Policy measures to monitor and mitigate the negative impacts of COVID-19 and COVID-19 related policy measures on education

Analytical Report 03/2021

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ABOUT EENEE

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Abstract

This Analytical Report extends beyond analysing the negative impact on children's education of the COVID-19 pandemic and the measures imposed in relation to it and goes on to describe the various policy responses implemented to counter these threats. The report focuses on seven EU Member States (Denmark, France, Italy, Lithuania, the Netherlands, Slovakia and Sweden) but is also informed by global experience and uses several examples from other countries. It covers response at the level of primary, secondary and higher education, looking at topics such as preparedness and subsequent policy learning, the relationship between adaptability and decentralisation, measures to support connectivity, as well as mitigation measures after the end of lockdowns.

Executive summary

This Analytical Report extends beyond analysing the negative impact on children's education of the COVID-19 pandemic and the measures imposed in relation to it, and goes on to describe the various policy responses implemented to counter these threats. The report focuses on seven EU Member States (Denmark, France, Italy, Lithuania, the Netherlands, Slovakia and Sweden), but is also informed by global experience and uses several examples from other countries. The principal findings of the Report are that:

- **No country's education system was prepared** for the possibility of a pandemic. Even so, countries differed significantly in their preparedness both for health security threats and in the digitalisation of education, with Nordic and north-western European countries being generally better prepared.
- One of the lessons of the pandemic is that **there is no single dimension of 'preparedness'** that fully determines subsequent success. Experience shows that, particularly during the early stages when rapid action was crucial, confidence in the effectiveness of government and societal resilience could have a negative affect, delaying necessary lockdowns.
- By the same token, **pre-pandemic investment in the digitalisation of education was of limited value if this was predominantly oriented towards classroom-based technologies** rather than the digital skills of educators and students. Here, countries such as Italy and Slovakia lagged behind despite large-scale investments.
- **Resilience and adaptability were also significantly influenced by the level of policy (de)centralisation** in responding to COVID-19 in education. In primary and secondary education, major differences can be seen between countries such as Denmark and Sweden, which employed the most highly decentralised responses; countries such as France, Italy and Slovakia, which gradually adopted localised policies that were still centrally determined; and countries such as Lithuania and the Netherlands which, due to the size or the density of their populations, opted for the most centralised approaches.
- **A high level of decentralisation in higher education translates into adaptability, depending on the capacities of specific institutions.** Thus, in Italy, one could see an enormous range of adaptive responses by universities, probably more extensive than within primary and secondary education. When higher education institutions face such an unexpected challenge, the absence of a decisive role by government can lead to a wide diversity of outcomes.
- **Countries took very different approaches towards providing devices, connectivity and content to enable online learning.** There was a nearly universal understanding that children required assistance, compared with more differentiated views with regard to adults – be they teachers or university students. There does not appear to be evidence that this has changed during the pandemic.
- **In every country and at every level of education, certain groups and individuals were identified as deserving special attention**. At primary and secondary education levels, three groups stand out as being universally or frequently targeted: children with special educational needs (SEN); migrants, refugees and ethnic minorities; and the children of essential workers or children who could not be safely left at home. In higher education, special attention generally focused on international students and courses involving field work or other elements that are difficult to do online.
- **The issue of mental health and well-being received much attention, but actual policies differed vastly between countries**, with Anglo-Saxon and Nordic countries generally paying much more attention to the issue than others. This is in line with a long-standing emphasis on holistic child well-being in Nordic approaches to education, as evidenced, for example, by the shorter school year or

later starting age . While much of the debate concerning the effects of lockdowns has focused on children and their socialisation and well-being, the available data show they have also proved a significant challenge for university students.

- **Countries differed greatly in terms of investment in mitigation and catching up after the end of the first (and subsequent) lockdowns.** In primary and secondary education, countries such as Sweden, the Netherlands and the UK pursued ambitious and often strategically thought-through policies aimed at minimising the damage resulting from the lockdowns. Such well-developed policies were absent or less developed in other countries examined here. Every country did, however, take some steps in this regard. The more decentralised nature of higher education and the different approaches taken to managing the pandemic's impact have meant that government funding for subsequent mitigation has frequently translated into direct financial support for students. However, there have been instances of more strategic investment.
- With regard to teachers, the focus during the initial stages of the pandemic was on providing educational resources. Gradually, though, it became clear that attention was required to prevent burn-out and exit among teachers who were exhausted and frustrated from remote learning. Examples of broadly-based and effective action in this area are scarce, however. In this respect, **the plight of teachers was overshadowed by the similar yet more dramatic experiences of health care personnel.**
- The pandemic is not a single event, but a crisis lasting years. Learning and adaptability have therefore played a significant role in responses to it. This is most obvious in the case of school closures. The speed of policy learning has differed. In the case of countries that have lagged behind, it has negatively impacted the education of millions and creating sizeable problems for the future. Some countries – notably Denmark and Sweden – demonstrated an ambition to keep schools open under most circumstances. These countries were gradually joined during the academic year 2020/2021 by Italy, and in the academic year 2021/2022 by the Netherlands, Slovakia and Lithuania. **Relative to other societal priorities, the perceived importance of keeping children in school has increased throughout the course of the pandemic.** This appears to have been driven by the increasing academic, economic and emotional costs of lockdowns and the global nature of the pandemic, which has stimulated cross-border comparisons and accelerated policy learning and dissemination.
- **In higher education, international and horizontal networks were important in exchanging information and shaping 'the approaches of universities.** Repeated attempts were made to reopen universities; however, due to outbreaks of infection, such moves were frequently abandoned in favour of online instruction.
- **On a broader scale, overall government strategies have evolved over the course of the three waves of the pandemic so far (spring 2020, autumn/winter 2020, autumn/winter 2021).** During the first wave, government strategies emphasised support for online academic learning and teacher needs. Concern for students' emotional and social development appears to have been placed on the backburner. This approach was given a rethink for the 2020/2021 academic year, when it became apparent that pre-pandemic education had delivered a much broader range of services than simply academic learning, and that online education was generally not delivering equal outcomes. For the 2021/2022 academic year, the focus shifted again to availability, with governments focusing on minimising disruptions to education caused by sick teachers or students, rather than implementing full-blown lockdowns.
- **One area in which there has been a general lack of learning or progress during this period is in instituting a genuinely strategic and forward-looking approach at national level .** The Netherlands provides a rare positive example of a more comprehensive national plan that, relatively early on, was

already considering what actions would be required in the future. In Sweden, governments made similar investments, particularly with regard to higher education. However, even in the case of these two countries, the comprehensiveness of such actions should not be overstated.

A century ago, in the wake of the Spanish flu pandemic, there was such a rush to return to 'normal' once the immediate threat had passed that the lessons of the pandemic were effectively forgotten in terms of subsequent policy learning, adaptation and development. While it is too soon to tell, the risk of a similar rush to return to the *status quo ante* should not be underestimated. The pandemic is far from over, and the monitoring and mitigation of its effects in education are likely to continue for many years to come. This report is thus only 'a first draft of history', to be further developed and refined through other outputs in the years to come.

Chapter 1: Introduction and methodology

Much attention has been paid in academic and policymaking circles to the negative impact of the COVID-19 pandemic on education (Carvalho, Hares, 2020; McClain-Nhlapo, 2020) – rightly so, since its potential for damage is enormous. As Koehler et al. (2021) demonstrate, school closures due to previous pandemics, as well as teachers' strikes or wars, have led to excessive economic losses – not to mention broader social damage.

Table 1. The historical impact of events affecting schools: pandemics, war and teachers' strikes

Country	Event	Economic loss	Source	Notes
Global	1918 flu	4.8% of GDP	(Jonas, 2013)	School closures could account for half of the total loss.
Global	1968 flu	0.7% of GDP	(Jonas, 2013)	School closures could account for half of the total loss.
Asia	1958 flu	3.1% of GDP	(Jonas, 2013)	School closures could account for half of the total loss.
Belgium, France, Netherlands, UK	2003 SARS	0.5% to 2.0% of GDP	(Keogh-Brown, Smith, Edmunds & Beutels, 2010)	Effect of school closures.
Germany	World War II	5.1% lower earnings	(Ichino & Winter-Ebner, 2004)	Effect of school closures.
Canada	Ten-day teachers' strike	0.29SD learning loss	(Baker, 2013)	N/A
Cambodia	Civil war	8.6% lower earnings	(Islam, Ouch, Smyth & Wang, 2016)	Reports only learning loss.
Senegal	Ten epidemics	Earnings loss 18% to 85%	(Fabrizio et al., 2021)	Loss refers to the non-completion of primary or secondary education.

Source: adapted from Koehler et al. (2021)

Policymakers have not passively accepted this negative impact. Indeed, many have tried to counter it – though this angle has been less thoroughly examined than the potential damage caused by the COVID-19 pandemic. Therefore, this Analytical Report goes beyond analysing the negative impact of COVID-19 on education, and describes the various policies adopted to counter such threats. The definition of the **impact of COVID-19 on education** used in this report includes the direct (health) impact of the virus and of the policy measures (such as school closures) used to respond to the pandemic. The aim of the report is to present a variety of policy responses that have been adopted in relation to similar conundrums policymakers have faced in the past.

Throughout the report, we refer to the concept of 'learning loss', or to 'learning losses'. In this context, the term **learning loss** refers to any specific or general loss of knowledge and skills or to reversals in academic progress. Most commonly, this occurs due to extended gaps or discontinuities in a student's education (The Glossary of Education Reform).

The report is structured into the following five chapters:

- Chapter 1: Introduction and methodology.
- Chapter 2: Main threats to education from COVID-19.
- Chapter 3: Policy responses for primary and secondary education.
- Chapter 4: Policy responses for higher education.
- Chapter 5: Conclusions and recommendations.

1.1. Approach of the report

The report is shaped by the following seven considerations:

1. **Taking a global comparative approach, but focusing on seven EU Member States**

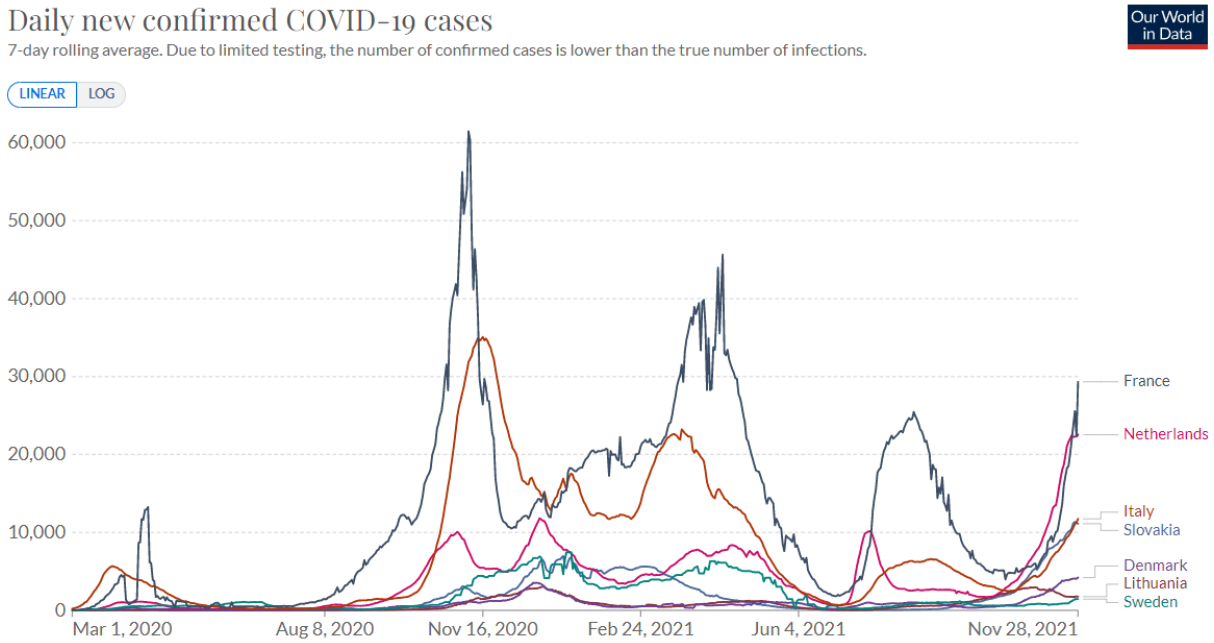
Given the all-encompassing nature of the pandemic and the possibility of learning from the wealth of experience amassed around the world, this report takes a global comparative approach. However, the report focuses on those experiences that are most relevant for European policymakers. At the same time – and given the relative lack of up-to-date comparative papers and reports available – this report is largely based on more than 100 (mostly national) sources of data and information. To provide focus and enable the adoption of a realistic research strategy, most of the examples in the report are taken from seven EU Member States that represent a sample of the different experiences and approaches taken across Europe during the first and second national lockdowns. The sample includes both large and small countries from all regions of the Union and with different experiences of the pandemic. These countries are Denmark, France, Italy, Lithuania, the Netherlands, Slovakia and Sweden. The reasoning behind the selection of these particular seven European countries is that:

- they demonstrate a well-balanced **representation of school systems** (centralised and decentralised);
- they include an EU Member State (Sweden) that opted to **keep schools open for the majority** of the pandemic;
- they represent **different regions** of the EU;
- they represent **different-sized countries** across the EU;
- all countries have been **affected by the pandemic to varying degrees**.

As Figure 1 shows, while significant differences exist in the way the pandemic has played out so far, the seven countries share a similar rough profile of infections over time. The first, limited wave of infections occurred during the pandemic's early months, between March and May 2020. This was followed by a second, larger wave that occurred mainly between September 2020 and December 2020. The pattern repeated itself in 2021, with the third wave taking place between March and May 2021 and the fourth wave beginning in September 2021. The bulk of the data collection activities for this report took place between May and August 2021, but the resulting data were updated during a revision of the report in late 2021. The report should therefore cover major developments up to November 2021.

The timing of the pandemic outlined above was, of course, not exactly the same for all countries. Sweden had a delayed and more severe first wave due to adopting different policies, while Slovakia experienced second and third waves that merged together into an uninterrupted period of severe crisis.

Figure 1. Daily new confirmed COVID-19 cases in the seven countries



Source: Johns Hopkins University CSSE COVID-19 Data

2. Adopting a broad view of what constitutes education and its outcomes

How do we define education outcomes? Essentially, there are two possibilities. The first is a narrower definition that deals purely with a so-called 'learning effect', which can be defined either as:

(1) a measure of achievement before and after the pandemic, or as
(2) the difference between current reality and some ideal (or at least standard) condition (Lorié, 2020; Blaskó et al., 2020).

In this report, however, we examine the impact of the pandemic in a broader fashion. As far as outcomes are concerned, we include elements such as *socialisation*, *student well-being, and personal and emotional development*. These outcomes are not just a precondition for the educational success of an individual, but also constitute societal and policy objectives in themselves. Early in the pandemic, Colao et al. (2020) pointed out that school 'also satisfies the socialisation needs of young people... School provides a structured setting in which children can learn and develop social competencies, such as self-confidence, friendship, empathy, participation, respect, gratitude, compassion, and responsibility.*'* (Colao et al., 2020).

3. Looking at both monitoring and mitigation

The report examines measures that may be classified as monitoring, as well as those that are aimed at mitigation. In this context, we conceptualise *'monitoring'* as data that is generated with regard to identifying gaps and improving the effectiveness of and access to education (UNICEF, 2021, p.6). *'Mitigation'*, on the other hand, is an attempt to actually address such gaps. However, the findings of the report are structured along other lines, due to the close integration between monitoring and mitigation activities in various areas.

4. **Separating higher education from primary and secondary education**

Differences are apparent between higher education on the one hand, and primary and secondary education on the other. These differences exist both in terms of the nature of the students and their development, as well as the measures adopted to mitigate the impact of COVID-19. Universities rapidly transferred learning to the online environment, and in many cases, it remained as such for extended periods of time. For younger pupils, physical closures have generally been shorter – but adaptation has also been much more difficult, particularly for very young children. For this reason, separate chapters are dedicated to these two distinct levels of education. At the same time, the report enables comparison by structuring the higher education chapter in ways that emphasise similarities and differences relative to primary and secondary education.

5. **Looking at both students and teachers**

This report does not limit itself to the impact of the COVID-19 pandemic on students, but also considers the teaching profession and its ability to deal with the pandemic. While the state of the teaching profession is more of an intermediate output rather than an educational outcome, the two are interlinked. For instance, if a large number of teachers experienced burn-out or even left the profession during and after the pandemic, this represents a clear threat to the ultimate outcome – the education of children and youth.

6. **Embedding education policy responses into the broader policy context of the pandemic**

A government's policy responses in education do not occur in a vacuum but are usually closely linked to its approach to the pandemic as a whole. However, presenting this broader policy context would go beyond the scope of this report; therefore we briefly examine only the two most relevant questions –overall preparedness for the pandemic, and whether or not education and schools were prioritised during the pandemic.

7. **Adopting a policy learning perspective**

Policy responses evolved throughout the pandemic as governments and other actors learned from their own experiences and those of others. Wherever relevant, the report therefore indicates where particular measures were adopted during the pandemic as a consequence of drawing on previously established good practices and devoting explicit attention to the issue of policy learning.

1.2. Data sources

In terms of data and resources, EENEE reports are typically based on existing academic literature that has already done the hard work of collecting, processing and analysing primary data. However, given the freshness of the topics and increased emphasis on the mapping (or descriptive) element in this report, this usual approach had to be modified somewhat.

Thus, the principal source for this report is primary data from ministries and other national websites from the seven EU countries mentioned above. Given the understandable lack of up-to-date academic literature (although this is used whenever available), the report makes use of all reliable sources available, including newspaper articles and media reports, statistics and information provided by government institutions, working papers, and other preprint sources. These cover the major developments up to November 2021.

In addition, the report uses the Oxford COVID-19 Government Response Tracker (OxCGRT) created by the Blavatnik School of Government at Oxford University (OxCGRT, 2021). When considering the US, the report also relies on the National Conference of State Legislatures website, which covers policy responses by individual US states under the title of Public Education's Response to the Coronavirus (COVID-19) Pandemic (Olneck-Brown, 2021).

In terms of secondary sources, the report makes use of existing EENEE/NESET reports summarising the pandemic's impacts, which are supplemented by statistical and policy information from international organisations, including the European Commission, the OECD, the World Bank, UNICEF and UNESCO. The same sources are, where relevant, used to identify strategies to counter the threat.

When approaching a new phenomenon, a natural tendency is to turn towards historical precedents or contemporary approaches to similar issues. While the world has seen major pandemics, natural disasters and wars before, the scope of school closures during the COVID-19 pandemic is genuinely unprecedented, on both a national and a global level. The literature regarding education during states of emergency is used in the report sparingly, as this mainly focuses on keeping children in school and safe under unfavourable conditions.

Chapter 2: Main threats to education from COVID-19

Although the pandemic is still ongoing and it is too early to determine its exact aftermath, a number of reports and publications have already highlighted the main threats posed to education. For example, the impact of COVID-19 on education has already been widely explored by knowledge providers for the Directorate-General for Education, Youth, Sport and Culture (DG EAC), such as NESET and EENEE. In this context, EENEE and NESET have already explored topics including investing in education, remote learning, and international students in the context of the pandemic. With this in mind, and using the recent literature on education during the pandemic, we are able to highlight some of the most commonly identified threats to education. As previously mentioned, this constitutes only a short introduction to the core of the report, which focuses on monitoring and mitigation measures.

2.1. Compromised early development

The United Nations reports that the pandemic is likely to compromise children's longer-term healthy development. Due to COVID-19, approximately 40 million children worldwide have missed out on education in their critical pre-school year. Consequently, they have missed out on a stimulating environment, learning opportunities, social interaction and, in some cases, adequate nutrition (United Nations, 2020). The UN evidence also shows that this is primarily likely to affect children from poor and disadvantaged families. It is clear that COVID-19 has highlighted the plethora of benefits that students gain from learning among their peers.

2.2. Unsuitable teaching model

Remote learning has emphasised new areas and skill sets that have not yet been systematically cultivated, but which are highly relevant to students' future careers. According to a report by the OECD (2020), the pandemic has opened up space for educators to focus more on the 'skills and competencies students demonstrated, or failed to demonstrate, during the period of remote learning'. Skills such as autonomy, independent learning, executive function and self-monitoring have been tested time and again during the pandemic (Schleicher, 2020). While practising such skills is vital to a student's future, a report by the Coimbra Group report states that the current model used to provide education remotely is not sustainable in the long term – particularly given that the majority of courses offered were pedagogically conceived with the intention that they would be delivered in person. It is likely that the current generation of students will not benefit to the fullest from the current model of education, but the pandemic can be seen as an 'opportunity to reflect and elaborate on renewed models' of education (Gatti et al., 2020, p.4).

2.3. Upsurge in inequalities among pupils

The switch to remote learning has exacerbated inequalities. In particular, it has affected ethnic minority students, lower-income students, and first-generation migrant students (Farnell et al., 2021). This view is supported by a World Bank Group Education publication, which argues that the pandemic has increased disparities between learners (Azevedo et al., 2021). This includes passive skill development and proficiency, in which a deficit is particularly evident among pupils from lower socio-economic backgrounds.

Apart from children's learning being interrupted, these disparities are perpetuated by the fact that major learning assessments were delayed or completely cancelled due to the closure of schools. As Burgess and Sievertsen (2020) highlighted in an article for VoxEU,

exam results 'give information about the child's progress for families and teachers. The loss of this information delays the recognition of both high potential and learning difficulties'. However, participation in exams provides more than just this essential information. A paper by Andersen and Nielsen (2019) found that participating in a test improves an individual's score in reading tests two years later by 9 per cent of a standard deviation, with comparable effects in maths. Importantly, these effects were largest for children from disadvantaged backgrounds.

2.4. Neglect of disadvantaged students and students with special needs

The switch to remote learning disproportionately negatively impacted disadvantaged children and children belonging to groups such as migrants, refugees, ethnic minorities, and special education needs. The forthcoming NESET/EENEE report on *The impact of COVID-19 on the education of disadvantaged children and the socio-economic consequences thereof* argues that the majority of teachers in special education and secondary education find that their ability to give personalised attention to students has decreased. Pre-existing inequalities affecting disadvantaged people in many countries have only been exacerbated by the COVID-19 pandemic. The NESET/EENEE report emphasises that children of the essential workers[1] are at particular risk of receiving less support than their peers whose parents have supported them at home.

Furthermore, the attainment gap between disadvantaged pupils and their peers has been deepened by the switch to remote learning. This is of particular concern to migrants and students with special needs, who require additional time and supervision from teachers when completing their tasks. Not only can the lack of such individualised attention widen the attainment gap, but it can also diminish the sense of belonging among such children, and can cause socio-emotional issues (Cerna, 2020).Interrupted learning is not a new phenomenon for refugee children, due to the complicated immigration rules upon arrival to a new country. But when combined with *a lack of support services*, as well as a new *environment and/or language* and *limited social interaction,* such a scenario may cause even greater learning gaps, isolation and distress (Cerna, 2020).

A low level of education on the part of parents is one of the most pronounced vulnerabilities for learners identified during the COVID-19 school closures (Bayrakdar & Guveli, 2020). Statistically, children of less-educated parents encounter issues such as lack of learning and technological resources, a lack (or even absence) of support with their studies, the absence of an adequate place to study, and the scarcity of digital skills (Blasko & Schnepf, 2020). Learning loss among children whose parents have low levels of education is 40 per cent higher than that seen among average students (Engzell et al., 2020).

2.5. Limited international student mobility

Farnell et al. highlight the impact that COVID-19 has had on the mobility of international students. While restrictions on movement globally have been an evident impact of the pandemic, in some countries, it caused a decrease in the number of international students enrolling in study programmes. For example, at the start of the 2020/21 academic year, Germany saw a 20 per cent decrease in the number of international students. In the US, the figure fell by 16 per cent, while in Australia, applications for student visas dropped by 80–90 per cent (Farnell et al., 2021). In the medium or longer term, this impact of the pandemic can have an immense impact on the future of international education:

[1] Essential workers are people working in sectors that have been crucial during the pandemic, including (but not limited to) food, health care, social care and education sectors.

If universities are forced to limit international student mobility and offer virtual (or at least blended) alternatives, the key question will be how can universities ensure added-value for international students and compensate for the loss of physical interaction in the host country. From the student perspective, it is uncertain whether such forms of study programmes and degrees will be perceived as having the same market value and whether students will be ready to pay the same level of tuition fees for such a degree. (Farnell et al., 2021, p.13).

Having said this, this impact was only experienced by certain countries. As we show in Chapter 4 of this report, Lithuania has actually seen an increase in the enrolment of international students.

2.6. Worsening of mental health

The sudden shift away from normality experienced by the student population as a result of the pandemic has contributed to a worsening of students' mental health (Du et al., 2020; Patsali et al., 2020). This is of particular concern among students from more disadvantaged and ethnically diverse backgrounds[2], who, are more likely to face additional barriers. Such barriers include being deprived of physical learning opportunities, a lack of the social and emotional support usually provided in school, and missing out on critical services such as free school meals (OECD, 2020c). The consequent lack of social contact and the insufficiency of essential extra services may cause **isolation** as well adversely affecting children's **sense of self-worth** and **sense of belonging to schools**.

While psychological support mechanisms for school students were included in the plans of some governments, universities in particular fell short in providing mental health support services following the transition to online learning. A 2020 US survey by Inside Higher Ed and Hanover Research revealed that 'While nine in 10 campus leaders say mental health is their top concern, fewer than two in 10 say their institution has invested in more mental or physical health resources in response to COVID-19.' (Lederman, 2020). Measures to address mental health issues are further explored in subsequent chapters of this report.

2.7. Dropping out/discontinuing of education

Due to the disturbances caused to education by the pandemic, pupils – especially those from more disadvantaged groups – are now at higher risk of dropping out of education. A 2021 EENEE report by Algan et al., 'Boosting Social and Economic Resilience in Europe by Investing in Education', discusses the main threats to school education. These include a lack of motivation towards schoolwork, less persistence with regard to schooling, lost learning hours, a loss of attachment to school due to distance learning, and widening of the inequality gap among pupils (particularly those from disadvantaged backgrounds). According to the report's authors, 'Children who were already tenuously connected to school could be further discouraged, making them especially vulnerable to dropping out as the economic shock hits. If countries move quickly to support continued learning, they can at least partially mitigate the damage.' (Algan et al., 2021, p.43).

2.8. Future losses in the labour market

Crucially, learning losses translate into long-term economic consequences. According to Busso and Munoz (2020), who studied the long-term economic effects of a teachers' strikes in Argentina (over several years), 'adults who were subjected to an 88-day teacher strike

[2] These backgrounds include, but are not limited to: children and youth from low-income and single-parent families; immigrant, refugee, ethnic minority and indigenous backgrounds; children with diverse gender identities and sexual orientations; and those with special educational needs.

as children experienced a subsequent 2.99 per cent reduction in labour market earnings and a decline in their hourly wages as adults.' (Inter-agency Network for Education in Emergencies [INEE] and the Alliance for Child Protection in Humanitarian Action, 2021, p.15).

Chapter 3: Policy responses for primary and secondary education

This chapter examines policy responses to the pandemic that apply to primary and secondary education. To tackle such an enormous subject in an accessible manner, the chapter is structured as answers to a series of questions, each of which covers a specific angle. Together, these answers aim to present a multifaceted picture of education policy responses to the pandemic. The list of questions is as follows:

- What level of preparedness existed prior to the pandemic?
- What level of policy (de)centralisation can be seen in responses to COVID-19 in education?
- To what extent, and in what form, were school attendance and education prioritised in epidemiological measures?
- Where schools were closed, what measures were implemented to limit the negative impacts of closures (aside from online learning)?
- How did authorities monitor the negative impacts of the pandemic and related measures on education outcomes?
- What steps did authorities take to ensure student access to alternative channels of instruction during school closures?
- Did policymakers implement policy steps to ensure the psychological well-being of children during the pandemic, especially during lockdowns?
- Which groups and individuals were identified as deserving special attention, and how were they assisted?
- What form(s) did funding take for subsequent mitigation and catching up?
- What types of support were provided to teachers?
- How did pre-pandemic digitalisation influence developments, and what policy learning has taken place?

While each of these questions merits a research paper of its own, there is also value in an examination that provides shorter answers to each individual question, but brings the various issues together to provide an overview.

3.1. What level of preparedness existed prior to the pandemic?

While it is often said that the pandemic was a 'black swan' event – that is, one for which preparation is impossible – this is not entirely true. While no country was truly prepared for the challenges brought by COVID-19, there are at least two areas in which major differences exist between countries, which had a potential impact on the way they handled the pandemic and its effects.

The first concerns health security capabilities. In 2019, the Global Health Security Index (GHSI) was published. This was described as 'the first comprehensive assessment and benchmarking of health security and related capabilities across the 195 countries' (GHSI, 2019). The index was developed by the Nuclear Threat Initiative (NTI) and the Johns Hopkins Center for Health Security (JHU), working with The Economist Intelligence Unit (EIU). The index provides the best proof that experts were already taking the issue of health security seriously before the pandemic.

Among the seven countries that are the focus of the present report, the four countries from north-western Europe scored very well in the 2019 GHSI. The Netherlands was placed third globally, while Sweden and Denmark occupied seventh and eighth places, respectively, and France ranked eleventh. Italy and Lithuania follow after a significant gap (in 31st and 33rd places, respectively), while Slovakia lagged even further, taking 52nd place.

The GHSI distinguishes between the abilities to *prevent*, *detect* and *respond* to biosecurity threats. It also measures the preparedness of health infrastructure, as well as the suitability of existing norms and risk management capacity. However, it does not capture any indicators relating specifically to education or school systems. Looking at the cumulative number of infections and fatalities after 21 months of the pandemic, no correlation can be seen between the GHSI and the number of cases in each of the seven countries examined more closely in the present report. However, a solid and obvious relationship can be seen between performance in the GHSI and the number of deaths. Countries that scored highest in the GHSI had the lowest number of deaths per capita and vice versa.

Specifically, by mid-November 2021, Slovakia had experienced 185,503.20 cases per million, followed by Lithuania with 165,131.52 and the Netherlands with 135,027.85. Sweden and France have had similar numbers of cases (116,383.12 and 108,801.52 per million, respectively), while Italy (80,594.07 per million) and Denmark (73,450.85 per million) have the lowest number of cases in the sample. In other words, the worst-affected countries had an infection rate two to three times that of the least affected country.

An even wider range of outcomes is apparent in terms of fatalities. Lithuania recorded a total of 8.63 confirmed deaths per million (a 7-day average) the worst outcome in the sample of countries under review (though not in the world). It was followed by Slovakia with 8.63 confirmed deaths per million. The Netherlands recorded 1.39, Italy 0.94 and Denmark recorded 0.79 fatalities per million. At the time France and Sweden recorded the lowest rate of fatalities out of the seven countries - 0.53 and 0.35 deaths per million respectively (OurWorlInData, data as of 15 November 2021).

Table 2. Positions of the countries under review in the 2019 Global Health Security Index and the 2019 Index of Readiness for Digital Lifelong Learning

Index	The Netherlands	Sweden	Lithuania	Denmark	France	Slovakia	Italy
GHSI	3	7	33	8	11	52	31
IRDLL – Institutions and policies for digital learning	4	21	11	26	17	18	25
IRDLL – Availability of digital learning	4	2	14	3	17	13	25

Source: Compiled by the authors, based on Beblavý et al. (2019) and GHSI (2019)

The second area of *de facto* pandemic preparedness is **readiness for digital learning**. Due to the fact that the pandemic shifted much of education online – in some cases, for extended periods of time –readiness for digital learning should indicate how easy or difficult the countries found the implementation of such a shift.

Beblavý et al. (2019) published an Index of Readiness for Digital Lifelong Learning, ranking each of the EU's 27 Member States. A good example of a country whose digital preparedness paid off is Estonia, which came first in the 2019 index:

When schools in Estonia switched to the remote-learning system on 16 March 2020, the number of users of e-learning platforms increased tenfold. The smooth transfer was ensured by regular use of national electronic homework diaries/communication points eSchool and Stuudium by all schools. Investment for good internet connection, development of electronic study materials and development of teachers´digital skills

benefited the situation. Over the past years, the schools have been able to apply for funds to develop the areas where their school needs most support - from obtaining computers and training teachers to composing strategic plans for IT developments. (PRAXIS, in: SIRIUS, 2020).

Two elements of this index – **institutions and policies for digital learning** and **availability of digital learning** – should be particularly informative. With regard to the availability of digital learning, Sweden, Denmark, and the Netherlands are among the leaders in Europe, taking second, third and fourth places, respectively. Slovakia is 13th, followed by Lithuania in 14th place, with France taking 17th place. However, when it comes to institutions and policies for digital learning, the picture is different; only the Netherlands performs highly – once again in fourth place. Sweden and Denmark are in the bottom third (21st and 26th, respectively), with Lithuania, France and Slovakia again occupying the middle ranks (11th, 17th and 18th places). Only Italy is consistent – in terms of its weak performance - coming 25th on both counts.

Looking at the two indicators, one would therefore expect that Denmark, the Netherlands and Sweden were best prepared to prevent and remedy the negative impact of the pandemic on education, while Italy could be expected to perform worst, with France, Lithuania and Slovakia somewhere in between.

In its forthcoming sections, this report will return to the Index of Readiness for Lifelong Learning to discuss specific findings that can help to shed light on how countries performed during the COVID-19 crisis. However, it is worth mentioning that like policymakers, the Index itself was not prepared for a possible pandemic. For example, when analysing the availability of hardware, software and connectivity, the Index focused exclusively on their availability in schools. Countries such as Italy and Slovakia, neither of which scored well on the Index, nevertheless received points for heavy investments in physical infrastructure for digitalisation in schools, but performed much more poorly with regard to the skills of educators, and completely ignored the extent to which devices and connectivity were available in students' homes. During the pandemic, the importance of schools' physical infrastructure diminished, and so the 'real' preparedness of such countries for the pandemic was even lower than that indicated in the 2019 Index.

3.2. What level of policy (de)centralisation can be seen in responses to COVID-19 in education?

Significant differences can be observed in how (de)centralised education policy responses to COVID-19 were. Two potential drivers exist in this regard:

- The size of the country, where larger countries can be expected to favour more decentralised policies due to regional and local differences not only in terms of COVID-19 infections, but also other relevant factors (e.g. ethnic and socio-economic composition, local/regional preferences).
- Pre-existing levels of (de)centralisation, where countries with higher levels of prior decentralisation – particularly in relation to education – can be expected to have much higher demand and capacity for decentralised decision making during the pandemic.

The experiences of the seven target countries in this report indicate that pre-existing levels of decentralisation played a greater role than the size of the country. Denmark and Sweden, for example, had the most decentralised education policies prior to the pandemic, and also exhibited the most decentralised responses. This was most visible during the second (2020/2021) and third (2021/2022) academic years of the pandemic, by which time there had been more time for authorities at all levels to gain experience and prepare.

However, Danish schools were allowed to determine their own COVID-19 safety restrictions from the outset. Consequently, this meant that some schools implemented stricter restrictions than others. For instance, one school in Denmark (Ålholm public school in Copenhagen) tried to normalise the learning process during the pandemic as much as possible, and only required students to sanitise their hands each time they entered the school, while different grades were not allowed to mix (Filippone, 2020).

During the first wave, Sweden kept schools open for students under the age of 17 while recommending the closure for universities and older secondary school students (Ellingsen & Roine, 2020). This was replaced by a new model in 2021, under which schools were open by default, with closures taking place under certain circumstances (Eurydice Unit Sweden, 2021). For example, in January 2021, the public health agency gave secondary schools for 13 to 16-year-olds the option to close if necessary — but added that the default should be to remain open (Rodrigues, 2021; Milne, 2021).

On the other hand, approaches that are localised but not decentralised can be seen in France, Italy and Slovakia. During late 2020 and early 2021, governments in these countries implemented variations on the COVID-19 'traffic light' system for schools. In France, this took the form of a colour-coded, four-level health protocol in which the levels and the corresponding rules regarding masks, sports and self-isolation for unvaccinated pupils were based on the severity of the pandemic at a local, regional or national level (The Local, 2021a). Similarly, in Italy, switching to online learning depended 'on the health situation in each local area and the rules provided under Italy's tiered system of restrictions' (The Local, 2021b; Governo Italiano Presidenza del Consiglio dei Ministri, 2020). Despite being a much smaller country, Slovakia introduced a near-identical approach in the summer of 2021 to prevent further country-wide lockdowns. The systems referred to above try to take into account differing local conditions, but are based on a centrally determined formula rather than on local decisions.

The Netherlands provides a good example of a highly centralised policy response with regard to lockdowns, which were repeatedly used to 'short-circuit' the spread of the pandemic. Even though the country is medium-sized by European standards, with 15 million inhabitants, the high concentration and mobility of the population, together with a tradition of centralised governance, pointed to a unified approach. For example, in December 2020, the government not only issued a central decree switching learning to a remote form, with the exception of secondary education, but it also stipulated specific exceptions for practical training, lessons for students with upcoming examinations, and for exams in the final year of schooling and the year preceding it (Ministerie van Algemene Zaken, 2020a). Lithuania followed a similar though slightly more complex approach, as we explain below.

It should also be noted that a localised, *de iure* approach can become a *de facto* national one, as happened in Italy, where regional lockdowns quickly escalated into a national lockdown during the first wave (Di Donato et al. 2020, Reuters, 2020). Although this closure was initially intended to last until 15 March 2020, across the country no classes were held until the following school year. Consequently, Italian schools accumulated 18 weeks of closures, a number exceeded only by China (OECD, 2020c). In other words, the severity of a specific wave can overwhelm a mechanism designed for different circumstances. Similarly, in Lithuania, individual municipalities and schools were allowed return earlier to in-person instruction in primary education. Even so, only 10 per cent of schools decided to do so – in a country where the first wave resulted in three months of remote learning, while the second lockdown saw a further six months of remote learning (European Commission, 2020).

Differences in (de)centralisation also pertain to mitigation measures, albeit in a different form. As we analyse in more detail below, countries with centralised responses such as the Netherlands or Slovakia also relied on centralised funding initiatives for mitigation activities, while allowing greater flexibility for individual schools or other actors with regard to whether they apply for funding and how they use it.

3.3. To what extent, and in what form, were school attendance and education prioritised in epidemiological measures?

Every government had to grapple with the issue of how much priority should be given to schools and education as part of epidemiological measures, particularly in terms of lockdowns and vaccinations. Even prior to the pandemic, literature on social distancing emphasised the important role of stopping the transmission of infections through children, given that they congregate in crowded spaces and are less likely to observe social distancing and other measures (Lewis, 2021). On the other hand, many Member States felt a strong social and political commitment to continuing in-person education, for reasons that include but extend beyond the value of in-person instruction. These include socialisation and mental health, as well as absolving parents from full-time childcare obligations.

The French government, for example, communicated a strong narrative that schools would be the last institutions to be closed. A graphic from the newspaper *Le Parisien*, publicised by France's Secretary of State for European Affairs, showed that the only countries that had imposed fewer weeks of partial or total school closures were Belarus, Iceland and Switzerland (McNicoll, 2021). However, at the same time, throughout the second and third waves, medical and educational professionals criticised how little effort the French government was putting into mitigating the spread of COVID-19 in schools. Suggestions to recruit additional personnel to promote social distancing through smaller class sizes – or to equip schools with carbon dioxide detectors to monitor the volumes of exhalation in classrooms, or air purifiers to reduce aerosol transmission – were not implemented (McNicoll, 2021). The same goes for vaccination: France officially ruled out prioritising vaccinations for its 900,000 teachers when vaccines were still scarce.

Slovakia chose the opposite strategy: until September 2021, it did not effectively prioritise schools during the lockdown. However, it did provide a fast-track vaccination option for teachers, wh0 could get vaccinated as early as February 2021.

Italy also prioritised teachers for vaccination, but unlike Slovakia (and, indeed, most other countries), it also prioritised students. In 2021, the government decided to encourage regions to 'prioritise COVID-19 vaccinations for those aged between 12 and 18' in order to prepare for the reopening of schools and school clubs (Reuters, 2021). This included measures such as being able to receive a vaccine without having a reservation. Italy then went even further; on 5 August 2021, the Italian government declared that 'teachers must have proof of immunity from COVID-19 before entering the classroom' Teachers who could not show a certificate would not be allowed to teach; furthermore, it was stated that 'after five days of absence they will no longer be paid' (Jones and Fonte, 2021). These measures constitute what is probably the most aggressive policy strategy to ensure that as many people as possible who entered school were vaccinated.

Initially, the prioritisation of education appeared limited with regard to epidemiological measures in Lithuania and the Netherlands, although this changed gradually over time (Mikėnė, 2021). In Denmark and Sweden, it is more difficult to identify the specific prioritisation of education due to the higher pre-existing level of decentralisation mentioned previously. Having said this, Denmark was among the first countries to reopen some of its schools during the first wave, in April 2020 (The Local, 2020), and there has been

tremendous pressure to keep at least primary schools open in Sweden at all times (Axelsson, 2021).

3.4. Where schools were closed, what measures (aside from online learning) were used to limit the negative impacts of closures?

Limiting or even avoiding school closures became a major preoccupation for policy-makers during the pandemic. However, where such closures were implemented, attempts have been made to make them less disruptive.

In France, the Ministry of National Education, Youth and Sports tried to implement better planning. The ministry instructed educational institutions to develop targeted measures in the form of educational continuity plans, to ensure the continuation of pupil learning in the event of a lockdown. Education providers were given various resources and guidance in setting up individual (per-institution) educational continuity plans. These plans should apply in situations such as the sudden transition to hybrid teaching or fully remote teaching models (Eduscol, 2021). This approach was only announced in July 2021; therefore, only limited information is available regarding its effectiveness once implemented.

A more frequently used instrument was to give preferential treatment to certain grades (e.g. final year students), as well as to pre-primary and primary, or to special education facilities or the children of essential workers. In Norway and most of Germany's federal states, schools remained open for learners with SEN, as well as learners whose parents worked in essential jobs or who could not be at home for other reasons, such as violent settings (OECD, 2020b). In Sweden, while the government had the right to formally close schools to pupils up to the age of 16, the country deemed it essential to ensure that childcare was provided to essential workers. The Swedish government issued a list of occupations for which extra childcare would be offered in the event of school or kindergarten closures (Ludvigsson, 2020). This provided in-class learning for pupils who had limited supervision at home, due to the nature of their parents' work. The measure also ensured that essential workers could continue to work. In various countries, preference was given to education involving a practical element, mainly vocational education and training (VET). In the Netherlands, to prevent the collapse of workplace learning, the tripartite Foundation for Cooperation on VET and Labour Market (SBB) launched an action plan to preserve workplace learning and apprenticeships (CEDEFOP, 2020h).

Another approach was to use organisational and spatial measures (shifts, outdoor spaces, reducing or suspending extracurricular activities and limiting/cancelling meals at school) to allow partial/earlier reopening. In Italy, the return to schools was hesitant after the first wave during the academic year 2019/20 – as Phelan (2020) noted, 'The kindergartens, Don Milani and Sant'Antonio in the town of Ivrea are two of the only nurseries, schools or universities in Italy to have allowed kids back through the gates since March.' These two educational institutions managed a partial return by carrying out their teaching outdoors. In Denmark, similar measures were used more broadly from the start of the pandemic. During the second and subsequent waves, the approach of outdoor teaching was adopted frequently in other countries.

Another supplementary step was to extend holidays. Although this was considered less disruptive than standalone closures, it was only adopted in some countries. One example is in Lithuania where, at the start of the pandemic, the government announced an earlier and extended Easter school holiday break (from 13 to 27 March 2020). This decision was targeted at all educational institutions, to prepare educators for the transition to remote learning (Alytaus Rajono Savivaldybė, 2020). Local authorities also used this time to identify pupils in need of devices for learning (Loiba, 2020). In the Netherlands, the

lockdown during the winter of 2020 included the whole of the Christmas period, as well as several weeks before and after. In this case, however, the whole society was targeted, not just schools. In Slovakia, the government announced in late November 2021 that the Christmas vacation would begin one week early.

3.5. How did authorities monitor the negative impacts of the pandemic and related measures on education outcomes?

Much less attention has been paid to monitoring, compared with more 'active' policy responses aimed at mitigation. During the initial months of the pandemic, the attention of policymakers focused on ensuring the basic functioning of education throughout the closure and reopening of schools. However, a number of monitoring initiatives have been implemented. These mostly focus on monitoring access to remote learning during lockdowns, and on assessing the impact of lockdowns on learning and psychological and emotional well-being.

The first priority of monitoring was to determine whether online learning was working on a technical level. According to a global survey by UNICEF, among those countries offering online learning, 79 per cent monitored user access, while 50 per cent measured learning. Only 53 per cent of the low-income countries surveyed provided an online learning platform, compared with 95 per cent of high-income countries. Among upper-middle-income and high-income countries, the shares of countries that monitored access (71 per cent of upper-middle and 77 per cent of high-income) and learning (59 per cent of upper-middle and 69 per cent of high-income) were much higher (UNICEF, 2021c).

In other words, continuous monitoring was the norm during the first and second waves, but not a universal feature. For example, Slovenia monitored distance learning in schools across the country, looking at the channels used and the extent of their use (Rupnik et al., 2020). In Sweden, the situation of vulnerable students was assessed through direct dialogues (by phone) with school leaders all around the country. These dialogues were carried out and recorded by staff from the Swedish National Agency for Education (OECD, 2020d). Such an example shows that monitoring was a matter of greater priority than the available technology – even a low-tech solution was feasible when other options were absent.

However, even Slovakia – which did not conduct continuous monitoring – implemented a large-scale survey during the summer of 2020 among schools and teachers. This survey investigated the forms of contact used during school closures to estimate how many children lacked access to remote learning, and in which regions, as well as how many children had only intermittent access to such facilities (Ostertágová & Čokyna, 2020). According to the findings of this survey, more than 52,000 primary, middle and high school students did not have access to education during the first wave of the pandemic. This represents around 7.5 per cent of the country's total student population (Ostertágová and Čokyna, 2020). As many as 8.2 per cent of primary school students and 5 per cent of high school students did not participate in remote learning. These findings caused major debates in public and policymaking circles regarding how to remedy the situation and better prepare for the next wave of the pandemic.

After each school reopening, in many countries an extensive assessment was made of the gaps in student learning that might have accumulated during school closures, generally using standard assessment instruments. Much such assessments were driven by academics (Bayrakdar & Guveli, 2020; Agasisti et al., 2020). However, there have been instances in which the authorities themselves have commissioned such assessments. The UK's Department of Education, for example, commissioned a large-scale study that looked in detail at both primary and secondary education. The analysis was based on pupils' results

in Renaissance Learning's Star Assessments, which schools frequently use as a baseline assessment for reading and maths (with over one million assessments carried out during the autumn of 2020) (Department of Education, 2021).

Collecting data on how children are faring psychologically, particularly during school closures, has been another major preoccupation of policymakers as well as researchers and non-governmental organisations (NGOs). For example, the Slovenian Educational Research Institute carried out research on 'The Role of Emotional Competencies in Psychological Responding to COVID-19 Pandemic' (Kozina et al., 2021). In Canada, education authorities and schools in New Brunswick designed an indicator to provide a quarterly measure of students' sense of belonging (OECD, 2020f).

3.6. What steps did authorities take to ensure student access to alternative channels of instruction during school closures?

During certain periods of the pandemic, the shift to online primary and secondary education was universal. Even in countries such as Denmark and Sweden, with their decentralised responses and strong preference for keeping schools open (especially primary schools), schools were closed during 2020. The differences occur in the length and the number of such lockdowns. Consequently, authorities everywhere had to grapple with rapid transitions to an entirely new environment. There was a general awareness that, for online education to work, there not only had to be **online educational content**, but also **computers and other devices** to access the content, as well as **internet connectivity**.

One option was to create or expand pre-existing national online repositories with resources for remote teaching. For example, on 25 March 2020, the Slovak Ministry of Education, Science, Research and Sport 'launched, in cooperation with non-profit initiatives, a 'crisis'-response website, 'Učíme na diaľku', which aimed to 'disseminate information, recommendations and guidelines related to distance learning, and to provide digital education content to all learners' (CEDEFOP, 2020f). This website contained a 'Sources for Learning' section containing a repository of national and international platforms that educators could use to find content for their lessons. In Austria, a database entitled Eduthek supplied online materials for basic and secondary education. Provided by the Austrian Ministry of Education, Eduthek included links to static and interactive materials covering instruction in the core curriculum. The website aimed to give teachers, students and guardians access to various online exercises (Fernando et al., 2020).

While online content initiatives were almost universal, the opposite applies to the distribution of free/subsidised electronic devices and learning materials, together with resources for internet connectivity. Provision of these resources tended to focus on certain groups, as there was a general assumption that most pupils either already enjoyed such access, or that their families could deal with it on their own. The French government, for example, established a partnership with the national postal service, La Poste, to facilitate the collection and supply of computer equipment for those students without it (Universal Postal Union, 2020). Prior to the official transition to remote learning in Lithuania (on 30 March 2020), the National Agency for Education bought 35,000 computers to provide to pupils from socially disadvantaged backgrounds (Ministry of Education and Science, 2020). By December 2020, the Dutch government had spent EUR 9.3 million on the purchase of necessary learning devices, equating to support for more than 15,000 students (NOG, 2020).

Private actors also frequently stepped in to support specific groups that fell through the cracks in public responses. For example, HumanAid in Vilnius, Lithuania, as well as multiple other NGOs and migrant-led organisations, provided laptops and digital devices to migrant students who lacked them (SIRIUS, 2020).

A similar, though somewhat less systematic approach was adopted towards internet connectivity. Probably the most comprehensive intervention that took place was that seen in the Netherlands, which took the form of agreements with mobile phone network operators and internet firms to eliminate barriers to internet access. The Primary Education Council, Secondary Education Council and the Dutch Ministry of Education, Culture and Science had put out a request to internet providers to support school boards. In response to this call, SIVON, KPN, T-Mobile and Vodafone agreed to offer temporary internet solutions until the end of July 2021*:*

School boards determine per school location which pupils are eligible for an internet solution and then, together with the parents/caretakers, examine which option (Ziggo WiFi spot, T-Mobile SIM card or WiFi access point) best suits the pupil's situation. The numbers are passed on per option via the registration form, and SIVON makes a distribution, after which all school locations, if available, receive the requested internet connections. School boards are themselves responsible for distributing the connections among the students. (NOG, 2021).

In Slovakia, on the other hand, essentially no centralised attempts were made provide students with devices or connectivity during 2020. In Italy too, efforts were only limited. As far as we can tell, this was not related to a lower level of need, as evidenced form later research carried out in Slovakia shows that a significant number of students were completely excluded from online education.

Particularly during the early stages of the pandemic, ingenious secondary interventions were carried out to deliver content via more traditional channels. The French government asked Radio France and France Télévisions to broadcast more educational programmes during this period, given the wider availability of TVs (Zero Density, 2020). In partnership with national broadcaster Lithuanian Radio and Television (LRT), the Lithuanian government released a TV programme called *'LRT pamokėlės'* [translation: 'LRT lessons']. This educational TV programme was aimed at Early Childhood Education and Care (ECEC) and primary school students *(*LRT pamokėlės*,* ND).

While devices, content and connectivity are necessary conditions for online learning, authorities or teachers' networks also attempted to institute supplementary measures to ensure the quality of instruction and individual approaches.

In Slovakia, the School Network project offered an accessible way for students at all stages of education (and their parents) to provide teachers with weekly feedback regarding their views and which teaching methods suit them best. Each teacher selects several questions they deem to be of relevance to their students' academic development, and can adapt their way of learning based on students' responses (OECD, 2020f).

To ensure inclusion and a collective response to the needs of vulnerable students, schools in Québec, Canada, have built school-community partnerships. These student and parent committees could be called upon to develop solutions in conjunction with the school. Moreover, teachers were encouraged to collaborate with local organisations to provide relevant resources and information to vulnerable pupils and their families (Collin-Vézina & Milot, 2020).

3.7. Did policymakers implement specific interventions to ensure the psychological well-being of children during the pandemic, especially during lockdowns?

There is a general and valid presumption of the pandemic's negative effects on the psychological well-being of children and young people (as noted in Chapter 2); however, the reality is slightly more complicated. As Rider et al. (2021) have pointed out:

[while] data from studies in multiple countries suggest increased frequency of mental health disruption and mental health disorders during the pandemic… a proportion of these data also shows that some children with prior and/or ongoing mental health disorders have had reduced symptoms during the pandemic… This may be because of a pause on the demands of in-person schooling (peer interactions, sensory over-stimulation, etc) as well as increased access to supportive parents who are forced to stay at home.

In addition, families play an important role that can balance weaknesses in other areas. For example, as Mangiavacchi et al. (2020) showed in Italy, gender division of labour in childcare played a crucial role during the early stages of the pandemic, with higher involvement from fathers generally leading to better outcomes.

These exceptions notwithstanding, there is an important role for policy interventions to ensure that the socio-emotional needs of children and adolescents have been met during the pandemic, particularly when school closures prevent such needs being met via the usual pathways. Significant differences can be seen between countries in this area. According to Cerna (2021), some countries such as Canada, New Zealand, Norway and Portugal focused extensively on supporting students through various measures. Governments in these countries generally prioritised children's overall development rather than focusing purely on academic achievement. While children in these countries were not out of school for a long time, authorities were still concerned about their socialisation. Conversely, the UK, the Czech Republic and Slovakia experienced lengthy school closures, but did not implement any significant interventions in this area. In the Czech Republic and Slovakia, this was due to limited policy capacity. In contrast, the UK was very active, but focused on learning loss at the expense of a more holistic view. (OECD, 2020f)

In terms of specific interventions, the provision of counselling options for students and the possible expansion of resources devoted to this area, were frequent responses overall, with differences as to which actor led such interventions. In Denmark, online support was offered by the Student Counselling Service. This included digital resources and free online or phone counselling (OECD, 2020a). With the aim of reducing the negative impact of the pandemic on students' mental wellbeing, in September 2021 the Lithuanian government initiated a programme called *'Geros Savijautos Programa'* [translation: 'good well-being programme'] (Mokykla be COVID, 2021). Under this new programme, schools could request targeted programmes (from a list of providers) such as lectures from psychologists and emotional intelligence training. Conversely, in France, despite reports of an increase in anxiety and depressive disorders and suicidal thoughts among students during the COVID-19 pandemic, no new or specific measures were introduced at school level (Bauer-Babef, 2021). As reported by French radio station France Inter, there is a lack of recognition of the severity of the issue, as some believe that 'The schools say, "This is happening on social networks, it's not my place." But what we see is that it starts at school and goes off the rails on social networks' (Coffey, 2021).

3.8. Which groups and individuals were identified as deserving special attention, and how were they assisted?

One of the key issues involved in national responses to mitigate the effects of the pandemic concerns which individuals or groups are officially classified as 'vulnerable' or otherwise deserving of special treatment. This designation has important consequences with regard to many of the issues explored elsewhere in this chapter – which students' welfare was monitored, which students were allowed to attend school while others had to stay at home, who received devices or connectivity, and who received additional services after schools had reopened. In some cases, such a designation even led to the provision of food – as in Italy, where the Ministry of Education, Science and Sport arranged contactless deliveries to socially disadvantaged and/or disabled students who, due to the pandemic, had to study remotely and whose parents had requested a food parcel (Eurydice, 2021).

A diverse range of approaches have been taken to this issue, involving different actors' conceptualisations of need and vulnerability. However, three groups stand out as being universally or frequently targeted:

- Children with special educational needs (SEN).
- Migrants, refugees and ethnic minorities.
- Children of essential workers, or children who could not be safely left at home.

These groups could be targeted either separately or together. For example, the Danish government instructed municipalities to provide childcare to the children of essential workers, as well as children with SEN or with challenging home environments, between the ages of 0 and 9 years:

To this end, local authorities worked with schools, day-care providers, social services and children's homes to offer care, including in the evening, night, weekends and holidays, as needed. After the first day, a survey of municipalities showed that about 2 per cent of children were in emergency care. (OECD, 2020a, p4).

This approach has continued throughout the pandemic, and even in 2021, in the event of school closures, vulnerable students are exempt and will still be offered in-class teaching (Københavns Kommune, 2021).

The case of Italy illustrates the complexities involved in providing assistance specifically to children with disabilities or SEN. On the one hand, such children face specific difficulties as a result of pandemic-related measures – as the OECD points out, a lack of socialisation 'or socialisation mediated by online tools – may result in specific difficulties for students with SEN, particularly those who struggle with social and communication problems such as students with an autism spectrum disorder or those that have learning disabilities.' (OECD, 2020c). In response, the Italian government has issued a number of decrees, beginning in November 2020, connected with in-person learning provisions for children with disabilities (Human Rights Watch, 2021). A March 2021 note by the Italian education ministry specifies that while in-person education for students with disabilities was not automatic, schools should consider each case individually in order to meet the student's educational while maintaining the safety measures necessary to protect their right to health.

Consequently, some schools in Italy decided to form small groups of around five students, including both those with and without disabilities, who could decide to attend in-person learning, despite schools being otherwise closed. The children without disabilities were chosen on the basis of an expressed interest and any additional learning difficulties particular to the online space. In this model, other students were asked to join the class via interactive technology. Other schools offered children with disabilities the option of

attending school individually with the support of teachers. These lessons were combined with workshops focusing on music, dance and art that other students were able to join online (Human Rights Watch, 2021). However, the latter model received some criticism for creating a precedent of separate teaching for students with disabilities (Superando.it, 2020).

A similar approach was temporarily adopted in Slovakia during the long crisis of late 2020 and early 2021, where six-person groups were allowed in schools and classes for children with special needs. Potential segregation did not attract criticism in Slovakia, as students with disabilities were frequently segregated (and even institutionalised) before the pandemic.

To address the social exclusion of Roma children in Slovakia, the government, in cooperation with NGOs, provided materials to smooth the transition to online learning, such as the creation of worksheets for children from marginalised Roma communities. In addition, a variety of other policies were implemented that changed formal procedures with regard to assessments, entrance exams, and so on (Osterágová & Čokyna, 2021). The communities targeted were not defined according to ethnicity, as most Roma do not self-declare as such. Instead, they were identified as attending schools in locations where poverty is concentrated due to the housing segregation of marginalised Roma populations. The following statistics help in understanding this approach: within the general population, 8.2 per cent of primary school students and 5 per cent of high school students did not participate in remote learning during the first lockdown in 2020. However, among students who attended a school with a significant proportion of students with a lower socio-economic background, 25 per cent of primary and middle school students, and 14 per cent of high school students did not participate in remote learning (Ostertágová & Čokyna, 2020).

Migrants, refugees and ethnic minorities were also identified as requiring special attention regardless of their socio-economic status, because they needed information and services in various languages. In Luxembourg, the Schouldoheem initiative provided learning content and information in several languages to schools, teachers and learners. Another website, Kannerdoheem.lu, included entertainment activities in multiple languages (Council of Europe, 2021b). Just one month after the beginning of the pandemic, Mexico's National Institute of Indigenous Languages provided learning materials in Spanish and indigenous languages, along with 61 interpreters and translators, as well as nearly 140 learning tools (audio, video, maps etc.) being made available in Spanish and most of the indigenous languages spoken in the country (OECD, 2020b).

3.9. What form(s) did funding take for subsequent mitigation and catching up?

In all of the countries studied, additional funding was explicitly allocated to mitigate the negative effects of the pandemic on learning. However, this apparent similarity hides major differences in terms of both the philosophy and the size of these policy initiatives. In rare cases, policymakers created a dedicated capacity either to manage reopening or for 'catch-up' actions afterwards. For example, in England, the government appointed a special Education Recovery Commissioner and dedicated a specific budget to enable pupils to catch up after schools reopened (GOV.UK, 2021). However, no other examples could be found of such an institutionally comprehensive approach.

The funding itself can be divided into two types. The first could be called 'first response', and it is in relation to this that the most significant similarities exist between countries, in terms of the allocation of additional resources to bridge the digital (and sometimes socio-economic) divide during the pandemic. As already mentioned, in Lithuania and the Netherlands, the governments bought computers and other devices to provide to pupils

from socially disadvantaged backgrounds. In Italy, this type of policy intervention came quite late (in August 2020), and was preceded by only partial financial support given out by regional governments. The Ministry of Education devoted a total of EUR 85 million to support remote learning – EUR 70 million to provide digital devices and connectivity for children with lower socio-economic backgrounds, EUR 10 million for schools to purchase digital learning platforms, and EUR 5 million for teacher training (Mascheroni et al., 2021). Similarly, to address unequal access among students to technological devices, the French government entered into partnership with La Poste to facilitate the collection and supply of computer equipment for those without it (as well as pedagogical materials and hard copies of documents for students) (CEDEFOP, 2020c). Slovakia, on the other hand, is an outlier, with no concerted effort being made to provide computers or connectivity during the first stages of the pandemic.

The second type of funding concerns government longer-term strategies to prevent or repair the damage caused by the pandemic. This funding is characterised by a wider variety of government responses. The Dutch government's approach, for example, was broad and ambitious. In February 2021, it announced EUR 8.5 billion to help school pupils, college and university students to catch up once schools and colleges reopened as normal. This budget is to be spread over 2.5 years, but in addition to this, college and university students should only pay half the usual tuition fees for the 2021/22 academic year (DutchNews.Nl, 2021b). Details of spending were primarily left to schools themselves. The Ministry of Education, Culture and Science provided funding in three application rounds ('tranches') to help compensate for the learning losses that have resulted from the pandemic. Initial results show that primary schools have extended school time, remedial teaching and individual support during independent work time. In addition to this, some funding has also been allocated to parental engagement (Ehren et al., 2021). In secondary schools, funding has mainly been used for:

…tutoring/extended school days (70 per cent), followed by homework assistance (25 per cent) and exam training (19 per cent). In addition, secondary schools (in particular those offering vocational education and training) used interventions to help resolve issues relating to pupils' practical placement delays. It is particularly striking that almost three-quarters of secondary schools organised programmes using both internal and external professionals, while more than half of primary schools relied mainly on their own staff. (Ehren et al., 2021).

Lithuania chose a more targeted approach. For the academic year 2021/22, approximately EUR 10 million was allocated for schools to tackle learning losses resulting from the COVID-19 pandemic. This included provision for digital learning tools and equipment and to increase teachers' digital competencies (Mikėnė, 2021). Between September and December 2021, additional funding was allocated to provide supplementary tutoring to compensate for learning losses acquired during the academic year 2020/21 (Švietimo, Mokslo ir Sporto Ministerija, 2021). However, perhaps the most notable provision foreseen after the pandemic is that of additional teaching assistants in general education for children with SEN. While this was already been planned for the 2020/21 academic year, it will come into force as a permanent legal requirement from 2024 (Jusienė et al., 2021).

In Slovakia, the government funded a call for schools to organise 'summer schools' that would mitigate the impacts of school closures. For this purpose, EUR 350,000 of funding was devoted to primary schools, while EUR 80,000 was allocated to schools for children with special needs. More broadly, the education ministry also devoted additional one-time funding in 2021 to cover schools' pandemic-related expenses. Each month, kindergartens receive an additional EUR 5 per employee and EUR 150 per school, while other levels of education receive EUR 5 per student and per employee. This funding is given automatically, and does not need to be requested (Newsbeezer, 2021).

Some countries have tried to utilise holidays, particularly the long summer break, for students to catch up. In general, this has not taken the form of a shorter holiday (although this was considered in the UK in 2021, and is planned at least for parts of Belgium in 2022). Instead, summer school programmes have been established to compensate students for their learning loss during COVID-19. These programmes have generally been voluntary. In France, to increase the teaching time devoted to practical experience, the Open School summer 2020 programme was organised (CEDEFOP, 2020c). Probably the most radical extension of this approach can be seen in England, where Year 13 pupils were given the option of repeating their final school year, provided they have been significantly affected by the pandemic (ITV News, 2021).

3.10. What types of support were provided to teachers?

At EU level, almost 50 per cent of teachers felt 'quite a bit' or 'a lot' of stress at work even before the pandemic, due to various challenges presented by contemporary education systems (Davydovskaia et al., 2021). The pandemic has worsened this situation, and has contributed to the exit of some teachers from the teaching profession. In the US, almost half of public schoolteachers who voluntarily left public schools before their scheduled retirement after March 2020 did so because of the COVID-19 pandemic (Diliberti et al., 2021).

In most countries, support for teachers mainly focused on providing educational resources. Like the support provided to students, this involved assistance with regard to devices, content, connectivity and the provision of information and support networks for teachers. One major preoccupation was the delivery of institutionally funded technological devices and internet connections to teachers so that they did not need to spend their resources switching to remote learning. For example, prior to the transition to remote learning in 2020, teachers in Lithuania were provided not only with laptops (2,800 laptops were purchased by the Ministry of Education, Science and Sport), but they also received specialised training to enhance and enable them to use digital devices and technologies (Ministry of Education, Science and Sport, 2020).

In Slovakia, a more limited programme that focused on connectivity was delivered later, between late 2020 and early 2021. In this programme, more emphasis was placed on providing content that teachers could use. A good example of this is an initiative called '*IT akadémia',* which offered over 300 innovative pieces of content on teaching methods (including worksheets and instructions on how to use online tools) for IT, maths, physics and biology, to be used for remote learning. Webinars were organised for teachers in each subject to provide them with a platform to analyse their own teaching styles and gain inspiration from others. To address gaps in pedagogical support for teachers, two documents were produced, outlining best practices for handling remote learning (Učíme na diaľku, 2021b).

While at the beginning of the pandemic, technology was placed at the forefront, it became clear that attention also needed to be paid to preventing burn-out and the exit of teachers who were exhausted and frustrated by remote learning. In Sweden, which was among the first countries to take action, the Swedish National Agency for Education was asked to release films, podcasts and radio programmes to inspire and support teachers and school organisers (CEDEFOP, 2020g). In Slovakia, the Research Institute for Child Psychology and Pathopsychology provided rapid support in the form of email consultations to enable teachers to share their work-related stresses and anxieties or to discuss the best approaches to take when dealing with children from lower socio-economic backgrounds or those with learning disabilities (Učíme na diaľku, 2021b). In France, it was up to each académie (i.e. the main administrative unit for national education) to mobilise its human resource departments, including HR advisers and prevention doctors, so that staff could

contact them anonymously and confidentially if needed (Eurydice, 2021). In the UK, teachers whose employers offered an Employee Assistance Programme (EAP) were able to access confidential counselling services. In addition, they could contact the free, confidential counselling service for teachers organised by the Education Support Partnership (NASUWT, 2021).

3.11. How did pre-pandemic digitalisation influence developments, and what policy learning has taken place?

This section looks at the dynamics of developments, specifically the influence of pre-pandemic preparedness, but also at subsequent policy learning. The complex relationship between the type and size of previous investments in digitalisation, overall government effectiveness, decentralisation and political prioritisation has led to varying levels of adaptability and different speeds of learning.

Even before the pandemic, the Index of Readiness for Digital Lifelong Learning had noted how differences in decentralisation had affected the digitalisation of learning. In Denmark and Sweden, the very decentralised approaches involved costs during 'normal' times. Here, the Index noted that: 'While digitalisation is an explicit part of primary school curricula, schools and teachers have significant autonomy in funding and running courses. This means schools have uneven implementation of digital tools ... However, the high autonomy of teachers and schools means that experimentation is encouraged, and innovative practices have a chance to develop.' (Beblavý et al. 2019, SWEDEN)

During the pandemic, this division of competencies and the resulting culture of innovation meant a higher level of immediate adaptability in Nordic countries, with different results depending on school and educator capacity. Elsewhere, strong administrative capacities and a tradition of coordination can help to overcome, to some extent, the problem of limited grassroots adaptability. In France, fragmentation in the management of education policy had hindered digitalisation prior to the pandemic, but it has also brought about experience in coordinating stakeholders:

Stakeholders coordinate on a variety of promising pilot projects and assessment initiatives to foster recognition of a French digital competence, including by fostering the training of trainers in digital skills development techniques. (Beblavý et al. 2019, FRANCE)

Prior to the pandemic, several countries – including France, Italy, and Slovakia – favoured investment in physical school infrastructure as part of their digitalisation strategies. During school lockdowns, such investment became much less relevant than investment in the capacities and skills of educators as well as at-home hardware and connectivity. Tt is therefore unsurprising that adaptability was higher in those education systems in which the focus on educator skills had already been present before the pandemic (the Netherlands, Denmark and Sweden).

In terms of policy learning during the pandemic, there has been a clear shift towards keeping schools open and a preference for targeted approaches. As described above, countries such as France, Denmark or Sweden have exhibited a strong preference from the very start for not closing schools, and for reopening them as soon as possible. The first lockdown in Denmark took the form of the complete closure of all schools and fully remote instruction. During the second lockdown, schools partly reopened under the so-called 'emergency teaching' scheme. The two lockdowns represent two qualitatively different phases of teaching, not only in terms of the **place** of teaching but also the effort required (Reimer et al., 2021). While the first lockdown relied heavily on the parental supervision and pupils' effort, the second lockdown can be considered similar to a model of blended learning.

Relative to other societal priorities, the perceived importance of keeping children in school appears to have increased throughout the pandemic. As yet, no academic literature has provided a rigorous analysis of why this is the case, but from the case studies examined in this analytical report and the available literature, it appears to be a combination of two drivers. The first one is the recognition that 'in-person instruction is more effective at levelling the playing field than the arrangements that education authorities were able to put in place during the pandemic to educate remotely' (Reimers, p. 464), as well as the increasingly obvious psychological and practical costs of keeping children at home for extended periods of time (see Blum & Dobrotic [2020] for an early analytical framework related to childcare). The second driver is the global nature of the pandemic, which has stimulated cross-border comparisons and accelerated policy learning and dissemination (at least within Europe).

The speed of policy learning with regard to school closures has differed substantially. Countries such as Denmark and Sweden were gradually joined in their ambition to keep schools open under most circumstances by Italy during the academic year 2020/2021, and the Netherlands, Slovakia and Lithuania during the academic year 2021/2022. In some cases, this was linked to the use of a more regionally and locally targeted approach.

Looking at the bigger picture, government strategies during the first wave emphasised support for online academic learning and teachers' needs, with concern for students' emotional and social development being placed on the backburner (Reimers, 2022, p.9). This approach was rethought during the 2020/2021 academic year, as it became clear that pre-pandemic education had delivered a much broader range of services than just academic learning (including food, mental health and socialisation). The pandemic had made these latter goals even more important, and at the same time, online education was generally not meeting instructional goals to the same extent achieved by previous in-person instruction (Reimers 2022, p.8).

During this period, only a few countries instituted a truly strategic approach at national level, with the Netherlands providing a good example of a more comprehensive national plan that was already thinking about what actions were needed in future. In terms of practical pedagogy, schools and educators continued to improve alternatives to in-person instruction as the second wave in late 2020/early 2021 meant the reintroduction of lockdowns and restrictions in most countries; this was still a 'process of learning by doing, sometimes improvisation, with a rapid exchange of ideas across contexts about what was working well and about much that was not working as intended.' (Reimers 2022, p.7)

For the 2021/2022 academic year, the focus shifted again. With vaccines becoming available since early 2021, governments attempted to minimise disruptions to education. In countries with lower vaccination rates, this included either a general push for vaccination (France) or specific measures aimed at teachers (Italy, Slovakia).

Looking at an even bigger picture that extends beyond education itself, counterintuitive evidence exists that government capacity was not necessarily a boon during the early stages of the pandemic. As Toshkov et al. (2021) note, in the beginning:
…more centralised countries with lower government effectiveness, freedom and societal trust, but with separate ministries of health and health ministers with medical backgrounds acted faster and more decisively to close down schools because high perceived capacity might have provided false confidence to the governments, resulting in a delayed response to the early stages of the pandemic. (Toshkov et al.,2021).

This position appears to have reversed as the pandemic progressed. Countries with higher levels of government effectiveness and societal trust were generally able to manage the

overall impact of the pandemic better (as evidenced by the overall number of infections and deaths).

The third issue is the presence of forward thinking on education policy to plan for the post-pandemic period. For instance, as Slovakia's Minister of Education, Branislav Gröhling, commented in a Facebook post two weeks after the country's schools were closed in March 2020: 'Maybe now we'll see all the things we have been teaching unnecessarily and we can edit the volume of education' (Gröhling, 2020). Elaborating on this point in an interview with daily newspaper *Denník N* (Gdovinová, 2020), Gröhling said: 'I think we'll see that we don't need so much testing and examinations. We'll see that education can be interactive and students can participate in different ways.' So far, however, this has remained more of ambition. Among the seven countries examined in detail in this report, only in Sweden has this idea attracted more extensive or serious attention – and with a focus on higher education, which will be tackled in the next chapter.

Chapter 4: Policy responses for higher education

This chapter examines policies aiming to combat the adverse effects of COVID-19 and related measures on higher education outcomes. Clearly, pandemic-related issues in higher education are in some respects very different from the challenges experienced at the level of primary and secondary education. Nonetheless, many of the questions raised in the previous chapter are also pertinent here. Rather than repeating these, this chapter explicitly explores the similarities and differences between the two sectors, dedicating more attention to the latter. This chapter is therefore not suitable for standalone use, but should be read in conjunction with the rest of the report.

Topics covered in the chapter include:

- How did networks for the dissemination of knowledge and decision making function differently in higher education?
- How did higher levels of autonomy and self-governance influence institutional responses with regard to in-class vs remote learning?
- How did higher education's approach to online learning differ from those of primary and secondary education?
- What forms did direct financial support for students take?
- What other types of student mental health support were available?
- Which groups and individuals were identified as deserving special attention, and how were they assisted?
- What impact did the pandemic have on teachers and staff in higher education?

4.1. How did networks for the dissemination of knowledge and decision making function differently in higher education?

In the case of primary and secondary education, networks for knowledge and decision-making have generally remained vertical during the pandemic, involving schools and successive layers of government (municipalities, regions, central government) – though, in many countries, there has also been a significant role for national associations of educators or institutions. For instance, the Danish National Federation of Early Childhood and Youth Educators, the Danish Union of Teachers, the *Dansk Magisterforening* and the *Gymnasieskolernes Lærerforening* have created informative and easily accessible websites focusing on educators' rights and practical information. Among many informative resources, these websites suggest ways of continuing education during the pandemic (Education International, 2020). In Sweden, Lärarförbundet, Lärarnas Riksförbund and the Swedish Association for University Teachers and Researchers have also provided up-to-date information on developments, with links to the website of the education directorate (Skolverket) (Education International, 2020).

The networks involved in higher education are more internationalised and horizontal. Monitoring was dominated by individual university activities and by larger surveys of universities conducted at international level. For example, general adaptation to the pandemic was monitored via a survey by the International Association of Universities (IAU) (International Association of Universities, 2020) and by the COIMBRA group survey (Gatti et al., 2020). Responses to these surveys were extremely quick – on the basis of an online survey that took place from 25 March to 17 April 2020 and 'received 576 replies from 424 universities and other Higher Education Institutions based in 111 countries and territories', the IAU published a report that 'presents a general assessment of the situation in universities globally and explores different aspects of the impact of COVID-19, such as teaching and learning, research, community engagement and other key challenges and opportunities' (International Association of Universities, 2020).

Even when monitoring activities were conducted at national level, these were generally implemented by organisations set up by universities themselves rather than the government directly. Such organisations include the Institute for International Education (IIE) in the US or the German Academic Exchange Service (DAAD) in Germany.

In terms of actual decision making, responses from higher education institutions (HEIs) were obviously shaped and constrained by their national epidemiological and regulatory environments, so responses by university networks were also primarily national. In France, for example, 'the national "rectors" conference (the Conference of University Presidents – CPU) issued a statement expressing their concern on how the recent response in autumn 2020 to move all classes online would affect the most disadvantaged students, who would risk permanently dropping out of higher education' (Farnell et al., 2021). The statement also reflected on how national measures had closed down most schools and universities, except for preparatory classes in secondary schools for the *grandes écoles*, which the CPU underlined as being fundamentally inequitable and unfair, since such classes placed learners from higher socio-economic backgrounds at a further advantage (CPU, 2020). While it may be difficult to state that the impact of such statements is directly linked to the decision making at government level, in October 2020, the French Ministry for Higher Education issued a press release committing more than EUR 6.5 billion to higher education research and innovation. As part of its Recovery Plan, the government committed EUR 35 million to blended learning and digital equipment in universities (Ministry for Higher Education, Research and Innovation, 2020).

However, international coordination among HEIs also played a role in spreading approaches and practices that was largely missing at primary and secondary education levels. The Coimbra Group, for instance, instituted a quick response to the first wave, which enabled them to respond immediately to a request by the European Commission on 20 March 2020 for the most urgent measures to be taken with regard to crisis management in the context of the repatriation of students and staff and the overall impact on mobility (Gatti et al., 2020). Later, in December 2021, the Coimbra Group published a report on universities' responses to the COVID-19 pandemic, focusing on best practices and key recommendations for policymakers, as well as higher education and research communities. Reports such as that of the Coimbra Group have the capacity to vastly impact higher education communities. Not only do they bring to light best practices and experiences, but such dissemination is also critical in shaping responses to neglected areas. For instance, the report urges the higher education community and policymakers to pay greater attention to important repercussions of the pandemic relating to inclusion; well-being and professional development; gender inequality in published research; a decrease in the number of advertisements for postdoctoral research posts abroad; teacher burnout and other issues (Coimbra Group Report, 2021).

4.2. How did higher levels of autonomy and self-governance influence institutional responses with regard to in-class vs remote learning?

Currently, there are approximately 2,500 HEIs in the European Higher Education Area (ETER, not dated). Generally, such institutions enjoy a much higher level of autonomy and self-government than those in primary and secondary education, through this situation varies between countries. HEIs also have a greater capacity for management and administration, due to their larger size – the median size of a higher education institution in the EHEA is 10,000 students (ETER, not dated). In other words, higher education is provided by a smaller number of larger institutions, which generally operate in an environment of considerable autonomy – both of the schools *vis-à-vis* the state, and of academics *vis-à-vis* their schools. This makes for a much more decentralised institutional – or even department-based – response.

With regard to what is probably the most important decision of the pandemic – when to switch to online learning, and for how long – little evidence exists that the differing approaches have made much difference. While individual countries have developed very different legal responses to the pandemic, which have also evolved over time, an overwhelming number of HEIs across Europe decided on a similar, rapid switch to online learning in March 2020. This has tended to last – with numerous interruptions and false starts – until September 2021 (globally, the situation has been more varied, due to a more widely differentiated epidemiological picture). A combination of several factors has driven this trend.

First, compared to primary and secondary education, HEIs have shown less concern regarding the negative implications of the shift online – with the exception of laboratory-based disciplines. Higher education already had much more extensive experience with digital learning, and evidence supported the notion that it *could* (though not necessarily that it *would*) be equivalent in terms of quality to in-person instruction. A survey report on Digitally Enhanced Learning and Teaching (DELT) in European HEIs found that since the EUA's study in 2014, online and blended learning strategies – as well as the actual use and general acceptance of DELT, have increased across the European HEIs (Gaebel et al., 2021). This survey demonstrates that the HEIs already had plans to increase the use of DELT before the pandemic. Furthermore, another study involving universities from 13 European countries found that 'universities and students were very quick to adapt to the new changes and that a mix of synchronous and asynchronous interaction and assessment methods are currently employed' (Tartavulea et al., 2020). We will return to this point in the next section of the report; however, it is worth emphasising that *having the means to transition and adapt* more quickly to remote or blended learning *is not the same as receiving a quality education*. To illustrate the point, remote education during the pandemic is considered 'Emergency Remote Teaching' (ERT).[3]

Second, given that in-person higher education often involves domestic or international mobility, it requires more planning and is less conducive to rapid changes in the mode of provision compared with education in primary and secondary schools. Given the high level of uncertainty as to the course of the pandemic, an asymmetric incentive existed: while in-person instruction might unpredictably need to be shifted to remote learning, the opposite does not apply. In Italy, while the reopening of universities was planned for September 2020, in particular so that first-year students could have a proper introduction to their higher education, 'the diffusion of the second wave of the virus forced the Government to enact further DPCMs [Decreto del presidente del consiglio, or Prime Minister's decree] (on 18 and 24 October 2020)'. This led universities to go back to remote learning (Appolloni et al. 2021).

Third, given the novelty of the issues posed by the pandemic, increased autonomy has often translated into greater confusion or caution. For example, again, in Italy, universities were given the freedom to decide whether and how they wanted to hold in-person examinations in July 2020, 'stimulating confusion among academic communities' (Appolloni et al. 2021).

However, reopening in-person instruction has remained a priority as an overall objective, and universities made frequent attempts to do so. For example, in May 2020, Dutch universities launched a campaign entitled 'On campus, if we can. Online, because we can'. During the summer of 2020, some universities, such as the University of Twente,

[3] Gaebel et al. 2021 note that in the context of this pandemic, ERT means that such a method of teaching may not always match the usual quality of pedagogics and services, and that institutions are likely to return to more on-site forms of provision once the crisis is over.

announced that they would offer as much on-campus education as possible (de Boer, 2021).

Fourth, governments have generally tended to favour primary and secondary education in comparison to higher education when setting the rules for reopening. Therefore, while the universities ostensibly enjoyed greater overall autonomy than other types of school, they were also frequently more restricted by actual lockdown policies. An interesting exception can be found in the Czech Republic, where the government decided early on that final-year students could return to universities as of 20 April 2020, in order to be able to attend consultations and final examinations. Subsequently, as of 27 April 2020, the government decided that universities would be open for all students. In this way, university students became the first group of students to be allowed to return to in-person education as part of the country's reopening plans (Czech News Agency, 2020).

Last but definitely not least, high vaccination levels in many (though not all) Member States have finally allowed governments to break the cycle of lockdowns in many countries from September 2021 onwards. At the time of writing this report, major differences therefore exist between Member States depending on the country's vaccination rate. In Lithuania and Slovakia, for example, whose vaccination rates are much lower than those in Western European Member States, many HEIs continue to operate remote learning, regardless of the national COVID-19 situation. In Lithuania, this is generally true for larger groups of students enrolled in the same class and for all Master's students (Murauskaitė, 2021).

4.3. How did high education's approach to online learning differ from that of primary and secondary education?

The overall framework for thinking about online learning in tertiary education is different from that which applies to primary and secondary schools. While issues relating to socialisation and socio-emotional needs are less emphasised (though still present), the debate is dominated by the issue of whether long-term online learning can be of equal quality and offer the same impact as in-person instruction. This question is seldom even raised with regard to younger pupils, as the negative impacts for them of prolonged exclusively online education are considered self-evident.

In higher education, the existing high level of decentralisation and autonomy compared with primary and secondary education has brought, by default, greater adaptability. However, it has also frequently brought lower levels of central oversight and a pressure to deliver. Even more strongly than in primary and secondary education, this has differentiated countries that had made prior investments in educator skills from those that had not invested as heavily or as effectively in this area. For example, in 2019, the Index of Readiness for Digital Lifelong Learning (IRDLL) had already noted that Slovakia needed to improve the availability of training programmes for university educators – a challenge it shared with Italy. In Slovakia, students across all disciplines do not regard the education and skills obtained online as being of the same quality as those acquired during in-person teaching, even after the pandemic. Students do not regard remote learning as an adequate alternative to in-person teaching, but rather as a tool to innovate and diversify standard teaching methods. This is evidenced by the fact that 49.8 per cent of students said they could imagine having a blended education even after the pandemic (SAAHE, 2021).

In Italy, some universities were frontrunners in the development of MOOC (massive open online course) platforms (for example, Federica Web Learning at the Universita di Napoli Federico II). In spite of this, however, no comprehensive digital policy for universities or other measures existed to ensure that the system as a whole was responsive to the needs of the pandemic (Beblavý et al., 2019, Italy). A more detailed analysis of the Italian situation was carried out prior to the pandemic by Appolloni et al. (2021). This also applies

to many other countries, and points out that the higher education sector 'showed a large delay (more or less 15 years)' in terms of its digitalisation. This, the authors argue, occurred for two reasons. First, there existed 'a negative perception about the introduction of technology in education: new devices were considered dangerous, generating alienation in the traditional teaching relationship'. Second, the authors argue that online courses were associated with private universities, which were 'perceived as providers of a lower-quality education'. Consequently, they conclude that the biggest challenge posed to distance learning before the pandemic was 'the lack of specific regulations defining the provision of distance learning, its attractiveness, its effectiveness, and its composition of digital resources' (Appolloni et al., 2021).

In the Netherlands, on the other hand, 'blended learning and innovative practices [were] explicitly encouraged in higher education' even before 2020 (Beblavý et al. 2019, Netherlands). In Lithuania, academics had generally been able to integrate information technologies and digitalisation into the study process, although the analysis noted 'a lack of modern teaching methods' (Beblavý et al. 2019, Lithuania) In Denmark, a number of well-funded pre-pandemic initiatives focused on the improvement of digital competencies for both students and academics. (Beblavý et al. 2019, Denmark)

Several attempts have been made to counter these issues during the pandemic. In Sweden, the government quickly initiated strategic investment in this area. Around EUR 6 million were allocated to strengthening the provision of fully remote distance and open online education at Swedish HEIs. In addition, EUR 3 million were invested in strengthening competences for the development of open online education (Eurydice, 2021). A new initiative relating to national tests was also brought forward.

The comprehensive and strategic approach of the Swedish example may be unusual, but technical assistance and the training of teaching staff in online instruction methods has been fairly widespread. However, most universities in Europe operate autonomously, so any such interventions/programmes have mainly been left to the discretion of individual HEIs themselves. For example, neither the Slovak nor the Lithuanian government provided support for the transition to online/remote learning (Europos Migracijos Tinklas Lietuvoje, 2021).

In the UK, universities such as University College London (UCL) introduced training programmes for staff such as the 'Connected Learning Essentials: staff development programme'. This aimed to support teaching staff in moving to remote or socially distanced teaching (UCL, 2021). In Russia, the Ministry of Science and Higher Education made regular online broadcasts on the Ministry's YouTube channel and organised webinars for universities, as well as launching a hotline and a website offering methodological support for universities (World Bank, 2020c).

Multiple universities in the US have reported that they continued to arrange office hours in the virtual space. Brown University, in particular, reported finding virtual office hours 'a successful way to provide students with a flexible and non-intimidating way to ask questions' (Hodge, 2020). Consequently, it has been considering how to continue using virtual spaces such as breakout rooms even after the pandemic, 'as they have found they lead to more student-to-student interaction than the traditional 'talk to your neighbour' approach used in the classroom.' (Hodge, 2020).

One specific issue that we have already explored in relation to primary and secondary education is whether governments should provide devices and connectivity to some or all students. With regard to higher education, individual countries have taken very different approaches. In some Member States – for example, in Slovakia - the government generally did not provide devices or connectivity to students at any level of education. In higher

education (as opposed to primary and secondary education), this appears to be broadly appropriate, as the vast majority of students in Slovakia reported being sufficiently technologically equipped (in terms of devices): 91.75 per cent with regard to remote learning, and 93.26 per cent with regard to state examinations (SAAHE, 2021).

Elsewhere, governments made concerted efforts to address a lack of devices and connectivity among children and adolescents in primary and secondary education, but did not do so for students in higher education. This was the case, for example, in Lithuania where, in spite of this fact, enrolments at universities increased for the 2020/2021 academic year (Eurydice, 2021).

Governments in a third group of countries, such as the Netherlands and the UK, considered pupils and students across the whole education system in a similar manner. In the UK, the Department for Education funded 'more than 1.3 million laptops and tablets to help disadvantaged pupils and young people with remote and face-to-face education during the COVID-19 pandemic' (UK Department for Education, 2020). In Denmark, the government intervened at all levels. Funding for student devices worth EUR 15 million was allocated to the further and higher education sectors to address the impacts of COVID-19. This package included an additional EUR 10 million for access support to complements the IT support package. Furthermore, students experiencing exceptional financial need could apply for support via their local access office (Department of Further and Higher Education, Research, Innovation and Science, 2020).

In situations where governments did not initiate such actions, universities themselves could step in. For example, the University of Strasbourg 'identified 160 students whose lack of digital devices (computer, internet connection) jeopardised their ability to continue their studies remotely as well as pass their exams' (Council of Europe, ND). By the beginning of April 2020, the university had managed to raise EUR 61,000 through fundraising, and to give out over 100 computers (Council of Europe, ND). However, such activities were relatively rare.

4.4. What forms did direct financial support for students take?

Policymakers generally assume that pupils are part of a household that covers their living expenses while they undertake primary and secondary education. Financial support for minors is therefore generally routed via parents within the overall framework of family policy.

For higher education students, the situation is much more varied. In most countries (e.g. Denmark, the Netherlands and Sweden), once individuals become legal adults, they form their own relationship with the state, including taxes, tuition and financial support. In others (e.g. Slovakia), students are considered dependents for the duration of their university studies, even when they become legal adults. This means that direct financial support needs to be analysed in relation to which framework is applicable.

Another difference between higher education and primary and secondary education is that the latter are largely compulsory, with less volatility in overall demand, which is largely determined demographically. In higher education, the situation is different, as young people themselves determine whether or not they are going to study and in which country. This can result in potential shocks with regard to demand. The pandemic has – to the surprise of some – not negatively impacted student enrolments in Europe. For example, in 2020/2021, more students started studying at HEIs in Lithuania than in the previous year (almost 20,300 freshers compared with 19,300 in 2019 [Eurydice, 2021]). Similar increases can be seen in Sweden (Swedish Council for Higher Education, 2021) and France (Statista, 2021). In Sweden, this rise was, in fact, anticipated: as part of its response to

the COVID-19 pandemic, the government increased educational allocations for 2020 and 2021 (UKA, 2021). Consequently, the number of applicants and the number of those admitted to HEIs increased significantly. 'In the autumn semester 2020, there were 13 per cent more applicants without prior experience of higher education compared with the autumn semester 2019. At the same time, there was a 14 per cent increase in newly accepted students to higher education' (Swedish Higher Education Authority, 2021). This suggests that, at least in some countries, an influx of university students was not an organic phenomenon of the pandemic, but rather a way to tackle its consequences.

In countries where the students are fully autonomous individuals, and which have a tradition of direct government support for students, there has been a tendency to provide at least a temporary increase in support. In Sweden, the tax-free limit on those receiving study grants was temporarily removed throughout 2021, allowing students the opportunity to earn additional income without it affecting their study grants (CSN, 2021). Similarly, German authorities decided to extend the provision of financial aid in the form of interest-free loans for the entirety of 2021. Likewise, they offered monthly grants of up to EUR 500 to individuals studying at German universities. These grants were available not just to German citizens, but to all EU citizens (BMBF, 2020).

The Dutch government has instituted a series of steps that may constitute the most comprehensive response in this regard. In April 2020, it decided on a series of temporary steps to improve the financial situation of students (continuation of the free 'student travel product'; tuition fee refunds for students whose graduation was delayed; and a one-off financial contribution to students whose supplementary grants were to expire in summer 2020) (de Boer, 2021). These measures were followed in 2021 by a major package of investment in education that included a decision to reduce tuition fees by 50% for the 2021/2022 academic year (DutchNews.Nl, 2021b).

The Slovak government, on the other hand, took no special steps to financially support students or even to limit the payments they make to universities, despite the fact that nearly 13% of students reported that they would need financial support just to finish their studies (SAAHE, 2021). This decision probably relates to the fact that full-time students are seen as dependents of their families, but also to the fact that Slovakia already offers extensive student benefits compared with those available in other countries, including zero tuition fees for full-time students who do not exceed the standard length of study, and free railway transport for the same group.

4.5. What other types of student mental health support were available?

Available data show that the effects of social distancing and self-isolation requirements are stressful and detrimental for many students (Nurunnabi et al., 2021). This risk is not always related to socio-economic status – for example, Coimbra Group (2021) points out that doctoral researchers face a much higher risk to their mental health than other students, due to the combination of greater isolation and higher stress.

However, it is difficult to identify any major new mental health initiatives for higher education during the pandemic. Where an appropriate institution existed previously, the pandemic has naturally extended its activities and mandate. For example, Sapienza University of Rome offered online psychological support to those of its students who had been affected by the pandemic. In addition to this, students could join 'NoiBene' (a web-based intervention to promote psychological well-being and prevent psychological distress by developing a series of competencies (i.e. life skills) and reducing dysfunctional coping strategies) (Di Consiglio et al., 2021).

The Danish Student Counselling Service, an institution managed by the Ministry of Science and Higher Education, works to 'prevent discontentment and unhappiness among the students' (Studenterrågivningen, 2021). As such, it has provided online support during the pandemic. This includes (but is not limited to) digital resources and free online or phone counselling. Similarly, in France, the government has expanded the capacity of integrated mental health and educational support for university students, and is attempting to roll out mental health first-aid programmes in HEIs (Scarpetta et al., 2021). While the Slovak government has not provided direct access to counselling itself, its 'initiatives of mutual aid' promote an emergency hotline (Krízová linka pomoci) organised by mental-health focused NGO IPčko. On the other hand, there have been concerted attempts to monitor the situation. We observe that in many instances, universities have expanded their existing services rather than developing any major new support services aimed at preserving the mental well-being of students and staff.

UK charity Mind, which focuses on mental well-being, has conducted a large-scale study on 'the ongoing impact of the coronavirus pandemic on people with mental health problems across England and Wales' (Mind, 2021). While this study did not focus solely on university students, it inquired about their experiences and their feelings about returning to in-person education. According to the study's results, 85 per cent of adults aged 25+ and 91 per cent of young people aged 13-24 who answered the survey had experienced mental distress or accessed mental health services. When asked what support was needed after the pandemic, 53 per cent of respondents stated that more information and education about mental health in school, college, university or work is needed (Mind, 2021).

A similar survey in Slovakia indicated high levels of stress and a low level of awareness about avenues to seek professional help. Among student respondents, 73 per cent reported having someone to talk to, but nearly 48 per cent said they experienced excessive stress caused by their studies; around 33 per cent felt anxious about their future; and almost 29 per cent felt depressed and helpless. Moreover, only 16 per cent of students reported being offered counselling as an option (SAAHE, 2021).

4.6.Which groups and individuals were identified as deserving special attention, and how were they assisted?

As in primary and secondary education, certain groups of students in higher education were regarded as being of special concern, and were often prioritised for in-person instruction or received other individual interventions. The groups identified in each of these sectors were completely different, however.

The first group involves international students and students engaged in mobility. Across Europe, the Erasmus+ programme held a special place, due to its prominent role in student mobility. Despite the programme's strong foundation in the in-person, experiential element of exchange, during the 2020/21 school year the Erasmus+ programme allowed educational institutions participating in the scheme to decide whether or not they would invite exchange students to attend online classes, fully remote or blended remote learning. Grant sizes under the programme have remained the same (Naujokaitytė, 2020).

In terms of monitoring, the Erasmus Student Network conducted a survey that received over 22,000 responses from international students and trainees across Europe. As early as April 2020, it had published a report that aimed to 'support policy-makers to make evidence-based decisions and alter communication in order to answer the major challenges students face during their exchange in foreign countries' (Erasmus Student Network, 2020). The specific impact of the pandemic on student mobility was also surveyed, *inter alia,* by the European Commission (Di Pietro et al., 2020) and the European Association for International Education (European Association for International Education. 2020). The

study, mentioned earlier, by the European Migration Network in Lithuania, revealed that while the flow of international students continued to grow during the pandemic, it was disrupted/reduced in some countries. In particular, the study found that international students who wanted to move to Lithuania to study, or who were already studying in Lithuania, encountered several challenges:

The shorter opening hours or closure of Lithuanian embassies made it more difficult to obtain or extend visas. Other issues were related to the cancellation of flights, the submission of application documents, and the requirements of mandatory self-isolation upon arrival to Lithuania. Some students experienced psychological and/or financial difficulties during the pandemic. (Europos Migracijos Tinklas Lietuvoje, 2021, p. 47).

However, the area of international students and mobility has been one in which national policymakers have been active, both because they possess many of the necessary instruments (e.g. visas) and because of its economic importance to certain countries. For example, Poland has issued an automatic prolongation of all permits and deadlines for foreigners in the country, including students (Urząd do Spraw Cudzoziemców, 2021). In Slovakia, while all domestic students, apart from those who contributed to the functioning of essential services (such as medical students), were mandated to leave their dormitories, international students (including those taking part in Erasmus+) were allowed to remain accommodated under tightened restrictions (Košice Online, 2020). In Lithuania, HEIs supported international students by helping them with essential information (e.g. translations of documents providing guidance relating to the pandemic), psychological advice, and in some instances, financial support (Europos Migracijos Tinklas Lietuvoje, 2021)

The second group targeted for special assistance were those engaged in 'hands-on courses' in which practical experience/lab work is crucial. In some countries, such students were a priority from the very start. For example, the Danish Government decided early on that, starting on 15 April 2020, 'Seven health sciences programmes can be reopened in a controlled manner from 15 April for students in their final semester' (Ministry of Higher Education and Science, 2020). For universities, these programmes were for medicine and odontology and dental technicians, while at university colleges, students studying nursing, midwifery and radiography were allowed to return, as well as those studying to become medical laboratory technicians, (Ministry of Higher Education and Science, 2020).

Other instances of differentiated responses have occurred, in terms of a switch to online learning. These have been supplemented by additional steps taken after schools reopened. For example, the platform 'Observe GP' has been developed in the UK as an alternative to work experience for aspiring medics (Royal College of General Practitioners, ND). According to the Royal College of General Practitioners, 'The platform is supported by the Medical Schools Council as a suitable element of relevant experience to help prepare an application to medical school.' (2020).

In other countries such as Slovakia, no such steps were taken during the first or even the second lockdown, during which all universities, including medical schools, had to switch to online learning (Jánošíková,2020). In France, nursing students were given the opportunity to learn 'on the ground' in hospitals. However, as reported by France 24, many were left to carry out low-skilled hospital roles instead of learning critical technical skills (Paccalin & Guggenheim, 2020).

With regard to support for minority and more disadvantaged university students, in countries such as France, some universities planned their own mitigation responses individually. For instance, the University of Strasbourg (Council of Europe, ND) 'identified 160 students whose lack of materials (computer, internet connexion) jeopardised their

ability to continue their studies remotely as well as pass their exams'. In response, the university set up an emergency fund, and 'by 7 April 2020, 61,000 euros had been raised and the University had distributed more than a hundred computers to students in need' (Council of Europe, ND). Furthermore, the University of Paris approved the provision of emergency aid and donated computers to support those international students who struggled to access remote learning (EMN/OECD, 2020).

Maastricht University in the Netherlands recognised the financial difficulties faced by some international and home students due to the loss of part-time jobs in sectors that were shut due to the pandemic. In response, 'the University launched a crowdfunding campaign and offers students the opportunity to get an interest-free loan for a couple of months. The Chair at the University Jaume I reports the latter's decision to postpone the payment of April tuition fees to more than 5,200 Bachelor and Master students to mitigate the economic impact of COVID-19.' (UNESCO, 2020b).

4.7. What impact did the pandemic have on teachers and staff in higher education?

The impact of the pandemic on university teachers and staff has varied between countries. A study of 1,084 university students and 554 staff from four different countries (Spain, Colombia, Chile and Nicaragua) found a connection between the **characteristics of the populations** related to universities and the pandemic's **impact on learning, work performance and quality of life** (Jojoa et al., 2021). According to the study, 'Most of the university staff experienced an increase or the same level of stress as before lockdown. With regard to quality of life, half of the sample reported that it remained the same, although, as in the case with students, feelings of depression and anxiety increased throughout the weeks of lockdown'. Significantly, the study revealed that the emotional and psychological well-being of university staff appeared to be affected less negatively than those of university students. Having said this, the authors emphasise that very few studies have been conducted to analyse the pandemic's impact on university staff (Jojoa et al., 2021).

In countries such Lithuania, university staff was left to their own devices when it came to transitioning to remote teaching. Instead of waiting for their turn, some universities took their own initiative to train teaching staff to ensure a smoother transition online. In 2020 alone, Vilnius Gediminas Technical University (VILNIUS TECH) organised and conducted 25 training sessions via Moodle and Zoom (VGTU Rysiai, 2021).

A recent survey on the corporate response to COVID-19 and its academic fallout in the UK found that 'Universities in the UK, and in other countries like Australia and the USA, have responded to the operational and financial challenges presented by the COVID-19 pandemic by prioritising institutional solvency and enforcing changes to the work practices and profiles of their staff' (Watermeyer, 2021). According to the study results, the majority of the respondents (70 per cent) are concerned about pandemic-related cost-cutting practices. This creates a consequent sense of job insecurity and a 'culture fear among staff'.

We observe that the impact of the pandemic on university staff varies between countries, but some of the most prominent issues include its impact on emotional and psychological well-being, the lack of centralised (government) support for the transition to online learning and, in certain instances, job insecurity.

Chapter 5: Conclusions

The COVID-19 pandemic and the policy measures adopted in response to it have been unprecedented in terms of the disruption they have brought to education systems at all levels. This disruption has impacted learners across the board, with specific groups being affected to an even greater extent. The pandemic has also given rise to an unprecedented counter-mobilisation of policymakers, teachers, parents and pupils themselves. This report goes beyond analysing the negative impact on the education of children and young people of COVID-19 and the measures related to the pandemic, and presents the various measures and responses adopted by policymakers to counter these threats.

The report has adopted an inclusive view of what constitutes education and its outcomes, including elements such as socialisation, student well-being, and personal and emotional development. Similarly, it also taken a broader point of view by including monitoring as well as mitigation measures, as well as looking at both students and teachers. The report embeds education policy responses within the broader policy context of the pandemic. It focuses in particular on seven EU Member States (Denmark, France, Italy, Lithuania, the Netherlands, Slovakia and Sweden), but is informed by global experiences, and uses a number of examples from other countries.

Prior to the outbreak of COVID-19, no country had prepared its education system for a possible pandemic. Even so, countries differed significantly in terms of their preparedness for health security threats and the digitalisation of education, with Nordic and North-western European countries being generally better prepared. However, one of the lessons of the pandemic is that there is no single dimension of 'preparedness' that fully determines subsequent success. Experience shows that, particularly during the early stages when rapid action was crucial, confidence in government effectiveness and societal resilience could actually have a negative effect, delaying necessary lockdowns.

By the same token, pre-pandemic investment in the digitalisation of education was of limited value if it was predominantly oriented towards classroom-based technologies rather than the digital skills of educators and students. Here, countries such as Italy or Slovakia lagged behind, despite having made large-scale investments.

Thirdly, resilience and adaptability were also significantly influenced by the level of (de)centralisation in policy responses to COVID-19 in education. In primary and secondary education, major differences can be seen between countries such as Denmark and Sweden, which offered the most decentralised responses; countries such as France, Italy and Slovakia, which gradually adopted policies that were localised but centrally determined; and countries such as Lithuania and the Netherlands which, due to the size or density of their populations, opted for the most centralised approaches.

In higher education, there is a generally higher level of autonomy and self-government, which has also extended to COVID-19 responses. In practice, however, there has been a uniform shift towards online learning across all countries. International and horizontal networks did, however, play an important role in exchanging information and shaping the approaches of universities. While rigorous research into this topic has so far been lacking, our case studies indicate that a high level of decentralisation in higher education translates into adaptability, depending on the capacity of specific institutions. Thus, for example, in Italy, one can see an enormous range of adaptive responses by universities, probably larger than those seen in primary and secondary education. When HEIs face such an unexpected challenge, the absence of a strong role by government can lead to a wide diversity of outcomes.

The overall conclusion of the report with regard to preparedness is that overall government effectiveness and pre-pandemic investment in digitalisation paid off, but with significant caveats.

One important question discussed in the report is to what extent, and in what form, school attendance and education were prioritised as part of epidemiological measures. In primary and secondary education, a gradually increasing emphasis on in-person instruction as a policy priority cam be seen. In higher education, repeated attempts were made to reopen universities, but these were often abandoned in favour of online instruction due to outbreaks of infection. In general, policymakers do not prioritise in-person teaching and the reopening of schools to the same extent at university level.

However, the report also explores other types of prioritisation – in particular, vaccination. A number of countries gave preference to teachers during the initial stages of their vaccination drive. Some, such as Italy, went even further – not only moving quickly to require teacher vaccination, but also prioritising the vaccination of students.

Different attitudes have applied towards online learning for school children as opposed to university students. For the former, online learning was a completely new experience, and a necessary evil to be adopted for the shortest time possible; in higher education, there was more previous experience (though this varied considerably between countries and institutions), and a greater acceptance of its use for an extended length of time. In primary and secondary education, there is now evidence from the pandemic to support this intuition. Conclusive data in this area is still lacking with regard to higher education, and – as already indicated above – the use of online learning is much more mediated through the approach of individual institutions than is the case among primary education and secondary schools.

Individual countries took very different approaches to the provision of devices, connectivity and content to enable online learning. Very few of them took a 'hands-off' approach, limiting support only to content. Elsewhere, major attempts have been made to ensure that children have had access to devices and connectivity. Only in a few countries did this concern extend to teachers and university students. In other words, there was a near-universal understanding that children required assistance, while views differed with regard to adults, whether teachers or university students. There does not appear to be any evidence that this has changed over the course of the pandemic.

In every country and at every level of education, certain groups and individuals have been identified as deserving special attention. This designation can be of great importance to those whose welfare was monitored, who could attend school when others had to stay at home, and who received devices as well as additional services after schools reopened. At the level of primary and secondary education, three groups stand out as being universally or frequently targeted: children with SEN; migrants, refugees and ethnic minorities; and the children of essential workers or children who could not be safely left at home. In higher education, special treatment has generally focused on international students and those studying 'hands-on' courses.

The issue of mental health and well-being has also received a lot of attention, but actual policies have differed vastly between countries, with Anglo-Saxon and Nordic countries generally paying much more attention to the issue than others. This is in line with the long-standing emphasis on holistic child well-being in Nordic approaches to education, as evidenced, for example, by a shorter school year or later starting age.

While much of the debate has concerned the effects of lockdowns on children and their socialisation and well-being, the available data show that these factors are also a major

challenge for university students, in particular due to the fact that their isolation has, on average, been longer.

Countries have also differed greatly in terms of their investment in mitigation and catching up after the end of the first (and subsequent) lockdowns. These difference relate not only to the size of the response, but also its strategic direction. In primary and secondary education, countries such as Sweden, the Netherlands and the UK have pursued ambitious and often strategically thought-through policies aimed at minimising the damage. Such concerns were either absent or less developed in the other countries examined here. In every country, however, a series of steps were taken in this regard.

The more decentralised nature of higher education, and the different approaches taken to the management of the pandemic's impact meant that government funding for subsequent mitigation frequently translated into direct financial support for students, though instances of more strategic investment have been observed.

By their nature, teachers are crucial to any strategy for mitigation and catching up. During the initial stages of the pandemic, for obvious reasons, most countries focused on providing educational resources to teachers, particularly with regard to devices, content, connectivity and networks. Some countries also took action to increase teachers' digital competencies. While technology was at the forefront of efforts at first, it became clear that attention also had to be paid to the prevention of burn-out and the exit from the profession of teachers who were exhausted and frustrated by remote learning. However, examples of broadly based and effective actions in this area are lacking. In this respect, the plight of teachers was overshadowed by the similar, though more dramatic, experiences of health care personnel.

The pandemic has not been a single event, but a crisis lasting years. Learning and adaptability have therefore played a significant role in responses to it.

Variations between countries in the level of decentralisation have affected the digitalisation of learning, and subsequent adaptations. The very decentralised approach seen in Denmark and Sweden has involved costs during 'normal' times, but this division of competencies and the resulting culture of innovation have created a higher level of immediate adaptability. National policies in these countries have generally been in line with this approach, continuing with decentralised policies to the extent possible.

Policy learning has been most obvious in the case of school closures. Relative to other societal priorities, the perceived importance of keeping children in school appears to have increased throughout the pandemic. It appears to be driven by the increasing academic, economic and emotional costs of lockdowns and the global nature of the pandemic, which has stimulated cross-border comparisons and accelerated policy learning and dissemination.

However, the speed of learning has differed. In the case of countries that have lagged behind, it has negatively impacted the education of millions and created more sizeable problems for the future. Some countries – notably Denmark and Sweden – demonstrated an ambition to keep schools open under most circumstances. They were gradually joined during the academic year 2020/2021 by Italy, and in the academic year 2021/2022 by the Netherlands, Slovakia and Lithuania.

Of course, keeping the schools open was just one policy issue – albeit an extremely important one). On a broader scale, overall government strategies have evolved between the three waves of the pandemic so far (spring 2020, autumn/winter 2020 and autumn/winter 2021). During the first wave, government strategies emphasised support

for online academic learning and teacher needs, with concern for students' emotional and social development being placed on the backburner. This approach was rethought for the 2020/2021 academic year, when it became clear that pre-pandemic education had actually delivered a much broader range of services than simply academic learning, and that online education was generally not delivering equal outcomes. For the 2021/2022 academic year, the focus has shifted again to availability, with governments focusing on minimising disruptions to education (caused by sick teachers or students) rather than on full-blown lockdowns.

One area in which there has been a general lack of learning or progress is in instituting a truly strategic approach at national level during this period. The Netherlands is a rare positive example of more comprehensive national planning that was already thinking about actions needed in the future relatively early on. In Sweden, governments made similar investments, particularly with regard to higher education. However, even in the case of these two countries, the comprehensiveness of such actions should not be overstated.

A century ago, in the wake of the Spanish flu pandemic, there was such a rush to return to 'normal' once the immediate threat had passed that the lessons of the pandemic were effectively forgotten in terms of subsequent policy learning, adaptation and development. While it is too soon to tell, the risk of a similar rush to return to the *status quo ante* should not be underestimated. The pandemic is far from over, and the monitoring and mitigation of its effects in education are likely to continue for many years to come. This report is thus only a 'first draft of history', to be further developed and refined through other outputs in the years to come.

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