



The impact of the COVID-19 pandemic on students in European higher education

Sandra Haugas & Elisabeth Kendrali
Think tank Praxis, Estonia



Context – the COVID-19 pandemic and its impact on students in different regions of the world

The COVID-19 pandemic has brought major consequences to higher education systems and students all over the world (Abdrasheva et al., 2022; Doolan et al., 2021; Plakhotnik et al., 2021). In the context of national or local lockdown policies, most schools and university campuses worldwide had to be closed (UNESCO, 2020) which required higher education institutions (HEIs) to rapidly move face-to-face teaching and learning to digital environments. The delivery of virtual services, however, depended heavily on the availability of infrastructure as well as the skills of HEIs' staff (Abdrasheva et al., 2022). In addition to moving to online learning environments, HEIs had to implement other crisis management responses (e.g., regarding how to organise the work of staff, how to provide mental health and other kind of support for students and staff, etc.), whereas only some had the necessary information and skills based on their past experiences or prior preparation (Ibid.). Preparedness of the students also varied, as successfully coping within this kind of a crisis required several resources, such as access to good digital devices and internet connection, but also different digital and cognitive skills (Plakhotnik et al., 2021). Therefore, the pandemic has been a challenge for both HEIs as well as students all over the world. In this publication we will focus on COVID-19 pandemic's impact on students.

Several studies have brought out the pandemic's impact on different aspects related to studies. For instance, evidence shows that students' study workload increased during the pandemic (e.g., Doolan et al., 2021; Plakhotnik et al., 2021). Students have explained it with teachers' tendency to compensate the lack of face-to-face classes with additional assignments (Doolan et al., 2021). The sudden transition to online learning has also been shown to impact the quality of instruction (Abdrasheva et al., 2022). The large majority of HEIs and their academic staff were not prepared for the new delivery method as they lacked the necessary knowledge, skills, resources,

and experiences to carry the studies out in virtual environments successfully (Ibid.). During the tight timeframe in which the transition had to be done, it was very difficult for the HEIs to prepare the academic staff, i.e., teach them how to carry the studies out based on online learning pedagogical approaches (Hodges et al., 2020) or how to create high-quality digital content (Abdrasheva et al., 2022). Consequently, this kind of pedagogical experience has been defined as emergency remote learning (Hodges et al., 2020) or not quite 'proper' online teaching (Abdrasheva et al., 2022).

Therefore, unsurprisingly, students have perceived a significant decrease in the quality of education (Abdrasheva et al., 2022). This perception could partly be explained with the technological barriers, insufficient digital skills, and the absence of peer-to-peer experiences (Ibid.). Regarding the quality of teaching during the pandemic it is known from Doolan et al. (2021) that while students were satisfied with how supportive lecturers were during the remote learning period, they were less satisfied with the organisation of the seminars and practical classes.

Studies have also shown that students perceived several distressing emotions during the pandemic, such as fear of getting infected (Doolan et al., 2021; Timely MD, s.d.), frustration and discomfort due to the uncertainty of pandemic (Abdrasheva et al., 2022; Moate et al., 2019), and loneliness caused by the limited social life (Essadek & Rabeyron, 2020). Confusion regarding study expectations, decreased self-efficacy, satisfaction with coursework, and sense of belonging in higher education (Capone et al., 2020) have also been reported. Additionally, students worried about falling behind in school coursework (Timely MD, s.d.), semester or degree completion (Plakhotnik et al., 2021), but also their financial situation (Abdrasheva et al., 2022; Doolan et al., 2021), and employment opportunities upon graduation (Moate et al., 2019). Consequently, these

emotional states have contributed to the higher stress levels among students (Abdrasheva et al., 2022; Stathopoulou et al., 2020). Ye et al. (2020) have shown that the stress caused by the pandemic was higher among medical students. The study also indicates that medical students experience a decreased enthusiasm for studying and working in the field of medicine after graduation.

In the context of the described challenges and negative emotions and stress that the students have perceived during the pandemic it is unsurprising that mental health has become a salient issue for students (Abdrasheva et al., 2022). Studies have reported increased rates of anxiety (Wang et al., 2020; Horn, 2020; Timely MD, s.d.), alcohol and drug consumption, eating disorders (Kohls et al., 2020), and depression (Lee et al., 2021). The HEIs who were aware of the pandemic's psychological effects made efforts to continue providing their mental health services online during the time of the lockdowns. Some also organised additional services such as a hotline for psychological support, peer support networks or hired more psychologists. (Abdrasheva et al., 2022)

At the same time, studies have shown that students have not always received the necessary help to alleviate their mental health problems. For instance, a study carried out in the USA found out that more than half (56 %) of the students did not know where to go if they needed professional mental health service immediately (Horn, 2020). Another study done in the USA showed that whereas 85 % of college students felt increased stress and anxiety during the pandemic, only 21 % of respondents sought professional mental health support (Timely MD, s.d.). Lee et al. (2021) found that a majority of students with moderate to severe symptoms of mental health problems at a university in the USA did not use mental health

services, even though the HEI provided these free of charge. Similar results have been reported in European studies, with Garcia Carrizo et al. (2020) finding that only 7 % of students accessed mental health services from the HEI.

Based on the previous overview, we can conclude that the impact of COVID-19 pandemic on students in higher education has been quite thoroughly studied in many countries. However, until now there lacked comprehensive studies that would have focused on several specific impacts of the pandemic on students in higher education from a country comparative perspective in Europe. Furthermore, while numerous studies have investigated the pandemic's short-term effects on students, there is a lack of research on students' expectations regarding the ongoing impact of the pandemic. EUROSTUDENT 8 fills these gaps.

The research questions we aim to answer with this report are the following:

- How has the COVID-19 pandemic impacted different aspects of student life (e.g., contacts with fellow students, quality of teaching, motivation to keep up with studies) based on students' own perceptions?
- Do students who started their studies only after the beginning of the pandemic perceive the impact differently from students who were enrolled already before the pandemic?
- Do students expect any continued impact of the COVID-19 pandemic on their studies?
- What are the main differences between EUROSTUDENT 8 countries?

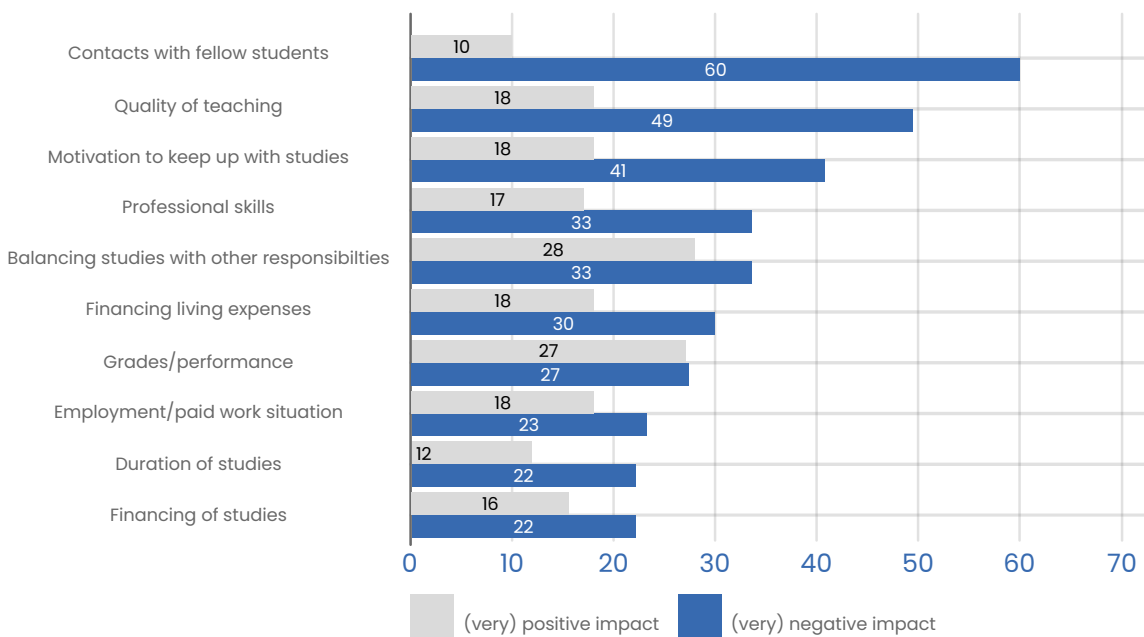
Results

In correspondence with the study results described previously, the EUROSTUDENT 8 study shows that students perceive more negative than positive effects of the COVID-19 pandemic on different aspects of student life (Figure 1). The biggest share (60%) of the students in EUROSTUDENT 8 countries on

average report that the impact of the pandemic has been (very) negative on contacts with fellow students. This is an expected result considering the lockdown policies and limited opportunities for the students to communicate face-to-face during the pandemic.

The biggest share (60%) of the students in EUROSTUDENT 8 countries on average report that the impact of the pandemic has been (very) negative on contacts with fellow students.

Figure 1. Share of students who are currently experiencing a positive or negative impact of the COVID-19 pandemic on the following aspects of student life (%)



Almost half (49%) of the students in EUROSTUDENT 8 countries on average consider the pandemic's impact on quality of teaching to be (very) negative. This is also a predicted result considering the tight timeframe in which studies had to be transferred from face-to-face teaching and learning to digital environments and the according barriers to develop academic staff's skills to provide high quality learning experiences to students in the new study formats. This result is also in accordance with the previous studies, for example with

Doolan et al. (2021) which found that students were not satisfied with the way the seminars and practical classes had been organised during the remote learning period. Somewhat surprisingly, however, we can also see that almost one fifth (18%) of the students in EUROSTUDENT 8 countries on average find the impact of COVID-19 pandemic on quality of teaching to be (very) positive. Even more unexpectedly, slightly bigger share than a quarter (27%) of the students in EUROSTUDENT 8 countries on average find the impact of the pandemic to be

(very) positive on grades/performance. Almost the same proportion (28 %) of the students perceive (very) positive impact of the pandemic on balancing studies with other responsibilities. Considering that previous studies (see, for instance, Doolan et al., 2021; Plakhotnik et al., 2021) have found that students' study workload increased during the remote learning

period, this seems to indicate that the increased flexibility, as well as time saved from daily commuting, has contributed to a better balance between

studies and other responsibilities. It is also possible that the limitations imposed on social life made extra time for studying and other responsibilities, leaving an impression that the overall balance improved.

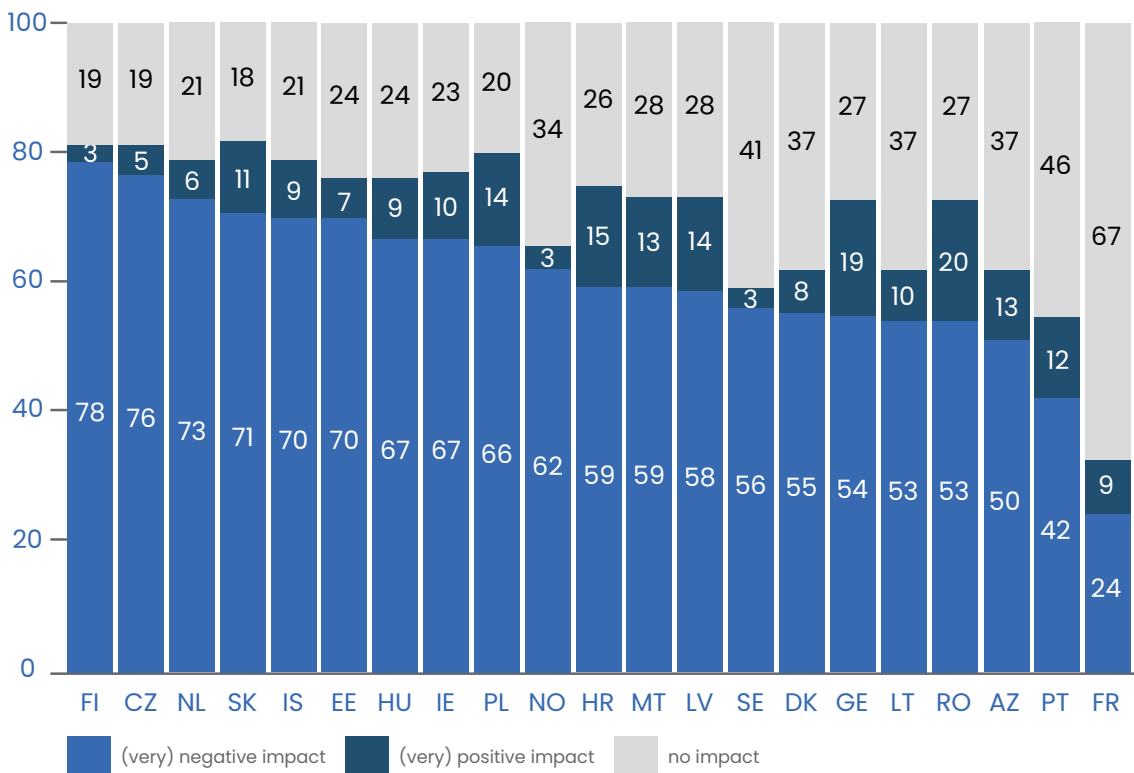
Almost half (49 %) of the students in EUROSTUDENT 8 countries on average consider the pandemic's impact on quality of teaching to be (very) negative.

Pandemic's impact on contacts with fellow students

Considering that contacts with fellow students is the aspect of student life that was perceived to be impacted (very) negatively by the largest share of the students across EUROSTUDENT 8 countries, this chapter focuses on this topic. From Figure 2, we can see that there are quite significant differences between countries. The pandemic's impact on contacts with fellow students is perceived to be (very) negative by the largest share of students in Finland, Czech Republic, and the Netherlands

where the majority of students (78 %, 76 % and 73 %, respectively) perceive it like this, whereas in France only a quarter of students (24 %) perceive the pandemic's impact on contacts with fellow students as (very) negative. Without further investigation it is difficult to say whether these differences can be explained with different national or local lockdown policies or support mechanisms, or whether this is explained by differences in culture.

Figure 2. Share of students who are currently experiencing a positive or negative impact of the COVID-19 pandemic on contacts with fellow students (%)

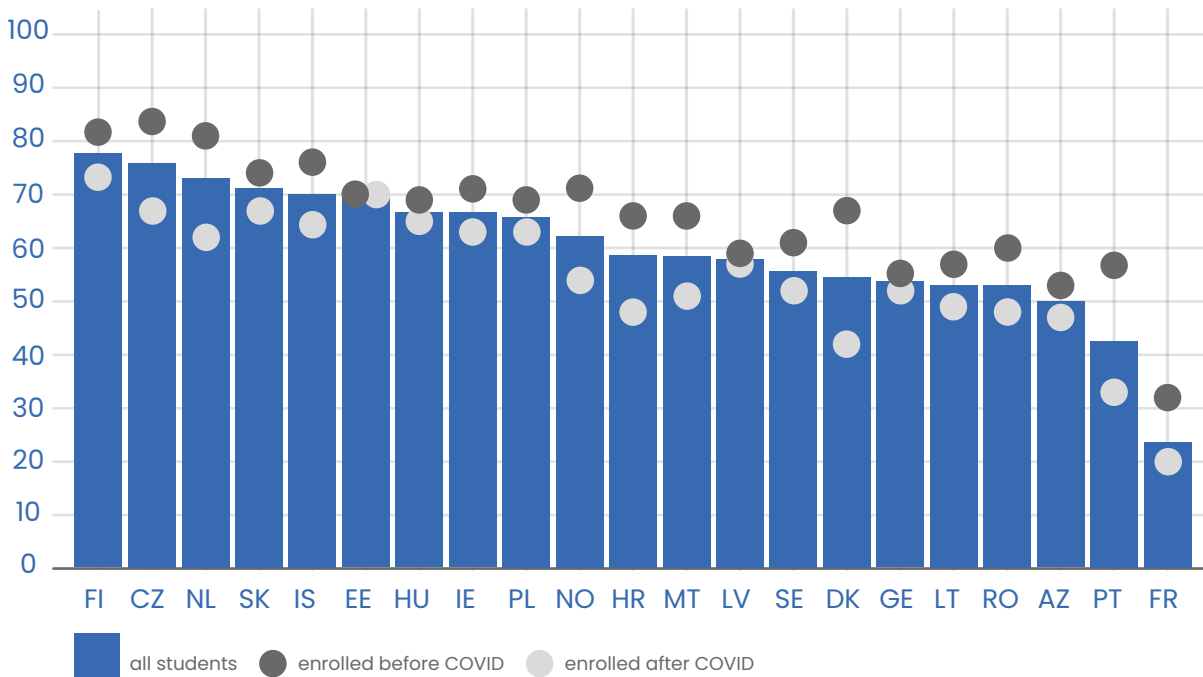


As previous studies have shown that students at different levels of education have perceived the impact of the pandemic in different ways (Plakhotnik et al., 2021), we decided to investigate whether students who were already enrolled before the beginning of the COVID-19 pandemic perceived the impact of the pandemic differently than the students who entered higher education after the beginning of the pandemic. The results show that students who were enrolled before the beginning of the COVID-19 perceive a more negative impact of the pandemic on contacts with fellow students in comparison with the students who enrolled only after the beginning of the pandemic in all EUROSTUDENT 8 countries (Figure 3). This is probably because

Students who were enrolled before the beginning of the COVID-19 perceive a more negative impact of the pandemic on contacts with fellow students in comparison with the students who enrolled only after the beginning of the pandemic.

the students who were enrolled before the pandemic perceived the change more strongly, in other words, they had to go through the difficult time of transferring from face-to-face environments to the digital ones where contacts with fellow students understandably also changed. The differences are the most explicit in Portugal, Denmark, and the Netherlands where shares of students who perceive the pandemic’s impact on contacts with fellow students to be (very) negative is at least 20 percentage points bigger among students enrolled before the beginning of the pandemic compared with students enrolled after the beginning of the pandemic.

Figure 3. Share of students who are currently experiencing a (very) negative impact of the COVID-19 pandemic on contacts with fellow students among all students vs students enrolled before the beginning of the COVID-19 pandemic vs students enrolled after the beginning of the COVID-19 pandemic (%)

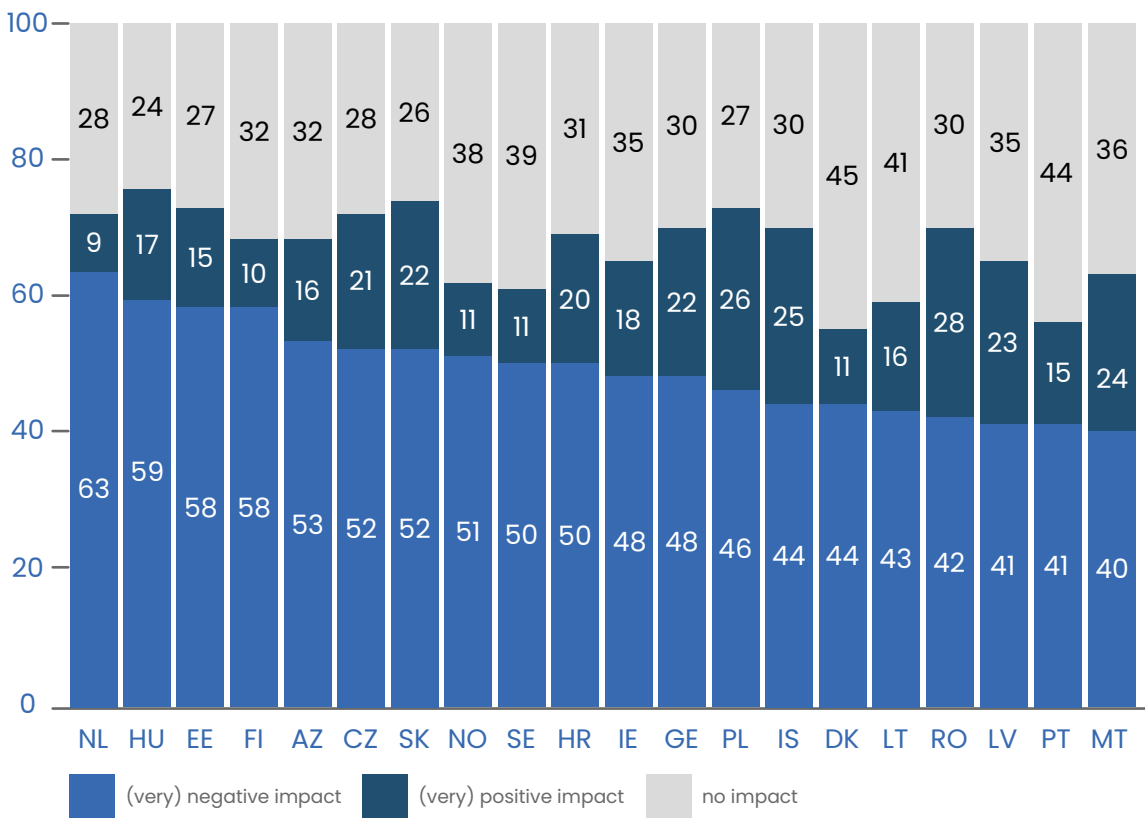


Pandemic’s impact on the quality of teaching

Next, we will look at students’ perceived impact of the COVID-19 pandemic on the quality of teaching as the results showed that this aspect was the second most-negatively perceived among students in EUROSTUDENT 8 countries. From Figure 4 we can see that regarding the pandemic’s impact on the quality of teaching as perceived by the students, we do not see so outstanding differences between countries as we saw in case of pandemic’s impact on contacts with fellow students. Still, in

the Netherlands, Hungary, Estonia, and Finland the share of students who perceive the pandemic’s impact on the quality of teaching to be (very) negative is considerably bigger than in Malta, Portugal, Latvia, and Romania. Interestingly, there are three countries – Romania (28 %), Poland (26 %), and Iceland (25 %) – where at least a quarter of students perceive the pandemic’s impact on the quality of teaching to be (very) positive.

Figure 4. Share of students who are currently experiencing a positive or negative impact of the COVID-19 pandemic on the quality of teaching (%)

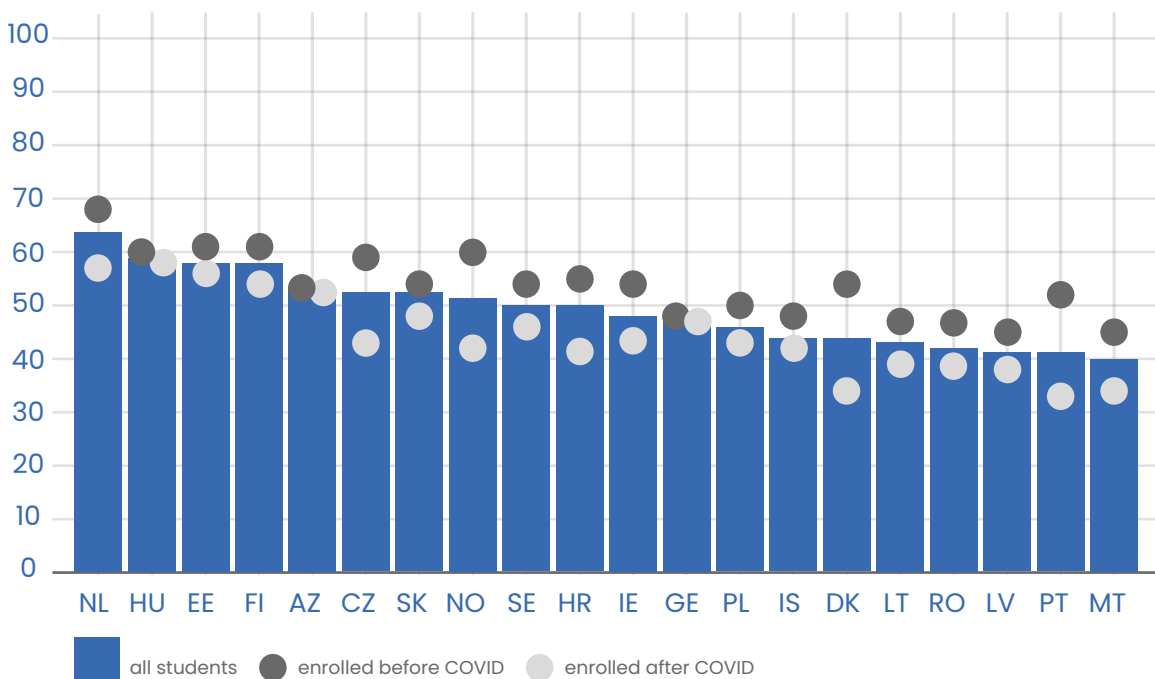


In all EUROSTUDENT 8 countries, the students who were enrolled before the beginning of the COVID-19 perceive the pandemic's (very) negative impact on the quality of teaching more when comparing with the students who entered higher education after the beginning of the pandemic (Figure 5). The potential explanation is that students who were enrolled before the pandemic perceived the change more strongly. They experienced both the time before the beginning of the pandemic as well as the time during the pandemic in higher education, including the situation where the academic staff did not have an opportunity to develop the necessary skills to carry the remote learning lessons out with the highest quality possible (Abdrasheva et al., 2022,

Hodges et al., 2020). On the other hand, the students who were enrolled only after the beginning of the pandemic, did not have the pre-remote-learning experience with which they could compare the new situation. Another possible explanation is that until the time when the students who were enrolled after the beginning of the pandemic started their studies, the academic staff had had the opportunity to already sufficiently develop their skills to carry the remote learning lessons out with high quality. Additional explanation can be that the students who entered to higher education after the beginning of the pandemic were already used to online teaching from school.

In all EUROSTUDENT 8 countries, the students who were enrolled before the beginning of the COVID-19 perceive the pandemic's (very) negative impact on the quality of teaching more when comparing with the students who entered higher education after the beginning of the pandemic.

Figure 5. Share of students who are currently experiencing a (very) negative impact of the COVID-19 pandemic on the quality of teaching among all students vs students enrolled before the beginning of the COVID-19 pandemic vs students enrolled after the beginning of the COVID-19 pandemic (%)



Expected continued impact of the pandemic

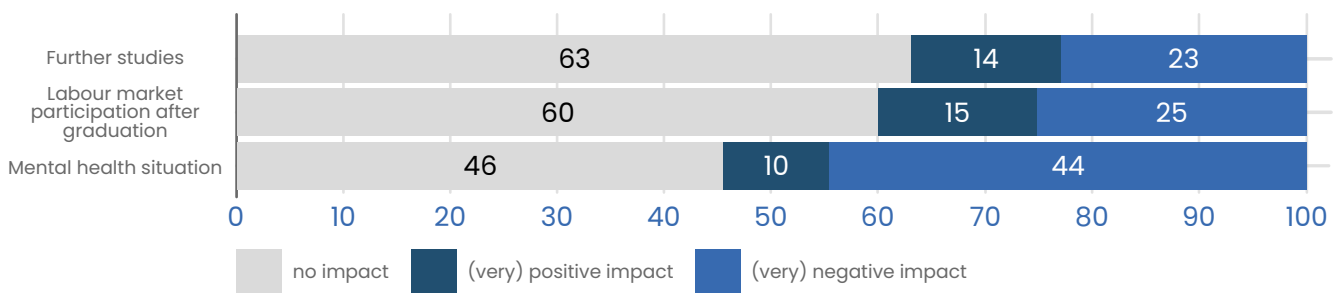
In May 2023, the UN World Health Organization (WHO) declared an end to COVID-19 as a public health emergency (World Health Organization, 2024), while maintaining that the pandemic is not over. To assess the continued impact, if any, of the COVID-19 pandemic despite European higher education institutions having discontinued most restrictions, students were asked to assess how their further studies, labour market participation and mental health situation was expected to be influenced by the pandemic.

The majority of students expect no continued impact of the pandemic, neither on their labour market participation after graduation nor on their further studies.

As demonstrated on Figure 6, the majority of students expect no continued impact of the pandemic, neither on their labour market participation after graduation nor on their further studies. However, results regarding the perceived continued impact on student mental health are more mixed (see Cuppen et al., 2024 for further analysis on student mental health). While 46% of students on average across EUROSTUDENT 8 countries expect no continued impact on their mental health, 44% expect the negative impact of the pandemic on their mental health to persist also in the future.

While 46% of students on average across EUROSTUDENT 8 countries expect no continued impact on their mental health, 44% expect the negative impact of the pandemic on their mental health to persist also in the future.

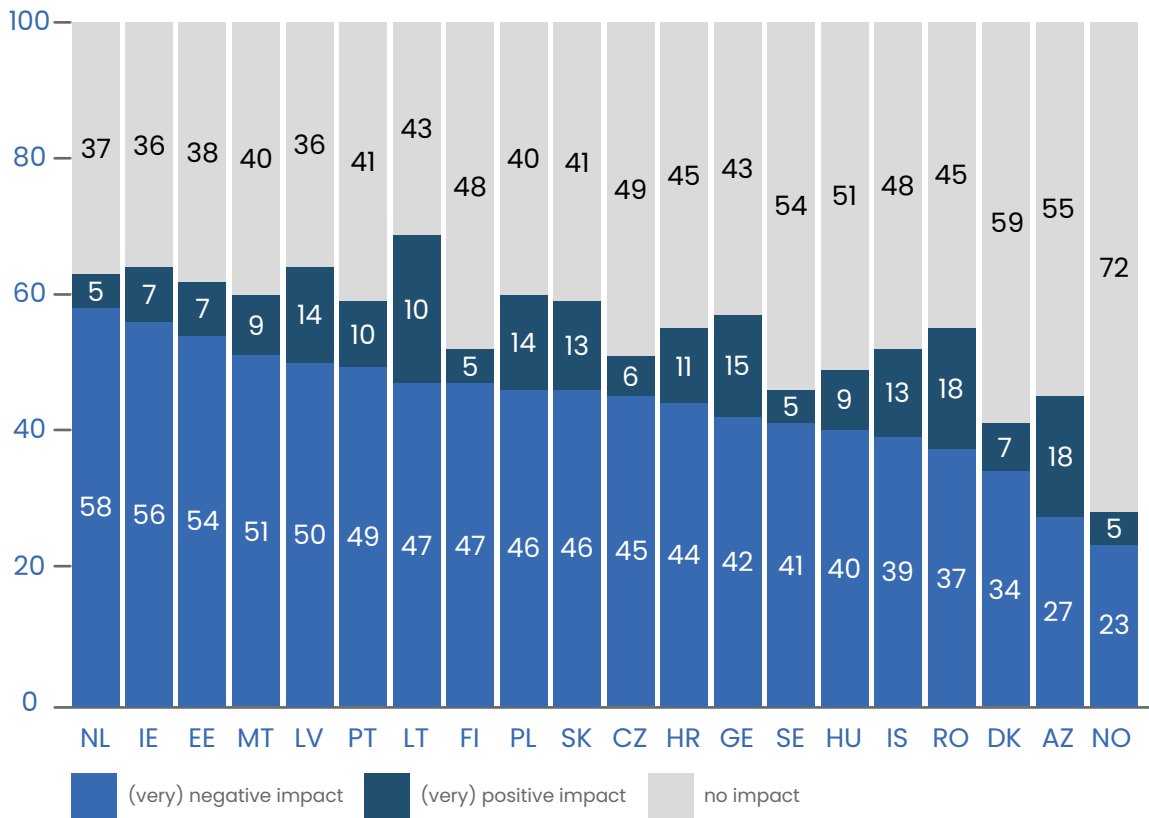
Figure 6. Share of students who are expecting continued positive or negative impact of the COVID-19 pandemic on the following aspects (%)



There is also considerable between-country variation in the expected continued impact of the pandemic on student mental health. Figure 7 shows that in the Netherlands, Ireland, Estonia, Malta, and Latvia, at least half of all students expect the pandemic to continue impacting their mental health negatively.

Malta, and Latvia, at least half of all students expect the pandemic to continue impacting their mental health negatively.

Figure 7. Share of students who are expecting continued positive or negative impact of the COVID-19 pandemic on their mental health (%)



Norway stands out with an overwhelming 72 % of students expecting no continued impact of the pandemic on their mental health. More than half

of students expect no future impact on their mental health also in Azerbaijan, Denmark, Hungary, and Sweden.

Take-away messages

- According to the perceptions of students in EUROSTUDENT 8 countries the COVID-19 pandemic had clearly more negative than positive impact on different aspects of student life. More than half (60 %) of the students perceive the pandemic's impact as (very) negative on contacts with fellow students and almost half (49 %) of the students consider the pandemic's impact to be (very) negative on the quality of teaching – these two are the aspects of studies that were perceived to be impacted negatively by the largest shares of students. Therefore, based on these results and in correspondence with the previous studies we can conclude that many HEIs were not adequately prepared for this kind of a crisis. To be better prepared for future crises (whether pandemics or other types of crises, e.g., natural disasters), HEIs should take the lessons learned during COVID-19 pandemic and develop comprehensive crisis management plans which include for instance preparations for the academic staff to teach in online platforms, approaches on how to provide students with an effective mental health support during the crisis, etc.
- The impact of the COVID-19 pandemic varies in some of the aspects across EUROSTUDENT 8 countries quite remarkably. The most outstanding cross-country difference can be seen in the pandemic's impact to contacts with fellow students: whereas the majority of students in Finland (78 %), Czech Republic (76 %) and the Netherlands (73 %) perceive the pandemic's impact as (very) negative to the contacts with fellow students, this is true only for 24 % of the French students and 42 % of the Portuguese students. Therefore, it would be useful to investigate these differences more thoroughly to understand whether the differences can be explained with cultural differences or with different national or local policies from which it would be possible for other countries and HEIs to learn.
- Slightly more than a quarter of students in EUROSTUDENT 8 countries on average perceive pandemic's impact to be (very) positive on their grades/performance and balancing studies with other responsibilities. In the light of the previous studies these results are quite unexpected and seem to be highlighting that the impact of the pandemic can be quite different for different students. It would be useful to look into this topic and try to find the potential explanations for this situation in future studies.
- While the majority of students do not expect the COVID-19 pandemic to continue influencing their labour market participation or further studies, more than half of students in some countries do perceive a continued negative impact of the pandemic on their mental health. Considering that there are also countries, e.g., Norway and Denmark, where most students expect no continued impact of the pandemic on their mental health, further research compiling EUROSTUDENT 8 data with mental health measures/policy at HEIs in different European countries might reveal insights into the effects of different approaches.

Methodological notes

In the eighth round of the EUROSTUDENT project, data were collected in spring 2022 – summer 2022 except CH (spring 2020), DE (summer 2021), AT, ES, FR, PT, RO (spring 2023 – summer 2023). 21 of the EUROSTUDENT 8 countries reported data for this topical module and are therefore included in this report. The indicators used in the analyses here were not part of the EUROSTUDENT 8 questionnaires in Austria, Germany, and Switzerland. In France, the questionnaire did not include all the COVID-19-related items.

Overall, we used two indicators from EUROSTUDENT 8 study for this topical module: current impact of the COVID-19 pandemic and expected continued impact of the pandemic.

To investigate the current impact of the pandemic, respondents were asked to indicate the degree (5-point scale; 1 – *very positive*, 5 – *very negative*) to which they are currently experiencing a positive or a negative impact of the COVID-19 pandemic regarding the following ten aspects of student life:

- the duration of your studies
- your grades/performance
- the motivation to keep up with your studies
- the quality of teaching
- contacts with your fellow students
- balancing your studies with other responsibilities
- your professional skills
- financing your studies
- your employment/ paid work situation
- financing your living expenses.

Here, it is important to keep in mind that the “current impact” refers to students’ perceived impact during the EUROSTUDENT 8 data collection period (mainly) in summer 2022.

In order to study the expected continued impact of the pandemic, respondents indicated the extent (5-point scale; 1 – *very positive*, 5 – *very negative*) to which they expect any continued positive or negative impact of the COVID-19 pandemic on the following three aspects of student life:

- your further studies
- your labour market entry
- your mental health situation.

Cite as: Haugas, S., & Kendrali, E. (2024). *Impact of COVID-19 pandemic on students in European higher education*. EUROSTUDENT 8 Topical module report. https://www.eurostudent.eu/download_files/documents/TM_Covid_pandemic.pdf

EUROSTUDENT thanks the participants of the EUROSTUDENT 8 Policy-makers’ Conference “EUROSTUDENT on topic” for fruitful discussions and suggestions which have informed this report.

References

- Abdrasheva, D., Escribens, M., Sabzalieva, E., Vieira do Nascimento, D., Yerovi, C. (2022). Resuming or Reforming? UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000381749>.
- Capone, V., Caso, D., Donizzetti, A. R., Procentese, F. (2020). University student mental well-being during COVID-19 outbreak: what are the relationships between information seeking, perceived risk and personal resources related to the academic context? *Sustainability* 12:7039. doi: 10.3390/su12177039
- Cuppen, J., Muja, A., & Geurts, R. (2024). *Well-being and mental health among students in European higher education*. EUROSTUDENT 8 Topical module report. https://www.eurostudent.eu/download_files/documents/TM_wellbeing_mentalhealth.pdf
- Doolan, K., Barada, V., Buric, I., Krolo, K., Tonkovic, Ž., Schmidt, N. S., Napier, R., Darmanin, M. (2021). Student life during the COVID-19 pandemic lockdown. Europe-wide insights. https://esu-online.org/wp-content/uploads/2021/04/0010-ESU-SideralCovid19_WEB.pdf
- Essadek, A., Rabeyron, T. (2020). Mental health of French students during the Covid-19 pandemic. *J. Affect. Disord.* 277, 392–393. doi: 10.1016/j.jad.2020.08.042
- Garcia Carrizo, J., Golebiowski, D., Ravindra Panchal, D. M., Reynoso Jurado, M., Saavedra Reyes, A. F. (2020). COVID-19 Impact on higher education. Comparative analysis of the European member universities. Report 2020.
- Hodges, C., Moore, S., Lockee, B., Bond, A. (2020). The difference between emergency remote teaching and online learning. *Educause Review*, 27, 1–2.
- Lee, J., Jeong, H. J., Kim, S. (2021). Stress, Anxiety, and Depression Among Undergraduate Students during the COVID-19 Pandemic and their Use of Mental Health Services. *Innovative Higher Education*, 46, 519–538.
- Moate, R. M., Gnilka, P. B., West, E. M., and Rice, K. (2019). Doctoral student perfectionism and emotional well-being. *Measure. Eval. Counsel. Devel.* 52, 145–155. doi: 10.1080/07481756.2018.1547619
- Plakhotnik, M. S., Volkova, N. V., Jiang, C., Yahiaoui, D., Pfeiffer, G., McKay, K., Newman, S., Reissig-Thust, S. (2021). The perceived impact of COVID-19 on student well-being and the mediating role of the university support: evidence from France, Germany, Russia, and the UK. *Front. Psychol.*
- Stathopoulou, T., Mouriki, A., Papaliou, O. (2020). Student Well-Being During the COVID-19 Pandemic in Greece. Athens. National Centre for Social Research. doi: 10.5281/zenodo.4038321
- Timely MD (s.d.). What really has college students stressed during COVID-19. Timely MD. <https://timelycare.com/wp-content/uploads/2020/06/TimelyMD-Student-Survey-June-2020.pdf>
- UNESCO (2020). Education: From disruption to recovery. <https://www.unesco.org/en/covid-19/education-response>
- Ye, W., Ye, X., Liu, Y., Liu, Q., Vafaei, S., Gao, Y., Yu, H., Zhong, Y., Zhan, C. (2020). Effect of the novel coronavirus pneumonia pandemic on medical students' psychological stress and its influencing factors. *Front. Psychol.*
- World Health Organization (2024). Coronavirus disease (COVID-19) pandemic. Overview. Accessed 24 March 2024 <https://www.who.int/europe/emergencies/situations/covid-19>

About EUROSTUDENT

The EUROSTUDENT project collates comparable student survey data on the social dimension of European higher education, collecting data on a wide range of topics, e.g. the socio-economic background, living conditions, and temporary international mobility of students. The project strives to provide reliable and insightful cross-country comparisons. The data presented here stem from the eighth round of the EUROSTUDENT project (2021–2024).

Countries participating in EUROSTUDENT

- Azerbaijan (AZ)
- Austria (AT)
- Croatia (HR)
- Czech Republic (CZ)
- Denmark (DK)
- Estonia (EE)
- Finland (FI)
- France (FR)
- Georgia (GE)
- Germany (DE)
- Hungary (HU)
- Iceland (IS)
- Ireland (IE)
- Latvia (LV)
- Lithuania (LT)
- Malta (MT)
- Norway (NO)
- Poland (PL)
- Portugal (PT)
- Romania (RO)
- Slovakia (SK)
- Spain (ES)
- Sweden (SE)
- Switzerland (CH)
- The Netherlands (NL)

Feel free to explore our other publications:

Cuppen, J., Muja, A., & Geurts, R. (2024). *Well-being and mental health among students in European higher education*. EUROSTUDENT 8 Topical module report.

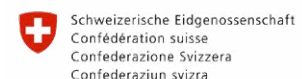
https://www.eurostudent.eu/download_files/documents/TM_wellbeing_mentalhealth.pdf

Menz, C., & Mandl, S. (2024). *Discrimination in the context of higher education*. EUROSTUDENT 8 Topical module report. https://www.eurostudent.eu/download_files/documents/TM_Discrimination.pdf

Schirmer, H. (2024). *Digitalisation of teaching, learning, and student life*. EUROSTUDENT 8 Topical module report. https://www.eurostudent.eu/download_files/documents/TM_Digitalisation.pdf

Hauschildt, K. (ed.) (2024). *Social and economic conditions of student life in Europe. EUROSTUDENT 8 Synopsis of Indicators 2021–2024*. Wbv Publikation. https://www.eurostudent.eu/download_files/documents/EUROSTUDENT_8_Synopsis_of_Indicators.pdf (will be published in July 2024)

Consortium members



Funded with the support of all participating countries. Co-funded by the Erasmus+ programme of the European Union and the following bodies:



Ministry of Education, Culture and Science

Funders are not responsible for the content.

Series designed by Else Lagerspetz