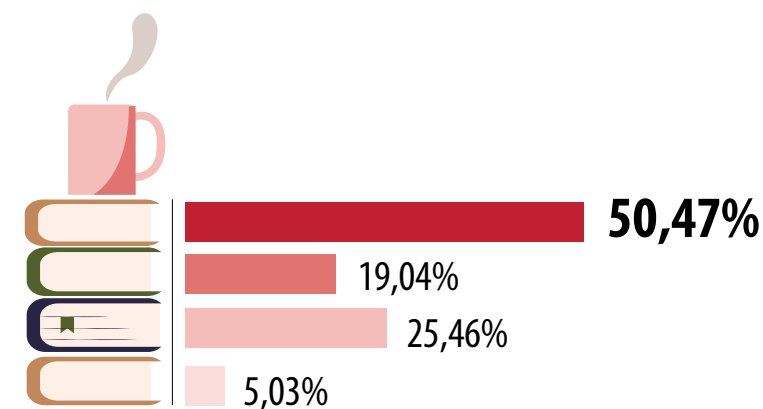


Figure 2
Study workload on online classes compared to on-site classes

■ Larger than before on-site classes were cancelled ■ Smaller than before on-site classes were cancelled
■ The same as before on-site classes were cancelled ■ N/A

4.1.7. Satisfaction with teaching and administration

To evaluate students' satisfaction with teaching and administration since their on-site classes were cancelled, students rated their level of satisfaction with the organization of their online classes as well as with the support they received from their lecturers and administrative staff by using a five-point Likert-type scale (1=not at all satisfied, 2=mostly dissatisfied, 3=neither satisfied nor dissatisfied, 4=mostly satisfied, 5=extremely satisfied). As can be seen in Table 16, students evaluated their satisfaction with different aspects of teaching and administration with average ratings. Their levels of satisfaction were the lowest when it comes to the organization of seminars and practical classes (M=3.13 and M=2.89, respectively) and highest in terms of how supportive lecturers have been. The data presented earlier shows that whereas for the majority of students lectures tended to continue in an online format, seminars and practical classes were less frequently replaced by an online format. This could be because the nature of such classes (small-group interactions, laboratory work) are more difficult to organize online.

Table 16
Students' satisfaction with organization and support since on-site classes were cancelled

	N	Mean	Median	Mode	Range
The organization of your lectures	8642	3.26	4	4	1-5
The organization of your seminars	6591	3.13	3	4	1-5
The organization of your practical classes (e.g. laboratory practice or language exercises)	6773	2.89	3	4	1-5
The organization of your supervisions (mentorship)	6537	3.36	4	4	1-5
How supportive lecturers have been	8583	3.51	4	4	1-5
How supportive your institution's administrative staff (e.g. student office) have been	8332	3.39	4	4	1-5
Information on how you can get support from your institution's student counselling services	8304	3.29	3	4	1-5

4.1.8. Students' performance and beliefs in academic success

Students were asked to report their perceived academic performance as well as their levels of self-efficacy (i.e. students' beliefs that they can be successful in their studies) since their on-site classes were cancelled. Students' self-efficacy was assessed with a scale extracted from Patterns of Adaptive Learning Strategies (PALS; Midgley et al., 2002). The sample item is: "I'm certain I can master the skills taught in class this year". Students gave their answers on a Likert-type scale with 5 points (1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree and 5=strongly agree). As presented in Table 17, students tended to report that their performance worsened since on-site classes were cancelled rather than improved. In total, 3414 (47,43%) students agreed or strongly agreed with this statement indicating their perceived drop in performance. In addition, when taking into account the theoretical range of possible results, students' reported self-efficacy levels were around average values.

	N	Mean	Median	Mode	Range
My performance as a student has changed for the worse since on-site classes were cancelled	7197	3.31	3	4	1-5
My performance as a student has changed for the better since on-site classes were cancelled	7192	2.51	2	3	1-5
Student self-efficacy*	7118	3.32	3.4	4	1-5

Table 17
Self-efficacy and perceived change in academic performance since on-site classes were cancelled

* Self-efficacy score was calculated as a mean value of students' ratings on five items. Cronbach α for this scale was 0.88.

4.2 NETWORKS OF SUPPORT

This part of the questionnaire assessed whether students have someone to turn to in times of crises such as the COVID-19 pandemic. In order to explore the main properties of social support networks, students were asked to whom would they turn to in different situations and to rate the frequency of contact with different sources of support.



4.2.1. Sources of support

For a list of situations, including help around the home if one was sick or being there for the person if they feel a bit down or depressed, students were asked to indicate whom they would turn to first. As expected, the largest number of students who answered this question would turn to a close family member if they were sick and had to stay in bed for a few days (77,6%), while the second most frequent source of support in this case would be someone they live with (9,7%). 4,1% of students reported that they would not turn to anyone if they were sick.

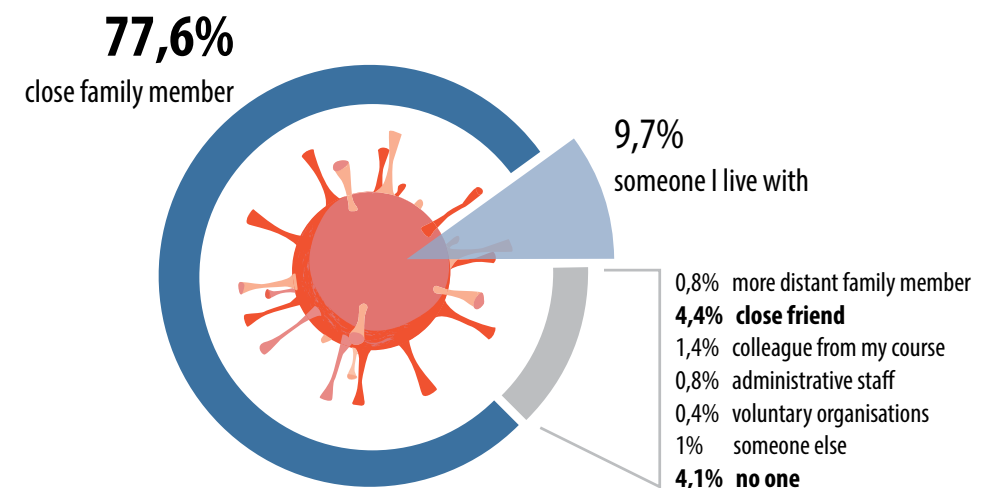
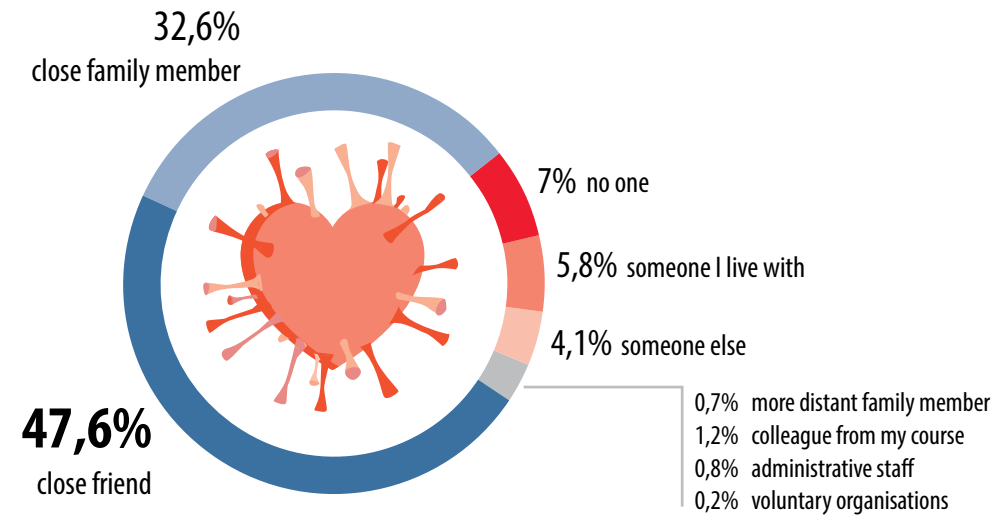


Figure 3
Primary sources of support in case of sickness (%)

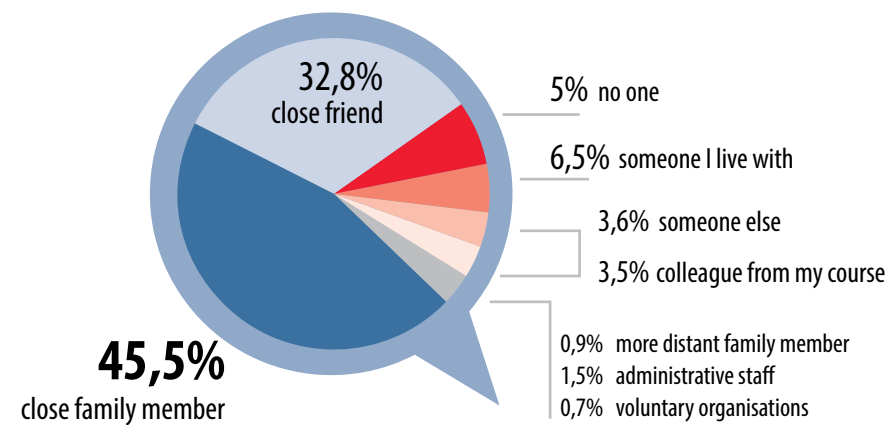
When it comes to emotional support, the largest number of students would first turn to a close friend if they felt a bit down or depressed and wanted to talk about it (47,6%), while 32,6% of them would first turn to a close family member. What is important to note is that 7% of respondents chose the answer "no one" to this question which suggests their lack of contacts for emotional support.

Figure 4
Primary sources of emotional support (%)



According to the obtained results, students prefer to talk about the COVID-19 crisis with close family members: 45,5% of respondents who answered this question chose this answer, while 32,8% of them would first turn to a close friend if they wanted to talk about the COVID-19 crisis.

Figure 5
Primary sources of support to talk about COVID-19 crisis (%)



When it comes to situations that are more related to academic life, there are more diverse sources of support. In particular, if they would like to talk about problems related to studying issues (lectures, seminars, practical work), 32,4% of respondents would first turn to their colleagues, while 31,6% of our respondents would first talk to a close friend. Finally, 18,9% chose the answer "close family member". Only 5,8% of students would turn to administrative staff at their institution.

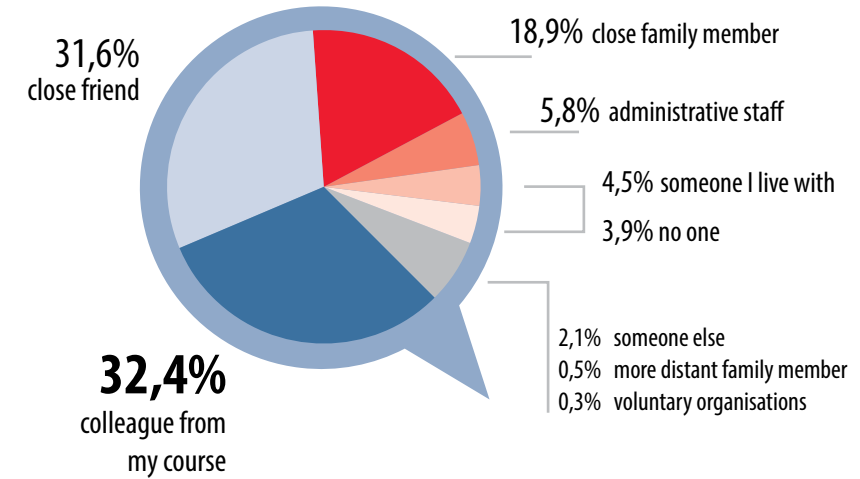


Figure 6
Primary sources of support to talk about problems related to studying issues

Considering the importance of platforms for online studying during the COVID-19 lockdown, we also asked respondents whom they would turn to first in case they needed some help with such platforms. Interestingly, it seems that here the sources of support are the most diversified. In particular, 34,9% of respondents would seek help from their colleagues, 24,6% from a close friend, 10,7% from a close family member and 10,2% from administrative staff. However, 12,4% of respondents who answered this question chose the answer "no one".

An overall conclusion for this section is that for many problems students may have they do not rely on institutional provision for solutions.

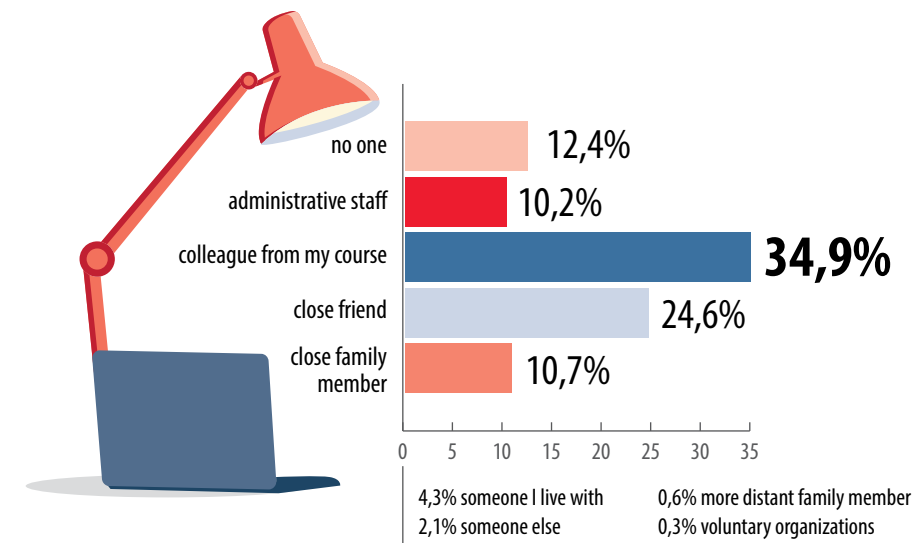


Figure 7
Primary sources for help with platforms for online studying

4.2.2. Frequency of contact with people

Students were asked to report how often they communicated with different people since the COVID-19 pandemic. They were answering on a Likert-type scale with 5 points (1 = several times a day, 2 = once a day, 3 = several times a week, 4 = once a week, 5 = two or three times a month, 6 = not at all). From the results of descriptive statistics that are presented in Table 18, it can be concluded that students had the most frequent communication

with their close family members and close friends, while colleagues from the course are in third place. A more detailed analysis is presented in Table 19.

Table 18
Frequency of contact with different people in students' academic and social life: descriptive statistics*

	N	Median	Range
Close family members	9096	1.58	1-6
Close friends	9037	2.41	1-6
Colleagues from my course	9058	3.17	1-6
Lecturers	9033	3.97	1-6
More distant family members	9075	4.16	1-6
Acquaintances	8858	4.61	1-6
Administrative staff	8980	5.49	1-6
Voluntary organizations offering support during the Pandemic	9056	5.76	1-6

* the larger value of median indicates lower frequency of contact

Table 19
Frequency of contact with different people in students' academic and social life: frequency tables

	Several times a day	Once a day	Several times a week	Once a week	Two or three times a month	Not at all
Close family members	70.2	11.6	11.6	4.1	1.5	1.5
More distant family members	2.6	7.2	24.0	23.3	24.0	19.0
Close friends	37.1	16.9	26.9	10.0	5.4	3.6
Acquaintances	3.0	3.5	15.5	19.2	25.5	33.4
Colleagues	17.8	12.9	33.0	16.1	11.2	9.0
Lecturers	3.9	8.2	27.9	25.3	16.2	18.5
Administrative staff	0.8	0.9	3.6	6.5	18.9	69.2
Voluntary organizations	0.9	0.7	2.0	2.5	5.5	88.4

Overall, it seems that since the COVID-19 pandemic started, many students have turned to their families: they have returned to their parents' homes and are getting support from their immediate family circle.

4.2.3. Perceived social support

The last instrument used in this part of the questionnaire was the shortened scale of bonding social capital (Ellison et. al., 2007). The scale included five items and students were asked to give their answers on a Likert-type scale with five points (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree). As can be seen in Table 20, students gave relatively high rates to the majority of items, with the exception of the last item which is the only reversed item in the scale.

More specifically, 9,1% of students answered that they disagree or strongly disagree with the first item in the scale (there are several people I can trust to help solve my problems), while 68,9% of them answered positively to this question. Similarly, 7,3% of students disagreed with the second item in the scale, while 83,3% answered positively, indicating that for the majority there is someone they can turn to for advice about making important decision. When it comes to the third item, 21,9% of respondents disagreed, indicating that they do not have someone if they needed an emergency loan of 500 euros, while 63,1% agreed. More than half of our respondents (51,4%) think the people they interact with would be good job reference for them, while 14,4% disagreed. Finally, 15,2% of students think they do not know people well enough to get them to do anything important, while 58,6% disagreed.

Table 20
Bonding social capital

	N	Mean	SD	Range
There are several people I trust to help solve my problems	9084	3.74	1.16	1-5
There is someone I can turn to for advice about making very important decisions	9074	4.12	0.96	1-5
If I needed an emergency loan of 500 euros, I know someone I can turn to	9069	3.59	1.31	1-5
The people I interact with would be good job references for me	9056	3.46	1.00	1-5
I do not know people well enough to get them to do anything important	9034	2.36	1.08	1-5

To identify certain characteristics of students who had lower levels of bonding social capital during the COVID-19 crisis lockdown, differences in students' bonding social capital were examined according to their field of study (i.e. Education, Arts and Humanities, Social Sciences, Business and Law, Natural and Life Sciences, Engineering, Manufacturing and construction, Agriculture and veterinary medicine, Health and welfare, Services and Other), year of study (i.e. undergraduate years 1, 2, 3, and 4, master's years 1 and 2) and accommodation (i.e. family home, rented accommodation, student hall/dorm and other) by means of one-way ANOVAs. Post hoc multiple comparisons were performed using LSD test (in the following text, only statistically significant differences will be commented).

In addition, Pearson correlation coefficients were calculated between bonding social capital and students' age, gender (i.e. male vs. female), student status (i.e. full time vs. part time), paying tuition fees (i.e. yes vs. no), receiving scholarship (yes vs. no), parental educational level (i.e. primary schooling, secondary schooling, tertiary education), capability to cover study and living costs (i.e., six-points scale ranging from "with great difficulty" to "very easily") and presence of health issues (i.e., chronic illness, mental health problems, physical disabilities and other health problems; present vs. absent).



Prior to conducting these analyses, a composite score on bonding social capital was calculated as a mean value of ratings on individual items divided by its total number. Internal consistency of this scale was satisfactory (Cronbach $\alpha=0.74$).

The ANOVA results showed that students differed in their level of bonding social capital according to their field of study ($F [8, 7152] = 8.78, p<0.01$). Students in the field of Engineering, manufacturing and construction reported lower levels of bonding social capital than any other group of students. Next, students differed in their bonding social capital depending on their year of study ($F [6, 7152] = 6.38, p<0.01$). Undergraduate students at second and fourth year of study had greater bonding social capital compared to undergraduate students in their first year of study. In addition, first year master studies students reported greater bonding social capital compared to all other groups of students except undergraduates at year four. Finally, students differed in their ratings of bonding social capital based on their accommodation since the onset of the COVID-19 pandemic ($F [3, 7165] = 12.49, p<0.01$). Students who were living in their family homes reported higher levels of bonding social capital in comparison to students who were living in rented accommodation or student hall/dorm. However, students who were living in rented accommodation had higher social bonding capital than those who were living in student halls/dorm.

The results of correlation analyses are shown in Table 21.

Table 21
Correlates
of students'
bonding social
capital during
the COVID-19
pandemic

	Bonding Social Capital
Socio-demographic characteristics	
Age	-0.01
Gender ¹	0.09**
Capability to pay study costs	0.23**
Parental educational level 1 ²	0.08**
Parental educational level 2 ²	0.10**
Academic characteristics	
Student status ¹	-0.01
Paying tuition fees ¹	0.03*
Receiving scholarship ¹	-0.01
Presence of health issues	
Chronic illness ¹	-0.04**
Mental health problems ¹	-0.18**
Physical disabilities ¹	-0.05**
Other health problems ¹	-0.07**

¹ Dummy variables: gender (0=male, 1=female), health issues (0=absent, 1=present), student status (1=full-time, 2=part-time), paying tuition fees (1=yes, 2=no), receiving scholarship (1=yes, 2=no);

² Due to ordinal scale of the variable, Spearman Rho coefficient was calculated;

* $p<0.05$

** $p<0.01$;

Correlations were calculated on a sample of students whose on-site classes were cancelled

As can be seen in Table 21, female students, students with a greater capability to cover study and living costs, students whose parents were more highly educated as well as students who were not paying tuition fees reported higher levels of bonding social capital. In contrast, students who suffered from health impairments reported lower bonding social capital.

4.3. EMOTIONAL WELL-BEING

In order to assess students' emotional well-being during the COVID-19 pandemic, students were asked to rate the frequency at which they were experiencing particular emotions related to attending classes and studying and preparing for them (i.e., joyful, hopeful, proud, frustrated, angry, anxious, ashamed, relieved, hopeless and bored). They gave their answers on a Likert-type scale with 5 points (1=never, 2=rarely, 3=sometimes, 4=often, 5=always). In addition to such emotions, students' well-being during the COVID-19 pandemic was assessed by 6 items extracted from the revised version of the Psychological General Well-Being Index (PGWB-R; Revicki, Leidy, & Howland, 1996). Students rated how often they felt in the described way during the last several weeks on a 5-point Likert-type scale (1=none of the time, 2=a little of the time, 3=some of the time, 4=a good bit of the time, 5=all of the time). Sample item is: "I have had or felt a lot of energy and vitality".

Results presented in Table 22 show that, with respect to the theoretical range of possible values, students most frequently felt frustrated, anxious and bored in relation to their academic activities. They reported average frequency of joy and slightly above average frequency of pride, and they also reported quite a low frequency of undesirable emotions of hopelessness and shame. Interestingly, their average levels of general well-being were located somewhat below the middle point of the scale indicating that students' well-being during the COVID-19 pandemic might have worsened.

Table 22
Frequency of
experienced
emotions and
evaluation of
general well-
being

Emotion	N	Mean	Median	Mode	Range
Joyful	7229	2.99	3	3	1-5
Hopeful	7229	3.16	3	3	1-5
Proud	7207	2.81	3	3	1-5
Frustrated	7228	3.54	4	4	1-5
Angry	7222	2.93	3	3	1-5
Anxious	7213	3.39	4	4	1-5
Ashamed	7202	2.04	2	1	1-5
Relieved	7201	2.56	3	3	1-5
Hopeless	7215	2.64	3	3	1-5
Bored	7231	3.31	4	4	1-5
General well-being	7151	2.91	2.83	3	1-5

* General well-being score was calculated as a mean value of students' ratings on six items. Cronbach α for this scale was 0.85.

4.4 SKILLS AND INFRASTRUCTURE FOR STUDYING FROM HOME

4.4.1. Digital skills

Digital skills can be crucial in getting the most out of online classes and seminars which is why respondents' perception of their own skills in the digital environment is important for understanding where potential differences between students may lie.

In order to evaluate these skills, a scale was used (Ragnedda, Ruiu and Addeo 2020) that measured how students manage various information and situations online. A five-point Likert-type scale was used (1= strongly disagree, 2= disagree, 3= neither agree nor disagree, 4= agree, 5= strongly agree) and Table 23 shows that on most of the statements provided, respondents on average perceive themselves as skilled and confident when various elements of digital literacy is involved. However, it is also clear that this confidence is lower when more complex usage of software and programs are taken into consideration. For example, values for applying advanced formatting functions (M=3,68, SD= 1,05), ability to select safe and suitable digital media (M=3,58, SD= 1,03) and applying advanced settings in software and programmes (M=3,18, SD= 1,2) are lower than basic digital skills. It is worth pointing out that these three skills are less relevant for online lectures and classes as access to these requires basic digital knowledge and skills, but it can be argued that respondents who are more competent in advanced areas of digital literacy are simultaneously also more likely to cope better with unforeseen challenges when presented with an environment of online lectures and seminars.

Online teaching platforms have been of particular importance during the COVID-19 pandemic. Our results show that the majority of students feel confident in using these platforms. However, for some students the use of such platforms is more of a challenge.

Table 23
Digital skills of the respondents: mean values

	N	Mean	SD	Range
I am confident in browsing, searching and filtering data, information and digital content	7259	4,27	0,82	1-5
I am confident in using online teaching platforms such as MS Teams, Zoom and similar	7264	4,09	0,94	1-5
I can produce complex digital content in different formats (e.g. images, audio files, text, and tables)	7260	3,93	0,98	1-5
I can apply advanced formatting functions of different tools (e.g. mail merge, and merging documents of different formats) to the content I or others have produced	7259	3,68	1,05	1-5
I am able to select safe and suitable digital media, which are efficient and cost-effective in comparison with others	7259	3,58	1,03	1-5
I am able to apply advanced settings to some software and programmes	7252	3,18	1,2	1-5

A closer look at the responses in percentages when it comes to confidence in using online teaching platforms shows that the majority of students (80.7%) feel confident in using online teaching platforms such as MsTeams, Zoom and similar. However, 7.9% indicated their lack of confidence in using online teaching platforms.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I am confident in browsing, searching and filtering data, information and digital content	0,9%	3,1%	8,9%	41,3%	45,8%
I am confident in using online teaching platforms such as MS Teams, Zoom and similar	1,8%	6,1%	11,4%	41,9%	38,8%
I can produce complex digital content in different formats (e.g. images, audio files, text, and tables)	2,0%	7,7%	16,9%	41,7%	31,7%
I can apply advanced formatting functions of different tools (e.g. mail merge, and merging documents of different formats) to the content I or others have produced	3,1%	11,7%	22,8%	38,4%	24,0%
I am able to apply advanced settings to some software and programmes	8,4%	23,3%	25,6%	26,3%	16,4%
I am able to select safe and suitable digital media, which are efficient and cost-effective in comparison with others	3,7%	10,5%	28,8%	37,2%	19,8%

Table 24
Digital skills of the respondents: percentages

To explore the characteristics of students with different levels of digital capital, a series of one-way ANOVAs was conducted with the following factors: field of study, year of study and accommodation since the onset of the COVID-19 pandemic. Again, post hoc multiple comparisons were performed using LSD test and only statistically significant differences will be discussed in the following sections. Furthermore, Pearson correlation coefficients were calculated between digital capital and students' age, gender, student status, paying tuition fees, receiving scholarship, parental educational level, capability to cover study and living costs and presence of health issues. Prior to conducting these analyses, a composite score on digital capital was calculated as a mean value of ratings on individual items divided by its total number. Internal consistency of this scale was very good (Cronbach $\alpha=0.87$).

The results of ANOVAs showed that students differed in the level of digital capital according to their field of study (F [8, 7191] = 34.25, $p<0.01$). Students in the field of Engineering, manufacturing and construction reported higher levels of digital capital compared to all other groups of students. Next, differences in digital capital according to the year of study were only marginally statistically significant (F [6, 7190] = 2.17, $p=0.043$). Master students in both years of study reported somewhat greater digital capital in comparison to undergraduate students in their first two years of study. Lastly, there were no differences in digital



capital depending the type of student accommodation since the onset of the COVID-19 pandemic ($F [3, 7203] = 1.76, p > 0.05$).

As shown in Table 25, male students, students with a greater capability to cover study and living costs, students whose parents were more highly educated as well as students who were paying tuition fees, reported higher levels of digital capital. In contrast, students who suffered from any type of health impairment had lower digital capital. However, even though statistically significant, most of these effects were quite small.

Table 25
Correlates of students' digital capital during the COVID-19 pandemic

	Digital Capital
Socio-demographic characteristics	
Age	-0.01
Gender ¹	-0.17**
Capability to pay study costs	0.13**
Parental educational level 1 ²	0.06**
Parental educational level 2 ²	0.05**
Academic characteristics	
Student status ¹	-0.01
Paying tuition fees ¹	-0.02*
Receiving scholarship ¹	-0.02
Presence of health issues	
Chronic illness ¹	-0.03**
Mental health problems ¹	-0.06**
Physical disabilities ¹	-0.04**
Other health problems ¹	-0.04**

¹ Dummy variables: gender (0=male, 1=female), health issues (0=absent, 1=present), student status (1=full-time, 2=part-time), paying tuition fees (1=yes, 2=no), receiving scholarship (1=yes, 2=no);

² Due to ordinal scale of the variable, Spearman Rho coefficient was calculated;

* $p < 0.05$

** $p < 0.01$;

Correlations were calculated on a sample of students whose on-site classes were cancelled

4.4.2 Infrastructure for online studying

Digital skills are only one part of study challenges as access to material resources can also be considered an important contributor to successfully coping with the intensity of online lectures and seminars. In the questionnaire students were asked whether in their home they had access to a list of resources. Figure 8 shows that when access to technology is considered, most of the respondents have their own computers (89,3%) but it seems that the stability and quality of the internet connection is less available for many students. Only 41% of students indicated that they always have a good Internet connection.

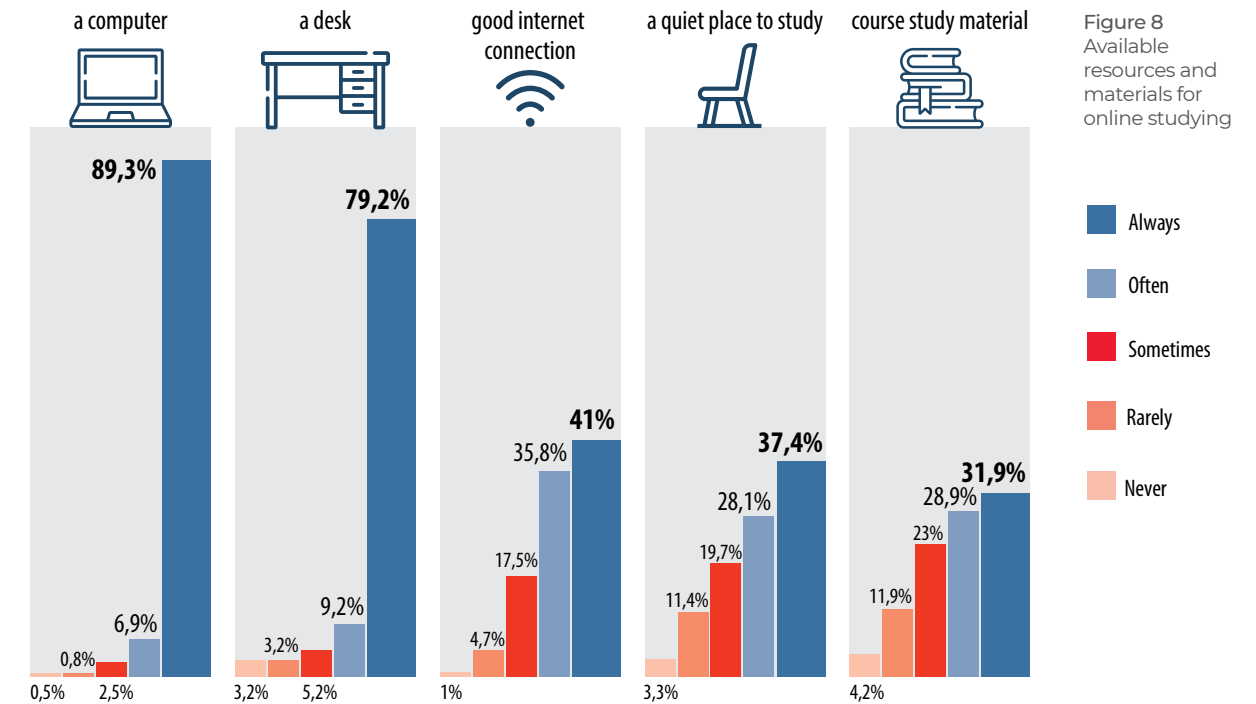


Figure 8
Available resources and materials for online studying

Always
Often
Sometimes
Rarely
Never

The majority of students often or always have a quiet place to study, whereas 3.3% of students do not have a quiet place to study. This finding points to the possibility that studying from home without family members' interruptions can be a challenge (a finding which is also supported by our qualitative data presented in the final section of the report). The majority of students also have a desk (79.2%), however 3.2% of students do not have a desk to work on. Only a third of students reported that they always have access to course study materials.

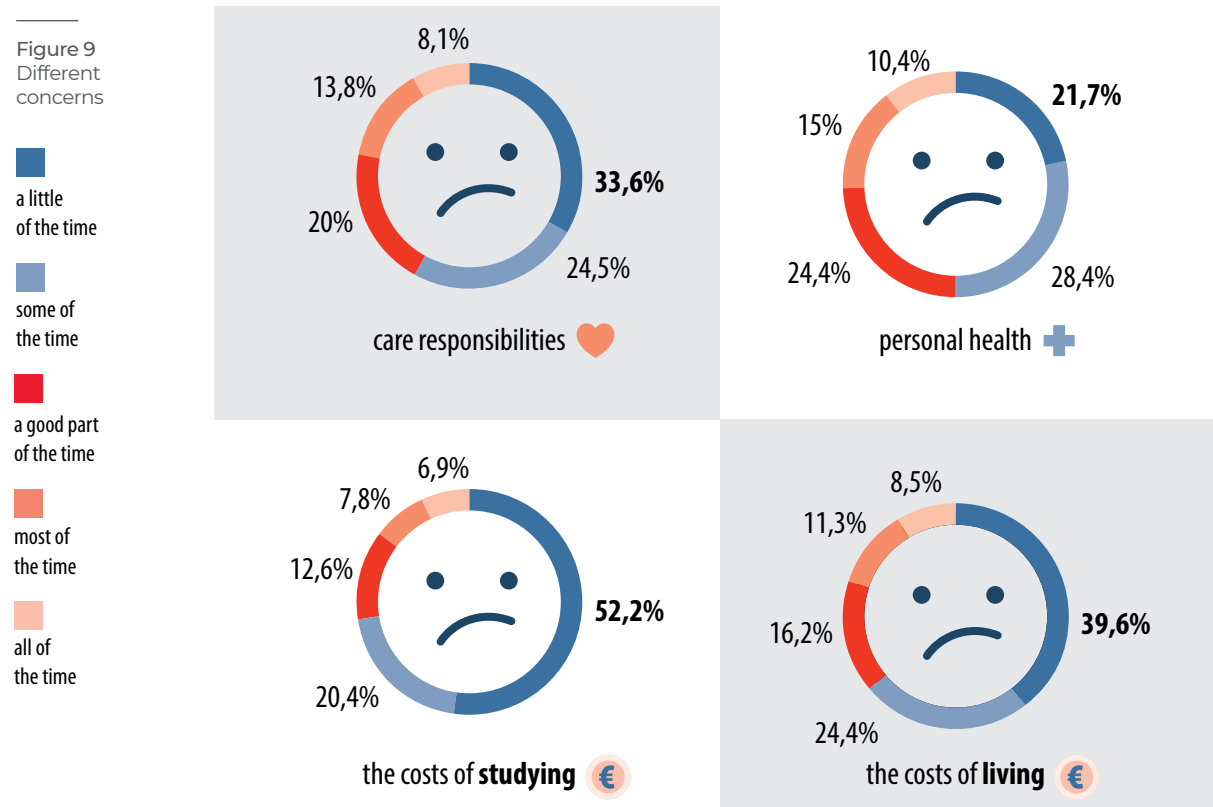
4.5 LIFE CIRCUMSTANCES

4.5.1. Concerns about costs and care responsibilities

Students were asked to indicate how often they are currently concerned about their financial circumstances and care responsibilities. They gave their answers on a Likert-type scale with 5 points (1=a little of the time, 2=some of the time, 3=a good part of the time, 4=most of the time, 5=all of the time).

	N	Mean	Range
How to cover the costs of study	9035	2.97	2-6
How to cover the costs of living	9043	3.25	2-6
How to balance care responsibilities with studying	9017	3.38	2-6
Your health	9055	3.64	2-6

Table 26
How often are any of the following circumstances a worry for you at the moment?



The results show that out of the available options students are most concerned with their health, which is not surprising considering the present anxiety surrounding COVID-19. Balancing care responsibilities with studying as well as the costs of living was indicated as a concern most or all of the time by around a fifth of students.

To examine the personal characteristics of students who tended to worry more about covering their costs of studying and living, a series of one way ANOVAs was conducted (along with the LSD post hoc tests). Differences in extent of worries was examined in relation to year of study and accommodation. Additionally, Pearson correlation coefficients were calculated between scores on items concerning worrying about covering studying and living costs and students' age, gender, student status, paying tuition fees, receiving scholarship, parental educational level, capability to cover study and living costs and presence of health issues.

Results of ANOVAs demonstrated that students did not differ in the frequency of worrying about costs of studying according to their year of study ($F [6, 7169] = 0.47, p=0.83$). However, statistically significant differences emerged when it comes to worrying about costs of living ($F [6, 7175] = 2.59, p=0.016$) – students at master level studies reported more frequent worries about covering living costs compared to undergraduate students at years 1 and 2. In addition, accommodation since the onset of the COVID-19 pandemic turned out to be an important factor in explaining worries about covering both costs for studying and living ($F [3, 7182] = 47.14, p<0.01$ and $F [3, 7188] = 111.02, p<0.01$, respectively). Students who lived in rented accommodation and student hall/dorm reported higher frequency of worrying about costs of studying and living in comparison to students who lived in their family homes or some other accommodation. The results of correlation analyses are shown in Table 27.

As can be seen in Table 27, older and part-time students, those who do not pay tuition fees as well as students who reported the presence of health impairments worried to a

greater extent. In contrast, students with higher capabilities to cover the costs of studying and living and students who have parents with higher educational degrees tend to show lower levels of worries about covering their costs during the COVID-19 pandemic. Once again, the great majority of these effects were really small (except the expected relationship between capability to cover costs and actual worrying about the costs).

	Worrying about costs of studying	Worrying about costs of living
Socio-demographic characteristics		
Age	0.10**	0.12**
Gender ¹	-0.01	0.01
Capability to pay study costs	-0.41**	-0.45**
Parental educational level 1 ²	-0.11**	-0.09**
Parental educational level 2 ²	-0.12**	-0.11**
Academic characteristics		
Student status ¹	.05**	0.05**
Paying tuition fees ¹	-0.17**	-0.07**
Receiving scholarship ¹	-0.01	-0.02
Presence of health issues		
Chronic illness ¹	0.03**	0.05**
Mental health problems ¹	0.08**	0.08**
Physical disabilities ¹	0.04**	0.03**
Other health problems ¹	0.06**	0.07**

Table 27
Correlates of students' worries about costs of studying and living during the COVID-19 pandemic

¹ Dummy variables: gender (0=male, 1=female), health issues (0=absent, 1=present), student status (1=full-time, 2=part-time), paying tuition fees (1=yes, 2=no), receiving scholarship (1=yes, 2=no);

² Due to ordinal scale of the variable, Rho coefficient was calculated;

*p<0.05

**p<0.01;

Correlations were calculated on a sample of students whose on-site classes were cancelled

4.5.2. Working while studying

For some students, working during their studies is a necessity for covering costs. Students were therefore asked whether they had a paid job during the current academic year and whether this job had been affected by the COVID-19 crisis. Out of 9103 respondents who answered this question, more than one third (37,2%) reported that they had not worked this academic year and were not planning to work. As presented in Figure 10, 24% of them answered that they had not worked this academic year but were planning to and more than one third of students (36.2%) had worked this academic year.

As presented in Figure 11, out of 3272 students who have been working or were planning to work, 32,1% reported that they were still working, 28,9% lost the job temporarily, while 12,2% lost the job permanently.

To explore whether groups of students whose job was affected by the COVID-19 pandemic differed in their capability to cover costs of studying and living, a one-way ANOVA was conducted with LSD post hoc tests. The results showed that different groups of students indeed differed in their economic status ($F [5, 4358] = 28.18, p=0.01$). In particular, students who lost their job permanently had statistically significant lower levels of capability to cover the costs of studying and living compared to all other groups of students. In contrast, students who reported still working rated their capability to cover the costs of studying and living as more positive in comparison to their colleagues whose job was affected by the COVID-19 crisis.

4.5.3. Tuition fees

Students were asked whether they pay tuition fees and if so whether the fees had been affected by the COVID-19 pandemic. Out of 9117 respondents who answered this question, 47,8% pay tuition fees. In this group of respondents who pay tuition fees, 75,3% answered that fee payment has remained the same at their institution. However, some institutions have provided flexible ways of paying for the fees (13,8% of students indicated this) and 1,8% of students reported that their institution had cancelled the payment of fees for this term. The distribution of answers is presented in Figure 12.

4.5.4. Scholarships

Students were asked whether they receive a scholarship and whether this had been affected by the COVID-19 crisis. Out of 8179 respondents who answered this question, 64,2% do not and 35,8% do receive a scholarship. Among this group of respondents who receive a scholarship, the majority of them (87,4%) had answered that the amount of scholarship has remained the same. However, for almost one tenth of students the crisis has had an adverse effect on their scholarship status and their scholarship payment had either been postponed (4,10%), cancelled (2,9%) or reduced (2,6%).

Figure 10
Have you had a paid job during the current academic year or were you planning on having a paid job during the current academic year?

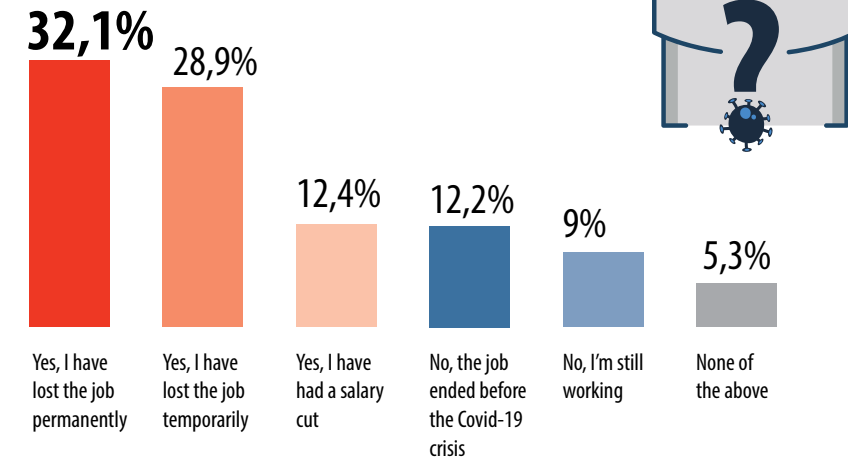
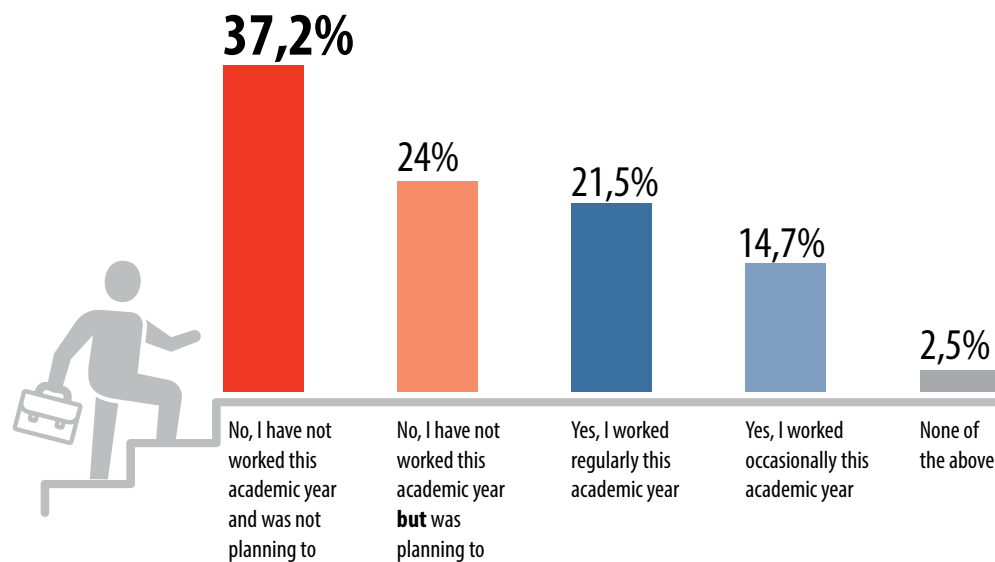


Figure 11
If you have been working or were planning to work, has this paid job been affected by the COVID-19 pandemic

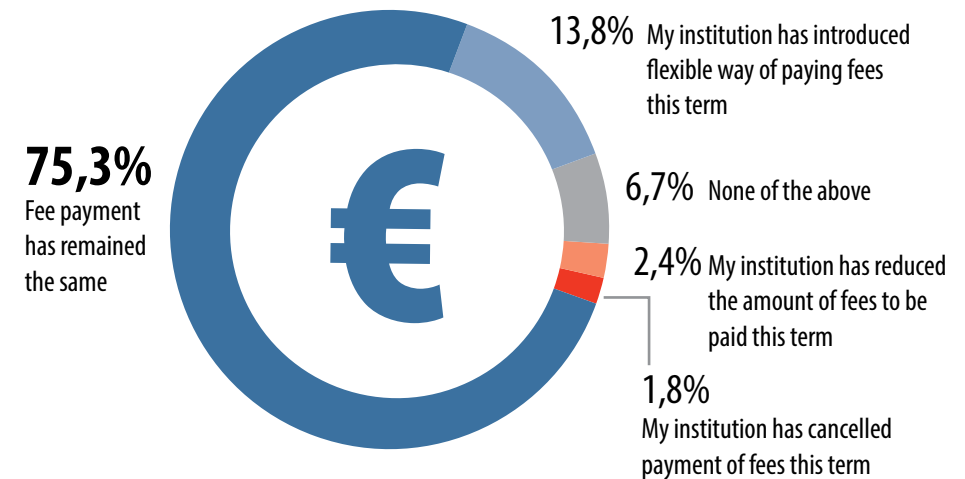


Figure 12
If you do pay tuition fees, in the context of the COVID-19 pandemic please indicate whether...

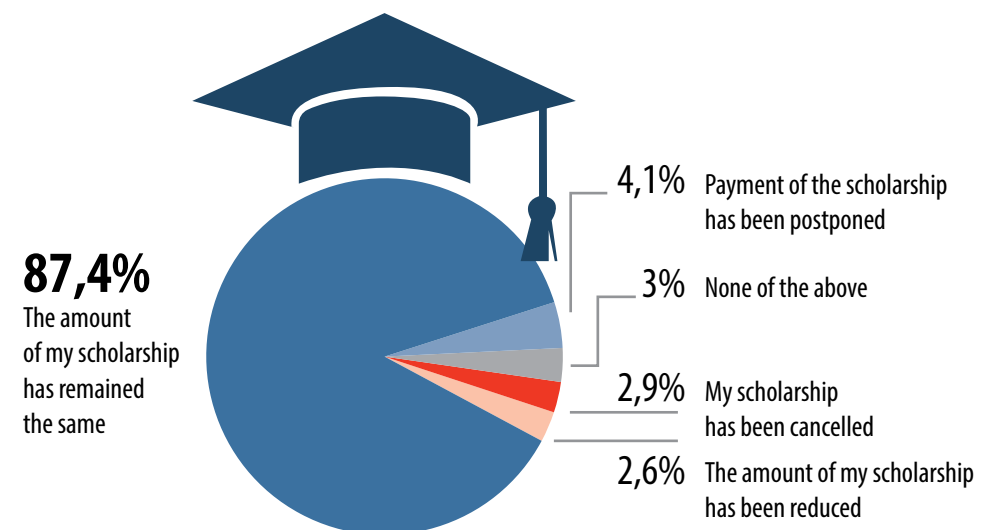


Figure 13
Change in scholarship payment

4.6 CORRELATES OF STUDENTS' SATISFACTION AND ADJUSTMENT DURING THE COVID-19 PANDEMIC LOCKDOWN

We used four indicators of students' adjustment² during the COVID-19 pandemic:

1. Satisfaction with teaching and administration
2. Perceived drop in performance since on-site classes were cancelled
3. Self-efficacy beliefs
4. General well-being

Differences in indicators of students' academic adjustment were explored according to their socio-demographic and academic characteristics (i.e. gender, age, economic status, parental educational level, accommodation, student status, year of study, field of study, tuition fee payment, receiving scholarship), health impairment (i.e. presence of chronic illness, mental health problems, physical disabilities and other health problems), digital capital, bonding social capital, everyday worries (i.e. about health, taking care of others and covering the costs of studying and living) and home facilities for studying (i.e. a quiet place to study, a desk, a computer, a good Internet connection, access to course study material)².

To examine the differences in indicators of students' adjustment according to their field of study, year of study and accommodation since the onset of the COVID-19 pandemic, a series of one-way ANOVAs were calculated. Post hoc multiple comparisons were performed using LSD test and can be found in the Appendix. In the following sections, only statistically significant differences will be commented.

Concerning students' satisfaction with teaching and administration, statistically significant differences emerged in relation to the field of study ($F [8, 7171] = 11.37, p < 0.01$), year of study ($F [6, 7170] = 7.53, p < 0.01$) and accommodation ($F [3, 7183] = 3.84, p < 0.01$). The obtained results suggest that students in the fields of Arts and Humanities and Social Sciences, Business and Law were the most satisfied since their overall satisfaction ratings were higher than ratings of students in all other fields. Students in Agriculture and veterinary medicine and Health and welfare fields were the least satisfied with teaching and administration during the pandemic, possibly because their course consists of practical work which was difficult to organize during lockdown.

Regarding the year of study, results showed that students at master level studies were more satisfied with teaching and administration when compared to undergraduate students. Students at different years of study within the undergraduate and graduate levels did not differ in their levels of satisfaction. Lastly, students who lived in their family home during the COVID-19 pandemic reported to have greater satisfaction than students who lived in rented accommodation.

Next, differences in the perceived drop of academic performance were found only in relation to the year of study ($F [6, 7162] = 4.95, p < 0.01$), but not in relation to field of study ($F [8, 7162] = 1.89, p > 0.05$) or accommodation ($F [3, 7174] = 0.34, p > 0.05$). Undergraduate students in year 1 reported a greater drop in performance when compared to undergraduate students in year 2 and all graduate students. Similarly, undergraduate students in year 2 reported a greater drop in performance in comparison to all graduate students, while undergraduates in years 3 and 4 reported a greater drop in performance only when compared to graduate students in year 1. The results suggest that students in earlier stages of their courses tended to experience a greater decline in academic performance during the COVID-19 pandemic.

Statistically significant differences in students' self-efficacy emerged in relation to the field of study ($F [8, 7098] = 4.36, p < 0.01$) and year of study ($F [6, 7098] = 18.48, p < 0.01$) but not in re-

lation to accommodation ($F [3, 7110] = 0.58, p > 0.05$). Students in the fields of Education, Arts and Humanities, Social Sciences, Business and Law, Health and welfare, as well as Services, reported higher levels of self-efficacy than students in the field of Engineering, Manufacturing and construction. Additionally, students in the field of Social Sciences, Business and Law and Health and welfare reported greater self-efficacy than those in the field of Natural and Life sciences. These results suggest that students of Engineering, Manufacturing and construction might have been the most adversely affected when it comes to their perceived academic self-efficacy. Students studying at in more senior years of study tended to report greater self-efficacy than those studying in lower years of study. More specifically, undergraduate students in year 3 had higher self-efficacy in comparison to undergraduate students in year 2. Similarly, undergraduate students in year 4 had higher self-efficacy when compared to undergraduate students in year 1. Finally, all students at master level reported greater self-efficacy in comparison to their undergraduate colleagues.

Finally, concerning students' general well-being, statistically significant differences emerged in relation to the field of study ($F [8, 70130] = 8.63, p < 0.01$) and year of study ($F [6, 7130] = 7.83, p < 0.01$), but not in relation to accommodation ($F [3, 7149] = 1.18, p > 0.05$). Post hoc comparisons showed that students in the field of Arts and Humanities reported the lowest levels of general well-being when compared to all other groups of students. In addition, students studying in the field of Engineering, Manufacturing and construction reported greater general well-being in comparison to students in Education and Social Sciences, Business and Law fields. Finally, students in the field of Services had greater self-reported well-being in comparison to all other groups of students except students in the fields of Engineering, Manufacturing and construction and Agriculture and veterinary medicine.

In the next step, the correlation coefficients between the four indicators of students' adjustment and socio-demographic and academic characteristics, presence of health issues, the availability of needed home facilities for studying, digital capital, bonding social capital and everyday worries were calculated.

	Satisfaction with teaching and administration	Perceived drop in performance	Self-efficacy	General well-being
Socio-demographic characteristics				
Age	.07**	-0.06**	0.09**	0.11**
Gender ¹	-0.02	-0.03*	-0.01	-0.16**
Capability to pay study costs	0.16**	-0.08**	0.15**	0.17**
Parental educational level 1 ²	-0.02	-0.01	0.04**	0.01
Parental educational level 2 ²	-0.02	-0.01	0.05**	0.02
Academic characteristics				
Student status ¹	0.06**	-0.05**	0.03*	0.05**
Paying tuition fees ¹	-0.06**	0.01	0.01	0.06**
Receiving scholarship ¹	-0.01	-0.02	-0.03*	0.00

Table 28
Correlates of students' adjustment during the COVID-19 pandemic

² Overall student satisfaction with teaching and administration was calculated as a composite score of 7 items (see Table 31 for their content). This newly created scale had a unidimensional latent structure and satisfactory level of internal consistency ($\alpha = 0.84$). Perceived drop in performance was calculated as a mean of ratings on two items assessing perceived changes in academic performance during the pandemic ($\alpha = 0.81$). Self-efficacy and general well-being were calculated as composite scores of items on these two scales.

	Satisfaction with teaching and administration	Perceived drop in performance	Self-efficacy	General well-being
Presence of health issues				
Chronic illness ¹	-0.06**	0.02	-0.04**	-0.09**
Mental health problems ¹	-0.10**	0.11**	-0.14**	-0.34**
Physical disabilities ¹	-0.02	0.01	-0.04**	-0.04**
Other health problems ¹	-0.05**	0.04**	-0.05**	-0.09**
Home facilities for studying				
Quiet place to study	.25**	-0.22**	0.27**	0.29**
Desk	.14**	-0.10**	0.13**	0.14**
Computer	.16**	-0.06**	0.15**	0.08**
Good Internet connection	.20**	-0.16**	0.24**	0.22**
Course study material	.34**	-0.19**	0.31**	0.22**
Digital Capital	.23**	-0.19**	0.32**	0.18**
Social bonding	.23**	-0.16**	0.18**	0.32**
Worries				
Covering the costs of study	-0.16**	0.04**	-0.12**	-0.15**
Covering the costs of living	-0.15**	0.05**	-0.12**	-0.16**
Balancing care responsibilities with studying	-0.13**	0.06**	-0.10**	-0.18**
Health	-0.06**	0.02	-0.06**	-0.17**

¹ Dummy variables: gender (0=male, 1=female), health issues (0=absent, 1=present), student status (1=full-time, 2=part-time), paying tuition fees (1=yes, 2=no), receiving scholarship (1=yes, 2=no)

² Due to ordinal scale of the variable, Spearman Rho coefficient was calculated

* p<0.05

**p<0.0001

Correlations were calculated on a sample of students whose on-site classes were cancelled

Concerning satisfaction with teaching and administration, correlational analysis indicated that students who were older, who had greater capability to cover costs of studying and living, those who were not paying tuition fee as well as part-time students reported greater levels of satisfaction. In addition, higher levels of satisfaction with teaching and administration were reported by students who did not suffer from any chronic illness, mental health problems or other health problems, as well as by students who had better access to home facilities for studying (including a quiet place to study, desk, computer, good Internet connection and course study material). In addition, students with greater digital and bonding social capitals were more satisfied with teaching and administration. Finally, those who worried less about costs of studying and living, their health or balancing care responsibilities with studying were also more satisfied.

Similar results were found for perceived drop in performance. Younger and male students, those who are less able to cover study costs and full-time students reported greater perceived drop in academic performance. Next, this drop was more pronounced among students who suffered from mental health problems and other health problems as well as among those who worried more about costs of study and living, their health and balancing between care responsibilities and studying. In addition, students who reported having poorer access to home facilities needed for studying (including a quiet place to study, desk, computer, good Internet connection and course study material), lower levels of digital and social bonding capitals were also more likely to report they had experienced a drop in their academic performance during lockdown.

Older students, students of more educated parents, part-time students, students who were receiving a scholarship and those who had greater capability to cover their costs, reported higher levels of self-efficacy. In addition, students who did not suffer from any health condition, who had better access to home facilities needed for studying and those with greater levels of digital and social bonding capitals, had higher levels of self-efficacy. In contrast, reporting greater worries about covering study and living costs, their health or balancing between care responsibilities and studying was related to lower self-efficacy levels.

Lastly, older and male students, part-time students and students who were paying tuition fees as well as students who reported a greater capability to cover costs of studying and living had higher levels of general well-being. Greater general well-being was related to the absence of any health problems and lower levels of worries about costs, health or balancing between care responsibilities and studying. Furthermore, having better access to home facilities for studying and higher levels of digital and social bonding capitals were related to greater well-being. In contrast, lower levels of general well-being were reported by women, those with any health issue, those who are worried about covering their study and living costs, their health and balancing care responsibilities with studying.

Finally, to identify which of the examined factors are the most important ones in an attempt to explain the variability in different indicators of students' adjustment, a series of hierarchical regression analyses were conducted. Hierarchical regression analysis enables exploring the unique contribution of specific predictor variables (or set of predictor variables) in explaining the variance in criterion variables after other predictor variables (or set of predictor variables) have been statistically controlled for. In particular, four hierarchical regression analyses were conducted with each of the examined indicators of students' adjustment as criterion variables.



Predictors were entered in the equation in five steps – socio-demographic and academic students' characteristics (i.e. age, gender, student status, paying tuition fees, receiving scholarship and capability to cover costs of studying and living) were entered in the first step; presence of health symptoms (i.e. chronic illness, mental health problems, physical disabilities and other health problems) were entered in the second step; home facilities for studying (i.e. quiet place to study, desk, computer, good Internet connection, course study material) were entered in the third step; digital and social bonding capitals were entered in the fourth step; and worries (i.e. worries about covering costs of study and living, about balancing care responsibilities with studying and about health) were entered in the fifth and last step of the analysis.

Summary results of these analyses are presented in Table 29 while specific results obtained in the last steps of the analyses are presented in Table 30.

The results of hierarchical regression analyses showed that each group of predictors (i.e., socio-demographic and academic characteristics, presence of health issues, home facilities for studying, digital and bonding social capital and worries) explained a unique and significant amount of variability in satisfaction with teaching and administration (17.6% explained variance) and general well-being (28.2% explained variance). However, after statistically controlling for socio-demographic and academic characteristics, presence of health issues, home facilities for studying as well as digital and social bonding capital, worries did not explain any additional variability in perceived drop in performance and self-efficacy. The first four groups of predictors explained 10.3% of variance in perceived drop in performance and 22% of variance in self-efficacy.

Table 29
Summary results of hierarchical regression analysis

Step	Satisfaction with teaching and administration			Perceived drop in performance			Self-efficacy			General well-being		
	R	R ² _{adjusted}	ΔR ²	R	R ² _{adjusted}	ΔR ²	R	R ² _{adjusted}	ΔR ²	R	R ² _{adjusted}	ΔR ²
1	0.196	0.038	0.039	0.117	0.013	0.014	0.196	0.038	0.039	0.261	0.067	0.068
2	0.220	0.047	0.010	0.163	0.025	0.013	0.237	0.055	0.018	0.409	0.166	0.099
3	0.392	0.151	0.105	0.294	0.085	0.060	0.403	0.161	0.106	0.484	0.233	0.067
4	0.417	0.172	0.020	0.324	0.103	0.019	0.471	0.220	0.059	0.522	0.271	0.038
5	0.422	0.176	0.005	0.325	0.103	0.001	0.472	0.220	0.001	0.533	0.282	0.012

* Statistically nonsignificant values (p>0.05) are shown in italic. All other values are statistically significant at p<0.001; Correlations were calculated on a sample of students whose on-site classes were cancelled

Table 30
Standardized regression coefficients in the last step of hierarchical regression analyses

	Satisfaction with teaching and administration	Perceived drop in performance	Self-efficacy	General well-being
Socio-demographic and academic characteristics				
Age	0.060***	0.054**	0.107**	0.099***
Gender ¹	0.020	-0.068***	0.044**	-0.122***
Capability to pay study costs	0.036**	-0.009	0.038**	0.026*
Student status ¹	0.026*	-0.025	-0.014	0.005
Paying tuition fees ¹	-0.077***	-0.002	0.007	0.053***
Receiving scholarship ¹	-0.037**	-0.005	-0.059***	-0.020
Presence of health issues				
Chronic illness ¹	-0.027*	-0.003	0.001	-0.019
Mental health problems ¹	-0.029*	0.074***	-0.057***	-0.240***
Physical disabilities ¹	0.029*	-0.012	0.004	0.012
Other health problems ¹	-0.021	0.016	-0.020	-0.035**
Home facilities for studying				
Quiet place to study	0.095***	-0.139***	0.126***	0.148***
Desk	-0.013	0.001	-0.030	-0.013
Computer	0.025*	0.027*	-0.006	-0.042**
Good Internet connection	0.025*	-0.049***	0.054***	0.050***
Course study material	0.212***	-0.091***	0.153***	0.073***

	Satisfaction with teaching and administration	Perceived drop in performance	Self-efficacy	General well-being
Capital				
Digital Capital	0.103***	-0.125***	0.210***	0.046***
Bonding social capital	0.097***	-0.065***	0.135***	0.199***
Worries				
Covering the costs of study	-0.060**	-0.022	0.013	0.026
Covering the costs of living	-0.005	-0.010	-0.010	-0.010
Balancing care responsibilities with studying	-0.031*	0.016	-0.024	-0.074***
Health	0.009	-0.012	-0.010	-0.071***

1 Dummy variables: gender (0=male, 1=female), health issues (0=absent, 1=present), student status (1=full-time, 2=part-time), paying tuition fees (1=yes, 2=no), receiving scholarship (1=yes, 2=no)

* p<0.05

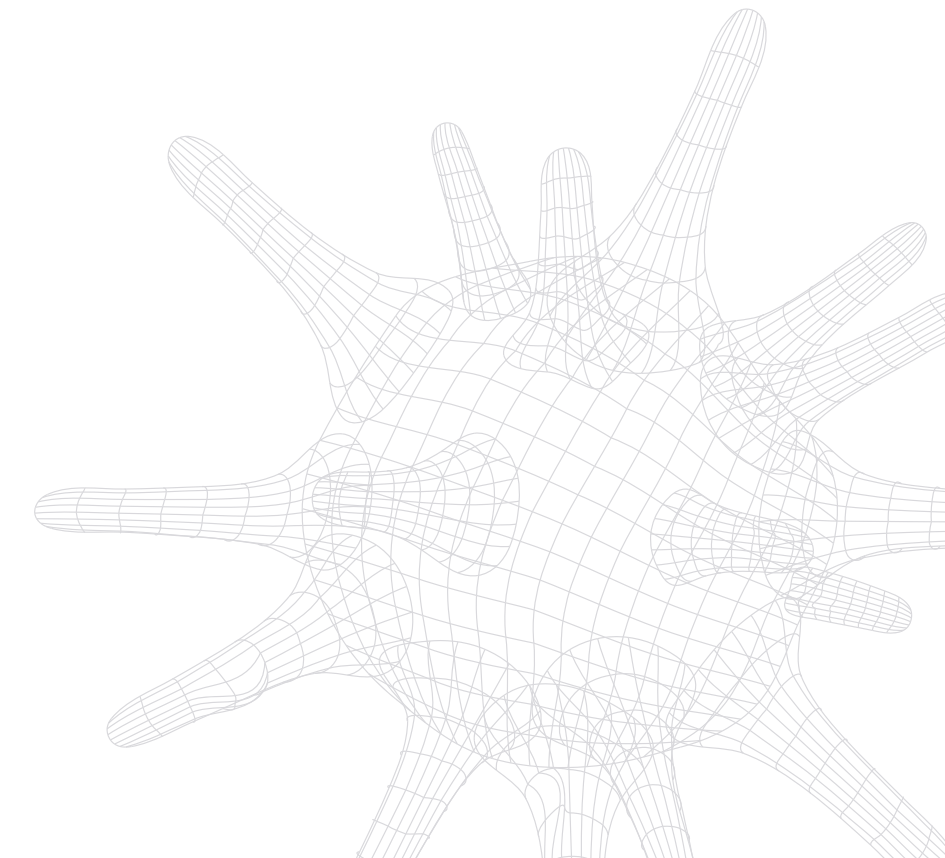
** p<0.01

*** p<0.001

Correlations were calculated on a sample of students whose on-site classes were cancelled

Table 30 shows that, after all other predictors are statistically controlled for, younger students, students who do not have a quiet place to study, a good Internet connection and material for studying at their disposal, as well as students with lower levels of digital and social bonding capital, consistently reported lower adjustment during the COVID-19 pandemic lockdown. In addition, students who reported having mental health problems consistently had lower scores on all indicators of adjustment. All other predictors differed in their size and significance according to the analysed indicator suggesting that different aspects of students' life seem to be differently related to particular indicators of students' successful adaptation during the COVID-19 crisis. For instance, worries about balancing care responsibilities with studying and health were related to lower general well-being but not to satisfaction, self-efficacy or perceived drop in performance. Alternatively, paying tuition fees was related to lower satisfaction with teaching and administration but to higher general well-being. At the same time, paying tuition fees was unrelated to perceived drop in performance and self-efficacy.

It should be noted that many of the effect sizes were rather small. More specifically, even though statistically significant, which can be attributable to the large sample size and consequently great statistical power of the research, some predictors explained a rather modest amount of variance of the examined indicators. In addition, some of the predictor variables that were related to criterion variables at bivariate level, became statistically nonsignificant when entered in the regression equation. Such results can be ascribed to shared variance among predictors and is common in regression analysis.



5

STUDENT VOICES ON STUDYING DURING COVID-19 LOCKDOWN

Students were asked four open-ended questions in the final part of the questionnaire: what they liked and disliked about studying from home, what problems they have encountered in the process and recommendations for improving their study experience. The answers to these open questions were coded openly using descriptive codes. The coding process ended once saturation in responses was reached. The codes were grouped into deductive themes: advantages of studying from home, disadvantages, problems and recommendations. For a summary of the main points raised please see [Table 39](#) in the Appendix.

A prominent answer to the question of what they liked about studying from home during lockdown was the [autonomy to plan their own time](#). The following responses illustrate this: “studying at my own pace”, “paced to my liking”, “I can control my time”, “I like the fact that I can organize my study”, “manage my own schedule”, “plan the day as I like. Wake up when I want, study when I want, take a break when I want, go outside for a walk then I want. Study what subject I want”. The phrase “my own pace” particularly stood out in the answers.

In general, many students when responding to the question of what they liked about studying from home indicated that it opened up “[more time to study](#)” (not having to get ready to go to their higher education institution, not having to travel to and from the institution).

A frequent answer to what students liked about studying at home can be summarized as [being with one’s family](#). Illustrative responses include: “Could spend more time with my parents”, “being surrounded with family”, “be with my partner and my dogs during the day”, “more time with my family”.

Students also singled out [not having to travel](#) as a benefit of studying from home. On the one hand, not having to travel was described as time saving (“not losing time on commute”, “not losing time on transport”, “time saved by not travelling”, “less time spent in traffic”), on the other as cost saving (“save bus fare”, “saving petrol”). [Lower costs](#) were also mentioned by students with regard to food (“saving money I would spend on lunch at café”) and socializing. Additionally, in relation to food, certain students noted that their diet was better when studying from home: “I eat more healthy”.

The [comfort of following lectures from home](#) and [being able to sleep more](#) were also frequent responses. For example, “can participate in class in the comfort of my home”, “more relaxed environment”, “it’s more comfortable to follow the lectures”, “have a bit more sleep”, “getting enough sleep”, “not waking up early” and “more hours of sleep” are selected illustrations of these mentioned benefits. On the other hand, the home can also be a source of frustration for certain students, particularly those who [do not have adequate infrastructure](#) for studying from home, i.e. who do not have a [quiet place to study](#) or have a poor [Internet connection](#) or [poor access to study materials](#): “I am not alone in the house so it’s not always easy to find a quiet place to study”, “I don’t have a separate study room or living room so I am constantly fighting the urge to just stay in bed and be depressed all day”, “Sometimes the Internet is very bad”, “Not all people have the same conditions at home, the lack of Internet or devices is a concern to some”, “study material is not always available”, “the most important thing is that I can’t have all the additional material I could get from the university library”.

For certain students, not having to go to their higher education institutions is [less stressful](#): “I also don’t feel nervous”, “I do not feel I am constantly drowning”. One response problematically indicated that a benefit of studying from home is that “cheating is an option”.

It is important to note that for some of our respondents there are no benefits to studying at home (“I don’t like this way of studying”, “basically none, apart from listening to boring

lectures now from home”, “I cannot find any benefits of studying from home”), as well as that for some this is not a new experience: “I was already studying from home so it doesn’t change anything”, “This is how it was done before COVID-19 so nothing really changed”.

For those who wrote critically of their study experiences at home, the most prominent critique was that they are not able to have practical classes which are integral to their course of study, as well as that they missed face-to-face interaction with their teachers and colleagues. The following responses illustrate this: “the quality of education has been significantly reduced, especially since my field of study (veterinary medicine) is a highly practical education”, “not being able to go to the laboratory or the field (I’m a biology student)”, “no proper interaction with teacher”, “there is no immediate response from the lecturers”, “we could have more video-calls with teachers, where they can talk about the lessons instead of sending work to do for the next weeks”, “having no close contact with friends or colleagues”, “stuck with no one your own age”, “not seeing colleagues for a long time”, “I can’t enjoy the academic life without my friends and social contact”.

Other disadvantages of studying from home which were mentioned include: having to be in front of the computer all day, the monotony of everyday life (repetitive days) as well as blurred boundaries between one’s work and free time.

Problems students mentioned they had encountered during their lockdown study experience overlapped in many ways with what they reported as the disadvantages of studying from home. The biggest problem that students faced was lack of motivation and increased procrastination because of the unstructured schedule that prolongs studying to the whole day. Or in their own words: “Lack of motivation, difficulty distinguishing between free time from study time, less ability to concentrate, stress due to quizzes and tests, uncertainties about the future and method of evaluation”. Indeed, many students responded that it was difficult for them to concentrate at home: “hard to concentrate”, “hard to concentrate at home”, “I can’t focus. I get distracted very easily” are some of the answers illustrating this. Indeed, getting distracted was a frequent response when it came to students listing disadvantages of studying at home. Reasons for this were usually related to one’s family: “It is difficult studying at home with family and kids moving around all the time”, but also other distractions. For example, one student responded: “studying in private at home means it’s very easy to get distracted and procrastinate. TV, computer, smartphone etc.”.

In their experience, online classes cannot compensate for the practical elements of their studies. Moreover, they find it hard to study on their own, without the possibility to immediately clarify open questions with teachers, or to interact and discuss in and outside of classroom with their co-students. More complex subject matter is especially hard to learn in an online environment. As they say: “It takes way more time and energy to study by yourself, than to listen attentively in a lecture while taking notes. I also used to ask a lot of questions to understand the subject matter more, but I can’t really do that anymore.”; “I miss going to Uni and meeting everybody there and talk to them. In our Uni it’s like a big family and we always help each other and rate the work of the others or have tips. It isn’t easy to do that online.”; “Time just disappear somewhere and the midnight is come, and nothing is done. Don’t have motivation to do it all on my own in home alone. The video call is not enough to get motivation. The feeling is like it’s not real. Everything is online and everything is worthless. Don’t have real person feedback for my work, just emails.” A paradox therefore emerges: a flexible schedule and living at home can on the one hand be less stressful and less financially demanding, but on the other hand can make it harder for the students to focus on studying and can also alienate them from their co-students.

Combined with these problems, not having clear and sufficient information about exams, creates additional problems to the online study experience.

Students feel that their workload has increased because teachers compensated the lack of on-site classes by additional assignments. So, students spend a lot of time in front of the computer, indoors and sitting down, and some in unsuitable conditions for studying (they do

not have their own rooms, no desks, they share a computer and internet connection or are distracted by family). Although being with family provides support, it can also be challenging to maintain one’s focus on studying in a home setting, especially for students who live in big families or have children themselves: “Eye tiredness, more homework (projects, works), the necessity to do several things around the house while studying, which distracts from the work that I am doing”; “I am not alone in the house so it’s not always easy to find a quiet place to study and the most important thing is that I can’t have all the additional material I could get from university’s library.”; “(...) Family expecting me to do housework even though I say I have schoolwork to do.”; “I have struggled finding my quiet place in the house and focusing on a daily basis. There are days where I feel very focused, and days where I feel very useless and effortless. Going from living with 1 friend, to living every day in contact with 4 family members has been a huge change that has really impacted my learning and focus.”

Rounding up problems that students encountered while studying from home, poor internet connections were often mentioned. Whether their connection was breaking off, or was insufficiently fast since the whole of their household was either working or studying from home, this seems to be the most common (technical) obstacle experienced. But, even when the Internet was working, students needed more free and online accessible resources for studying. In that respect, closing up of libraries made it even harder for students to study, since they lost access to study materials and were not able to use libraries as a place for studying. This seems to be especially hard for those students who do not have favourable home conditions (e.g. disagreements with parents or having children). This makes libraries a rather crucial resource for a full study experience.

In naming what would make their studying from home experience better, students were slightly less elaborate. Their suggestions for improvement counterpart their naming of the problems they encountered. They would also either claim that they do not have any suggestions on how to improve their online studying experience, or they would express their wish to return to campus.

As our questionnaire data shows, students suggested that more of the classes should be held live via video-calls. They emphasize the living experience of the lecture, since studying from written materials provided by teachers is not sufficient. But, in order to help them study better, they would also like to have a recording of the lectures, so that they can return to them at their convenience: “If the lecturers had made movies of all lectures we would have normally, and we would have possibility to play it when we want.”

In addition, a lighter workload, clearer teacher instructions and more understanding for the stressful living and studying situation both on the part of teachers but also university administration, would also be helpful. Overall better support of university administration is named as an important element of improvement of online studying: “I would upload online materials that we need to pass exams, make an open class where administration and professors can hear our problems and demands”. Of course, better internet connections and (personal) computer resources were also seen as crucial.

Students have noted that being able to study at one online platform in a similar manner for all the courses would also better their studying from home experience: “At present situation, every lector is working with students in a slightly different manner. Some unification would make situation easier.” This claim indicates that they would like the online experience to resemble the on-site studying experience as much as possible. If they cannot be on campus, at least they would like to emulate that structure and learning experience in a digital surrounding.

A fuller picture of the challenges of studying from home can be rounded up by the following statement that emphasizes all of the socio-economic complexities of students’ experience during the COVID-19 crisis: “(...) better social conditions, equal PC for all students. Job loss is a heavy social burden, especially when it is not sure how to pay rent etc. Social backgrounds favor who studies well and who does not. The university cannot cope with the fact that someone has to do care-work on the side. There must not be any disadvantage for any students.”

6

POLICY IMPLICATIONS

RECOMMENDATIONS FOR PUBLIC AUTHORITIES RESPONSIBLE FOR HIGHER EDUCATION

LEARNING AND TEACHING

Public authorities should support and provide the means to higher education institutions to improve initial and continuing professional training for academic and administrative staff on how to effectively replace on-site learning and teaching methods with online delivery.

The COVID-19 pandemic forced higher education institutions to transform their methods of teaching and learning in a very short period. This transformation has required extensive use of technology and communication platforms by academic and administrative staff. Public authorities should help higher education institutions by creating cooperative national structures, securing the exchange of good practices, and facilitating peer learning and inter-institutional staff development both in terms of the technical aspects of online delivery, but also pedagogic practices including assessment.

STUDENT SERVICES

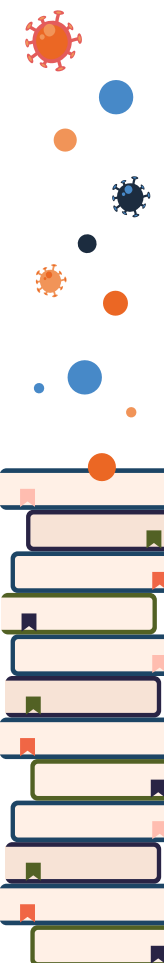
Public authorities should have policies that enable higher education institutions to provide effective, accessible, and user-friendly counselling and guidance for students in order to find adequate solutions for academic, health, and career challenges caused by the COVID-19 pandemic.

Students (45,5%) prefer to talk about the COVID-19 crisis with close family members, followed by a close friend (32,8% of students). Only 1,5% of students would turn to institutional sources of support such as administrative staff. On the other side, if they would like to talk about problems related to studying issues (lectures, seminars, practical work), 32,4% of respondents would first turn to their colleagues, while 31,6% of our respondents would first talk to a close friend, and 18,9% chose the answer "close family member". Only 5,8% of students would turn to administrative staff at their institution. So students very often do not seek institutional support for problems they may have.

FUNDING

An emergency fund for helping students to ameliorate the negative consequences caused by the COVID-19 pandemic should be established by public authorities, and it should provide grants to underrepresented, disadvantaged, and vulnerable students.

The Eurostudent VII survey (2020:14) shows that on average almost 60% of students in Eurostudent countries work along studies. The same survey finds that 49% of students would not have been able to study at all if they did not have a paid job to finance their studies. On the other side, this survey demonstrates that, out of the students who were working or had intended to work this term, 12,2% had lost their job permanently and 28,9% lost the job temporarily. These students are now significantly less capable of covering their cost of study and living, compared to all other groups of students. One of these costs is related to accommodation. In particular, a higher proportion of students who lived in rented accommodation and student dorms reported worrying about costs of studying



and living in comparison to students who lived in their family homes or in some other accommodation. At the same time, the Eurostudent VII survey demonstrates (2020:19) that accommodation costs are usually students' most significant expense, with students spending at least 40% of their monthly income on accommodation.

Furthermore, this survey shows that for almost 10% of students, the crisis has had an adverse effect on their scholarship status, and their scholarship payment had either been postponed (4.10%), cancelled (2.9%), or reduced (2.6%). Therefore, regular scholarship payment should be ensured.

Finally, since most of the teaching, learning, and assessment happens online during the COVID-19 pandemic, students need adequate equipment and infrastructure for their online work. This survey demonstrates that the majority of students have their own computer (89.3%), however almost 60% reported they do not always have a reliable Internet connection.

RECOMMENDATIONS FOR HIGHER EDUCATION INSTITUTIONS

LEARNING AND TEACHING

Due to the pandemic, on-site lectures, seminars, and practical classes should be replaced with different online or blended learning and teaching forms, in a way which secures that students achieve all planned learning outcomes.

On-site lectures were mainly replaced by synchronous online lectures (74,6%); on-site seminars were mainly replaced by synchronous online seminars (45%); onsite practical classes were mainly replaced by synchronous online practical classes (41,7%).

In all teaching forms, the preferred method of content delivery is synchronous. Challenges related to holding practical classes online were particularly highlighted by students. While only 3.75% of students reported that no replacement lectures were offered for their course, a higher proportion of students reported this for seminars (15%) and practical classes (20,23%).

LEARNING AND TEACHING

While working in the online environment, higher education institutions should secure easy online access to course study materials for all students.

In this survey, only 31,9% students reported that they always have access to course study materials. Higher education institutions should make study materials available online, because university and other libraries may be closed or difficult to visit because of epidemiological measures.

COMPETENCE BUILDING

Higher education institutions should provide adequate training for building digital competencies to all students and to teaching and administrative staff in order to enable them to study and work effectively and efficiently in the online environment.

The majority of students (8,7%) feels confident in using online teaching platforms. However, 7,9% indicated a lack of confidence in using online teaching platforms.

STUDENT SERVICES

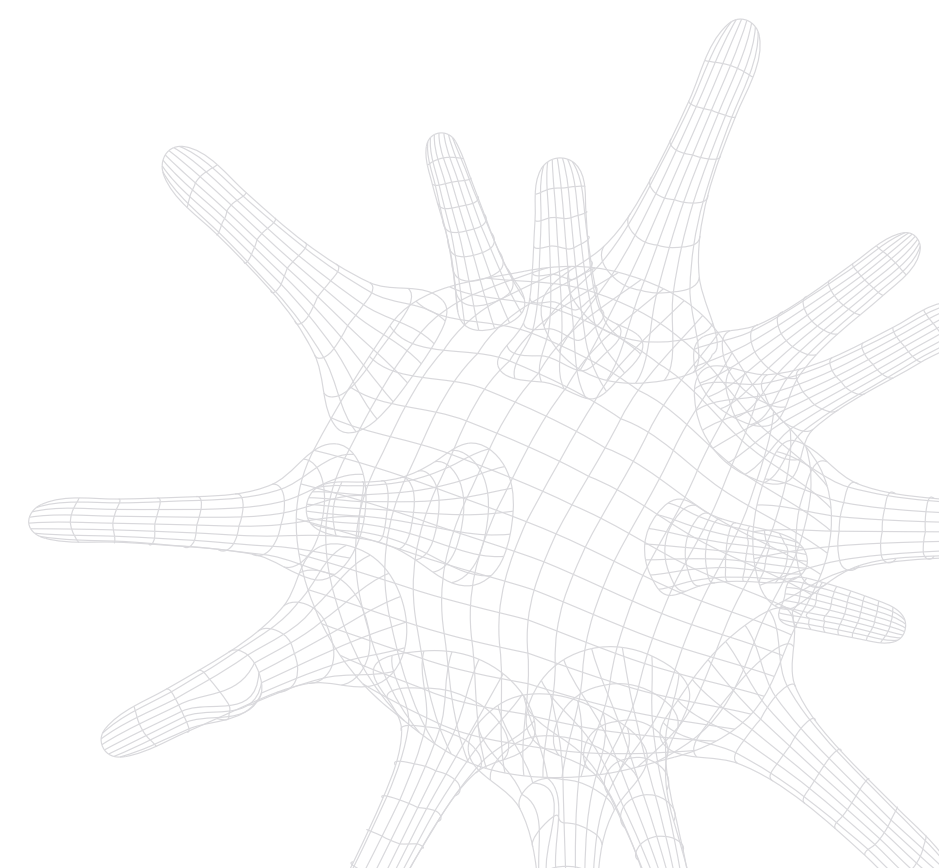
Higher education institutions should ensure effective, accessible, and user-friendly counselling and guidance for students in order to find adequate solutions for academic, health and career challenges caused by the COVID-19 pandemic.

Students have frequently felt frustrated, anxious, and bored in their academic activities since on-site classes had been canceled. The results indicate that students' well-being during the COVID-19 pandemic might have been negatively affected. Lower levels of general well-being were reported by students who do not have a supportive social network: 9,1% of students indicated that they do not have several people they can trust to help solve their problems. Therefore, counseling and guidance services may facilitate student-to-student mentoring or professor-to-student mentoring, particularly at the beginning and lower levels of study, in order to help them build a supportive social network. Student organizations should also, particularly at times of crisis, reach out to their members and contribute to strengthening social ties among colleagues.

FUNDING

Higher education institutions should adjust their tuition policies to the new circumstances for students who demonstrate that they are negatively affected by the COVID-19 pandemic. They should consider prolonging tuition fee payment due dates, introducing installment plans for tuition payments, decreasing the amount of tuition fees, or cancelling tuition fees.

For students paying tuition fees, the majority of students (75,3%) answered in this survey that their tuition fee payments have remained the same at their institution. For some students, more flexible payment methods of tuition fees were introduced (13,8%), and 1,8% reported their institution had cancelled tuition fee payment for this term.



APPENDIX

Table 31. Differences in students' satisfaction with teaching and administration in relation to the field of study

Field of study		Mean Difference	Standard Error	p
Other (please specify)	Education	.01125	.05578	.840
	Arts and Humanities	-.09805*	.04136	.018
	Social Sciences, Business and Law	-.10158*	.03630	.005
	Natural and Life Sciences	.09116	.04854	.060
	Engineering, Manufacturing and construction	.00531	.03699	.886
	Agriculture and veterinary medicine	.21224*	.05733	.000
	Health and welfare	.16301*	.03722	.000
	Services (tourism, sports, transport, security)	-.01442	.05799	.804
Education	Other (please specify)	-.01125	.05578	.840
	Arts and Humanities	-.10929	.05771	.058
	Social Sciences, Business and Law	-.11283*	.05419	.037
	Natural and Life Sciences	.07992	.06305	.205
	Engineering, Manufacturing and construction	-.00594	.05466	.913
	Agriculture and veterinary medicine	.20099*	.07004	.004
	Health and welfare	.15177*	.05481	.006
	Services (tourism, sports, transport, security)	-.02567	.07058	.716
Arts and Humanities	Other (please specify)	.09805*	.04136	.018
	Education	.10929	.05771	.058
	Social Sciences, Business and Law	-.00353	.03920	.928
	Natural and Life Sciences	.18921*	.05075	.000
	Engineering, Manufacturing and construction	.10335*	.03985	.010
	Agriculture and veterinary medicine	.31029*	.05921	.000
	Health and welfare	.26106*	.04006	.000
	Services (tourism, sports, transport, security)	.08362	.05985	.162

Field of study		Mean Difference	Standard Error	p
Social Sciences, Business and Law	Other (please specify)	.10158*	.03630	.005
	Education	.11283*	.05419	.037
	Arts and Humanities	.00353	.03920	.928
	Natural and Life Sciences	.19274*	.04671	.000
	Engineering, Manufacturing and construction	.10689*	.03456	.002
	Agriculture and veterinary medicine	.31382*	.05579	.000
	Health and welfare	.26459*	.03480	.000
	Services (tourism, sports, transport, security)	.08716	.05646	.123
	Natural and Life Sciences	Other (please specify)	-.09116	.04854
Education		-.07992	.06305	.205
Arts and Humanities		-.18921*	.05075	.000
Social Sciences, Business and Law		-.19274*	.04671	.000
Engineering, Manufacturing and construction		-.08585	.04726	.069
Agriculture and veterinary medicine		.12108	.06443	.060
Health and welfare		.07185	.04743	.130
Services (tourism, sports, transport, security)		-.10559	.06502	.104
Engineering, Manufacturing and Construction		Other (please specify)	-.00531	.03699
	Education	.00594	.05466	.913
	Arts and Humanities	-.10335*	.03985	.010
	Social Sciences, Business and Law	-.10689*	.03456	.002
	Natural and Life Sciences	.08585	.04726	.069
	Agriculture and veterinary medicine	.20693*	.05624	.000
	Health and welfare	.15771*	.03552	.000
	Services (tourism, sports, transport, security)	-.01973	.05691	.729

Field of study		Mean Difference	Standard Error	p
Agriculture and Veterinary Medicine	Other (please specify)	-.21224*	.05733	.000
	Education	-.20099*	.07004	.004
	Arts and Humanities	-.31029*	.05921	.000
	Social Sciences, Business and Law	-.31382*	.05579	.000
	Natural and Life Sciences	-.12108	.06443	.060
	Engineering, Manufacturing and construction	-.20693*	.05624	.000
	Health and welfare	-.04922	.05639	.383
	Services (tourism, sports, transport, security)	-.22666*	.07181	.002
	Health and Welfare	Other (please specify)	-.16301*	.03722
Education		-.15177*	.05481	.006
Arts and Humanities		-.26106*	.04006	.000
Social Sciences, Business and Law		-.26459*	.03480	.000
Natural and Life Sciences		-.07185	.04743	.130
Engineering, Manufacturing and construction		-.15771*	.03552	.000
Agriculture and veterinary medicine		.04922	.05639	.383
Services (tourism, sports, transport, security)		-.17744*	.05706	.002
Services (tourism, sports, transport, security)		Other (please specify)	.01442	.05799
	Education	.02567	.07058	.716
	Arts and Humanities	-.08362	.05985	.162
	Social Sciences, Business and Law	-.08716	.05646	.123
	Natural and Life Sciences	.10559	.06502	.104
	Engineering, Manufacturing and construction	.01973	.05691	.729
	Agriculture and veterinary medicine	.22666*	.07181	.002
	Health and welfare	.17744*	.05706	.002

*The mean difference is statistically significant at p<0.05

Table 32. Differences in students' satisfaction with teaching and administration in relation to the year of study

Year of study		Mean Difference	Standard Error	p
Other (please specify)	Undergraduate year 1	-.04714	.04886	.335
	Undergraduate year 2	-.04331	.04955	.382
	Undergraduate year 3	-.02433	.05032	.629
	Undergraduate year 4	.03635	.05935	.540
	Master's year 1	-.23124*	.05453	.000
	Master's year 2	-.16015*	.06586	.015
	Undergraduate year 1	Other (please specify)	.04714	.04886
Undergraduate year 2		.00383	.02948	.897
Undergraduate year 3		.02282	.03076	.458
Undergraduate year 4		.08349	.04401	.058
Master's year 1		-.18409*	.03725	.000
Master's year 2		-.11301*	.05246	.031
Other (please specify)		.04331	.04955	.382
Undergraduate year 1		-.00383	.02948	.897
Undergraduate year 2		Undergraduate year 3	.01899	.03185
	Undergraduate year 4	.07966	.04477	.075
	Master's year 1	-.18792*	.03815	.000
	Master's year 2	-.11684*	.05311	.028
Undergraduate year 3	Other (please specify)	.02433	.05032	.629
	Undergraduate year 1	-.02282	.03076	.458
	Undergraduate year 2	-.01899	.03185	.551
	Undergraduate year 4	.06067	.04562	.184
	Master's year 1	-.20691*	.03915	.000
	Master's year 2	-.13582*	.05383	.012
Undergraduate year 4	Other (please specify)	-.03635	.05935	.540
	Undergraduate year 1	-.08349	.04401	.058
	Undergraduate year 2	-.07966	.04477	.075
	Undergraduate year 3	-.06067	.04562	.184
	Master's year 1	-.26758*	.05023	.000
	Master's year 2	-.19650*	.06235	.002

Year of study		Mean Difference	Standard Error	p
Master's year 1	Other (please specify)	.23124*	.05453	.000
	Undergraduate year 1	.18409*	.03725	.000
	Undergraduate year 2	.18792*	.03815	.000
	Undergraduate year 3	.20691*	.03915	.000
	Undergraduate year 4	.26758*	.05023	.000
	Master's year 2	.07108	.05778	.219
Master's year 2	Other (please specify)	.16015*	.06586	.015
	Undergraduate year 1	.11301*	.05246	.031
	Undergraduate year 2	.11684*	.05311	.028
	Undergraduate year 3	.13582*	.05383	.012
	Undergraduate year 4	.19650*	.06235	.002
	Master's year 1	-.07108	.05778	.219

Table 33. Differences in students' satisfaction with teaching and administration in relation to their accommodation

Accommodation		Mean Difference	Standard Error	p
Other (please specify)	Family home	.04585	.06400	.474
	Rented accommodation	.14705*	.06914	.033
	Student hall/dorm	.06031	.07855	.443
Family home	Other (please specify)	-.04585	.06400	.474
	Rented accommodation	.10120*	.03107	.001
	Student hall/dorm	.01446	.04853	.766
Rented accommodation	Other (please specify)	-.14705*	.06914	.033
	Family home	-.10120*	.03107	.001
	Student hall/dorm	-.08674	.05513	.116
Student hall/dorm	Other (please specify)	-.06031	.07855	.443
	Family home	-.01446	.04853	.766
	Rented accommodation	.08674	.05513	.116

* The mean difference is statistically significant at p<0.05

Table 34. Differences in students' perceived drop in academic performance in relation to the year of study

Year of study		Mean Difference	Standard Error	p
Other (please specify)	Undergraduate year 1	-.13796*	.05777	.017
	Undergraduate year 2	-.12271*	.05860	.036
	Undergraduate year 3	-.06255	.05953	.293
	Undergraduate year 4	-.06078	.07041	.388
	Master's year 1	.06704	.06457	.299
	Master's year 2	.01270	.07836	.871
	Undergraduate year 1	Other (please specify)	.13796*	.05777
Undergraduate year 2		.01525	.03482	.661
Undergraduate year 3		.07541*	.03637	.038
Undergraduate year 4		.07718	.05231	.140
Master's year 1		.20500*	.04413	.000
Master's year 2		.15066*	.06260	.016
Undergraduate year 2		Other (please specify)	.12271*	.05860
	Undergraduate year 1	-.01525	.03482	.661
	Undergraduate year 3	.06016	.03767	.110
	Undergraduate year 4	.06193	.05323	.245
	Master's year 1	.18975*	.04521	.000
	Master's year 2	.13541*	.06336	.033
Undergraduate year 3	Other (please specify)	.06255	.05953	.293
	Undergraduate year 1	-.07541*	.03637	.038
	Undergraduate year 2	-.06016	.03767	.110
	Undergraduate year 4	.00178	.05425	.974
	Master's year 1	.12960*	.04642	.005
	Master's year 2	.07526	.06423	.241
Undergraduate year 4	Other (please specify)	.06078	.07041	.388
	Undergraduate year 1	-.07718	.05231	.140
	Undergraduate year 2	-.06193	.05323	.245
	Undergraduate year 3	-.00178	.05425	.974
	Master's year 1	.12782*	.05974	.032
	Master's year 2	.07348	.07443	.324

Year of study		Mean Difference	Standard Error	p
Master's year 1	Other (please specify)	-.06704	.06457	.299
	Undergraduate year 1	-.20500*	.04413	.000
	Undergraduate year 2	-.18975*	.04521	.000
	Undergraduate year 3	-.12960*	.04642	.005
	Undergraduate year 4	-.12782*	.05974	.032
	Master's year 2	-.05434	.06892	.430
Master's year 2	Other (please specify)	-.01270	.07836	.871
	Undergraduate year 1	-.15066*	.06260	.016
	Undergraduate year 2	-.13541*	.06336	.033
	Undergraduate year 3	-.07526	.06423	.241
	Undergraduate year 4	-.07348	.07443	.324
	Master's year 1	.05434	.06892	.430

*The mean difference is statistically significant at p<0.05

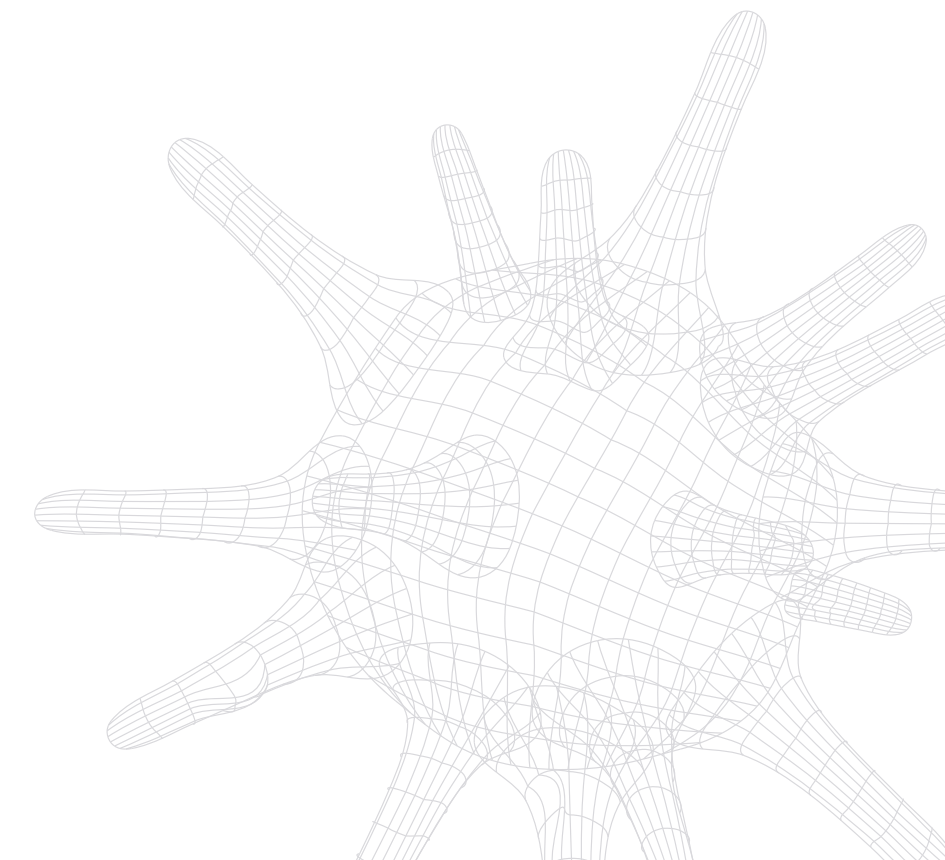


Table 35. Differences in students' self-efficacy in relation to field of study

Field of study		Mean Difference	Standard Error	p
Other (please specify)	Education	-.06370	.05353	.234
	Arts and Humanities	-.03571	.03957	.367
	Social Sciences, Business and Law	-.08945*	.03482	.010
	Natural and Life Sciences	.03998	.04672	.392
	Engineering, Manufacturing and construction	.08488*	.03542	.017
	Agriculture and veterinary medicine	-.01804	.05531	.744
	Health and welfare	-.05620	.03575	.116
	Services (tourism, sports, transport, security)	-.04511	.05560	.417
	Education	Other (please specify)	.06370	.05353
Arts and Humanities		.02799	.05539	.613
Social Sciences, Business and Law		-.02575	.05210	.621
Natural and Life Sciences		.10367	.06070	.088
Engineering, Manufacturing and construction		.14858*	.05250	.005
Agriculture and veterinary medicine		.04566	.06754	.499
Health and welfare		.00750	.05272	.887
Services (tourism, sports, transport, security)		.01859	.06777	.784
Arts and Humanities		Other (please specify)	.03571	.03957
	Education	-.02799	.05539	.613
	Social Sciences, Business and Law	-.05374	.03762	.153
	Natural and Life Sciences	.07569	.04884	.121
	Engineering, Manufacturing and construction	.12060*	.03817	.002
	Agriculture and veterinary medicine	.01767	.05711	.757
	Health and welfare	-.02049	.03848	.594
	Services (tourism, sports, transport, security)	-.00940	.05739	.870

Field of study		Mean Difference	Standard Error	p
Social Sciences, Business and Law	Other (please specify)	.08945*	.03482	.010
	Education	.02575	.05210	.621
	Arts and Humanities	.05374	.03762	.153
	Natural and Life Sciences	.12942*	.04508	.004
	Engineering, Manufacturing and construction	.17433*	.03322	.000
	Agriculture and veterinary medicine	.07141	.05393	.186
	Health and welfare	.03325	.03358	.322
	Services (tourism, sports, transport, security)	.04434	.05423	.414
	Natural and Life Sciences	Other (please specify)	-.03998	.04672
Education		-.10367	.06070	.088
Arts and Humanities		-.07569	.04884	.121
Social Sciences, Business and Law		-.12942*	.04508	.004
Engineering, Manufacturing and construction		.04491	.04554	.324
Agriculture and veterinary medicine		-.05802	.06228	.352
Health and welfare		-.09617*	.04580	.036
Services (tourism, sports, transport, security)		-.08509	.06254	.174
Engineering, Manufacturing and Construction		Other (please specify)	-.08488*	.03542
	Education	-.14858*	.05250	.005
	Arts and Humanities	-.12060*	.03817	.002
	Social Sciences, Business and Law	-.17433*	.03322	.000
	Natural and Life Sciences	-.04491	.04554	.324
	Agriculture and veterinary medicine	-.10292	.05432	.058
	Health and welfare	-.14108*	.03419	.000
	Services (tourism, sports, transport, security)	-.12999*	.05461	.017

Field of study		Mean Difference	Standard Error	p
Agriculture and Veterinary Medicine	Other (please specify)	.01804	.05531	.744
	Education	-.04566	.06754	.499
	Arts and Humanities	-.01767	.05711	.757
	Social Sciences, Business and Law	-.07141	.05393	.186
	Natural and Life Sciences	.05802	.06228	.352
	Engineering, Manufacturing and construction	.10292	.05432	.058
	Health and welfare	-.03816	.05454	.484
	Services (tourism, sports, transport, security)	-.02707	.06919	.696
Health and Welfare	Other (please specify)	.05620	.03575	.116
	Education	-.00750	.05272	.887
	Arts and Humanities	.02049	.03848	.594
	Social Sciences, Business and Law	-.03325	.03358	.322
	Natural and Life Sciences	.09617*	.04580	.036
	Engineering, Manufacturing and construction	.14108*	.03419	.000
	Agriculture and veterinary medicine	.03816	.05454	.484
	Services (tourism, sports, transport, security)	.01109	.05483	.840
Services (tourism, sports, transport, security)	Other (please specify)	.04511	.05560	.417
	Education	-.01859	.06777	.784
	Arts and Humanities	.00940	.05739	.870
	Social Sciences, Business and Law	-.04434	.05423	.414
	Natural and Life Sciences	.08509	.06254	.174
	Engineering, Manufacturing and construction	.12999*	.05461	.017
	Agriculture and veterinary medicine	.02707	.06919	.696
	Health and welfare	-.01109	.05483	.840

* The mean difference is statistically significant at $p < 0.05$

Table 36. Differences in students' self-efficacy in relation to the year of study

Year of study		Mean Difference	Standard Error	p
Other (please specify)	Undergraduate year 1	.21157*	.04662	.000
	Undergraduate year 2	.18438*	.04728	.000
	Undergraduate year 3	.07230	.04806	.133
	Undergraduate year 4	.12345*	.05681	.030
	Master's year 1	-.07328	.05206	.159
	Master's year 2	-.10918	.06315	.084
	Undergraduate year 1	Other (please specify)	-.21157*	.04662
Undergraduate year 2		-.02719	.02804	.332
Undergraduate year 3		-.13927*	.02934	.000
Undergraduate year 4		-.08812*	.04217	.037
Master's year 1		-.28485*	.03551	.000
Master's year 2		-.32076*	.05038	.000
Other (please specify)		-.18438*	.04728	.000
Undergraduate year 2	Undergraduate year 1	.02719	.02804	.332
	Undergraduate year 3	-.11208*	.03037	.000
	Undergraduate year 4	-.06093	.04290	.156
	Master's year 1	-.25765*	.03637	.000
	Master's year 2	-.29356*	.05099	.000
Undergraduate year 3	Other (please specify)	-.07230	.04806	.133
	Undergraduate year 1	.13927*	.02934	.000
	Undergraduate year 2	.11208*	.03037	.000
	Undergraduate year 4	.05115	.04376	.242
	Master's year 1	-.14558*	.03738	.000
	Master's year 2	-.18149*	.05172	.000
Undergraduate year 4	Other (please specify)	-.12345*	.05681	.030
	Undergraduate year 1	.08812*	.04217	.037
	Undergraduate year 2	.06093	.04290	.156
	Undergraduate year 3	-.05115	.04376	.242
	Master's year 1	-.19673*	.04812	.000
	Master's year 2	-.23264*	.05994	.000

Year of study		Mean Difference	Standard Error	p
Master's year 1	Other (please specify)	.07328	.05206	.159
	Undergraduate year 1	.28485*	.03551	.000
	Undergraduate year 2	.25765*	.03637	.000
	Undergraduate year 3	.14558*	.03738	.000
	Undergraduate year 4	.19673*	.04812	.000
	Master's year 2	-.03591	.05545	.517
Master's year 2	Other (please specify)	.10918	.06315	.084
	Undergraduate year 1	.32076*	.05038	.000
	Undergraduate year 2	.29356*	.05099	.000
	Undergraduate year 3	.18149*	.05172	.000
	Undergraduate year 4	.23264*	.05994	.000
	Master's year 1	.03591	.05545	.517

Table 37. Differences in students' general well-being in relation to field of study

Field of study		Mean Difference	Standard Error	p
Other (please specify)	Education	.04189	.05149	.416
	Arts and Humanities	.19346*	.03816	.000
	Social Sciences, Business and Law	-.00123	.03344	.971
	Natural and Life Sciences	.00186	.04456	.967
	Engineering, Manufacturing and construction	-.07226*	.03408	.034
	Agriculture and veterinary medicine	-.06174	.05281	.242
	Health and welfare	-.03022	.03427	.378
	Services (tourism, sports, transport, security)	-.14438*	.05322	.007
Education	Other (please specify)	-.04189	.05149	.416
	Arts and Humanities	.15157*	.05331	.004
	Social Sciences, Business and Law	-.04311	.05004	.389
	Natural and Life Sciences	-.04003	.05806	.491
	Engineering, Manufacturing and construction	-.11414*	.05047	.024
	Agriculture and veterinary medicine	-.10363	.06461	.109
	Health and welfare	-.07211	.05059	.154
	Services (tourism, sports, transport, security)	-.18627*	.06494	.004

Field of study		Mean Difference	Standard Error	p
Arts and Humanities	Other (please specify)	-.19346*	.03816	.000
	Education	-.15157*	.05331	.004
	Social Sciences, Business and Law	-.19469*	.03617	.000
	Natural and Life Sciences	-.19160*	.04664	.000
	Engineering, Manufacturing and construction	-.26571*	.03676	.000
	Agriculture and veterinary medicine	-.25520*	.05458	.000
	Health and welfare	-.22368*	.03693	.000
	Services (tourism, sports, transport, security)	-.33784*	.05497	.000
Social Sciences, Business and Law	Other (please specify)	.00123	.03344	.971
	Education	.04311	.05004	.389
	Arts and Humanities	.19469*	.03617	.000
	Natural and Life Sciences	.00309	.04287	.943
	Engineering, Manufacturing and construction	-.07103*	.03183	.026
	Agriculture and veterinary medicine	-.06052	.05139	.239
	Health and welfare	-.02900	.03204	.365
	Services (tourism, sports, transport, security)	-.14315*	.05181	.006
Natural and Life Sciences	Other (please specify)	-.00186	.04456	.967
	Education	.04003	.05806	.491
	Arts and Humanities	.19160*	.04664	.000
	Social Sciences, Business and Law	-.00309	.04287	.943
	Engineering, Manufacturing and construction	-.07412	.04337	.088
	Agriculture and veterinary medicine	-.06360	.05923	.283
	Health and welfare	-.03208	.04352	.461
	Services (tourism, sports, transport, security)	-.14624*	.05960	.014

Field of study		Mean Difference	Standard Error	p
Engineering, Manufacturing and Construction	Other (please specify)	.07226*	.03408	.034
	Education	.11414*	.05047	.024
	Arts and Humanities	.26571*	.03676	.000
	Social Sciences, Business and Law	.07103*	.03183	.026
	Natural and Life Sciences	.07412	.04337	.088
	Agriculture and veterinary medicine	.01051	.05181	.839
	Health and welfare	.04203	.03270	.199
	Services (tourism, sports, transport, security)	-.07212	.05222	.167
Agriculture and Veterinary Medicine	Other (please specify)	.06174	.05281	.242
	Education	.10363	.06461	.109
	Arts and Humanities	.25520*	.05458	.000
	Social Sciences, Business and Law	.06052	.05139	.239
	Natural and Life Sciences	.06360	.05923	.283
	Engineering, Manufacturing and construction	-.01051	.05181	.839
	Health and welfare	.03152	.05194	.544
	Services (tourism, sports, transport, security)	-.08263	.06599	.211
Health and Welfare	Other (please specify)	.03022	.03427	.378
	Education	.07211	.05059	.154
	Arts and Humanities	.22368*	.03693	.000
	Social Sciences, Business and Law	.02900	.03204	.365
	Natural and Life Sciences	.03208	.04352	.461
	Engineering, Manufacturing and construction	-.04203	.03270	.199
	Agriculture and veterinary medicine	-.03152	.05194	.544
	Services (tourism, sports, transport, security)	-.11416*	.05235	.029

* The mean difference is statistically significant at $p < 0.05$

Field of study		Mean Difference	Standard Error	p
Services (tourism, sports, transport, security)	Other (please specify)	.14438*	.05322	.007
	Education	.18627*	.06494	.004
	Arts and Humanities	.33784*	.05497	.000
	Social Sciences, Business and Law	.14315*	.05181	.006
	Natural and Life Sciences	.14624*	.05960	.014
	Engineering, Manufacturing and construction	.07212	.05222	.167
	Agriculture and veterinary medicine	.08263	.06599	.211
	Health and welfare	.11416*	.05235	.029

Table 38. Differences in students' self-efficacy in relation to the year of study

Year of study		Mean Difference	Standard Error	p
Other (please specify)	Undergraduate year 1	.10958*	.04472	.014
	Undergraduate year 2	.14735*	.04536	.001
	Undergraduate year 3	.03961	.04606	.390
	Undergraduate year 4	-.00624	.05443	.909
	Master's year 1	-.03888	.05007	.437
	Master's year 2	-.01741	.06022	.772
	Undergraduate year 1	Other (please specify)	-.10958*	.04472
Undergraduate year 2		.03777	.02711	.164
Undergraduate year 3		-.06997*	.02826	.013
Undergraduate year 4		-.11582*	.04049	.004
Master's year 1		-.14846*	.03441	.000
Master's year 2		-.12699*	.04800	.008
Other (please specify)		-.14735*	.04536	.001
Undergraduate year 1		-.03777	.02711	.164
Undergraduate year 2		Undergraduate year 3	-.10774*	.02927
	Undergraduate year 4	-.15358*	.04120	.000
	Master's year 1	-.18623*	.03524	.000
	Master's year 2	-.16476*	.04860	.001

Year of study		Mean Difference	Standard Error	p
Undergraduate year 3	Other (please specify)	-.03961	.04606	.390
	Undergraduate year 1	.06997*	.02826	.013
	Undergraduate year 2	.10774*	.02927	.000
	Undergraduate year 4	-.04585	.04197	.275
	Master's year 1	-.07849*	.03613	.030
	Master's year 2	-.05702	.04925	.247
Undergraduate year 4	Other (please specify)	.00624	.05443	.909
	Undergraduate year 1	.11582*	.04049	.004
	Undergraduate year 2	.15358*	.04120	.000
	Undergraduate year 3	.04585	.04197	.275
	Master's year 1	-.03264	.04633	.481
	Master's year 2	-.01117	.05715	.845
Master's year 1	Other (please specify)	.03888	.05007	.437
	Undergraduate year 1	.14846*	.03441	.000
	Undergraduate year 2	.18623*	.03524	.000
	Undergraduate year 3	.07849*	.03613	.030
	Undergraduate year 4	.03264	.04633	.481
	Master's year 2	.02147	.05302	.685
Master's year 2	Other (please specify)	.01741	.06022	.772
	Undergraduate year 1	.12699*	.04800	.008
	Undergraduate year 2	.16476*	.04860	.001
	Undergraduate year 3	.05702	.04925	.247
	Undergraduate year 4	.01117	.05715	.845
	Master's year 1	-.02147	.05302	.685

* The mean difference is statistically significant at p<0.05

Table 39. Main points raised in answers to open questions

Advantages to on-line studying	Disadvantages to on-line studying	Problems with on-line studying	Recommendations
Flexible schedule, autonomy to plan one's own time	Studying from home is not "real studying"	Not feeling motivated, procrastination	<ul style="list-style-type: none"> • Returning to campus, to studying on-site • If on-line, teaching resembling as much as possible on-site lectures (video calls in real-time) • Lighter workload • Clear lecturer instructions • Understanding and support shown by university staff (administrative and academic) with regard to new studying conditions • Good Internet connection • Good quality computers • One online platform for the course
More time for studying; more time for sleeping	Monotonous, repetitiveness of everyday life, having to be in front of the computer all day long		
Lower living costs			
Money and time is saved by not having to travel to one's department			
	Lack of practical classes	Increase in workload (lecturers compensating for lack of on-site teaching)	
	Lack of close interaction with colleagues and friends	Independent learning more difficult	
	Lack of close interaction with university staff	Independent learning more difficult, less opportunity for clarification by lecturers	
	Family time too intense	Studying more difficult for those with parenting responsibilities and from larger families (quiet time a challenge)	
Being at home with one's family The comfort and safety of the family home Healthier diet	Lack of infrastructure: not having one's room, study materials not available	Poor internet connection, inability to access library resources	
Less stressful	Lack of infrastructure: frustration with a poor Internet connection		

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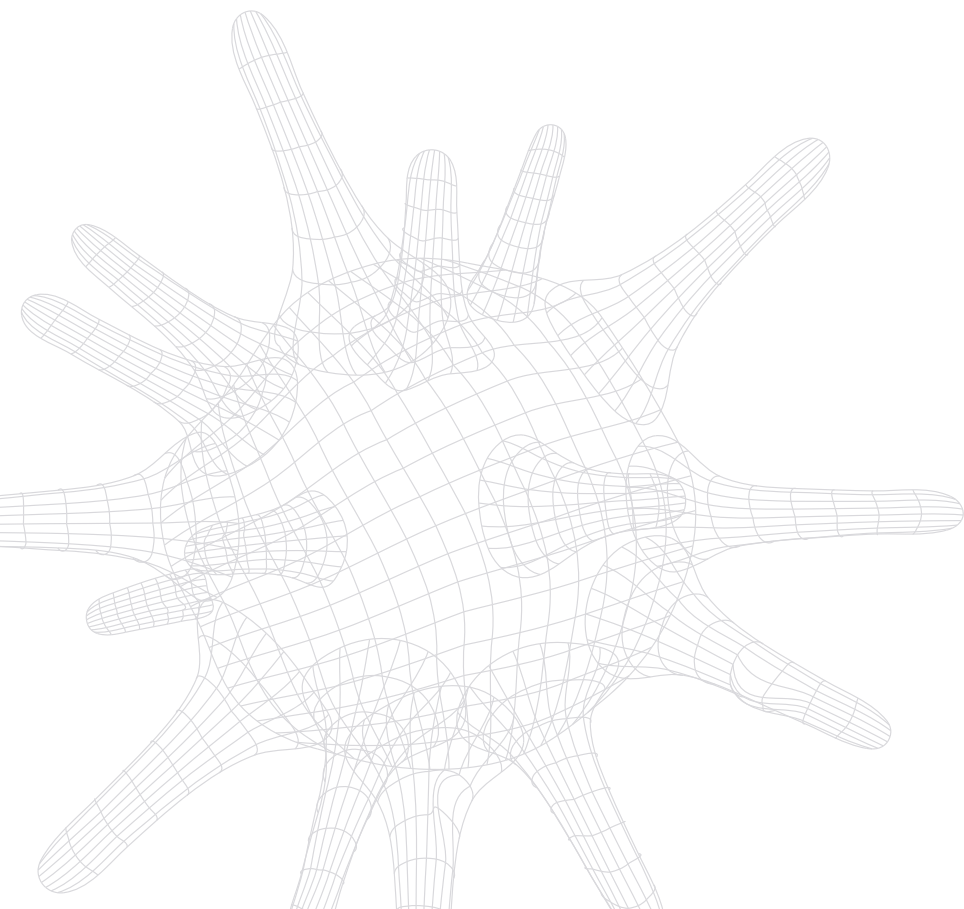
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The COVID-19 pandemic which has swept across Europe has made changes to many facets of life from working conditions to freedom of movement. Education has been one of the sectors disrupted by the crisis with educational provision both in Europe and globally having gone on-line. In higher education, on the one hand, this new moment has highlighted certain advantages to on-line studying including lower living costs for students who would otherwise study away from their family home. On the other, it has underlined inequalities between students particularly in relation to differences in terms of digital skills, support networks and home environment resources.

This report presents insights on student experiences during lockdown due to the COVID-19 pandemic based on questionnaire responses given by students studying in Europe in April 2020. The research focused on the capacity of students, understood as a diverse group, to have reasonably positive academic outcomes in a disaster context such as the COVID-19 pandemic, as well as the role of their academic environment, social networks, emotional make-up, knowledge and skills and material resources in enabling such experiences. At the very end of the report, we provide insights on students' responses to open questions which covered the advantages and disadvantages of on-line studying during the pandemic, problems students encountered and suggestions for improvement.