Combatting COVID-19's effect on children

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The COVID-19 pandemic is harming health, social and material well-being of children worldwide, with the poorest children, including homeless children and children in detention, hit hardest. School closures, social distancing and confinement increase the risk of poor nutrition among children, their exposure to domestic violence, increase their anxiety and stress, and reduce access to vital family and care services. Widespread digitalisation mitigates the education loss caused by school-closures, but the poorest children are least likely to live in good home-learning environments with internet connection. Furthermore, increased unsupervised on-line internet use has magnified issues around sexual exploitation and cyber-bullying.

Immediate government measures need to ensure that children have access to good food, receive protection against child abuse and neglect, have continued access to child physical and mental health services, and can navigate safely on the internet. Policies also need to support parental employment since it is key to fighting child poverty.

Introduction

While not a category at risk from a medical viewpoint, children are significantly impacted by the ongoing COVID-19 pandemic. This brief aims to capture some key issues and propose early steps that governments can take to mitigate negative consequences for children, especially the most vulnerable. The short-term policy focus has to be on reducing risks of physical and psychological harm, and ensuring access to good food and nutrition, the provision of immediate care and protection to children in need, and keeping the education loss for many poorer children to an absolute minimum. The concentration of disadvantage often involves poverty, poor housing and a lack of access to necessary services which already shape individual outcomes – in childhood and later on in life (OECD, 2019[1]; 2019[2]). In addition COVID-19 may present serious challenges for inclusive growth as the poorest children are likely to be hardest hit and their heir life chances severely limited, unless immediate and comprehensive measures are taken (OECD, 2020[3]; 2020[4]; 2020[5]).

From a purely medical perspective, early evidence suggests that children are not the most affected by COVID-19. When exposed to the coronavirus, children can become infected and develop symptoms of COVID-19, but these symptoms usually are mild in nature (Box 1). Nevertheless, children do not stand on equal footing when it comes to coping with the economic and social effects of COVID-19. Among the factors are the growing inequality in parents' resources and the quality of children's home environments, which creates a persistent gap in opportunities between advantaged and disadvantaged children (OECD, 2019[2]).

As the COVID-19 crisis spreads around the world, it is transforming children's day-to-day lives. The pandemic and the associated policy responses of confinement and social distancing touch on almost every part of children's worlds. COVID-19 directly affects formal care arrangements, education and leisure services offered by early childhood services, schools and other organisations are interrupted. To date, 188 countries have imposed countrywide school closures, affecting more than 1.5 billion children and youth (UNSDG, 2020[6]). COVID-19 exacerbates the risks of poor nutrition, experiencing maltreatment, and being exposed to violence at home. Recognising that the impacts of these measures will hit some groups of children harder than others is critical. These groups of vulnerable children include children living in poverty, children with disabilities, children in out-home care, children in detention, and also refugee children and children at risk of child labour. Furthermore, the pandemic has the potential to create new vulnerable children and countries must prepare to respond to growing needs for support.

The COVID-19 crisis is evolving in the context of widespread digitalisation. The majority of children, at least in OECD countries, are spending a significant chunk of their time online. Therefore, the availability of digital tools may mitigate some of the effects of the crisis: digital devices and internet access provide valuable resources for children, parents, authorities and caregivers to continue schooling and teaching. Digital tools also provide recreational activities as well as psychological and social support from outside. They facilitate social interactions among children and contribute to their digital savviness more generally. However, the greater use of digital tools has its downsides – the quality of home-schooling and social contacts may be lower than through school or contacts in person. Increased digitalisation can also magnify risks such as sexual exploitation and cyber-bullying, if internet use is increasingly unsupervised. Moreover, increased digitalisation is likely to widen inequalities between children, as the poorest children are least likely to have a quiet place in their home to concentrate on their studies and/ or have the tools to access on-line education. The effect of this "education gap" may belong-lasting. If appropriate action is not taken, the legacy of COVID-19's will be an even wider gap between advantaged and disadvantaged children.

Box 1. The medical effects of COVID-19 on children

Can children be infected with the coronavirus?

Global COVID-19 trends suggest that children are far less likely to be infected than adults (Gudbjartsson et al., 2020[7]). Studies also show that a significant number of children are asymptomatic even when they are affected. Children who are symptomatic experience milder symptoms than adults: they may show flu like symptoms like such as fever, cough and cold, or may have gastrointestinal symptoms like vomiting and diarrhoea. Very few children would have respiratory difficulties and may require intensive care admission. For instance, a Chinese study showed that the proportion of children who went on to develop severe or critical COVID-19 illness with breathlessness, acute respiratory distress syndrome (ARDS), and shock was much lower (6%) than among Chinese adults (19%) – especially older adults with chronic cardiovascular or respiratory conditions (Dong, Mo and Hu, 2020[8]). A few children died from COVID-19 in Belgium, China, France and the United Kingdom, but their deaths can generally also be linked to health problems not directly related to COVID-19. In addition, there is growing evidence that COVID-19 may have a health impact that goes beyond the respiratory system. For example, in the specific case of children, early evidence suggests that SARS-CoV-2 might be associated with the Kawasaki disease.

Why do children infected with the coronavirus fare better than adults?

One of the likely reasons for children faring better than adults is that they have less Angiotensin converting enzyme II (ACE-2) receptors in their lower airways (lungs) thereby limiting the chance that the virus gets inside of a cell and start causing problems (Fernandes, 2020[9]; Pappas, 2020[10]). It is also possible that, more than adolescents and adults, children's immune systems are better able to control the virus, localise it to their upper airways without it causing too many other problems and eliminate the virus. In addition, the study of childhood cases in China suggests that because children have fewer chronic cardiovascular and respiratory conditions, they are more resistant to severe coronavirus infection than elderly adults (Dong, Mo and Hu, 2020[8]). Moreover, the importance of children in the transmission of the virus remains uncertain (Zimmermann and Curtis, 2020[11]).

Are pregnant women with COVID-19 at increased risk for adverse pregnancy outcomes?

Pregnant women experience immunologic and physiologic changes which might make them more susceptible to viral respiratory infections, morbidity, or mortality compared to the general population as observed in cases of other related coronavirus infections, such as SARS-CoV and MERS-CoV. However, the available data do not show a significantly higher prevalence of COVID-19 among pregnant women than among other adults of similar age. Adverse infant outcomes such as preterm birth have been reported among infants born to mothers who tested positive for COVID-19 during pregnancy (McCarthy, 2020[12]). However, this information is based on limited data and it is not clear that these outcomes were related to maternal infection.

Moreover, in the handful of cases where women with confirmed COVID-19 infection gave birth, there is no evidence that the infant was infected before or during delivery, or during childbirth (McCarthy, 2020[12]; ACOG, 2020[13]). Few new-born babies have been infected, but the presumption is that these new-borns were in close contact with infected caregivers and mothers and that contact with these caregivers is the mode of transmission as opposed to the transmission from mother to unborn child (Chen et al., 2020[14]).

Poor children are more likely to suffer from the consequences of the COVID-19 outbreak

The COVID19 pandemic and its economic and social consequences will hurt some children more than others. In particular, COVID-19 exacerbates the risks of children experiencing maltreatment, violence at home, and poor nutrition, while lockdown measures reduce opportunities for children to participate in extra-circular activities, to come in contact with supportive adults at school and in the community, and to access the justice system and child protection services. To a varying extent, these issues intersect with income poverty and poor housing, with the common denominator being that children in poorer families are more exposed.

Poverty put children at highest risk of suffering from the COVID-19 crisis

On average across OECD countries, one in seven children grow up in poverty. In about one third of OECD countries child poverty is less than 10% (Figure 1) but in about ten OECD and key partner countries, including large economies as the United States, China and India more than one in five children grows up in poverty. Poverty and income inequality have a large bearing on the extent to which children are exposed to COVID-risks. Poorer families are less financially resilient and are more exposed to job- and earnings losses while their children are likely to be disproportionally disadvantaged by school-closures (see below). Growing up in poorer neighbourhoods increases the risk of catching the virus and be a carrier, experience underlying health issues and reduced prevalence of vaccination among children (OECD, 2020[5]); it also affects access to a range of necessities such as good nutrition, quality housing, sanitation issues, space to play or study, and opportunities to engage in on-line schooling.

The gravity of health, sanitation, family-income, housing and schooling issues are particularly pronounced for children in developing countries or poor areas in countries with large income inequalities. People living in or near poverty often lack disposable cash and, in many developing countries, they cannot easily access and/or purchase food. Furthermore in developing countries, the vast majority of children live in informal sector households with limited access to health and/or social protection through work (OECD/ILO, 2019[15]). Hunger, malnutrition, pneumonia and other health-related shocks and stresses compound vulnerability to the virus and contribute to a vicious cycle of disease, destitution and death. Poverty can fuel contagion, but contagion can also create or deepen impoverishment. For that reason, one cannot fight the COVID-19 spread without tackling poverty (Roelen, 2020[16]). Universal health coverage has become a policy priority in many developing countries, but achieving this objective is particularly challenging, as in many low- and middle income countries healthcare systems are underdeveloped and public revenues to finance expansion are limited (Rim and Tassot, 2019[17]). The current crisis will aggravate health concerns beyond COVID-19 for many children as measles immunisation campaigns have been delayed in 24 countries and will be cancelled in 13 others, putting more than 117 million children at risk of missing out on measles vaccines (UN News, 2020[18]).

COVID-19 and the associated policy response have already led to a huge downturn in overall economic activity and employment, and are likely to increase global poverty. Summer, Hoy and Ortiz-Juarez (2020[19]), estimate that as many as half a billion people, or 7% of the world's population, could fall into poverty and some regions, the negative effects could lead to poverty levels equivalent to those recorded 30 years ago. Vos, Martin and Laborde (2020[20]) suggest that the increase in absolute poverty will be greatest in south-Saharan Africa, where 40-50% of the global poverty increase would be concentrated.

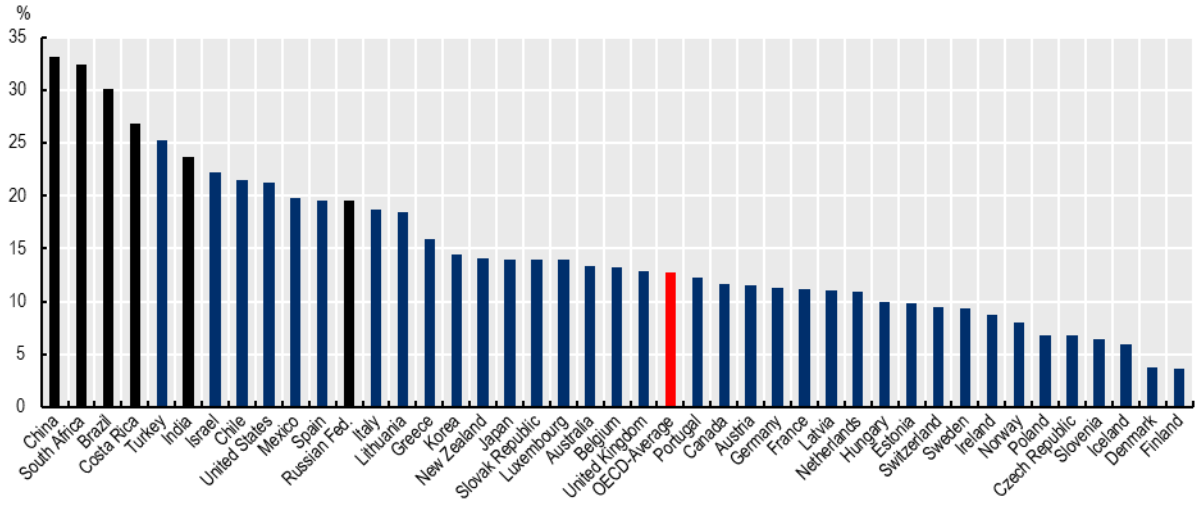
Girls in developing countries face risks of early marriage and teenage pregnancies. Every year, 12 million girls are married before their 18th birthday, and about 7.3 million births per year are due to teenage pregnancies. In the aftermath of the Ebola epidemic in Sierra Leone, the increase in teenage pregnancies was most pronounced in vulnerable communities (UNSDG, 2020[6]). Adolescent pregnancy rates increased drastically as a result of: school-closures, and the loss of parents or primary adult carers left children

without resources, often homeless, and forced them to resort to new ways to find food, including exchanging sexual favours for girls; the loss of access to contraceptive items because of the disruption of supply chains and reduced access to health centres; and, the higher exposure of adolescent girls to gender-based violence (UNFPA, 2017[21]; UNDP, 2015[22]). COVID-19 will also defer public efforts to combat early marriage and female genital mutilation, while increasing poverty is anticipated to increase rates of child marriage and teenage pregnancies in vulnerable communities. The total effect of the COVID-19 pandemic is projected to result in 13 million additional child marriages (UNPFA, 2020[23]).

Teenage pregnancies are far less frequent in OECD countries, but still amounted to an average of about 11.8 births per 1000 young women (15-19) across the OECD in 2017, and were considerable higher in Colombia and Mexico (71 and 66 births per 1 000 young women, respectively (OECD, 2020[24]).

Figure 1. One in seven children is poor across the OECD on average

Percentage of children up to 17 years old living with less than 50% of median equivalised household income, 2017 or latest available year



Note: The latest available data refer to 2017 for all countries except Costa Rica (2019); Australia and Israel (2018); Denmark, Mexico, the Netherlands, the Slovak Republic and the Russian Federation (2016); Iceland, Japan, Switzerland, Turkey and South Africa (2015); New Zealand (2014); Brazil (2013); China and India (2011).
Source: OECD Income Distribution Database, oe.cd/idd.

Economic downturns have a large effect on child poverty risks (Box 2). Child poverty is strongly associated with parental employment status, with poverty risks lowest for working families and highest in jobless families (OECD, 2020[25]). However, work does not immunise against poverty, especially when employment conditions involve low pay and no access to social benefits and health coverage. For example, almost 40% of American adults would not be able to cover a USD 400 emergency with cash (Federal Reserve Board, 2019[26]). Such families would be unlikely to deal with an income loss associated with COVID-19, and their limited access to healthcare increases the risk of contracting – and subsequently spreading the virus. Research on poverty dynamics in a few developing economies without universal health insurance (including Bangladesh, Ethiopia and the Philippines) suggests that health shocks – also for grandparents who care for children so that parents can work – create an immediate need for cash that may lead to people to sell assets that are vital to earning an income (such as livestock) or borrowing money at extremely high interest rates (Diwakar, 2020[27]). The consequences for the children involved are dire.

Winning the fight against child poverty has invaluable long-term benefits for children, families, society and the economy. Child poverty compromises not only child well-being and development, but also educational outcomes and employment prospects in later life, thus reducing not only the future productive base of an economy but also the well-being of our future adults and society as a whole (OECD, 2019[2]). Therefore, it is critical that governments intervene quickly to enable family services and child protection systems to function properly, and support families and children effectively in the crisis. Taking a longer term view, poor childhood conditions and inequality play a role in influencing vulnerability to coronavirus among certain adult populations, be that through working in essential services without adequate protection, living in overcrowded accommodation or having underlying health conditions.

Box 2. What does the experience of the Great Recession tell us?

It is too early to elaborate on the impact of the COVID-19 crisis on living conditions and well-being of children. The factors underlying the last global economic crisis were different. Nevertheless, some observations on the impact on children point to areas for policy priorities:

- On average in OECD countries, child income poverty rose continuously after 2008 until the mid-2010s and levelled off at around 1 in 7 children living in poverty (Cantillon B., Chzhen Y., Handa S, 2017[28]; Thévenon et al., 2018[29]). Children in families with the lowest incomes – often single-parent families, frequently faced the sharpest fall in incomes (OECD, 2018[30]).
- The increase in child poverty was associated with a rise in the number of children without access to essential material goods and activities such as adequate housing, nutrition and resources to study or participate in social life (Chzhen, 2014[31]; Thévenon et al., 2018[29]).
- Many countries mitigated the effects of the crisis on families through one-off cash support or tax cuts (OECD, 2014[32]; Adema, Ali and Thévenon, 2014[33]). Some countries, such as Canada, France, Greece and New Zealand, introduced a greater focus on fighting child poverty in policy development (OECD, 2019[1]; 2019[2]). The unfolding crisis will require strengthening these efforts.

Poor quality housing exacerbates the harm of the COVID-19 crisis on children

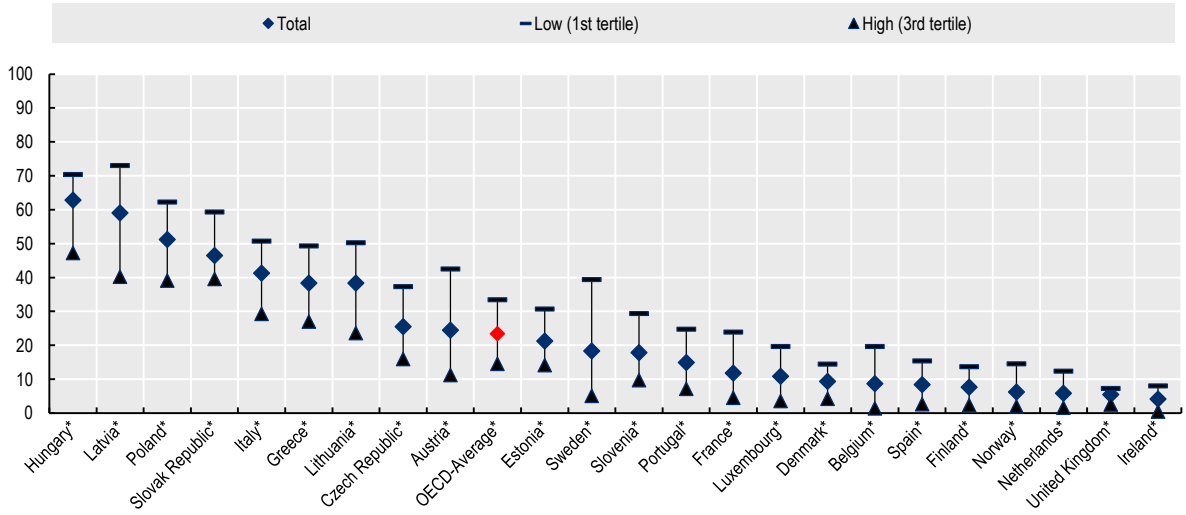
In addition to the risk of homelessness (see below), poor housing quality affects children's ability to flourish. On average, more than one in five children between 0-17 years old live in an overcrowded household in European OECD countries, rising to more than 50% of all children in Hungary, Latvia, Poland and the Slovak Republic (Figure 2). In all countries for which data are available, the risk of overcrowding is twice as high for children in low-income households compared to those in high-income households. But even children who do not live in income-poor households can face housing-related deprivation such as noise or crime due the quality of the dwelling or the neighbourhood. For instance, one in five children in non-income poor households in France and Spain face multiple housing problems, including the presence of humidity or mould and problems in keeping the dwelling adequately warm (Thévenon et al., 2018[29]). Attempts to contain and mitigate the COVID-19 crisis through lockdowns may also be particularly challenging in developing countries where the vast majority of poor households face deplorable housing conditions and live in over-crowded spaces, making social distancing and proper self-isolation nearly unmanageable.

COVID-19 and the increased risk of poor nutrition

Access to good nutrition –from conception throughout childhood – is vital for healthy child physical and cognitive development with long-term effects on adult health outcome and economic self-sufficiency (Currie and Almond, 2011[34]; Hoynes, Schanzenbach and Almond, 2016[35]; Britto et al., 2017[36]; Almond, Currie and Duque, 2018[37]). Even in times of good economic conditions, many children are deprived of basic nutrition. For instance, 20% of income-poor school-aged children in European OECD countries lack good quality nutrition, which is around three times higher than among non-income poor children. Overall, one in ten children do not have access to fresh fruit and vegetables and/or one meal including meat, chicken, fish or a vegetarian equivalent at least once a day (Figure 3).

Figure 2. Children in low-income households are more likely to live in overcrowded households than children in higher-income households

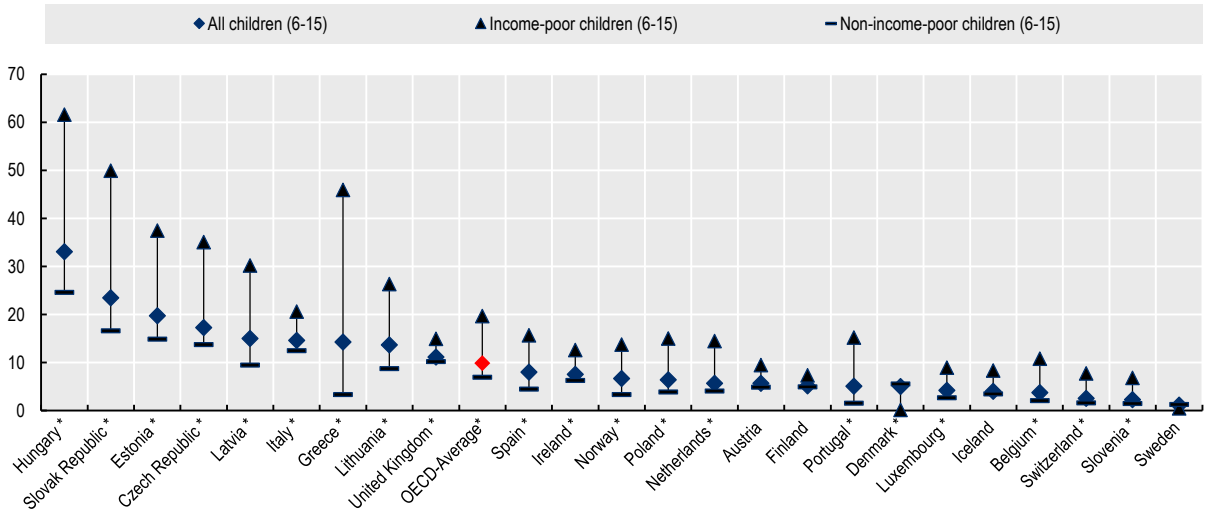
Share of children (aged 0-17) living in overcrowded households in European OECD countries, by income group, percentages, 2017



Note: No information for Australia, Chile, Germany, Israel, Japan, Korea, Mexico, New Zealand, Turkey and United States due to data limitations. Data for Switzerland refer to 2016. A household is considered overcrowded if it does not have at its disposal a minimum number of rooms equal to: one room for the household; one room per adult couple in the household; one room for each single person aged 18 and over; one room per pair of single persons of the same sex between 12 and 17 years of age; one room for each single person between 12 and 17 years of age and not included in the previous category; one room per pair of children under 12 years of age. In countries marked with an *, the difference between the 1st and 3rd tertile children is statistically significant at $p<0.05$.
Source: OECD (2019[38]), OECD Secretariat calculations based on the European Union Statistics on Income and Living Conditions (EU-SILC) survey, see OECD Child Well-Being Data Portal under www.oecd.org/els/family/child-well-being/data.

Figure 3. One in five income-poor children experience poor nutrition

Percentage of children (6- to 15-year-olds) deprived of basic nutrition, European OECD countries, 2014



Note: Percentage of children in households where at least one child does not eat "fruits and vegetables once a day" and/or "one meal with meat, chicken or fish (or vegetarian equivalent) at least once a day". Countries are ranked according to deprivation among all children. In countries marked with an *, the difference between income-poor and non-income-poor children is statistically significant at p<0.05.
Source: European Union Statistics on Income and Living Conditions (EU-SILC), OECD Child Well-Being Data Portal.

COIVD-19 related closures of Early Childhood Education and Care (ECEC) facilities, schools and after-school clubs have exposed many children in low-income families to food insecurity and poor nutrition. In several countries, including France and the United Kingdom, access to free or well subsidised school meals is major plank of policies to combat child poverty. Similarly, in the United States, students supported by the National School Lunch Program were found to get more than one third of their daily calories from food and drink provided at school (Story, 2009[39]). When schools are closed, beneficiary children eat less and also consume less nutritious food, a phenomenon known as holiday hunger (Nord and Romig, 2006[40]; Morgan et al., 2019[41]). During COVID-19 poor nutrition is paired with home confinement and lower levels of physical activity. This may, increase the risk of weight gain for some children outside of that found during the summer months when out of school (Rundle et al., 2020[42])

COVID-19 risks are highest for certain groups of children

The ramifications of the COVID-19 pandemic are more severe for certain groups of vulnerable children, with potential for some far-reaching effects. The outbreak challenges the resilience of vulnerable children as it increases in children's environments the number of already existing risks (e.g. reduced access to healthy food, high family stress, and absence of contact with supportive adults – Box 3) and reduces the number of protective factors (e.g. school placements, access to play spaces and extra-circular activities, and strong child protection systems).

Box 3. Children with separated parents may be particularly affected by the COVID-19 crisis

Across the OECD, about 1 in 6 children live in a single-parent household and these children are likely to be more severely affected by containment measures than others for various reasons. First, a majority of children in this family situation are cared for by a single parent – usually the mother – who has to look after the children while continuing to work with no or limited access to formal or informal childcare assistance during the confinement period. This is likely to leave a significant number of children with weak supervision, and to increase family stress and tensions between the parent and children. The fact that there is only one parent in the household also makes it particularly vulnerable should the parent become infected with the virus and get sick.

Second, children in single-parent families are at a much higher risk of income poverty than other children: nearly one-third of single-parent families in the OECD are poor compared to less than 10% of two-parent families (OECD, 2020[43]). Single-parent families' income depends partly on the child alimony received from the absent parent, and non-payment of child alimony is likely to increase in times of economic crisis (Mincy, Miller and De la Cruz Toledo, 2016[44]).

Finally, a growing minority of children with separated parents are in shared custody, with children alternating between two homes (OECD, 2019[45]). Confinement measures may disrupt access arrangements meaning that some children will not see either parent for a period of time that is longer than usual, which can create anxiety and emotional insecurity for children and can be a source of conflict between parents. There can be extreme cases where, for instance, a single parent working in the health sector who is exposed to the virus sees his or her children taken away from their home and the custody given temporarily to the other parent by a court decision (Twohey, 2020[46]).

Child maltreatment

The COVID-19 outbreak acts as a catalyst for a considerable rise in child maltreatment[1] by exacerbating some of the known contributing factors, such as household poverty, overcrowded housing, social isolation, intimate partner violence, and parental substance abuse (OECD, 2019[2]). In some families, COVID-19 creates a 'pressure cooker' situation, in which family stress may reach toxic levels. Research underlines the harm excessive or prolonged activation of stress responses has on children's health and development, particularly on young children (Thompson, 2014[47]; Center on the Developing Child at Harvard University, 2016[48]). Among families who were already struggling, COVID-19 will create greater need for support. In addition, families who were coping well enough in usual circumstances might now also need support.

In some OECD countries, domestic violence services and children's helplines report increased levels of risk for vulnerable children and families (Women's Safety NSW, 2020[49]; Grierson, 2020[50]). There is no comparative data on the prevalence of child maltreatment in OECD countries. However, Gilbert et al (2009[51]) estimated on basis of data for a limited number of OECD countries that each year around 4-16% of children are physically abused; one in ten children experience neglect or emotional abuse; and 5-10% of girls and 1-5% of boys are subjected to penetrative abuse over the course of childhood. The crisis is likely to also increase children's exposure to intimate partner violence (IPV) in at home (OECD, 2020[4]). Estimates on childhood exposure to intimate partner violence range from 14-28%, with research

[1] Child maltreatment is defined as child abuse (physical, sexual and emotional) and neglect, regardless if harm was intended. In some OECD countries, exposure to intimate partner violence is considered a form of child maltreatment (OECD, 2019[2]).

suggesting that households with intimate partner violence are twice as likely to contain children, particularly children under-five years of age (OECD, 2019[2]).

In addition, the COVID-19 outbreak severely compromises the effectiveness of child protection systems to help children experiencing maltreatment. Reductions of face-to-face contact make it hard for child protection workers to work with vulnerable children and families and properly assess risks. Less frequent contact means less monitoring of children's well-being and reporting of concerns. Child protection providers in some OECD countries record large decreases in reporting of concerns for children's safety and welfare (European Social Network, 2020[52]). It has also added further layers of difficulty for children in terms of access to justice (Davidson et al., 2019[53]; OHCHR and WHO, 2020[54]), through judicial system delays and border closures, and increased the number of children deprived of their liberty (Box 4).

Box 4. Children deprived of their liberty

Children "deprived of their liberty" are in "any form of detention or imprisonment or the placement in a public or private custodial setting, from which [they are] not permitted to leave at will, by order of any judicial, administrative or other public authority" (UN Office of the High Commissioner for Human Rights, 1990[55]; UN Committee on the Rights of the Child, 2019[56]). Nowak (2019[57]) estimated that about 160 000 to 250 000 children are in care centres and prisons around the world on any given day, and an estimated 1 million children are held in police-custody every year. Nowak (2019[57]) also found that children in detention are likely to be in poorer health than those who are not.

The COVID-19 outbreak exacerbates the challenges these children face. Children in detention have been found to be more vulnerable to the COVID-19 disease than the general population due to the cramped conditions in which they live, often for long periods of time (WHO Regional Office for Europe, 2020[58]). Evidence shows that detention settings can act as a source of infection, amplification and spread of infectious diseases within and beyond the facilities due to the high concentration of persons in the same space (WHO Regional Office for Europe, 2020[58]; OHCHR and WHO, 2020[54]). Furthermore, crowded detention facilities often have insufficient access to nutrition, healthcare and hygiene services – conditions that foster the spread of COVID-19.

Children deprived of their liberty are also at a heightened risk of experiencing neglect, abuse and gender-based violence, especially if the outbreak and the associated containment measures have a negative effect on the number of staff and/or quality of care (The Alliance for Child Protection in Humanitarian Action and UNICEF, 2020[59]). Moreover, in many instances, detention facilities are far away from children's families, homes and communities and regular communication and visits are limited. This contributes to greater anxiety and emotional distress, further affecting the health and well-being of these children and their families. Children may also face stigma if they contract the virus within detention facilities (The Alliance for Child Protection in Humanitarian Action and UNICEF, 2020[59]).

Children in out-of-home care

COVID-19 presents great challenges for children in out-of-home care and for the alternative care system in general. In the OECD, based on available data for some countries, the overall numbers of children in out-of-home care are small. In the majority of cases, children are placed in family-based foster care (general and kinship) or residential care (small residential unit and larger institutions). The share of children placed in either of these systems varies among countries (OECD, 2019[2]).

The restrictions introduced due to COVID-19 pose particular difficulties for children in out-home care. Children in out-of-home care generally have additional care needs, often due to difficult family circumstances and accumulated disadvantage prior to their entry into care (OECD, 2019[2]). For example,

clinical-level mental health difficulties are more frequent among children in out-of-home care, with up to half of children meeting this criteria and another 15-25% having difficulties approaching this level (Tarren-Sweeney, 2017[60]). In terms of educational outcomes, they are among the lowest performers internationally. As young adults, such disadvantage curtails labour market outcomes (OECD, 2019[2]).

While measures such as home confinement and school closures can increase the level of pressure and anxiety felt by children in general, some effects may be stronger in children in out-of-home care and increase the risks of placement breakdowns. Potential difficulties include increased risks of absconding from care placements and heightened outbursts of challenging behaviours. Even under normal circumstances, such incidences are difficult for foster carers and residential units to manage. In the context of COVID-19, however, they occur when access to therapeutic and social work services is disrupted. For carers of children with high needs, school is a regular source of respite that is now no longer available. COVID-19 will also intensify difficulties for children who are unhappy in current placements.

The COVID-19 crisis disrupts face-to-face family contact between children in out-of-home care and birth families, according to reports from some countries. Such disruptions are a big source of stress for children and problematic in the longer terms as family contact supports future family reunification, and helps children manage worries about birth parents. When managed well, it is beneficial for children's well-being and for placement stability (Atwool, 2013[61]). Facilitating family contact through digital platforms is not always possible as a proportion of birth parents lack access to smart phones (EPIC, 2020[62]).

The risks associated with COVID-19 affect availability of care placements and the ability of service providers to adequately meet children's care needs. For family-based foster care, new considerations include protecting the health of family members present in the household, and reduced support from extended family and support services. Furthermore, foster carers may be at higher risk from COVID-19, as on average they are older than birth parents, frequently over age 65. (Qu, Lahausse and Carson, 2018[63]). For residential centres, increases in staff absenteeism, pressures on space due to social distancing and self-isolation, and reduced support from educational, social work and therapeutic services are new challenges For instance, in France, the State Secretariat for Child Protection estimated an absenteeism rate of between 20-40% among child protection workers in the weeks following the introduction of home confinement (Stive, 2020[64]).

Children in homeless families

In recent years, homelessness among families with children has risen in several OECD countries (OECD, 2020[65]). For example, homelessness among families with children almost quadrupled in Ireland between 2014 and 2018, from 407 to over 1 600 households (OECD, 2019[66]). In the United States, families with children represented one-third of the homeless population in 2018: over 180 000 people in more than 56 300 families (US Department of Housing and Urban Development (HUD), 2018[67]).

COVID-19 adds to the challenges already experienced by children in homeless families. These include higher likelihood of lower well-being, poor physical and mental health, and poorer educational outcomes (OECD, 2019[2]). Children in homeless families face greater risk of complications from COVID-19 due to poorer baseline health. Compared to the general child population, they experience higher rates of asthma, respiratory illness and infectious disease. Poor nutrition and obesity are more common (Royal College of Physicians Ireland, 2019[68]).

Parents of children in homeless families will experience particular challenges in keeping children safe. First, parents face greater challenges in reducing children's risk of contracting the virus. For example, parents will experience intense pressure, if living in emergency shelter and hotel rooms, to contain children day after day in small spaces and to use safely shared kitchen and bathroom facilities. In the case of one family member falling ill, self-isolation will not be possible. Second, parents will find it difficult to implement home schooling in small spaces and where stress is high, serving children further educational

disadvantage. Third, the diet of children in homeless families can deteriorate drastically during homelessness periods and COVID-19 will eliminate homeless children's access to daily school-lunches (OECD, 2019[2]). Fourth, social support services to homeless families will be reduced, as confinement measures lead have led to closures of playgrounds, childcare facilities and respite centres, and limit social workers capacity to visit homeless families.

Children with disabilities

The COVID-19 outbreak challenges the well-being of children with disabilities, across education, health, and social and family life dimensions. It has introduced significant stress and disruption to the lives of children who under normal circumstances thrive on structure and routine. Children with disabilities may need special support to adjust to these many changes and in understanding how to keep themselves safe.

During school closures, children with disabilities are more likely to miss out on their education. For instance, the suitability of remote learning depends on children's individual needs and schools' ability to provide tailored tuition. In general, learning loss during school breaks can be higher for children with disabilities (Kerry and Davies, 1998[69]). For children with higher needs, disruption to schooling and respite care placements have the potential to push some families into crisis. Moreover, the presence of a sibling with a disability in the home will compromise parents' abilities to meet the new demands of home schooling for other children and to manage family stress.

COVID-19 is disrupting access to therapeutic supports at a time when children with disabilities and their families are adjusting to big changes to day-to-day life. Many children with disabilities receive therapeutic supports to develop communication and social-emotional skills and help them cope better at school and at home. These children would now need further help to build and maintain new routines and calming and coping skills. But many families lack guidance and information about available services and the types of assistance they are eligible for (Hunt, 2019[70]), which is particularly problematic in a period of widespread confinement (Hale, 2020[71]).

Children at risk of child labour and forced labour

The COVID-19 crisis has diminished demand for labour, and may have reduced the demand for child labour, but at the same time, school closures and job loss among parents may increase the supply of child labour. Around one in ten children (152 million in total) aged 5 to 17 were engaged in child labour worldwide in 2016, and nearly half of them were in hazardous work and exposed to serious health and safety risks (OECD, 2019[72])*.*

Children in impoverished communities are unlikely to participate in digitally-supported home learning during school closures and they are at risk of dropping out of school altogether, since their parents may not be able to afford school-fees when schools reopen. COVID-19 will lead to an increase in extreme poverty, which without solid social safety nets, is a key driver of child labour (Thévenon and Edmonds, 2019[73]).

The efforts many countries have made to combat child- and forced labour over the past decade risk being brought to an abrupt halt. To limit this risk, it is important that countries maintain and enforce legislation prohibiting child labour (in particular legislation on the minimum age for work) and adequately resource labour inspectorates to work effectively. Governments have also a key role to play to support companies to sustain and expand responsible business conduct which are essential to combatting child labour in supply chains.

Children in migrant families

About one in five children in OECD countries are either foreign-born or have at least one foreign-born parent. These children are particularly vulnerable in the COVID-19 crisis. First, across the OECD, almost half of all children in immigrant households live below the relative poverty line – twice that level of children in native households (OECD and EU, Settling In, 2018). The incidence of relative poverty is particularly large in some of the hardest-hit countries, such as France, Italy and Spain (Figure 4).

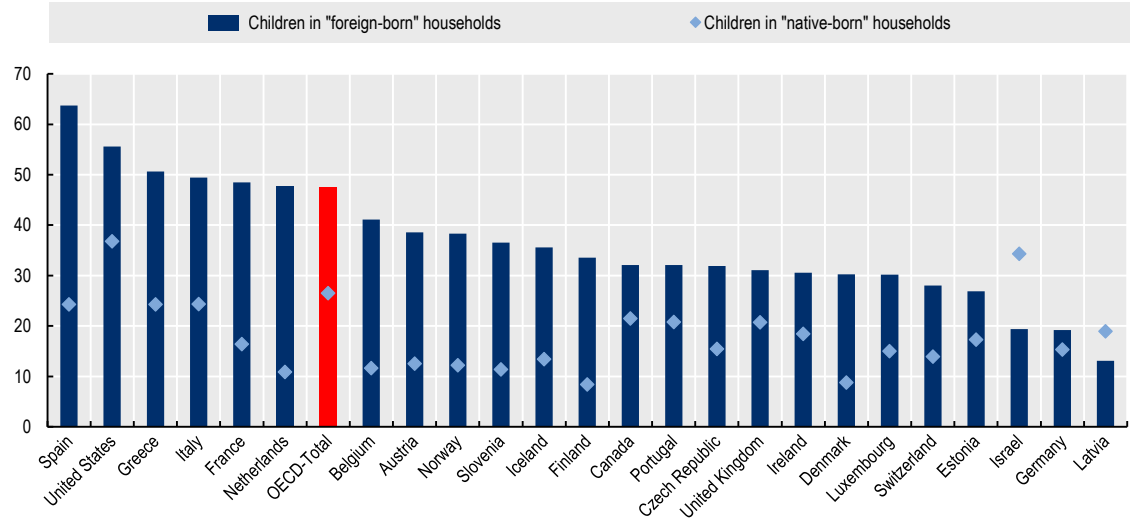
Children of immigrants are also much more likely to live in poor housing conditions: overcrowding is, at 17% OECD-wide, more than twice as high in immigrant households as in native-born households (8%). Immigrants are also strongly overrepresented in other indicators of poor housing conditions, again in some of the hardest-hit countries, such as Italy and Spain.

Immigrant parents tend to have less stable jobs, making them particularly vulnerable in the current economic context, with potential negative repercussions on their children's well-being. What is more, some immigrant groups – notably the undocumented – may not have access to health care. However, a number of countries have provided special waivers for basic and emergency health care services.

In European OECD countries, about a third of all immigrants have only little or no mastery of the host-country language. This not only hampers access to relevant information, but also makes it a lot more difficult for them to support their children in the home schooling. Parental support in schooling is also rendered more difficult due to the low education levels of some migrant parents, especially in the EU where 11% of immigrant adults have at most primary education – compared with 5% of native-born.

Figure 4. Almost half of all children in immigrant households in OECD countries live in poverty, twice as much as children in native households

Percentage of children up to 16 years old living with less than 60% of median equivalised household income, by migrant background, in 2015



Note: OECD-Total refers to the weighted average of 26 OECD countries.
Source: OECD/European Union (2018), Settling In 2018: Indicators of Immigrant Integration, OECD Publishing, Paris/European Union, Brussels, https://doi.org/10.1787/9789264307216-en.

Child refugees, including unaccompanied minors represent around 13 million children worldwide, the vast majority in developing countries. Those who reside in camps or crowded settlements in such countries are in particularly vulnerable situations since they have little or no formal education, are excluded from social protection and because movement restrictions may keep them from obtaining a more secure status (UNSDG, 2020[6]). Moreover, the COVID-19 crisis increases the risk that refugee children in such situations will be separated from their families if one parent becomes infected and isolated, in which case a significant number of children will be pushed in a very vulnerable situation.

Unaccompanied minors are people under the age of 18 who arrive without parents, other adult relatives or guardians (UNHCR, 1997[74]). As such, they are a particularly vulnerable group and require special protection. In OECD countries, most arrive just before or after the age at which schooling is no longer compulsory – between 14 and 17 years – but have little or no formal education (OECD, 2016[75])). Many are not pursuing further education but have taken up employment, generally of the low-skilled and informal kind, making them particularly prone in the current situation to find themselves not in employment, education or training (NEET). The actual impact of prolonged lockdown on their skills and psychological well-being will to some degree depend on the guardian structure, which can vary from foster homes and families to collective structures. Clearly, those in collective structures will be a lot more vulnerable on many accounts, including health-wise.

Children, confinement and mental health issues

Good mental health early in life is key to good mental health later in life. Yet, mental health problems represent the largest burden of disease among young people, and mental ill-health is at least as prevalent among young people as among adults (OECD, 2015[76]; 2018[77]). Poor mental health emerges early in life; around half of severe mental illnesses begin by age 14, and three quarters begin by the mid-20s (Kessler et al., 2007[78]; Kessler et al., 2007[79]). Worldwide, an estimated 10-20% of children and adolescents experience mental disorders (WHO, 2018[80]). Estimates developed by the Institute for Health Metrics and Evaluation (IHME) suggest that the average prevalence of mental disorders in populations under 20 was 12% in 2017 (Figure 5).

The stress and uncertainty associated with the COVID-19 outbreak potentially has significant negative effects on children's mental health. Increases in overall anxiety about the outbreak, confinement and mitigation measures such as quarantine, school closures and uncertainty about high-stake final school exams, and social distancing, are impacting children's daily lives. Evidence on the impact of the outbreak on children's mental health is limited at this stage (Pew Research Center, 2020[81]; IFOP, 2020[82]). However, a survey of college students in China showed an increase in anxiety (Cao et al., 2020[83]), while in a poll of 2 111 under-25 year olds with *existing* mental health problems in the United Kingdom, 83% of respondents reported that the pandemic had worsened their mental health (Young Minds, 2020[84]).

Previous pandemic episodes show that steps taken to control the outbreak, notably quarantine measures and school closures, especially when prolonged, can reduce children's mental wellbeing. Evidence from previous emergencies, for example during the 2003 SARS outbreak in cities in Canada and China[2], point to increased anxiety, depression and post-traumatic stress disorder, including for children, due to confinement (Sprang and Silman, 2013[85]; Hawryluck et al., 2004[86]; Brooks et al., 2020[87]). These effects are likely to be more widespread with COVID-19, although factors such as increased social connectedness via online or digital platforms will help mitigate some of the negative effects of isolation and confinement.

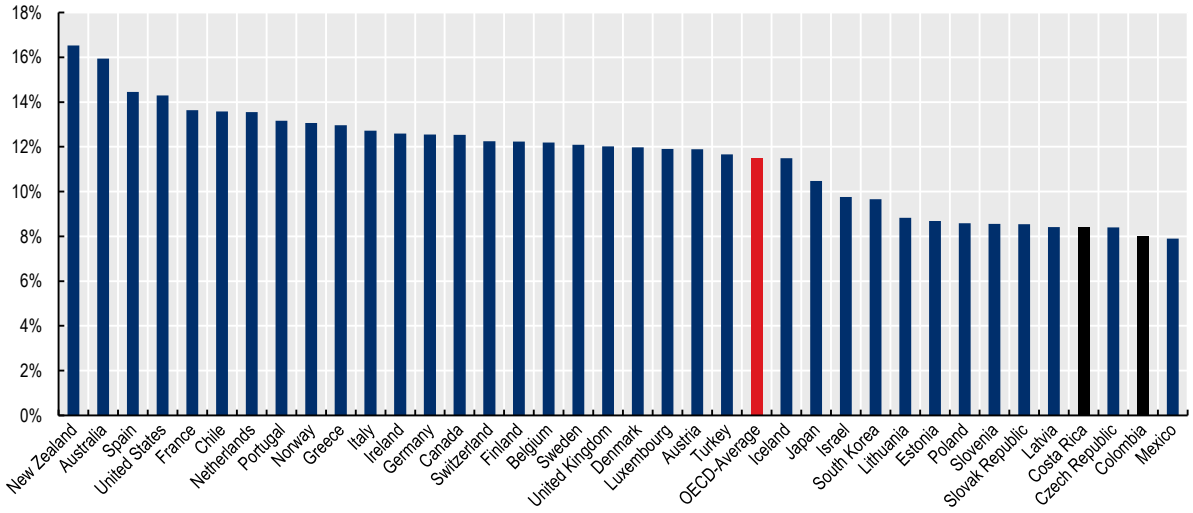
While evidence is limited at this stage, there is a risk that the outbreak will have a greater effect on the mental health of children from low socio-economic backgrounds. The strong relationship between socioeconomic deprivation and mental ill health is well documented, including during childhood (McDaid,

[2] This text has been modified from the original version released on 4 May 2020: "Japan and Toronto, Canada" was changed to "cities in Canada and China".

Hewlett and Park, 2017[88]; OECD/European Union, 2018[89]). As the outbreak is likely to increase financial and social insecurity for low-income groups, there will be knock-on effects on other factors contributing to poor child mental health, such as poverty, poor parental mental health, and exposure to stressful situations.

Figure 5. About one in nine children face mental issues

Estimated prevalence of mental disorders amongst the population under 20 years old, 2017



Source: Institute for Health Metrics and Evaluation (2018[90]), Global Burden of Disease 2017 Resources, http://www.healthdata.org/gbd/gbd-2017-resources.

At the same time, the COVID-19 outbreak presents serious challenges to the delivery of child and adolescent mental health services. Many services face some kind of disruption due to social distancing measures and the redeployment of staff towards COVID-19 activities (Chevance et al., 2020[91]). In addition, school closures create difficulties for children with mental health difficulties as schools are a common site for mental health interventions, especially for low-threshold interventions (McDaid, Hewlett and Park, 2017[88]).

Children from vulnerable households face the biggest obstacles to home learning

Parents are critical for children's home learning

The COVID-19 pandemic fundamentally disrupted schooling in most countries around the world, with over 90% of the world's students affected by national and local school closures (UNESCO, 2020[92]). In many OECD countries education systems are now discussing how best to organise reopening schools. They must also prepare for an uncertain future in which new waves of contagion require potential rolling school closures.

When schools are closed, children's education becomes more dependent on their home environment. This raises issues around the quality of the physical home environment and access to on-line facilities. It also requires time, availability and social capital of parents to supervise children's learning or even take over the teaching role if schools lack the capacity to provide distance support. Confidence in own ability to support children's learning as well as a potential lack of familiarity of subject matter may be a barrier among parents with low-education, particularly for helping older children.

In normal times, children from disadvantaged families typically lose one month of learning during the two month break from school over summer (Alexander, Entwisle and Olson, 2007[93]; Allington et al., 2010[94]). Children from advantaged families do not generally experience this learning loss and in fact can make learning gains during this period, depending engagement with their families and communities. This widening of disparities is likely to occur during the current period of confinement, unless disadvantaged children and their families are given additional support.

Extended confinement will exacerbate existing stresses and inequalities (OECD, 2020[95]), and will raise a number of issues now and once schools and centres re-open. In particular, the habit of going to school and concentrating on learning will be broken for some students; this may need deliberate effort to rebuild student's engagement and avoid increases in school drop-outs. In addition, children/students who were already vulnerable and struggled to engage in learning, (e.g. because of health issues or because they experienced domestic violence) will require special support.

Parents are critical for children's learning in the early years (0-7 years). This is even more true when children do not have access to early childhood education and care or school, and when online or even televised learning is not adequate for their stage of development. The day-to-day activities that parents undertake with their children are highly correlated with children's learning and development. OECD (2020[96]) shows that, regardless of socio-economic background, children do better when their parents read to them almost every day, ensure there are many children's books or e-books in the home, and have back-and-forth conversations with them.

These activities support children's social-emotional development (Figure 6), as well as their cognitive skills such as emergent literacy. Yet parents from low socio-economic backgrounds are less likely to undertake such learning activities with their children; thus, the gap between children from different social-economic groups may well have widened with the COVID-19 outbreak.

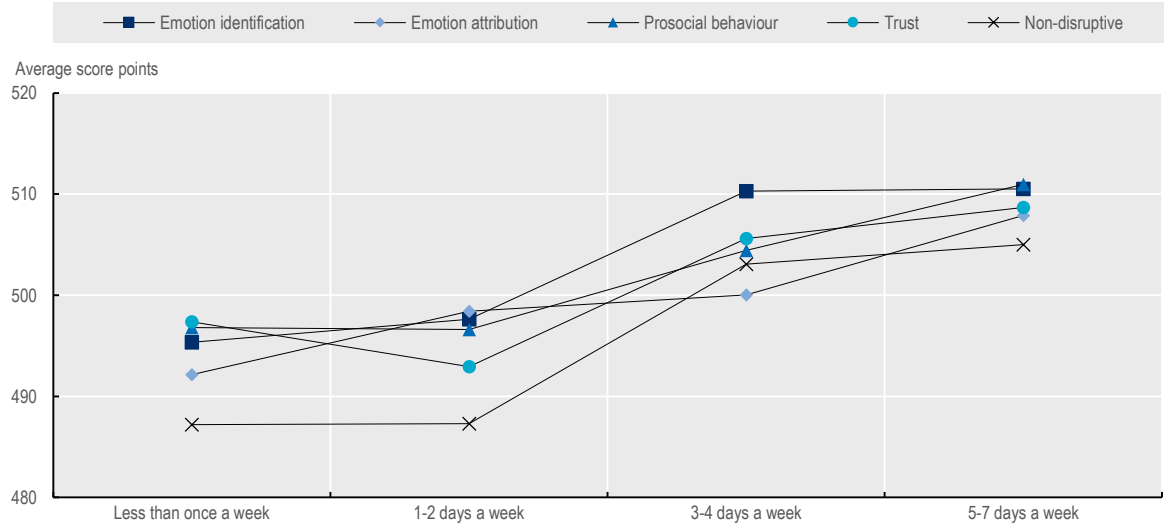
The quality of the home learning environment is also crucial to enable school-aged children to continue to learn. Most parents are not teachers, and many are unfamiliar with the educational programmes' content and pedagogical tools. Some parents even seem to be relatively distant from their children's school work; almost 10% of 15-year-olds who participated in the PISA 2015 tests reported that their parents were not very interested in or supportive of their children's school work.

Housing quality and technology

Other at-home dimensions include housing quality and technology. Many of these elements risk widening the divide between advantaged and disadvantaged children. Figure 7 shows a relatively high average of adolescents have access to basic prerequisites for home learning, i.e. a desk and a quiet place to study; 87% of children across the OECD on average. However, for adolescents in the bottom quartile of the index of economic, social and cultural status (ESCS – see the figure note) the OECD-average is 10 percentage points lower. Adolescents in Mexico (34%), Chile (30%) and the United States (27%) are most likely not to have a desk and place to engage in home learning, and these countries also report the widest inequalities between children in households with lower and higher socio-economic status in the is regard. These inequalities are widest in the United States, where only half of adolescents in households with the lowest socio-economic status have a desk and place to engage in home learning.

Figure 6. Parental reading help foster child socio-emotional development

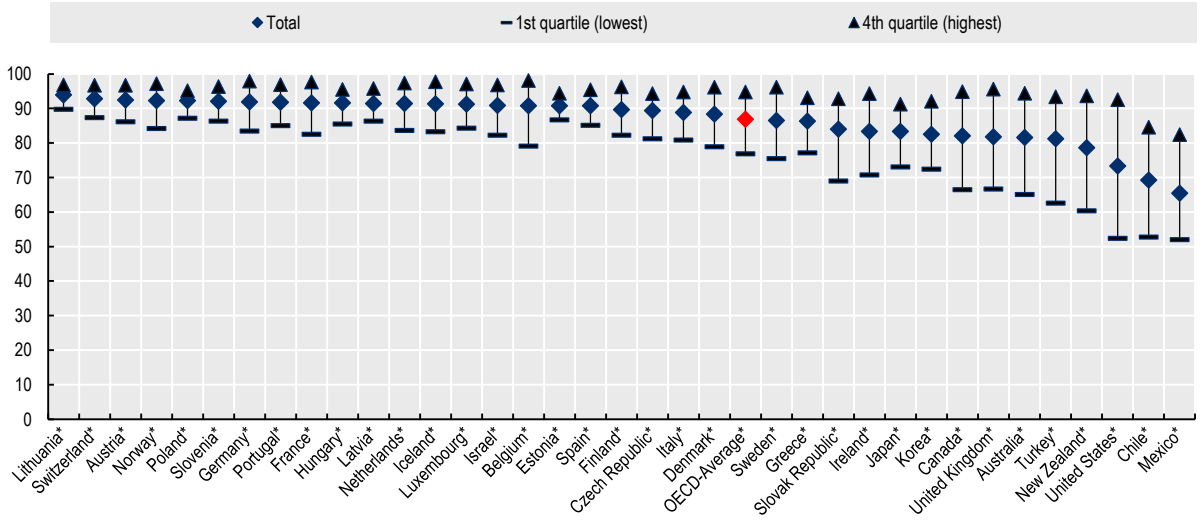
Social-emotional skills at age 5, by frequency of being read to by parents



Reading note: Children whose parents read to them between five and seven days a week had significantly higher mean social-emotional scores than those whose parents read to them one or two days a week or lower. Estimates of the effect of reading after accounting for socio-economic status, surveys carried out in Estonia, England and the United States.
Source: OECD, 2020, Early Learning and Child Well-being Study.

Figure 7. Adolescents (15-year-olds) with a desk and a quiet place to study at home (%), by index of economic, social and cultural status (ESCS), 2018

Percent of 15-year-old students who report having a desk and a quiet place to study at home, by ESCS quartiles



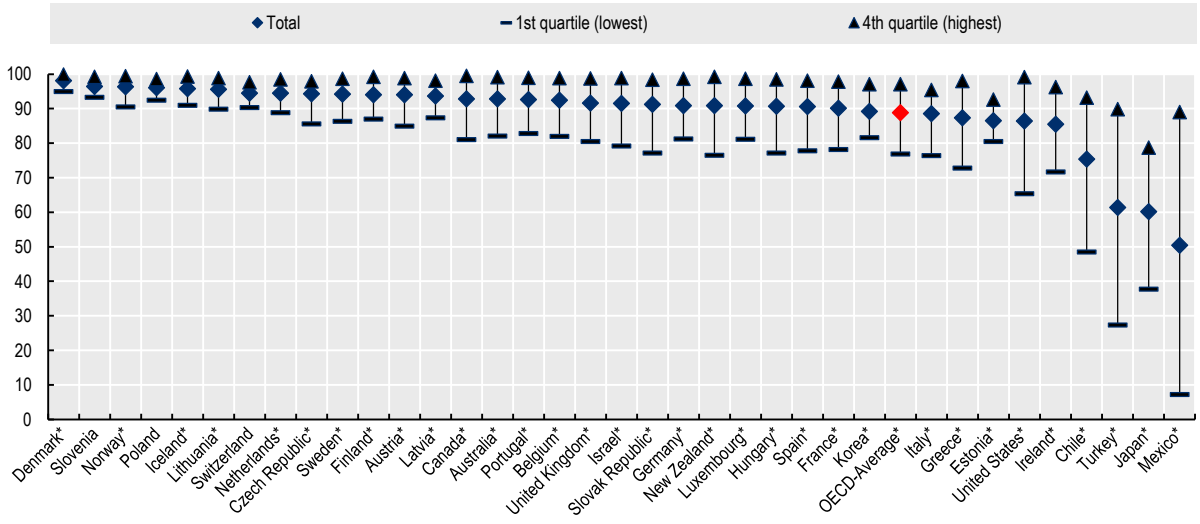
Note: The PISA index of economic, social and cultural status (ESCS) is a composite measure used to estimate a student's socio-economic background. The index is derived from several variables related to students' family background: parents' education, parents' occupations, a number of home possessions that can be taken as proxies for material wealth, and the number of books and other educational resources available in the home. The index itself is a composite score derived from these indicators via Principal Component Analysis (PCA). Here, however, students are divided into quartiles according to their position in the distribution of ESCS scores in their country or economy.
Countries are ranked according to availability of desks and study spaces at home. In countries marked with an *, the difference between the 1st and 4th quartile children is statistically significant at p<0.05.
Source: OECD (2020[97]) based on OECD, PISA 2018 data, OECD Child Well-Being Data Portal.

While schools are closed and pupils forced to study at home, access to a computer and the internet is crucial to engage in communication with class- and groupmates as well as receiving feedback and instruction from teachers. Unequal access to and support for digital learning risks widening learning gaps. Although (Figure 8) shows that the OECD-wide average of adolescents with access to a computer and the internet is relatively high at 89%, only 78% of children in households in the lowest socio-economic status group have this access. In Mexico (7%) and Turkey (27%) only a minority of adolescents in the poorest households would be able to engage in e-learning at home. In addition, in many homes devices may need to be shared between parents and amongst siblings. Finally, access to technology alone does not guarantee learning. Knowing how to use the technology requires digital skills. Here again there is a divide between advantaged and disadvantaged households: parents who are more confident of their own and their children's digital skills take are more likely to encourage and be able to guide the digital activity of their children, creating a safer environment and better supporting learning.

Inequalities across children's learning associated with family socio-economic status are likely to increase due to confinement measures as parents with higher levels of education and higher income have more opportunities to telework or arrange their working time schedules to spend time with their children.

Figure 8. Adolescents (15-year-olds) with a computer for school work and an internet connection at home (%), by index of economic, social and cultural status (ESCS), 2018

Percent of 15-year-old students who report having a computer they can use for school-work and a link to the internet in their home, by ESCS quartiles



Note: Countries are ranked according to availability of computers and internet at home. In countries marked with an *, the difference between the 1st and 4th quartile children is statistically significant at p<0.05. For information on the PISA index of economic, social and cultural status (ESCS), see the notes to Figure 7. The relatively low score for Japan (compare to its GDP per capita) is driven by the comparatively low rate of student (62%) with access to computers for schoolwork, while (95%) have access to a link to the internet (OECD, 2020[95]).
Source: OECD (2020[97]) based on OECD, PISA 2018 data, OECD Child Well-Being Data Portal.

COVID-19 and its implications for children in the digital environment

The number of children with access to the Internet at home and to a range of digital devices has been steadily increasing in OECD countries, and by 2015, the proportion of 15-year-olds with access to internet at home was 95% across the OECD on average (OECD, 2017[98]). Cross-national trends suggest that younger children are increasingly using digital technologies and the age of first use is dropping (Hooft

Graafland, 2018[99]); and many pre-schoolers become familiar with digital devices before they are exposed to books (Hopkins, Brookes and Green, 2013[100]). Children are enthusiastic users of social media sites, apps, and chatrooms such as TikTok, Instagram, Snapchat, and WhatsApp where they share personal data and user-generated content. The digital environment offers opportunities for children, such as allowing them to express themselves, acquire information, knowledge and socialise with peers. Furthermore, watching age-appropriate, high quality programming may promote certain cognitive benefits. "Co-viewing" (i.e. engaging in screen time with a parent or caregiver) can enhance infant attention and their propensity to learn from on-screen content (Gottschalk, 2019[101]), while unsupervised use of digital tools involves risks to children's health and well-being.

Because of COVID-19, children are by far more exposed to digital technologies than usual. School-closures have meant that access to the digital environment is essential for children's education, socialisation with peers, play, entertainment and self-expression. Policymakers will need to address two major concerns – *i)* how to ensure widespread access to digital technologies so that all children can exercise their rights; and *ii)* how to mitigate against increased risks which may arise out of the increased use of digital technologies.

Whilst the digital environment undoubtedly provides real and important opportunities for children, there are also downsides and risks. To start with, increased activity in the digital environment may translate into growing exposure to **content risks** for children. Examples of content risks include hateful content that can take the form of pictures, words, videos, games, symbols and even songs. Children might also be troubled by a wide variety of harmful or illegal content, such as pornographic pop-up advertisements, unpleasant or scary news or pictures. At the same time, children may also be exposed to disinformation about COVID-19 that can spread virally and can cause them increased anxiety and fear (Livinsgtone, 2020[102]), as children can have different interpretations of what makes a news outlet credible and reliable (OECD, 2020[103]).

When children are actors in a peer-to-peer exchanges, their own conduct can make them vulnerable (O'Neill, Livingstone and McLaughlin, 2011[104]). **Conduct risks** and **contact risks**[3] such as cyberbullying could proliferate (World Childhood Foundation et al., 2020[105]), especially as it concerns children perceived to be at greater risk of catching or spreading COVID-19 (World Childhood Foundation et al., 2020[105]). A lack of physical social interactions during the crisis, including with partners for the oldest ones, may lead children to engage in sexting. Sexting refers to the exchange of sexually explicit messages and/or images among children and can cause a multitude of problems (both social and legal) for the creator(s) of the content (OECD, 2019[106]).

These risk manifestations have the potential to have a more adverse effect on **girls** than boys. For example, a study has found that boys who accept traditional gender stereotypes were much more likely to share sexts than girls who shared the same beliefs. At the same time, girls who share sexts can be perceived as violating gender norms and even giving up the right to their pictures. Consequently, sexism and gender stereotyping were found to play a significant role in the 'culture of sharing' (Johnson et al., 2018[107]). In addition, girls may experience more cyberbullying than boys and could be particularly disturbed by certain aspects of it, including comparison with others and comments about appearance (Ducharme, 2019[108]).

Sexual exploitation also increases (Ecpat International, 2020[109]; FBI, 2020[110]; National Crime Agency, 2020[111]). Specifically, such risks can manifest in the form of sextortion (i.e. type of exploitation, whereby the perpetrator threatens to expose or share a sexual image to blackmail the victim into doing something), sex trafficking or cyber grooming, among others. With more adults being isolated at home, there is a growing demand for child sexual abuse material both through open networks, and over the dark web and

[3] In the case of contact risks the child is the victim or recipient of such actions (as opposed to conduct risks where the child is the actor).

peer-to-peer networks (Ecpat International, 2020[109]). In addition, the livestreaming of sexual abuse has also been a rising phenomenon in some communities (World Childhood Foundation et al., 2020[105]).

With the abundance of personal information processed and shared due to the COVID-19 crisis (for instance in educational settings), children can be exposed to increased **privacy risks**. For instance, online platforms using video conferencing services that are being increasingly used for educational purposes can lead to inappropriate data collection and privacy violations. E-learning platforms can also pose a threat to children's privacy due to the collection, use, reuse and disclosure of personal data (Hye Jung Han, 2020[112]). Whilst these platforms are often presented as 'transformational' to parents and children, the merging of for-profit platforms and business models with public education raises serious privacy concerns (Livingstone, Stoilova and Nandagiri, 2019[113]). In addition, social networking platforms and apps that are used for teacher-student interactions might not have strong privacy and data protections safeguards (World Childhood Foundation et al., 2020[105]).

The potentially increased amount of time that children spend in the digital environment may also expose them to **health and wellbeing risks**. In particular, excessive social media use is related to the mental and physical health of children, such as through poorer sleeping patterns and body image concerns and associated disordered eating (OECD, 2018[77]). Recent research on the effects of social media on clinically diagnosed depressed children underline the notion that social media can exacerbate depressive symptoms (Rich, 2019[114]). Again it has been found that girls may be more adversely affected than boys. To this end, a study confirmed the association between the amount of social media use and depressive symptoms which was greater for girls than boys (Royal College of Psychiatrists, 2020[115]). It is important to note that these same studies also highlight that the evidence base is still emerging and there is an urgent need for good quality research on the health and wellbeing impacts from digital technology use, (Burns and Gottschalk, 2019[116]) Children who are vulnerable offline are more likely to be vulnerable in the digital environment and are more likely to report harm due to risks that they have encountered in the digital space (Bulger and Livingstone, 2013[117]; UNICEF, 2017[118]; Kardefelt-Winther, 2017[119]; Burns and Gottschalk, 2019[116]). It is therefore problematic to establish clear causality, as those children who already suffer from anxiety or depression appear to be also more prone to digital overdependence (OECD, 2019[120]). Recent research also indicates that moderate use allows children to realise the benefits of the digital environment, whilst both too much use or no activity in the digital environment can have a negative impact on children (Przybylski and Weinstein, 2017[121]).This applies equally to both girls and boys (Burns and Gottschalk, 2019[116]).

Policy challenges and responses

The immediate focus of any policy to address the challenges faced by children during the ongoing COVID-19 pandemic must be on minimising risks to children's health and psychological well-being; ensuring access to good food and nutrition, and educational supports; and providing assistance and protection to vulnerable children in need. The concentration of COVID-associated risks fall on children living in low-income households and those with additional needs or in vulnerable situations. Addressing these challenges quickly is key to avoiding a rise in inequality – among the current generation of children and the next – and to ensuring inclusive growth.

The response can only be effective if all levels of policy action are involved – governments, local authorities and non-governmental organisations working directly with the populations affected in a co-ordinated and widely publicised manner. Governments play an important role in providing food and cash assistance, redeploying staff from public services and child protection systems to cope with emergency situations, as well as setting up nation-wide alert and information systems; local authorities are key to complement national assistance and tailor support to local needs. Family service providers play a crucial role in connecting measures with children and families who need them, identifying the needs of the populations

concerned, communicating about available assistance and giving practical advice, as well as fostering exchanges between families, professionals and experts in order to develop the most appropriate responses.

The demand for support services is high during the COVID-19 crisis. It is essential that community needs are identified quickly and efficiently in order to mitigate social disruption and reduce pressure on the essential health and care systems. A resource directory or systems mapping provides an outline of the eco-system of services in a community and can help identify gaps in services and funding. Moreover, digital platforms that use system-mapping can provide families with a tool to find services quickly. An updated system map can also improve daily updates on the availability of goods and services. Technically adaptable and agile platforms (such as *HelpSeeker*, which in parts of Canada is used for information and systems mapping regarding social services https://helpseeker.org/) can provide policy makers with a framework for prioritizing resources allocation and service delivery. Civil society partnerships established with non-profits, charities, businesses, volunteers, faith sectors and social enterprises are also key to communicate with the community about supports and identify needs.

Strengthening food assistance

COVID-19 requires an immediate **reinforcement of food and nutrition support**, as school meals are no longer available to children and income losses limit poor families' capacity to buy food. Many countries are responding with social and income protection programmes which will enable families to purchase food. A few countries already have food assistance programmes in place. For instance, in the United States, there are numerous food assistance programme targeting vulnerable families, including the *Supplement Nutrition Assistance Programme* (SNAP) (formerly known as the food stamps programme) and the Special Supplemental Nutrition Program for *Women, Infants, and Children* (WIC). WIC also serves as a gateway to health care by connecting families to resources such as prenatal, obstetric, maternal, and paediatric care; dental care; counselling for smoking cessation, drug and alcohol abuse; and, nutritional assistance.

Under the US's *Families First Coronavirus Response Act 2020* all the food assistance programmes are receiving additional funding; for example, the SNAP is receiving USD 15.5 billion extra funding; the Child Nutrition Programmes have been allocated an additional USD 8.8 billion in emergency funds; and the WIC is receiving an additional USD 500 million, furthermore food banks are to receive USD 850 million extra financial support too. States are permitted to provide temporary benefits in the form of Pandemic Electronic Benefit Transfers (P-EBT) which provides households an EBT card with the value of the free school breakfast and lunch reimbursement rates for the days that schools are closed (FRAC, 2020[122]). The Families First Coronavirus Response Act 2020 also allows states increased flexibility and the ability to waive requirements for new applicants for food assistance to reduce the amount of information that must be verified and simplify the verification process (FNS, 2020[123]). Other countries have also introduced food vouchers. In France, for example, the government has earmarked EUR 15 million to enable 60 000 beneficiaries (equivalent to EUR 7 per person per day) to buy food or basic goods, health or hygiene products at more than 220 000 sales outlets. To get support to clients who need it most, it is delivered by NGOs such as the *Fondation Abbé-Pierre*, *Secours Catholique*, *Emmaus*, the *Red Cross* and *Secours Populaire*. NGOs responsible for operating food banks are running special COVID-19 appeals to cope with the increased demand for emergency food parcels.

The FAO (Food and Agriculture Organisation of the United Nations) suggests several other measures that countries could adopt to help people meet their food and nutrition needs (FAO, 2020[124]). Such measures include: redistributing food from school feeding programmes through donations to NGOs engaged in providing food assistance during the confinement period; exempting families with school-age children from taxes on basic food and promoting fresh food delivery at home. Family service providers also play an important role connecting people with community response efforts to the COVID-19 Pandemic, sometimes using on-line facilities. For instance, the Spark organization in Canada has established a platform where

people can post volunteer opportunities and share ideas on how to help populations in need, including with the provision of meals (SPARK, 2020[125]).

In developing countries, given the importance of informal employment in local value chains, legislation is necessary to consider all informal economy workers – from food production to processing to distribution to selling – as essential service providers and avoid the risk of disruptions in the food economy. In South Africa, for instance, essential staff that are exempted from the provisions to be home-bound include those involved in food transportation and delivery. International cooperation can also play a critical role, by supporting a smooth functioning of global food value chains and by directing humanitarian assistance to countries that may need it.

Policy options to strengthen food assistance

- Provide social and income protection benefits to enable families to purchase food.
- Consider introducing (e-)vouchers to help families whose children normally benefit from free or discounted meals at school while schools are closed and/or introduce tax exemptions on basic food items.
- For the period of school-closure, redistribute resources from school feeding programmes through donations to agencies engaged in providing food assistance.
- Enhance the delivery of emergency essential food rations to the most vulnerable communities and territories in coordination with government agencies and non-governmental organisations.

Supporting children that need immediate assistance and protection

Family support and child protection services need to maintain a presence in the homes of vulnerable children. This involves ensuring workers are informed on safe practice during COVID-19 and rethinking case managements approaches and adjusting supports. For example, in the **United Kingdom,** children subject to child protection plans or at risk of coming into care, or with special education needs are included in childcare and schooling provisions made available to children of essential workers.

Countries need to increase supports to children in out-of-home to address growing needs and avoid placement breakdowns. Measures include identifying foster families in need of respite breaks and contingency plans for older carers in case of falling ill. In **New Zealand**, *Oranga Tamariki* (the national child protection and youth justice agency) has developed online resources for carers to help them understand and respond to children's stress responses. Procedures on the absconding of young people from care placements have been updated, to reflect current risks and safe care.

Voluntary organisations working with children and young people in care are also creating online support to help reduce isolation and stress during confinement. In **Ireland,** the organisation Empowering People in Care (EPIC) has opened a helpline and is directly reaching out to young people known to be vulnerable; EPIC and its European partners also organise video streaming parties.

In some vulnerable families, addiction and mental health problems are pre-existing issues, **Addiction and mental health services** to both children and parents need to be sustained to support parents in their role as caregivers and notify child protection services of any concerns for children's well-being.

Children with separated parents may experience intensified conflict between parents over child alimony payments and custody arrangements during the period of confinement (Box 3). Family mediation services and agencies help deal with non-payment of child alimony and remain vigilant regarding non-compliance with the agreed child custody and/or alimony arrangements.

Policy options to provide immediate protection and assistance to children

- Strengthen the detection and criminal prosecution of child maltreatment, including online sexual exploitation of children.
- Strengthen capacity of schools, the police, health and family support services to respond to needs of the most vulnerable children and to reports of child maltreatment. Put in place procedures for sharing of information, and create child protection plans if necessary. Maintain front door child protection services and as far as possible ensure that home visiting and safety checks on children and families most-at-risk are not disrupted.
- Extend childcare or schooling arrangements for essential workers to include vulnerable children.
- Increase supports for children in out-of-home care, including the establishment of guidance on maintaining family contact; the continuation of child protection services for those turning 18 during the course of the pandemic; and the extension of aftercare provisions for young people still in education or training.
- Increase support for foster carers, including the provision of support and information on helping children through COVID-19 and managing challenging behaviours; the identification of foster families in need of respite breaks; and the creation of contingency care arrangements for children living with older foster carers.
- Reconsider detention measures for children when feasible and ensure the health and safety of children who must remain in detention facilities.
- Strengthen capacity of the courts, the police and other service providers to respond to family and intimate partner violence. Maintain in operation telephone help-lines, web chat and emergency sittings of family courts, and increase capacity of domestic violence refuges. Allow breach of home confinement for victims of violence.

Mitigating mental health problems and cushioning the social impacts of confinement for children and adolescents

Many countries and international organizations are taking steps to safeguard the mental wellbeing of children and young people during the COVID-19 outbreak, for example by issuing basic guidance for parents and carers on how to talk about the outbreak with their children in an age-appropriate way which lowers anxiety (WHO, 2020[126]; Liu et al., 2020[127]; CDC, 2020[128]; NHS, 2020[129]; Beyond Blue, 2020[130]; Dalton, Rapa and Stein, 2020[131]; Public Health England, 2020[132]). Most guidance focuses on supporting children when they show stress or distress, to find positive ways to express their feelings, such as through playing or drawing, guidance on maintaining familiar routines, ways to maintain contact between children and carers if they are separated, and maintaining social contact with peers.

OECD countries are also taking steps to **maintain access to services for children and young people living with mental health difficulties.** Many services have been moved online to provide teleconsultations, services have anecdotally reported taking a proactive approach to consulting with all children and families on their service lists. Where face-to-face services are necessary service providers are taking steps to assess COVID-19 related risks before any contacts take place. Jigsaw project (Ireland) has started online sessions on stress management and relaxation techniques on Instagram and online group chat around themes of managing loneliness and isolation, exam stress, and family conflict.

At ground level, family service providers can connect the different services that support the population. For instance, *HelpSeeker* in Canada organises webinars to bring organisations across Canada together, and share experience about good practices to identify needs and respond to them (HelpSeeker, 2020[133]). *HelpSeeker* supports "community wellness checks" which provide peer-to peer health checks in order to prevent a mental health crisis, as well as collaborative work between volunteer agencies and mental health provincial services. *HelpSeeker*, but also organisations such as *CASA* (Child, Adolescent and Family Mental Health) provide assistance through interactive webinars with experts to help parents and children cope with mental health (CASA, 2020[134]).

Policy options to mitigate mental health problems

- Maintain access to services for children and young people living with mental health problems, as well as their families.
- Support NGOs who provide community-based on-line (peer- to-peer) services for young people and parents with children facing mental health issues.

Ensuring continuity of learning and helping parents support their children's education

As schools have closed down, many school systems transitioned to digital and distance education (Box 5). Countries have used existing online distance courses whenever possible, as well as developed new materials and platforms. Education technology companies have made their resources freely available, and in systems without widespread access to the internet, delivery of education has also taken place via television and radio. However, measures need to be further strengthened for children in disadvantaged families to limit the widening of the gap in educational outcomes.

Helping parents to put in place quality tutoring or teaching sessions is essential, especially for parents who are not usually very involved in their children's school work. To this end, schools and teachers should share information and feedback on what parents can do to support learning at home, and maintain contact as much as possible with the children most at risk of being left behind or dropping out of school. Specific targeted material and pedagogical support should also be provided to children whose families do not have the necessary means to access distance learning or to children who usually receive special assistance for their learning (as is the case for example with some children with attention deficit disorders, children with disabilities, migrant children, etc.).

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Box 5. Examples of support that education systems are offering to students and parents

In Estonia, all learning materials are available on paper and online in parallel. Therefore, many schools have been using digital version in the past and do not need extra support or guidance. An open webinar was also organised at the early stage of the pandemic to provide guidance for parents on how to support their children in distance learning.

In France, a pedagogical continuity is put in place to maintain regular contact between the student and their teachers. To this end, the teachers shall ensure, in particular by making use of existing networks (digital workspaces, electronic mail or similar tools specific to private schools) that students have access to course materials and are able to carry out the homework or exercises required for their learning.

In Israel, parents can access a dedicated online portal through which they can access learning tasks and digital content based on the national curriculum. National lessons daily broadcasts by exemplar k12 teachers (24 classrooms, simultaneously, 6h a day) are provided for both Arabic and Hebrew speakers).

In Latvia, distance learning guidelines provide advice to school leaders, teachers and parents on how to organize and adapt the learning process to the distance mode, how to modify the parents learning programme, and how to ensure the well-being all teachers and pupils. They also suggest available ICT tools and platforms.

Source: OECD (2020[95]), A framework to guide an education response to the Covid19 pandemic of 2020.

The demand for guidance and support is large, and not all schools and teachers are able to offer adequate distance learning resources. Many NGOs provide family and parenting support services and are connected with disadvantaged children and families and can be mobilised to help them further.

A United Kingdom survey on children's digital learning provisions suggests that two thirds of children have not taken part in online lessons since schools are closed (Cullinane and Montacute, 2020[135]). Inequalities across schools are large. For instance, 60% of private schools and 37% of schools in the most affluent areas had an online platform to receive work, compared to 23% in the most deprived schools. In the most deprived schools, 15% of teachers report that more than a third of their students learning from home would not have adequate access to an electronic device for learning, compared to only 2% in the most affluent state schools.

Many countries are now moving to reopen their schools. In many countries, school reopening is gradual and adapted to the local capacity of municipalities and schools to meet sanitary instructions and ensure the safety of students and staff. The first set of challenges facing schools will be tracking learning during school closures to assess where children are, mitigating the impact of any learning losses during this period, and ensuring and supporting the well-being of children as they return to "the new normal". They must also prepare for the potential of rolling or staggered closures over the next 18-24 months (OECD, 2020[136]). Top priorities for action as schools reopen include (OECD, 2020[136]):

- **Ensuring safety**: school buildings must be disinfected and adequate ventilation of classrooms ensured in an ongoing manner.
- **Assessing progress and mitigating the impact of learning losses**: diagnostic formative assessment of all students will be needed to help plan and organise their learning. Targeted learning support will be needed, especially for the most vulnerable. Efforts to address learning loss must avoid creating traps for the disadvantaged, for example, large-scale grade repetition.

- **Ensuring well-being**: many students will experience emotional distress from the pandemic, ranging from anxiety to post-traumatic stress symptoms. Some students will have lacked physical activity during confinement. Student mental and physical health will need explicit support in the return to "normal life".

Policy options to support distance learning and ensure continuity of learning

- Provide flexible work arrangements to allow parents support children's home learning.
- Develop resources for distance learning, from digital tools and materials to virtual classrooms. Use other modes of delivery as appropriate when internet access if limited.
- Support teachers with training resources on how to teach using digital tools, as well as encourage access and use of digital collaborative platforms that allow teachers to share their resources and give and receive peer feedback.
- Ensure good communication between schools and parents on what parents can do to support learning at home, on children's learning progress and on activities families could develop during their free-time.
- Provide support and materials for students experiencing emotional distress due to isolation and disruption during school closures. This can be targeted, from helping students maintain healthy schedules and learning hygiene to specialised support for students who have lost close relatives or suffered domestic violence to a greater extent than before.
- Provide specific support and learning resources to disadvantaged children. This involves maintaining closer contact and follow-up with children who are less advanced in their learning, distributing digital devices (computers and tablets) to families who cannot afford electronic devices, have no access to internet, or otherwise lack educational material (e.g. books).
- Provide specific support to immigrant parents who might lack the necessary language skills or social network to get relevant information and support.
- For the return to school, evaluate the status of learning and identify learning gaps, for example by introducing formative assessment. Identify and target students lagging behind and provide specific learning support.
- Revise the curriculum focus and prioritise learning objectives in light of the constraint, while ensuring good balance between academic, socio-emotional learning, and psychological health.
- Continue working with parents and communities to reassure parents of the safety of their children as they return to school. Develop targeted community plans to ensure adequate learning accompaniment in systems where classes will be smaller and potentially less frequent.

Ensuring the wellbeing of children in the digital environment

In the context of the COVID-19 pandemic, actors including governments, parents and carers, digital service providers, and educators must take co-ordinated actions to support children in realising and enjoying the benefits of the digital environment, whilst protecting them from its potential risks. A zero-risk digital environment is unattainable, however as children spend significant time on line due to the COVID-19 crisis, it is even more important to establish the necessary conditions for a safer digital environment and provide children the right digital skills and tools to address risks.

Parents, carers and educators can play a particularly important role to evaluate and minimise risks of harm for children, but they need tailored support to play a protective role during this crisis. To this end, integrating digital literacy, skills, and competency in learning environments is essential. Further, as there is an explosion of disinformation during the COVID-19 crisis, strong digital literacy skills are essential for children to be able to critically analyse the content that they are consuming (Livinsgtone, 2020[102]; World Childhood Foundation et al., 2020[105]).

As many children already face conduct and contact risks in the digital environment and will likely face increased exposure to such risks, including those related to sexting, cyberbullying, or sexual exploitation, governments and digital service providers will need to consider taking actions to protect children from abuse in the digital environment. For instance, the increased likelihood of sexual exploitation of children in the digital environment due to the COVID-19 pandemic (FBI, 2020[110]) means that helplines, hotlines, awareness centres and appropriate legal protections will be even more important for children at risk. Children can find direct support through the domestic-based Child Helpline or through international reporting networks, such as IWF portals or the INHOPE Hotlines.

Furthermore, an abundance of children's personal information is being collected, processed, shared and stored (for instance in educational and health settings) amid the COVID-19 crisis. To this end, protecting children's privacy and safeguarding their personal data is essential for their well-being and autonomy and to ensure that their needs are met in the digital environment.

As these risks cross borders and jurisdictions, policies and actions require international collaboration. In 2012, OECD countries adopted the Recommendation of the OECD Council on the Protection of Children Online (hereafter 'the Recommendation') (OECD, 2012[137]). The Recommendation aims to support governments in setting the conditions for the protection of children in the digital environment through better evidence-based policy making and enhanced co-ordination between all stakeholders. While the Recommendation has proved highly influential in helping governments to design policy in this area, the OECD is now examining how best to update this instrument to take account of the changing digital technology and risk landscape by surveying OECD countries, undertaking an extensive review of the legal and policy environment, and holding expert consultations (some of the policy priorities that have emerged through this work are reflected in the Box below).

Policy options to support children in the digital environment

- Support children's access to the digital environment to make sure that no child is left behind. Take actions that are tailored to accommodate developmental differences, and reflect that children may experience different kinds of access to digital technologies based on their social and economic circumstances and the level of parental and carer engagement during the COVID-19 pandemic.
- Promote multi-stakeholder dialogue between parents, carers, educators, and children themselves.
- Foster co-operation and positive engagement in policy making and the development of practices relating to children in the digital environment.
- Support parents, teachers and carers in educating children on how to become responsible participants in the digital environment and by providing information and guidance on the benefits and risks that children can encounter in the digital environment.
- Make sure children and their parents and carers are aware of their rights in the digital environment. Take measures to ensure they are able to access mechanisms for enforcing such rights, including complaints mechanisms or legal remedies.

- Make children aware of available support services, such as hotlines, helplines and awareness centres in case they require assistance as a result of activities in the digital environment.
- Further promote and enhance the digital literacy skills of children as an essential tool in the digital environment.
- Protect children's privacy and safeguard their personal data. Emergency governmental measures in response to COVID-19 requiring the collection and use of children's personal data, including their health data should be limited to the emergency period and subject to necessary and proportionate safeguards.

Stepping up efforts to combat child poverty

COVID-19 already has a strong negative impact on the world economy and a deep recession is likely**.** Poverty can be expected to rise sharply and hit children hard. To mitigate household income effects, many countries have taken early action to protect jobs, support struggling companies and limit the loss of income experienced by the different categories of workers who experience job-loss or reduced working hours, and extending paid sick leave among a greater group of workers with care responsibilities (OECD, 2020[3]). These actions are critical to curtail the rise in child poverty (Box 2), since parental employment remains the most effective protection against poverty (OECD, 2018[30]).

Teleworking can help many working parents during confinement, but such options are not available to all workers (OECD, 2016[138]), and may not be feasible for prolonged periods. In any case, teleworking poses considerable challenges to parents with young children and single parents who need to allocate a lot of their time to childcare.

OECD (2020[3]) summarizes a range of policy options to support workers, including options to help **working families deal with unforeseen care needs.** Countries offer childcare options and support with alternative care solutions (e.g. Austria, France, Italy and the Netherlands), often with a focus on working parents in essential services, such as health care, public utilities and emergency services. Countries also offer direct financial support to workers who use paid leave to care for children and on average across the OECD paid parental leave entitlements provide for one year of employment-protected leave. Flexibility in existing leave legislation can help parents with older children, as for example in Sweden where parents have the option to use 96 days of the paid parental leave entitlement for children in the age-group 4 to 12. In response to the COVIC_19 outbreak, many countries have extended access to family or emergency leave, or they prolonged or extended the right to care allowance for the whole period of school closure (https://oe.cd/covid19tablesocial).

Countries are also implementing responses to ensure that families can **remain in their dwelling if they struggle to cover rent, mortgage or utility payments** due to a job or wage loss. Several countries (including the Slovak Republic and the United Kingdom) have introduced temporary deferments of mortgage payments, or temporarily suspended foreclosures (e.g. the United States) or evictions (e.g. France, Spain, and some Canadian regions and municipalities). Other measures include temporary reduction of rent payments (e.g. Greece) or postpone of utility payments (e.g. Japan). Some countries have also introduced measures to support the homeless, who are especially vulnerable to the spread of COVID-19 and lack the ability to effectively "shelter in place": France, for instance, has requisitioned hotel rooms to be used by the homeless during lockdown.

COVID-19 has exposed the vulnerability of many families to deal with economic shocks. Some countries have therefore introduced emergency to give families extra cash. Local governments also provide extra support. For example, the City of Paris has earmarked an exceptional budget of EUR 3.5 million to support 28 579 Parisian low-income households. Payment rates are based on canteen prices for children, and are paid automatically by the *Caisse nationale d'allocations familiales* into the bank accounts of households.

The COVID-19 crisis will make children vulnerable who were not vulnerable before. In the aftermath of the crisis, health, education and family support services should take on board the lessons learnt on how to best develop resilient and crisis-proof child policies, data and service infrastructures to support families and children.

Policy options to curtail the rise in child poverty

- Strengthen measure to maintain parental employment, by further promoting telework and flexible working time, extending leave entitlements and short-time work schemes (for a full range of options to support workers during the COVID-19 pandemic, see (OECD, 2020[3])).
- Help families with children by suspending evictions and deferring mortgage and utility payments.
- Provide income support to families with children, targeting families in extreme poverty first.
- Support single parents to combine work and family life, and recognise the need for special support among adolescent mothers.
- Make use of community-based (digital) information and system mapping services, to help families find access to the services they need.

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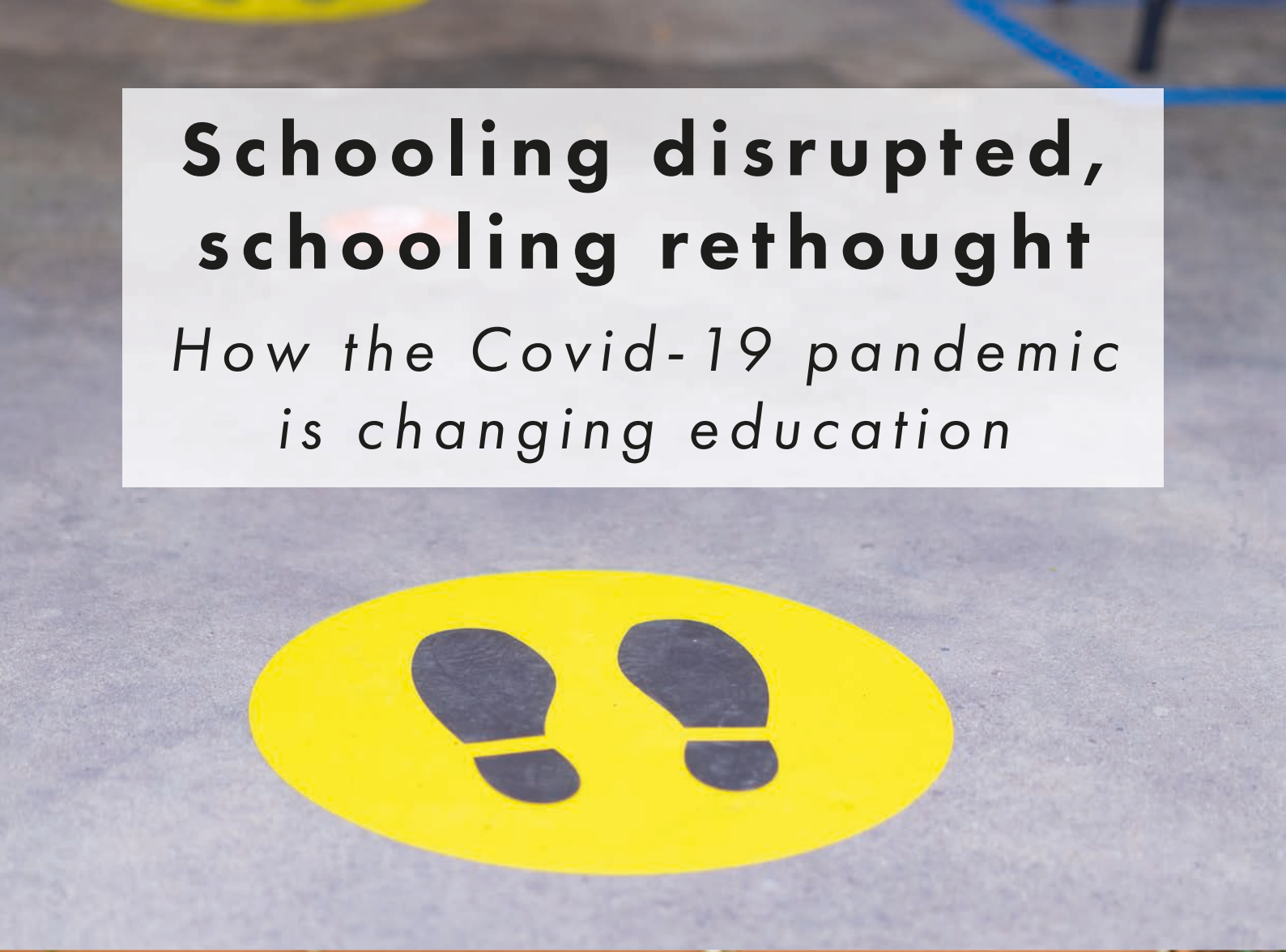
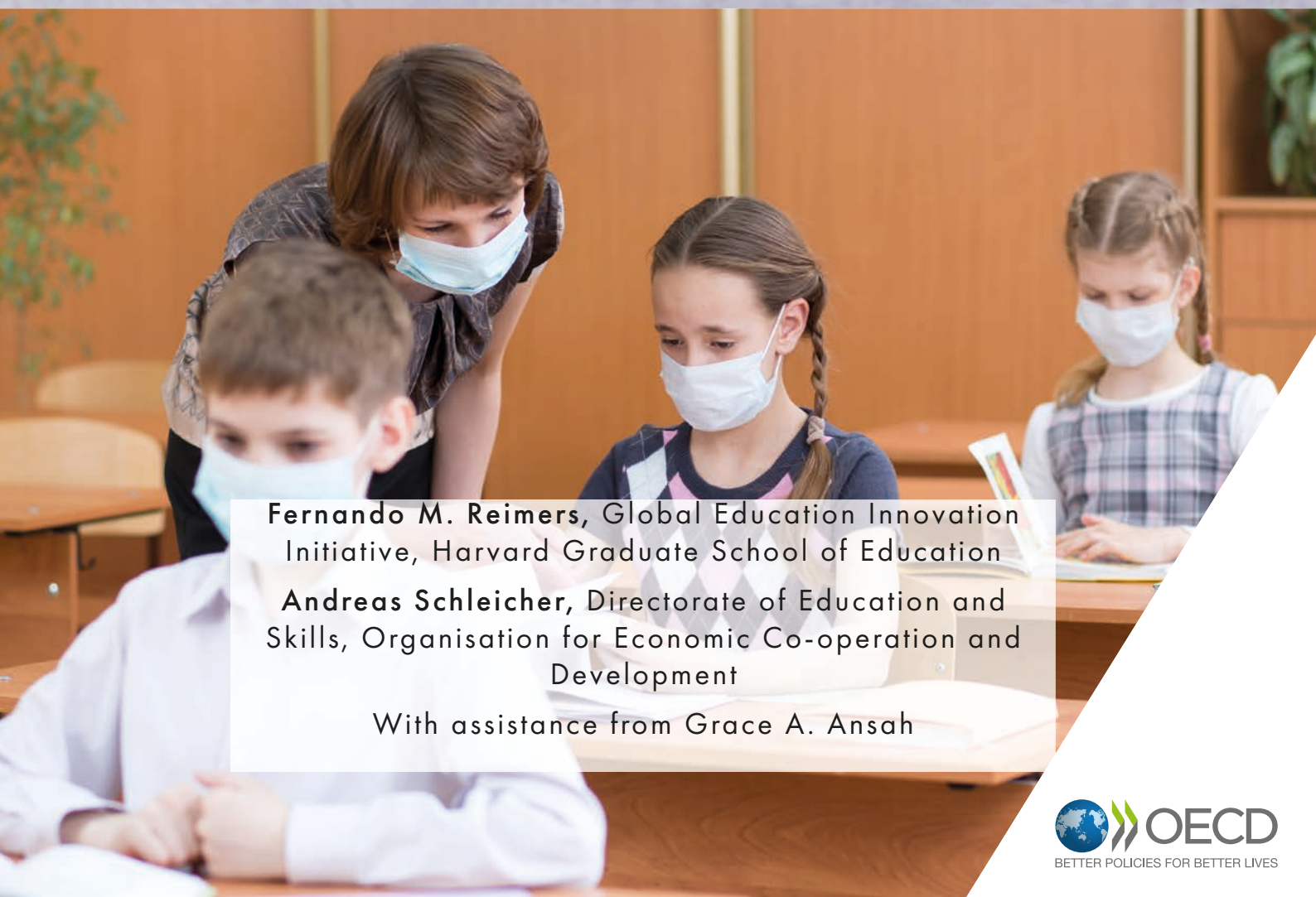
Schooling disrupted, schooling rethought

How the Covid-19 pandemic is changing education





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BETTER POLICIES FOR BETTER LIVES

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Editorial

The education systems of the 59 countries that participated in this survey have demonstrated remarkable resilience, flexibility and commitment to education in having established strategies for education continuity, in extremely challenging conditions, during the Covid-19 pandemic. For the most part, those strategies were viewed positively by senior administrators, teachers, and school and other education administrators, in terms of their implementation and the results they achieved in providing a considerable number of students access to at least part of the curriculum.

More attention has been given to ensuring the continuity of academic learning than to the socio-emotional development of students, and there is agreement that not all students have been able to engage consistently with their education as provided under these emergency strategies. Although most of the countries surveyed were able to put alternative learning opportunities in place, respondents estimate that just about half of the students were able to access all or most of the curriculum.

An important component of implementing the strategy of continuity was professional development for teachers, principally using online platforms that allowed them to communicate with their peers. At the same time, only 61% of the government representatives reported that their teachers were offered professional development.

The considerable effort expended in allowing teachers and students to find ways to learn and teach remotely has immense potential to augment the pedagogical efficacy of teachers and schools in the future, not only in the immediate return to school, but beyond. The knowledge and experience gained with various modalities of remote learning are assets that could be deepened and deployed in the future, creating blended modalities of teaching and learning, also in service of a greater personalization of education, and to extend learning time and learning opportunities for all students. It will be important that the lessons learned from this real-life experience are systematically collected and evaluated, and that education systems and schools investigate ways through which innovative teaching and learning environments can be more fully integrated into schooling.

The efforts to sustain educational continuity during the period of physical distancing revealed two different but equally important lessons. The first, the deep disparities in access to technology, connectivity and skills to engage with technology faced by students from different socioeconomic groups. Addressing such disparities must become a priority to fully integrate all students in a world where participation is increasingly mediated by access to technology. The second, concerns the significant access to technology that teachers have and their readiness to engage in multiple modalities of collaboration and professional development using technology. This realisation is an extraordinary silverlining, these practices should be continued and deepened in the aftermath of the Pandemic for the purpose of building capacity for 21st century education.

Our recommendations focus all on school organisation, management and instruction, as this was also the focus of the survey. However, the pandemic has also likely influenced educational opportunity diminishing family income for some, which could diminish the ability of families to keep their children in schools. A reopening strategy should take notice of which of the students enrolled before the pandemic return to school, and determine the reasons for drop out, in the cases of children who do not return. Options to retain students in school in those cases could include conditional cash transfer programs or carefully designed campaigns with information on the benefits of school attendance.

Balancing education and health-related priorities

Many countries are well on their way to establishing strategies for the reopening of schools, with half of the responding countries being able to offer a specific date for reopening. However, strategies to reopen schools require a difficult balance between the obvious educational benefits to students and the health and well-being of students, their families as well as education professionals.

The responses analysed in this report indicate that the learning that has taken place during this period when schools were closed is at best only a proportion of what students would have learned in school. In this sense, this period of learning at home has made evident the many benefits that students draw from being able to attend school regularly and learn in close contact with their teachers and peers, and with full access to the wide variety of services that schools

offer, including meals, and psychological and health support. Those benefits are likely of greater value to the most marginalized children and in societies with greater levels of social inequality. This awareness of the importance of schools and teachers could be used strategically to mobilise further engagement and support from parents and communities for schools and teachers. This will be important, as a likely result of the pandemic will be greater financial constraints, resulting from the economic and public health costs of the pandemic. At the same time, the innovation potential evidenced in the efforts to sustain educational continuity should be continued and augmented for the purpose of improving education delivery in the context of new fiscal austerity. For example, approaches to using technology to support teacher professional development and collaboration, and to cultivate student autonomy and independent learning, particularly for older students, should be fostered.

The benefits of reopening, to continue to develop students' knowledge and skills, are of unquestionable value to students and to society as a whole. In fact, the learning loss that has already occurred will, if left unremedied, likely take an economic toll on societies in the form of diminished productivity and growth. As a rough guide, a lost school year can be considered equivalent to a loss of between 7% and 10% of lifetime income.

Added to this are the economic benefits to families: reopened schools would allow parents to return to work, once public health authorities deem that this is feasible.

Those benefits, however, must be carefully weighed against the health risks and requirements in order to mitigate the toll of the pandemic. Evidence from previous epidemics suggests that school closures can prevent up to 15% of infections. While this proportion is modest compared with other public policy measures (e.g. workplace social distancing, which can reduce transmission by up to 73%, case isolation, with an effect around 45% or household quarantine, with an effect of around 40%), it is not negligible, and in some countries there is extensive interaction between the youngest children and the older generation most at risk from the virus.

The need to consider such tradeoffs calls for sustained and effective co-ordination between education and public health authorities at different levels of government. Such collaboration should be enhanced with forms of local participation and autonomy that enable the contextualisation of responses. Many survey respondents indicated that school reopenings are planned to be progressive, beginning in areas with the lowest rates of transmission and lowest localised risk.

However, several steps can be taken to manage the risks and trade-offs. It is important to develop clear protocols on physical distancing, including banning activities that require large gatherings, staggering the start and close of the school day, staggering meal times, moving classes to temporary spaces or outdoors, and having school in shifts to reduce class size. Equally important are protocols and practice on hygiene, including handwashing, respiratory etiquette, use of protective equipment, cleaning procedures for facilities and safe food-preparation practices.

It is also important to protect teachers, administrative staff and students and their family members who are at high risk due to age or underlying medical conditions, with plans to cover absent teachers and continue remote education to support students who are unable to attend school. Governments and teacher organisations may also need to revise personnel and attendance policies to accommodate health-related absences and support remote and blended teaching.

Investment in training is central. School leaders need to have the capacity and training to establish procedures if students or staff become unwell, and to put in place partial or complete school closures when needed. They need to be able to conduct risk assessments for teachers and other staff, and take appropriate action to support them. Effective guidance and procedures are needed to monitor the health of students and staff, maintain regular contact with local health authorities, and update emergency plans and contact lists. When students enter the premises, their temperature may need to be taken and infected students isolated and cared for by specialised medical staff – without stigmatising the students. Teachers, too, may need to be tested before the school reopens, and the health and sanitary managers of schools should take the temperature of teachers when they enter the premises.

Similarly, administrative staff and teachers need training on how to cope with the virus, to recognise risks and to implement appropriate measures. This includes implementing physical distancing and school hygiene practices. Cleaning staff need to be trained on disinfection and be equipped with personal protective equipment to the extent possible. Behaviour change is needed to increase both the intensity and frequency of cleaning and disinfection activities and improve waste-management practices.

Balancing coherence with flexibility

On the one hand, it is important to establish clear and consistent guidance and communication on the parameters for deciding when to reopen schools in order to ensure coherence and limit confusion in both the education sector and the general public. At the same time, local conditions vary significantly. Schools also differ in the level of exposure between the school population and high-risk groups, such as the elderly and those with underlying medical conditions, the ways in which the school population travels to and from school, and community-related and epidemiological risk factors, public health and healthcare capacities, population density and adherence to social distancing and good hygiene practices. Therefore, national health guidelines to reopen schools that are developed without attention to the physical and organisational characteristics of schools could cause more harm than good.

Countries should therefore prioritise investment in local capacity, recognizing that conditions are very heterogenous across schools and that in many countries large proportions of schools have exceedingly low levels of capacity. Schools need to prepare themselves, engage parents and teachers, and build trust in the community that they are handling the situation well and wisely. Schools should reopen when the necessary conditions are in place and when school teams feel sufficiently capable of coping with the situation and parents are ready to send their children to school. This may imply that not all schools will reopen at the same time. Respecting the autonomy of schools in different circumstances is important. Failing to do so – for example, because governments opt for highly prescriptive approaches – may lead to confusion and feelings disempowerment, which will ultimately harm the reopening strategy.

The crisis has also shown how important it is to secure ownership and buy-in of the reopening strategies from parents, teachers, school leaders and communities. Even the best regulation will achieve its goals only if schools implement them proactively. For example, schools will need to implement effective measures to ensure personal hygiene and social distancing between children, ensure clean and disinfected infrastructure, furniture, equipment and classrooms. Some of this may require creative solutions adapted to local environments, such classes in outside and open spaces. In this regard, it is encouraging that over 75% of the respondents reported that reopening strategies were designed in a collaborative fashion with teachers. Very few reported there were conflicts with teachers, parents or between the government and schools; over 65% said communications were well managed. Perhaps most important, over 80% reported that everybody did all they could to help. However, only 25% of the respondents indicated that such collaboration also included parents. Schools and teachers may need to expand and intensify their relationships with parents and families. Many parents have suffered in maintaining their children's learning and are in need of support and guidance.

Experience has shown how important it is to clearly and consistently communicate what is to be accomplished. Resistance to change is often due to incomplete information about the nature of the proposed policies, their impact, or whether or not the stakeholders involved will be better or worse off. Opposition to change can signal that the public has not been sufficiently briefed or prepared or that there is a lack of social acceptance of policy measures. Individuals and groups are more likely to accept changes that are not necessarily in their own immediate individual interest if they and society at large understand the reasons for these changes and can see the role they should play. This will be an issue particularly when further school closures are local. To achieve this, the evidence base of the underlying diagnosis, the policy options and their likely impact, and information on the costs of the measures versus inaction should be disseminated widely in a language that is accessible to all.

That is the way to build a solid a consensus. Data from the survey show that many countries have still some way to go to engage key stakeholders in the design and implementation of their response to the pandemic.

Balancing needs and capacities

Respondents indicated that strategies for reopening schools are often progressive. This involves choices and trade-offs that are often not easy to make. For instance, maintaining minimum standards of physical distance in schools is more feasible for older students who can understand the concept of social distance and who have the cognitive abilities to self-monitor and follow such rules. At the same time, the need for structured site-based learning and personal interaction with educators is highest amongst the youngest children, for whom social distancing is more difficult to achieve – and for whose working parents, the reopening of school is most urgent.

Where schools have to make choices, on-site learning should give priority to struggling students who lack supportive infrastructure at home, while other students can benefit from e-learning and home-schooling; to students in critically important stages of their schooling trajectory; and to classes with a significant share of practical training.

It is also encouraging how many countries are envisaging large-scale remedial programmes to mitigate learning loss and compensate for school closures. The specific strategies developed to recover learning loss should vary depending on whether the school closures took place at the end of the school year vs. the places where the closures happened at the beginning of the school year. In countries where the school year was ending there is more likely to be information on what students had learned up to the point of the closures. The lessons to recover learning can be organised on days that schools are normally closed, as well as in the evenings or on weekends. They can also take the form of summer classes, combined with sports and recreational activities. An extension of the school year into the vacation period could also be considered, or the start of the school year can be advanced by one or two weeks. In addition, where the availability of infrastructure allows this, it may be possible to extend the duration of the school day for the purpose of recovering learning loss. Here, it is important that schools do not lose sight of the urgent needs of students who are completing their secondary education. The ongoing economic crisis is creating a labour market that is deeply hostile to young people. Students will be in need of more help than ever in managing their transitions. Very many will seek, at short notice, to find ways of staying in education. It is essential that they are supported in making the best possible decisions at this most difficult time.

Countries have taken different approaches as to whether students should be legally obliged to attend school in the post-Covid-19 environment, with about 60% of the respondents indicating mandatory attendance. Ideally, the school should provide the most appropriate and beneficial teaching and learning environment for each student. Where the legal enforcement of compulsory education is temporarily suspended, the progression and development of each student should still be tracked and monitored. The specific arrangements and responsibilities of schools, students and families may be formalised in a "learning contract".

For the school year 2020-21, a contingency plan should be developed, both at the level of the government and the level of the individual school, aimed at ensuring optimal learning opportunities for all students, in case school closures disrupt the school year. Temporary school closures seem very likely to occur in the 2020-21 school year, at least locally. Schools need to be better prepared for similar circumstances in the future.

Balancing constraints on curriculum time with curriculum innovation

The results of the survey show that school closures have significantly reduced effective curriculum time. Countries and schools need to develop adapted alternative curricula and academic programmes based on different public health scenarios and taking into consideration modalities to be used for remote learning.

Some countries and schools have opted to prioritise core curriculum content that is essential for student progression and examinations, often focusing on literacy and numeracy; other countries consider that the crisis has shown the need to foster a wider range of cognitive, social and emotional competencies, and focus on student well-being. Similarly, the survey has exposed a gap between the responses from government representatives, which tend to prioritise academic learning, and the responses from teachers, which highlight the need to bolster student engagement.

Such trade-offs are not easy; they require strategic reporting around curriculum design, adaptation and implementation so as not to overburden teachers and students. An appropriate policy response likely requires flexibility to accommodate regional differences or

across type of school, when those relate to levels of institutional capacity.

The public health requirements for safe attendance at school need to be assimilated into the educational requirements for learning and instruction. If physical distancing at school limits the possibility of collaborative work, or project-based learning, for example, the instructional activities that take place in school, such as teacher-centred whole-class instruction, may need to be balanced with online activities that engage students in collaboration with peers and that provide opportunities for student-directed learning. Countries may need to increase their investments in digital learning opportunities not just to prepare for future school closures, but also to enhance blended learning and innovative learning environments.

The survey results highlight how central teachers have been to the delivery of alternative learning opportunities. Two-thirds of respondents indicated that students were accessing the curriculum directly from their teachers. Data from OECD's Teaching and Learning International Survey (TALIS) show that, in many countries, teachers' familiarity with integrating technology into instructional practice is still limited. This finding highlights the need for timely training for staff on remote learning, and opportunities for knowledge sharing and mobilisation amongst teachers, well beyond what is currently offered.

Beyond that, teachers need to be supported to address not just the academic needs of students, but also students' mental health, and social and emotional needs. Some of this can be accomplished through innovative teacher support methods, such as online professional development, coaching or mentoring to build capacity at scale.

Last but not least, countries may need to adapt admissions, assessment and examination policies so as to focus time and resources on examinations that are critically important for student transitions and the recognition of student learning in the labor market.

Ways forward

There are two significant opportunities to seize as part of the plans to reopen schools. The first is to take stock of the lessons learned in this crisis upon returning to school and to assess the learning loss. This exercise in student assessment should focus not just on the extent to which students gained the knowledge and skills intended in the curriculum, but also on what skills and competencies they demonstrated, or failed to demonstrate, during the period of remote learning.

Clearly, effective learning out of school placed greater demands on autonomy, capacity for independent learning, executive functioning, self-monitoring, and the capacity to learn on line. These are all essential skills for now and for the future. It is likely that some students were more proficient than others and that, as a result, they were able to learn more than their peers while not in school. The plans to return to school should therefore focus on more intentional efforts to cultivate these essential skills amongst all students.

Second, it is equally important to continue the already ongoing efforts to build an infrastructure for online and remote learning, and to develop the capacity of students and teachers to learn and to teach in that way, including augmenting the capacity of students to learn independently. This is essential because there is a possibility that, until a vaccine is widely available, any return to school may have to be interrupted as a result of future outbreaks, at least locally. But beyond the Covid-19 pandemic, there are evident benefits to students in expanding their learning time and learning opportunities beyond the walls of the school through distance learning. The plans for school reopening could consider blended modalities to access the curriculum for all students. Access to online learning and to independent learning using technology can facilitate the acquisition of essential 21st century competencies such as collaboration, communication, independent research and higher order cognitive skills. The momentum created by the strategies of education continuity in their use should be sustained and deepened on behalf of making education more relevant to the needs of the 21st century.

In one way, the crisis has revealed the enormous potential for innovation that is dormant in many education systems. The results of this survey show a considerable capacity for innovation in education. One of the lessons that needs to be examined and assimilated is what processes unleashed such potential and how can such innovative capacity be extended going forward. Just as the pandemic will create some unexpected burdens to education, it could also generate a dividend in innovative capacity. This dividend should be catalysed so that education systems do not merely attempt to "return to the past normal" but address what have been well-recognised shortcomings in the capacity to educate students with the full range of skills essential to build a better future.

There is a long history of introducing new tools in education – such as television, video, digital whiteboards or computers – in the hope of radically improving teaching and the effectiveness of schooling, only to end up with incremental change achieved at a

higher cost and greater complexity. This highlights the need for a more intentional and strategic approach to innovation, supported by well funded and methodologically sound research. Part of the problem lies in the comparatively weak and fragmented education innovation and research sector: public health-research budgets in OECD countries are 17 times larger than education-research budgets which results in a thin knowledge base about innovation and improvement. The pandemic calls on governments to address this.

It will be equally important to create a more level playing field for innovation in schools. Governments can help strengthen professional autonomy and a collaborative culture where great ideas are refined and shared. Governments can also help with funding, and can offer incentives that raise the profile of, and demand for, what works. They can also provide teachers and students access to devices and connectivity that are basic inputs for pedagogical innovations mediated by technology. But governments alone can only do so much. Silicon Valley works because governments created the conditions for innovation, not because governments do the innovating. Similarly, governments cannot innovate in the classroom; they can only help by opening up systems so that there is an innovation-friendly climate where transformative ideas can bloom. That means encouraging innovation within the system and making it open to creative ideas from outside. The responses from government representatives and administrators to the questions on governance in this survey suggest that too little of that is happening. Labour-management relations may also either facilitate or impede innovation. In order for schools to become learning organisations, it is essential that both governments and teacher unions embrace the value of innovation, flexibility and the need to experiment and create an entrepreneurial culture in education.

Policy makers and union leaders often still view schools as industrial rather than professional knowledge organisations, and education industries as providers of goods and services to schools. They tend to underappreciate that innovation in education is also changing the very environment in which schools operate. In particular, technology-based innovations open up schools to the outside world, both the digital world and the social environment. They also bring new actors into the system, including the education industries with their own ideas, views and dreams about what a brighter future for education could hold.

Governments should be more demanding of the education industry. Most of our children would not voluntarily play with the kinds of software that companies are still able to sell to schools and that have been deployed at scale during the pandemic. Is innovation in the education industry as dynamic as it should or could be? Can we break the cartel of a few large suppliers of educational resources who use an army of salespeople to sell their services to a fragmented market? Can we overcome the slow sales cycles, where buyers have to deal with layers and layers of people all "in charge"? In many countries public procurement processes make the acquisition of educational technology very difficult, in practice providing unfair advantages to large providers with the right access to government decision makers. There is urgent need to redesign and facilitate the acquisition of educational software and resources by public schools.

Is it possible to create a business culture for managing innovation in school systems? At the moment, it is so much easier for administrators to buy new tools and systems, and to use existing staff, because this costs them "nothing" than to redesign the organization of schools and of school work. The treatment of teacher time as a sunk cost means people see no benefit to saving this time. It is worthwhile to explore how industry can help the education sector close the productivity gap with new tools and new practices, organisations and technology.

Success may be less about the "killer app" or "disruptive" business model that will somehow turn existing practices upside down, and more about how to identify, interpret and cultivate a capacity for learning across the entire ecosystem that produces education outcomes. To deliver on the promises offered in the digital age, countries will need convincing strategies to build teachers' capacity not just to use but also to develop new tools; and policy makers will need to become better at building support for this agenda. Given the uncertainties that accompany all change, the status quo will always have many protectors.

To mobilise support for innovation, resilience and change, particularly in the uncertainty created by the pandemic, education systems need to become better at communicating the need and building support for change. Investing in capacity development and change-management skills will be critical; and it is vital that teachers become active agents for change, not just in implementing technological innovations, but in designing them too. That means also that education systems need to become better at identifying key agents of change and champion them, and find more effective ways of scaling and disseminating innovations. It will be crucial that the many good

experiences learned during the pandemic will not be lost when things return to "normal", but rather provide inspiration for the further development of education. That is also about finding better ways to recognise, reward and celebrate success, to do whatever is possible to make it easier for innovators to take risks and encourage the emergence of new ideas.

In sum, while this crisis has exposed the many inadequacies and inequities in our education systems, this moment also holds the possibility that we won't return to the status quo when things return to "normal". It is the nature of our collective and systemic responses to the disruptions that will determine how we are affected by them. We have agency, and real change often takes place in deep crises. When school closures are needed again, we can mitigate their impact on learners, families and educators, particularly on those in the most disadvantaged groups; the survey shows that much of this is already happening. We can collaborate internationally to share open online educational resources and digital learning platforms, and encourage technology companies to join this effort. This process of global collaboration to foster educational innovation is still in its infancy. We can rapidly enhance digital learning opportunities for teachers and encourage teacher collaboration beyond borders. Perhaps most important, we can seize the moment to make curricula and learning environments more relevant to the needs of the 21st century.

If there is one thing this crisis has illuminated, it is that no country will be able to tackle the crisis and its aftermath alone, and that there is enormous potential for global collaboration to fight the pandemic in every sector of public policy, including education. There is also great potential to generate adaptive innovative approaches to improve education in fostering fluid communication and collaboration across levels of government, between the public and private sectors, and by engaging multiple actors in civil society. This is also likely to be a key distinction between the countries that will make progress in education and those that will not. The distinction may be between those education systems that feel threatened by alternative ways of educating and those that are open to the world and ready to learn from and with the world's education leaders.

A checklist to sustain education continuity in the second phase of the pandemic

1. Prepare. Challenging as providing educational continuity during the first phase of the COVID-19 pandemic has been, the coming years may be even more challenging. Educational leaders need to prepare their institutions for more rapid change and even greater volatility. Schools, school districts, municipalities, states, and nations, will need to develop dynamic strategies of educational continuity that adjust rapidly and have close feedback loops with learners, educators and the societies around them.

2. Learn from the first phase of the pandemic. A rapid exercise of stock taking can codify the lessons learned during the first phase of the pandemic. These should make visible shortcomings, challenges, needs as well as silverlinings. Until there is a vaccine there is a possibility that further school closures may be necessary. A contingency plan to continue learning remotely should be developed, building on what was learned from the plan advanced during the first phase.

3. Develop protocols to maintain physical distancing in schools and in school operations and build capacity to implement them. There are significant demands to operate schools safety following guidelines of public health authorities, implementing those effectively will require a process of design which needs to be responsive to the conditions of each school. This process of school based design needs to include professional development for all staff, and for students and parents.

4. Create an effective delivery system for remote learning. The strategies for education continuity implemented in many jurisdictions revealed significant shortcomings and inequities in access to technology and skills to use them. Addressing these shortcomings should be a priority not only because it is indispensable to execute a possible Plan B over a protracted period, but also because it is essential to help students develop the skills they need to thrive and participate in tomorrow's world. Reimagining the education delivery system requires to rethink roles. Teachers and school staff should be declared 'first responders' and their need for professional development, emotional support and protection are critical. The role of families in supporting the education of their children has changed considerably and they need professional support to play a more direct role as learning coaches of their

children. Students themselves should be seen as agents of their own learning, and their roles in learning should be reimagined to leverage and cultivate their agency, purpose, self-direction and independent learning.

5. Strengthen an expanded learning ecosystem. Education during the first phase of the pandemic was possible to the extent that remote learning was possible and home environments were ready to serve as learning environments. Enabling this required new alliances and partnerships, for example with technology and telecommunications companies, with television and radio stations. This ecosystem should be maintained and strengthened.

6. Sustain and deepen teacher professional development. Educational continuity was possible because systems of teacher support and collaboration were quickly developed to provide just in time knowledge and skills for teachers to embrace new pedagogies but also to assume new functions beyond teaching in order to support students and their families. Ongoing professional development needs to become a much more integral part of the work organisation in education, and ensure that teachers have a deep understanding not only of the curriculum as a product, but also of the process of designing a curriculum and the pedagogies that will best communicate the ideas behind the curriculum. Finding out which pedagogical approaches work best in which contexts takes time, an investment in research, and collaboration so that good ideas spread and are scaled across the school system. Achieving that will require a major shift from the current industrial work organisation to a truly professional work organisation for teachers and school leaders, in which professional norms of control replace bureaucratic and administrative forms of control.

***7.* Develop capacity for blended learning that incorporates face to face learning and teaching in schools.** The reopening of schools should not be understood as merely resuming the operation of schools, but to creatively integrate the spaces, time, people and technologies into an ecosystem of learning. These approaches need to achieve an adequate balance between standards and guidelines and responsiveness to local conditions in schools and communities. It is likely that an important proportion of learning time will remain online, increasingly depending on and cultivating student agency and independent learning.

8. Assess student needs and outcomes. It is essential to assess where students are academically, and what their emotional needs are. Many of them will have experienced trauma as a result of the impact of the pandemic on them or their families. This assessment should especially take note of students who do not reengage with school, who don't return, or who return but were very minimally engaged with school work during the pandemic. It will be essential to develop individualised strategies to retain the engagement of those students and their families.

9. Recover learning loss. The majority of students were unable to learn what the curriculum expected them to learn during the first phase of the pandemic. Additional learning time will be necessary to minimise the long term impact of those losses. Creating expanded learning opportunities might involve extending the duration of the school day, extending the number of days of instruction per week, or work during the summer and other school holidays.

10. Rebalance the curriculum. The instructional priorities for the coming year must respond to the needs of students and to the different conditions in which it will be necessary to teach, in the modified school environments that health guidelines will create, and at home and the expanded learning ecosystem that will be essential to sustain education. In most cases, schools will be more restricted environments than they normally are, increasing the amount of time necessary for handwashing and hygiene, for instance, reducing the possibility of collaborative work, sports or other extracurricular activities which require close physical contact in others. This will require redesigning learning and teaching in order to provide students the best opportunities possible to learn, making optimal use of each of the elements of the new blended learning ecosystems. Those plans should balance the constrains that will be inevitable in the use of physical spaces, with the possibilities offered by collaborative and independent work remotely and at home. Ensuring an effective infrastructure to allow collaboration online should be a priority because of the possibility of interactivity it enables. The exercise of rebalancing the curriculum should begin with a whole child view of the essential competencies students need, including cognitive, social and emotional domains. It should identify opportunities created by the new conditions, for example, the need to foster greater student agency as a significant portion of their learning will require these. This will require greater attention to executive functioning, time management and self-monitoring and self-direction and the curriculum should explicitly cultivate these essential intrapersonal skills. At the same time, learning under the conditions created by the pandemic has created new emotional needs which must be addressed. Similarly, essential social skills which are ordinarily cultivated as students collaborate with peers in schools, will now require imagination and design in order to develop them through a variety of blended approaches. This work in curriculum rebalancing is an opportunity not just to respond to the immediate conditions which the public health crisis has created, but to address the important task of building 21st century schools accelerating progress in addressing gaps which learning during the first phase of the

pandemic has now made more visible.

11. Develop an effective communication system. Communication of the strategy among all stakeholders in schools, always important, has now become critical to ensure the coherence of an expanded blended learning eco-system that includes not just students, teachers and staff, but also parents and other members of the community. An effective communication system, which includes opportunities for feedback from multiple constituencies, is a key pillar of the implementation of an education continuity strategy. Communication should not be confused with broadcasting of messages from leadership. If messages are not received, if they are not processed, if they are not understood or accepted, communication remains ineffective. Technology affords extraordinary possibilities for more inclusive, participatory and interactive forms of communication than are normally deployed in schools and systems. Learning to use them effectively should be integral to the essential leadership development to manage the current adaptive crisis. It is imperative to create more opportunities to listen to the voice of students, in assessing their experience, in taking stock of how schools have adjusted to the pandemic, in including their views in the design of a new expanded blended ecosystem for learning, and in providing them more agency and autonomy in directing their learning going forward. It is essential to create opportunities to consult families on what kind of education they prefer for their children, as they know their circumstances best.

12. Build capacity to lead adaptively and support innovation. Sustaining education during the pandemic brought to the surface new leadership, from those in formal positions or authority and beyond. It also revealed the limitations of existing leadership. Those who were able to create alliances, to build collaborations across stakeholders in the public and private sector, to use rapid feedback cycles to guide their work with knowledge of conditions on the ground, to engage with peers to rapidly mobilise knowledge, and to revise and adjust regulations to quickly support essential adaptations to new conditions were able to foster the necessary innovation, collaboration and flexibility to sustain educational opportunity. Associations of principals, of school superintendents, schools of education in universities, and organisations that focus on professional development can play a critical role in creating the future leadership development infrastructure.

13. Differentiate autonomy and support to reflect conditions of each school. An appropriate balance is essential between autonomy and support to schools in mobilising the capacity for an effective educational continuity. Capacities in schools should be fostered to the greatest possible extent, providing support as requested and needed by the schools. Some schools, however, have very limited institutional and financial capacity and will require more guidance and support from education authorities. There are also actions which are beyond the reach of schools, for example, establishing partnerships with technology or telecommunication companies, where government can play an important facilitating role. There are actions, such as deciding whether it is safe for students to all attend school every day or how to use school transportation where those leaders and teachers in the school are best positioned to make the decisions in the best interest of students.

14. Unleash innovation. Educational continuity during the first phase of the pandemic was the result of sometimes extraordinary levels of innovation resulting from broad based participation of students, teachers, parents, civil society, and education leaders. Innovation and creativity will remain critical assets to face the daunting challenges that sustaining education in the coming year will require. Leadership and organisation, at all levels of the education system, can and should support ongoing innovation. Leadership to foster innovation should depend on strategic clarity on goals and great flexibility on means. Regulations, norms, graduation requirements, exams, timetables, class sizes, school schedule and curriculum should all be understood for what they are, as means to an end and not an end in themselves. Looking forward, the strategic clarity on ends should begin with what competencies should be gained by students, then thinking creatively and flexibly to devise means that are fit for purpose, given the financial, institutional and human constrains of schools. Education leaders must make decisions in an expeditious and timely manner on options for next year early, for the sake of having the necessary time to develop education approaches which are developed as offline and online, rather than attempts to translate the face to face model in a distant model. It should be clear that most past efforts have been a stop gap measure using remote resources, not efforts designed to fully leverage what quality online instruction can deliver.

15. Mobilise resources. The pandemic has exerted a significant financial toll on societies and a period of financial austerity is to be expected in the immediate aftermath, to absorb the costs incurred to address the health emergency. Education must a priority as an investment during the immediate aftermath to the pandemic. In particular, if the education responses to the pandemic involve redesigning a more capacious and effective education delivery system in preparing students with the full breath of skills essential to invent the future, financial resources will be essential.

Introduction

The Covid-19 pandemic has created a range of education challenges, not just to public health, but to many other areas of activity including education. The need to contain the spread of the pandemic led many governments to put in place measures limiting physical proximity. In many cases this constrained the ability of students and teachers to meet in schools, as they normally would. Sustaining education continuity amidst this pandemic has been challenging around the world. To assist education leaders in those efforts the OECD and the Global Education Innovation Initiative at Harvard University have collaborated to obtain and analyse information on the education conditions faced in countries, and on the approaches adopted to sustain educational opportunity. The World Bank and the Organization Hundred have contributed to this effort as well. Our goal was to do this as rapidly as possible, in order to offer information that can be used in the timeframe within which education leaders must respond to the emergency. The first result was a framework developed on the basis of a rapid survey conducted between 18 and 27 March 2020, with 333 responses from 99 different countries. The framework examined the immediate education needs and priorities caused by the pandemic and the anticipated education challenges. It also discussed a series of options to sustain education continuity and offered a 25 item check-list to support the development of a strategy for education continuity. The report was translated into Arabic, French, Portuguese, Spanish and Turkish by various education organisations, which adopted it into their own efforts to advocate for education continuity.

The second result of this collaborative initiative was a curated list of online education resources that had been identified in the first survey described above. Using a framework of cognitive, interpersonal and intrapersonal skills, we evaluated each of the online resources respondents to the survey had indicated they were using, and presented them in a manner that would facilitate the use of these resources by those including online resources in their strategies for education continuity.

Third, we are currently documenting and analysing innovative practices to sustain education continuity in a range of jurisdictions around the world, showcasing practices of governments at the city, state and national levels, as well as efforts of education organisations in civil society. Our aim is that those will inform the ongoing design and revision of global efforts of education continuity.

This new report is based on a survey conducted between 25 April and 7 May 2020. As with the previous survey, we conducted the survey on line through our various networks, including the country delegations of the OECD and the institutional partners of the Global Education Innovation Initiative at Harvard University. We also distributed the survey to those who had responded to the first survey and through other education organisations, such as WISE and the Organization of Iberoamerican States. We received 1 370 responses from 59 countries, a much greater number than the 333 respondents to the first survey. The following table describes the roles of the respondents to the survey.

The first part of this report analyses the responses of 37 senior government officials and 113 education administrators. The second part of this report analyses the responses provided by 747 teachers and 246 school administrators. Table A1 in the Appendix presents the total number of responses from senior government officials and education administrators received per country and the specific roles of the respondents. A total of 150 surveys were received for senior government officials and administrators from 36 countries; for most countries, three or fewer surveys were received, except in three countries where more people responded. Unless otherwise indicated, the figures represent aggregate estimates over all countries with valid responses. To provide all countries the same weight in the analysis, the data were weighted by a factor equal to one over the number of respondents per country. For the section of the report that examines plans for reopening, the weights were recalculated for the sample of respondents who had knowledge of such plans, so that each country would have the same weight in the overall analysis. Appendix C presents the unweighted responses by country.

Table 1 • Who are the respondents to the survey?

Primary Role	Number
a. A public school teacher	705
b. A public school principal or member of the leadership team	194
c. A private school teacher	42
d. A private school principal or member of the leadership team	52
e. A senior government official	37
f. An education administrator, not in a senior role	113
g. An employee in an education company (not a school)	14
h. An employee in an education non-governmental organisation	34
i. Other, specify	148
Not available	31

Section I. The views of senior education administrators

Instructional time lost

Education outcomes are shaped by the amount of instructional time that is available times the instructional quality of how this time is used. Almost all countries have statutory or regulatory requirements regarding the number of hours of instruction that must be delivered in an academic year. These are most often stipulated as the minimum number of hours of instruction a school must offer. Matching resources with students' needs and making optimal use of time are central objectives of sound education policy.

A first way to assess the impact of the pandemic on education is to estimate the amount of instructional time lost. Those losses result from institutional responses to the pandemic, such as the closure of schools as part of the physical distancing measures, and from individual responses, resulting from the constraints facing students resulting from the direct impact of the pandemic on them or their families. Respondents were asked to estimate the number of instructional days, excluding weekends and holidays, on which students had not been able to attend school, for each level of education, and also to estimate the additional number of days that they were expected to still stay at home (Table 1).

On average across the participating countries, students had spent about 30 instructional days at home, and were, at the time the survey was conducted, expected to remain an additional 15 instructional days outside of school, for a total of about 40-45 instructional days. This represents about two months of school work, a considerable proportion of the expected learning time, which on average across OECD countries amounts to 799 compulsory instruction hours per year at the primary level, and 919 compulsory instruction hours per year at the lower secondary level.

However, as shown in Appendix A2, the number of instructional days schools were closed varies greatly across countries. For example, while a number of countries were already reopening schools at the time the survey was conducted and expected few or no additional days at home, in Brazil, Costa Rica and Peru, primary schools were expected to be closed for an additional 50 days or more. Most countries have prioritised the reopening of primary schools, given the importance of social interaction in the early grades and the greater difficulties that younger students face in learning remotely, despite the much greater challenges to maintain physical distancing among younger students if they are brought together in schools. There is greater variability across countries with respect to the expected days of future school closures than with respect to the number of days

Table 2 • Average number of instructional days students could not attend school because of school closure

Level	Median	Mean	Std. dev.
Number of instructional days already spent at home			
Primary school	30	27.35	12.11
Lower secondary school	30	27.43	12.18
Upper secondary school	30	29.72	9.88
Estimated number of additional instructional days to be spent at home			
Primary school	15	18.36	25.44
Lower secondary school	15	18.35	24.82
Upper secondary school	15	67.29	278.27
Total number of instructional days to be spent at home			
Primary school	40	45.62	30.51
Lower secondary school	40	45.69	29.93
Upper secondary school	41.67	97.06	283.54

schools have been closed. There are no significant differences across education levels. The coefficient of variation for instructional days primary school students have been at home is 44%, but 138% for expected instructional days to be at home in the future. For lower secondary education, these coefficients are 44% vs 135% and for upper secondary 33% vs 413%.

Alternative learning opportunities during school closures

In order to minimise the loss of learning while schools were closed, countries sought to provide alternative learning opportunities. To examine how they did this, respondents were asked to indicate which were the principal forms used to provide education continuity during the period of physical distancing, and who made those arrangements.

Responsibilities for alternative learning opportunities

The survey asked respondents to rank the various approaches that had been followed to make alternative education arrangements. The responses indicate that governments played an important role making arrangements for education continuity, but in many countries schools and parents played an important role too. The modality most frequently mentioned as the main form of education continuity (for the options chosen as the top option followed) included the government making alternative education arrangements but in ways that involved the schools (52%), followed by schools making their own arrangements without governmental support (31%) (Table 3).

Delivery of alternative learning opportunities

Respondents were also asked to estimate what percentage of the students accessed the curriculum, during the most recent week when it was not possible to attend school, through various means of education continuity. The most frequently mentioned options all involve teachers. About 67%% indicated that students are accessing the curriculum directly from teachers, and 53% indicated that they are doing so from teachers plus other means (Table 4).

Instructional resources used

A range of instructional resources have been used to provide education continuity, often in combination. The most common are existing online resources, online instruction delivered by the same teachers of the students and instructional packages with printed

Table 3 • Approaches followed to develop strategies of education continuity amongst the various options ranked as first, second, third, fourth and fifth modality *(percentages)*

Methodology	First option (%)	Second option (%)	Third option (%)	Fourth option (%)	Fifth option (%)	No rank (%)
a. The government (any level) made alternative education arrangements that involved the schools	52.11	25.14	5.75	8.61	0	8.39
b. The government (any level) made alternative education arrangements that did not involve schools (educational television, radio).	8.14	49.89	28.68	4.81	0.08	8.39
c. Schools made their own alternative education arrangements, without government	31.31	16.19	39.14	3.56	1.42	8.39
d. Parents made their own arrangements, without support from schools	0.03	0.42	14.67	70.33	6.17	8.39
e. There were no alternative arrangements made	0	0	3.39	4.28	83.94	8.39

Table 4 • Estimates of the percentage of students who were able to access the school curriculum, through various means, during the time when unable to meet

Level of Support	Median (%)	Mean (%)	Std. Dev. (%)
Support from teachers	66.67	60.46	38.04
Support through other means	0	15.78	23.14
Support from teachers and other means	53.52	52.45	41.83
No support	0	5.18	10.94
Not available			31

Table 5 • Instructional resources used

Resources	Yes (%)	No (%)	No answer (%)
a. Instructional packages (textbooks, worksheets, printouts)	89.19	6.5	4.31
b. Radio education	40.82	42.9	16.28
c. Educational television	77.61	11.69	10.69
d. Existing online instructional resources	95.78	0.06	4.17
e. Online instruction delivered by the same teachers of the students learning	92.75	3.08	4.17
f. Online instruction provided by private tutors	35.03	46.81	18.17
g. Other modalities	29.25	32.14	38.61

Table 6 • Estimates of percentage of students who can access all or most of the curriculum through the various approaches of education continuity available

Access	Median (%)	Mean (%)	Std. Dev. (%)
All or most of the curriculum	51.42	43.3	38.82
A good amount	11.66	17.69	23.4
Some, but not much	0	5.4	11.7
Very little or none	0	3.67	10.65

resources as well as educational television. In a number of countries, online instruction provided by private tutors also played an important role (Table 5).

Equity in access

In spite of the variety of resources used to provide education continuity, a significant percentage of students was unable to access the curriculum during the period when they could not attend schools. Respondents estimate that only about half of the students were able to access all or most of the curriculum, and an additional 12% indicated that they were able to access a good amount but not all (Table 6). It is noteworthy that educators generally estimated higher figures of access to the curriculum than government representatives or administrators (see section II). Appendix A3 presents these estimates per country.

Evaluation of the strategy for education continuity

In general, the education continuity strategy is viewed positively by senior government representatives and administrators, though the views of educators were somewhat more reserved (see section II). Most reported it was well planned and executed, very few see it as chaotic, but almost 30% reported there

Table 7 • Evaluation of the strategy for education continuity

Statement	Completely agree (%)	Agree (%)	Not sure (%)	Disagree (%)	Completely disagree (%)	No answer (%)
It was well planned	25.47	45.01	11.23	3.11	2.78	12.4
It was well executed	24.88	41.25	14.74	0.4	2.86	15.88
It was fairly chaotic	0.23	3.95	9.96	42.16	24.5	19.19
There was a lot of improvisation	3.11	25.9	22.76	22.96	12.51	12.76
There was no co-ordination	0.67	6.14	7.39	38.35	34.46	12.98
It was designed in a top-down fashion by the government	12.94	17.68	6.51	31.79	17.2	13.88
It was designed in a top-down fashion by local education authorities	4.29	18.01	8.6	30.38	22.52	16.2
It was designed in a top-down fashion by school principals	0.25	19.09	22.23	27.36	12.43	18.64
It was designed in a collaborative manner including teachers	25.18	51.33	6.69	2.52	0.97	13.32
It was designed at the discretion of the teacher, in isolation	0.06	12.86	18.92	26.67	25.73	15.75
It was designed in a collaborative manner including parents	4.33	24.03	29.98	18.59	7.25	15.81
It was designed in a collaborative manner including the community	0.33	25.28	30.68	19.98	5.14	18.59
There was strong collaboration between public and private sectors	14.55	29.01	18.55	13.18	5.6	19.12
There were conflicts between schools and the government	0.03	5.81	9.86	34.12	34.4	15.78
There were conflicts with parents	2.81	3.64	20.09	43.79	11.09	18.59
There were conflicts with teachers	0	7.25	21.2	42.79	10.17	18.59
Communications were well managed	14.11	51.55	10.34	2.34	2.9	18.76
Everybody did all they could to help	48.42	32.33	3.22	3.06	0.03	12.94

Table 8 • Compared to what students normally learn in school, how effective was the strategy of education continuity in helping them learn?

Statement	%
It is not possible to assess how effective it was	47.87
No answer	12.34
They did not learn very much	0.44
They learned about what they would have learned if they had attended school	3.89
They learned some, but not very much	3.78
They learned, but less than they would have in school	31.68

Table 9 • Compared to what is normally the focus in schools, what was the focus of the curriculum during the strategy of education continuity?

Statement	%
No answer	9.64
The focus and amount of teaching was similar to what happens in school	39.86
The focus was on fewer subjects than is normally the case in school	38.97
The focus was on keeping students engaged but there was not much focus on academic learning	11.53

was a lot of improvisation (and amongst educators this percentage is almost half). Very few reported that co-ordination was lacking. About 30% see the strategy as designed in a top down fashion by the government. At the same time, over 75% reported that the strategy was designed collaboratively, including the teachers, about 25% mentioned that collaboration also included parents, and for one in five respondents collaboration also included the community. Very few reported there were conflicts with teachers, parents or between the government and schools, and over 65% said communications were well managed. Importantly, over 80% reported that everybody did all they could to help (Table 7).

When asked to estimate how effective the strategy of education continuity was, compared to what students normally learn in schools, almost half of the respondents indicated that it is not possible to know and 32% indicated that students learned but less than they would have normally learned in school (Table 8). It is noteworthy that educators assessed this aspect more positively, with over 60% of educators reporting that students either learned about what they would have learned if they had attended schools or that they learned, but less than they would have in school (see Section II of this report).

Respondents are split with respect to whether the focus of the curriculum during the strategy for education continuity was similar to or different from what normally happens in school. About 40% indicated that it was similar, and 39% indicated that the focus was on fewer subjects than are regularly taught in school.

Box 1: Screentime and child well-being

With the increased use of digital technologies during the pandemic, a common concern has been the amount of screen time that children are exposed to and the potential impact on their emotional and physical well-being.

A review of the evidence suggests that a moderate use of digital technology, especially watching age appropriate, high quality programming, may promote certain cognitive and social benefits. In addition, "co-viewing" (i.e. engaging in screen time with a parent or caregiver) can enhance infant attention and their propensity to learn from on-screen content (Gottschalk, 2019[35]).

Although excessive time online should be avoided, the short-term intensive use of digital devices for education purposes during school closures as a result of the COVID-19 pandemic is not expected to lead to long term challenges, as long as:

- good practice is followed (imposed breaks, balancing learning online with physical and social activity in the home, etc).
- parents and students are vigilant about potential increased exposure to risks (e.g., cyber-bullying, etc),
- device settings limiting exposure to harmful or inappropriate content and protection of personal data traces are installed and activated,

Moving forward, education decision-makers will have to review and verify that any agreements signed with digital providers and products during the crisis meet the safety and design standards for children and protection of student data.

Source: Burns, T. and F. Gottschalk (eds.) (2019), Educating 21st Century Children: Emotional Well-being in the Digital Age, Educational Research and Innovation, OECD Publishing, Paris, https://doi.org/10.1787/b7f33425-en.

Table 10 • What was the focus of the strategy of education continuity?

Statement	Not at all (%)	Very little (%)	Not sure (%)	To some extent (%)	To a great extent (%)
Ensure the continuity of the academic learning of students	0.17	5.11	1.25	23.52	63.09
Provide professional support, advice to teachers	0.06	1.94	8.47	38.69	40.97
Support education of disadvantaged students	1.17	3.08	12.67	35.28	40.69
Ensure continuity/integrity of the assessment of student learning	0.31	4.89	3.28	44.61	37.11
Revise graduation/grade transition policy to allow student progress	4.67	4.28	11.75	30.24	36.41
Ensure distribution of food to students	13.09	5.86	13.06	22.21	35.96
Ensure well-being of students	0.06	7.39	15.19	34.92	35.42
Ensure provision of other social services to students	0.72	8.28	22.56	27.14	31.5
Ensure medical attention to teachers affected by Covid-19	10.5	5.81	23.44	21.5	28.94
Support education of students with special needs	0.89	6.44	13.55	43.07	28.66
Ensure medical attention of students affected by Covid-19	10.56	7.61	24.17	19.31	28.54
Address emotional needs of students	2.86	6.7	16.92	39.79	26.7
Support students whose parents have limited command of the language of instruction	2.31	7.17	13.72	41.75	24.92
Ensure support for parents and caregivers to support student learning	0.11	7.53	5.75	53.58	23.14
Ensure that career guidance was maintained	2.83	3.44	18.53	42.22	23.11
Ensure well-being of teachers	3.06	5.06	16.31	46.19	22.31
Ensure social development of students	5.61	5.42	4.31	57.07	20.62
Ensure student collaboration and teamwork	0.17	11.58	15.94	47.22	18.02
Support students at risk of violence at home	3.97	6.31	30.01	32.9	16.92
Ensure physical education of students	9.22	12.75	14.16	50.1	6.44
Other, specify	3.89	0.39	12.33	3.81	8.83

Table 11 • Professional development to support teachers during education continuity

Statement	Yes (%)	No (%)	No answer (%)
Providing them with access to resources (printed, online, etc.)	90.31	5.47	4.22
Participation in peer networks within the school	86.94	5.94	7.11
Participation in peer networks across schools	79.86	12.42	7.72
Just-in-time guidance from leadership as needed	77.17	17.97	4.86
Teachers were not offered professional development during the pandemic	23.47	60.94	15.58
Providing them funds to take courses	15	69.7	15.3

Almost 12% indicated that the focus was on keeping students engaged but there was not much focus on academic learning (Table 9). It is noteworthy that amongst educators the latter percentage was almost twice as high, which may highlight the difficulties that teachers faced with ensuring student participation and engagement (see section II).

When asked what was the focus of the strategy of education continuity, the most frequent responses focus on academic learning: ensure the continuity of academic learning (63%), provide support to teachers (41%), and provide support for disadvantaged students (41%) (Table 10).

Other responses were ensure social and emotional development of students (21%), address emotional needs of students (67%), ensure support to parents to assist their students, ensure continuity and integrity of academic learning (37%), and revise graduation and transition policies (36%). About one in three respondents also identified as a focus of the strategy the provision of food to students, the well-being of students, the provision of social services to students, supporting students with special needs or the well-being of teachers. One in four respondents identified the maintenance of career guidance as a focus of strategies for educational continuity.

Support for teachers

To support the implementation of the strategy of education continuity, government representatives and administrators reported that teachers were supported in various ways, the main ones included providing them with access to resources, peer networks within the school and across schools, and just in time guidance from leadership. However, one in five respondents indicated that teachers were not offered professional development during this period (Table 11). For some of these dimensions, the assessment provided by teachers differed. For example, while 87% of government representatives or administrators reported participation in peer networks in schools, only 50% of teachers reported so (see Section II).

A variety of resources were used to support teacher professional development as shown in Table 12, mostly existing online learning platforms, tools that enable teachers to communicate with other teachers and virtual classrooms. In this respect, the reports from educators show quite similar results (see Section II).

Reopening of schools

In the context of the pandemic it is far more complex to reopen schools than to close them. Policy makers need to make difficult and uncertain trade-offs between keeping education services locked down to reduce the risk of the virus transmission, on the one hand, and managing the adverse effects of school closures on children's safety, well-being and learning, on the other. School closures not only lead to a loss of education opportunities, and thus long-term social and economic prospects of students (see the preceding sections), but the longer disadvantaged children are out of school, the less likely they are to return. Further, prolonged closures disrupt essential school-based services, such as immunisation, school meals, and mental health and psychosocial support, and can cause stress and anxiety due to the loss of peer interaction and disrupted routines. These negative impacts are likely to be significantly higher for disadvantaged children, children living with disabilities, and children in institutions. Not least, school closures have also serious long-term consequences for economies and societies,

Table 12 • What resources were used to provide professional development for teachers?

Statement	Yes (%)	No (%)	No answer (%)
Existing online distance learning platform	91.89	3.89	4.22
Tools that enable teachers to share knowledge with other teachers in the same country	80.42	14.8	4.78
New online platforms (virtual classrooms) so that teachers can access professional development and engage in self-directed or collaborative learning with peers	77.33	9.72	12.94
Instructional packages, printouts, texts	66.97	24	9.03
Educational television	50.92	38.97	10.11
Tools that enable teachers to collaborate with peers in other countries	44.72	41.86	13.42
Radio education	21.17	56.67	22.17
Other modalities, please describe	15.39	10.78	73.83

such as increased inequality, poorer health outcomes, and reduced social cohesion.

Nevertheless, school reopenings must be safe and consistent with each country's overall health response to the pandemic, with all reasonable measures taken to protect students, staff, teachers and their families. The timing of school reopenings must be guided by the best interest of the child and overall public health considerations, based on an assessment of the associated benefits and risks and informed by cross-sectoral and context-specific evidence, including education, public health and socio-economic factors. These issues are examined in this section.

When asked if they knew whether there were plans to reopen schools this academic year, half of the respondents indicated that there were definite plans to reopen them (Table 13). One in four indicated that there were plans to reopen schools, but no definite date had yet been set. The figures vary considerably from those provided by educators (see Section II). For example, while half of the government representatives and administrators, on average across countries, reported that there is a definite date for reopening schools, only 17% of educators said so. Conversely, while only 4% of the government representatives and administrators said that schools would not reopen this academic year, 21% of educators said so.

Strategies for reopening schools

For the respondents who had definite knowledge of what the plans to reopen the schools were, which represented 48% of the respondents, we analysed the plans reported by senior government officials and administrators from 20 countries. Table A3 in the Appendix lists the countries included in this group (we weighted this reduced dataset by a factor that would give each country equal weight in the analysis).

Table 13 • Are there plans to reopen schools this academic year?

Statement	%
1. Yes, there is a definite date, if so specify month/day	49.83
2. There are plans to reopen, but there is no definite date	24.78
3. There is no clarity as to whether schools will reopen	14.39
4. Schools will not reopen this academic year	3.94
5. I don't know	2.97
No answer	4.08

Table 14 • What groups are likely to be involved in the process of reopening schools?

Statement	Not much/ not at all (%)	Don't know (%)	To a great extent (%)	No answer (%)
a. Ministry of Education	0	0.5	99	0.5
b. Ministry of Health	0	1	99	0
c. Civil protection	10.5	10.5	71	8
d. Local authorities	15	1.5	80.5	3
e. Police	27.5	29.5	29	14
f. Students	35.5	6	45	13.5
g. Teachers' unions	2.5	8.5	80.5	8.5
h. Principals or principal associations	5	0	92	3
i. Parents	20	6.5	60.5	13
j. Local community	15.5	19.5	52	13
k. NGOs	40.5	34	17.5	8
l. International organisations	37.5	30	19	13.5
m. Private partners	43	27	21.5	8.5
n. Other	16	16.5	5.5	62

When establishing their approaches to reopening schools, governments need to weigh trade-offs between ensuring coherence and consistency in their approaches, on the one hand, and responsiveness to local circumstances and needs, efficiency and improved financial control, and reduced bureaucracy and incentivised local initiative, on the other. In most cases (79%), respondents indicated that the process of school reopening is decided at the national level; only in 17% of the cases is the process of school reopening decided locally.

Furthermore, the structures and regulations involved in the reopening of schools are just like the small visible tip of an iceberg. The reason the reopening of schools is so difficult is that there is a much larger invisible part under the waterline. This invisible part is composed of the beliefs, motivations and fears of the people who are involved, parents and teachers included. This is where unexpected collisions occur, because this part tends to evade the radar of public policy. Therefore, policy makers are rarely successful with processes such as the reopening of schools unless they help those concerned understand the merits and risks involved, and build a shared understanding and collective ownership for the processes involved in reopening schools.

In this regard, the data show considerable variation across countries. In the countries examined here, the groups more likely to be involved in the process of reopening the schools include the ministries of education, health, civil protection, local authorities and principals and principal associations (Table 14). Over 80% of the respondents also indicated that teacher unions are involved, although this percentage was just 34% amongst the responding educators (see section II). Over 60% of the government representatives and administrators indicated the parents are involved in the process of reopening schools, 52% that communities are involved, (though just 36% amongst educators) and 45% that students are involved.

In most cases (72%) the reopening plans cover all education institutions, but in 40% of the cases the plans will refer only to certain levels of education (Table 15). Only 15% of the plans will focus on specific geographic regions.

The strategies to reopen schools vary. In most cases, schools will reopen on different dates depending on the level of education (69%) or grade (59%). In about a third of the cases (35%), schools will reopen on different dates based on their location. One in three respondents reported that all schools will be open on the same date (Table 15).

Related to securing ownership and support for the reopening of schools from parents and students, but also related to how equitable access will be, is the question of whether attendance should be mandatory or not. On average across countries, attendance will not be mandatory in 30% of the cases; in 62% of the

Table 15 • What are the schools covered by the reopening plans?

Statement	Yes (%)	Don't know (%)	No (%)	No answer (%)
a. All educational institutions (from pre-primary to secondary levels)	72	0.5	25	2.5
b. Educational institutions covering some levels of education only (please specify)	40	6.5	18	35.5
c. Educational institutions in some geographical areas only (please specify)	14.5	7	38	40.5

Table 16 • When do schools plan to reopen?

Statement	Yes, definitely (%)	Don't know (%)	No (%)	No answer (%)
a. All schools will re-open on the same date	30	3.5	56	10.5
b. Schools will re-open on different dates based on the levels of education they cover	69	1.5	26	3.5
c. Schools will re-open on different dates based on their geographical location	35	8.5	43	13.5
d. Schools will re-open on different schedules based on the grade	58.5	6.5	21	14

cases it will be mandatory except for students with family members who are sick. In less than 1% of the cases will attendance be mandatory.

The strategies for school reopening also comprise a wide range of approaches, amongst which the most frequent include a progressive return of students by age cohorts (75%) and school attendance scheduled in shifts (70%) (Table 17). These figures indicate that more innovative learning environments that are project-based, interactive or that require co-creation or other forms of dynamic and close interaction will in most cases not be part of the initial phase where social distancing is imperative. At the same time, 57% of respondents indicate a hybrid model of in-person and distance learning to facilitate social distancing, which could entail new forms of interactive and collaborative learning. Some 16% of respondents reported that student and teacher returns would be contingent upon results of antibody testing. Only one in five respondents reported a return to normal scheduling and school attendance.

In most countries national and state governments have issued guidelines elaborating the conditions for school reopening. For instance, in France, classes will reopen under strict sanitary conditions, with no more than 15 students per class. School life will be organised to respect physical distancing rules with strict hygiene measures and the distribution of hydro alcoholic gels. All teachers and school supervisors will receive masks that they must wear when they cannot respect distancing. In Iceland, the norms involve a distance of 2 meters between students and a maximum of 50 students in the same area.

In Germany, the federal states have agreed that schools will gradually reopen from the end of April/beginning of May. However, this will initially only apply to graduating and transition classes of the various education courses/levels. Strict safety measures will apply to those groups, e.g. a limited number of students per classroom, a supply of disinfectant. The ongoing schooling of those students who do not fall into the above categories is subject of a framework for the gradual reopening of schools approved on May 6 by Chancellor Merkel and the Prime Ministers of the federal states. The framework provides that students will be able to visit the school on a daily or weekly basis before summer holidays start. In addition, particular attention will be paid to students with special needs.

Assessment and remediation

It is encouraging that plans for school reopening generally include arrangements to assess and remediate learning gaps for all students, for disadvantaged students, for students who were unable to access e-learning during the confinement period, for students at risk of dropping out or repeating a grade and for students transitioning from one level to the next. Some 89% of government respondents and administrators reported that their plans would include remedial measures to reduce students' learning gaps (Table 18), although that percentage was only

Table 17 • What strategies will be used for school reopening?

Statement	Yes, definitely (%)	Don't know (%)	No (%)	No answer (%)
a. Return to normal scheduling and student attendance, as was practiced before the pandemic	22.5	11.5	45.5	20.5
b. Progressive return of students (e.g. by age cohorts)	75	1	20.5	3.5
c. Classroom-based teaching and learning with school attendance scheduled in shifts to reduce student numbers in schools and facilitate social distancing	69.5	9.5	7.5	13.5
d. Hybrid model of distance- and classroom-based teaching and learning to reduce student numbers in schools and facilitate social distancing	56.5	12.5	22.5	8.5
e. Classroom teaching conducted in schools' outdoor spaces	16	20	42.5	21.5
f. Student and teacher returns contingent upon results of antibody testing	16.5	15	50	18.5
g. None	0.5	2	30.5	67
h. Other	13.5	2	15.5	69

66% amongst educators (see Section II). Some 78% reported that remedial measures would have a special focus on disadvantaged students and 81% will focus on students who were unable to access e-learning. Slightly more than half (55%) anticipated placing a specific focus on students transitioning from school into the labour market. Some 70% indicated a focus on student with special education needs, 62% on students with an immigrant background and 49% on students from ethnic minority or indigenous students. However, amongst educators, only around 17% reported a special focus on the latter two groups (see section II).

Supporting the well-being of students

Plans for school reopening also include provisions to address the well-being of students, particularly with counseling, supporting students in psychological distress, those who have been victims of violence at home and students from socio-economically disadvantaged backgrounds (Table 19). At the same time, only 14% indicated that there would be hiring of additional school doctors, nurses, psychologists or specialised teachers, and amongst educators that percentage was just 10%.

Table 18 • Do plans for school reopening include arrangements to assess and remediate learning gaps?

Statement	Yes, definitely (%)	Don't know (%)	No (%)	No answer (%)
a. Assessment of any gaps in student learning that may have accumulated during confinement period	78.5	6	15	0.5
b. Remedial measures to reduce students' learning gaps (in general)	88.5	6	5	0.5
c. Remedial measures with a special focus on disadvantaged students	78	11.5	10	0.5
d. Remedial measures with a special focus on students who were unable to access e-learning	80.5	8.5	10	1
e. Remedial measures with a special focus on students at risk of drop-out	71	6	17.5	5.5
f. Remedial measures with a special focus on students at risk of grade repetition	74.5	9.5	10	6
g. Remedial measures with a special focus on students who had dropped out of school before the crisis	47.5	27	15	10.5
h. Remedial measures with a special focus on students with special education needs	69.5	20	10	0.5
i. Remedial measures with a special focus on immigrant and refugee students	61.5	14.5	18	6
j. Remedial measures with a special focus on ethnic minority or indigenous students	49	22.5	22.5	6
k. Remedial measures with a special focus on students in programmes with a vocational orientation (where a large part of the programme consists of practical or work-based components that cannot be compensated for through online learning)	69.5	19.5	5	6
l. Remedial measures with a special focus on all students transitioning from one level of education to the next (e.g. from pre-primary to primary education, from primary to lower secondary, from lower secondary to upper secondary, from upper secondary to tertiary)	82	9.5	2.5	6
m. Students transitioning from school into the labour market	54.5	22	18	5.5
n. Other measures to address learning gaps (please specify)	26	11.5	11	51.5

Table 19 • Plans to reopen to address well-being of students

Statement	Yes, definitely (%)	Don't know (%)	No (%)	No answer (%)
a. Assessment of students' mental health (efforts to identify students that may be experiencing particularly challenging circumstances)	55	24	20.5	0.5
b. Counselling for students	75.5	9	15	0.5
c. Hiring additional school doctors, nurses, psychologists, specialised teachers	13.5	32	38.5	16
d. Special support measures for students from socio-economically disadvantaged backgrounds	78	9	12.5	0.5
e. Special support measures for students who may be victims of violence at home	73	4	12.5	10.5
f. Special support measures for students in psychological distress	67.5	13.5	18	1
g. Other support measures (please specify)	11	7	1	81

Adjustments of the curriculum

While 47% of the respondents indicated that there are plans to adjust the curriculum, it is noteworthy that 26% do not have such plans, and a further 23% do not yet know whether they will adjust the curriculum or not. This is an area in need of urgent attention, given the magnitude of the learning gap reported in the first section, and the limitations foreseen with the reopening of schools reported in the last section of this report.

Some 67% of the respondents expected that teachers will need to teach differently after the return to classes, and an additional 20% reported they don't know yet.

Over half (52%) of the respondents indicated that the reopening plans include adjustments to the scheduling and school calendar, with only 38% indicating that they will not include such adjustments.

A third (31%) of the respondents is considering extending the current school year or adjusting the schedule of the next school year. However, 59% are not considering such adjustments, which risks making permanent the learning gaps identified above.

Over half (56%) of the respondents are planning time to recover learning loss during the evenings, weekends or summer; only 18% have not considered such extensions in learning time.

Half of the respondents indicated that the plans include adjustments to the graduation criteria; only 34% said that they will not include such adjustments. However, 72% of the respondents indicated that the reopening plans do not include adjustments to the entry criteria for the next year; only 21% said that they will include such adjustments. Just 23% reported the hiring of additional teachers or teaching assistants.

Preparation of teachers and school leaders

The reopening plans generally include training and counseling for teachers and for school leaders, but 20% of respondents said there would not be training for teachers before and/or after the reopening of schools and 15% reported that there would be no such training for school leaders (Table 20).

Health and safety measures

The reopening plans include the following activities to promote health: review of health and develop new hygiene standards to promote health, communicate new protocols to students and parents, deep clean school facilities, sanitary facilities and transportation (Table 21).

The reopening plans will include training on basic health and hygiene protocols, including physical distancing norms, mandatory use of masks and antiseptic gel, for students, teachers, and staff (Table 22).

For those students who become Covid-19 positive, the reopening plans contemplate requiring that those students self-quarantine; in about half of the cases they will require that staff and students are tested. Only in

Table 20 • Which of these measures are part of the reopening plans?

Statement	Yes, definitely (%)	Don't know (%)	No (%)	No answer (%)
a. Counseling for teachers	68	16.5	10	5.5
b. Hiring of additional teachers or teaching assistants	22.5	35	28.5	14
c. Training for teachers before and/or after re-opening of schools	63	9	20	8
d. Training for school leaders before and/or after re-opening of schools	59.5	17	15	8.5
e. Support from technology experts or companies	41.5	31.5	21	6
f. Other support measures (please specify)	8	1.5	6	84.5

Table 21 • Health measures included in the reopening plans

Statement	Extremely likely (%)	Somewhat likely (%)	Neither likely nor unlikely (%)	Somewhat unlikely (%)	Extremely unlikely (%)	No answer (%)
a. Assessment of students' physical health (presence of COVID 19-like symptoms, infection history of students and family members during the confinement period, etc.)	24.5	22	20.5	10	12.5	10.5
b. Development/review of standards and procedures for school hygiene prior to taking concrete steps	91	5.5	0.5	0	2.5	0.5
c. Disinfection/deep cleaning of school facilities	81	10.5	0.5	0	2.5	5.5
d. Disinfection/deep cleaning only of sanitation facilities	76	3	0.5	7.5	7.5	5.5
e. Disinfection/deep cleaning of public transportation used by students to reach the school premises	60	13.5	6	7.5	2.5	10.5
f. Procurement of (additional) soap dispensers	65	21.5	10.5	0	2.5	0.5
g. Procurement of automatic soap dispensers (so that students do not touch any surfaces)	37	21	13.5	12.5	5.5	10.5
h. Procurement of masks for students and teachers in school	34	29	9	20	7.5	0.5
i. Procurement of gloves for students and teachers in school	9	26.5	23	23	12.5	6
j. Procurement of antiseptic gel dispensers to be placed outside/inside each classroom	43	41	10.5	2.5	2.5	0.5
k. Procurement of antiseptic wipes to be distributed to all students and teachers	21.5	36.5	30.5	8.5	2.5	0.5
l. Communication about school organisation to parents and students	87	6.5	3	0	2.5	1
m. Other (please specify)	10.5	1	1	0	3.5	84

Table 22 • Health measures included in the reopening plans

Statement	Extremely likely (%)	Somewhat likely (%)	Neither likely nor unlikely (%)	Somewhat unlikely (%)	Extremely unlikely (%)	No answer (%)
a. Mandatory use of gloves for all students, teachers and school staff	6.5	17	15.5	20.5	40	0.5
b. Mandatory use of masks for all students, teachers and school staff	42	24.5	0.5	5	27.5	0.5
c. Mandatory use of antiseptic gel by students, teachers and school staff before entering a classroom or the canteen	46	38	8	0	2.5	5.5
d. Mandatory use of antiseptic wipes for students and teachers to clean their desks every day	21.5	34	28	6	5	5.5
e. Mandatory application of social distancing protocols	80.5	11	0.5	0	7.5	0.5
f. Closure of all common areas in school (e.g. canteen, gym, library)	23.5	30	23.5	17.5	0	5.5
g. Installation of additional open-air handwashing facilities outside the school building	11	29.5	28.5	3	17.5	10.5
h. Training students, teachers and staff on basic hygiene and barrier gestures	78	13.5	0.5	0	7.5	0.5
i. Other (please specify)	5.5	0.5	0.5	0.5	11	82

Table 23 • Security measures in the reopening plans

Statement	Yes (%)	No (%)	No answer (%)
a. The school will be closed	13	50.5	36.5
b. The classroom will be closed	35.5	25	39.5
c. The affected students or teachers will be required to quarantine	81	0.5	18.5
d. All students and staff will be tested	51	15.5	33.5
e. None	0.5	27	72.5
f. Other (please specify)	20	7	73

a few instances will the school (13%) or the classroom (36%) be closed (Table 23).

Lessons learned

The reopening plans contemplate making time to analyse the lessons learned during the lockdown, identify effective mitigation strategies for future closures, learn from the experience of other countries, update emergency planning for large-scale closures and adopt protocols to address cases of infection in the school community (Table 24).

The reopening plans also envisage procuring devices for students and teachers to support e-learning in the future, investing in the creation of effective e-learning platforms and providing professional development to teachers for effective e-learning instruction (Table 25).

Table 24 • Learning provisions in reopening plans

Statement	Yes (%)	No (%)	No answer (%)
a. Analyse the lessons learned during lockdown within the country	84	0.5	15.5
b. Identify effective mitigation measures for future school closures	79	0.5	20.5
c. Undertake research into what other countries have done and engage in international peer learning	82.5	1	16.5
d. Update existing emergency planning for school facilities to account for large-scale school closures	88.5	1	10.5
e. Consider re-purposing school buildings for use as temporary quarantine facilities or hospitals	9.5	66.5	24
f. Adopt protocols for schools to follow in the event that a new case of infected student, teacher, school staff or parent is reported	89	0.5	10.5
g. Designate a space in the school as an isolation room	29	42	29
h. Other (please specify)	10.5	7	82.5

Table 25 • E-learning readiness in reopening plans

Statement	Yes (%)	No (%)	No answer (%)
a. Procure devices and equipment for students and teachers to facilitate e-learning	68	16.5	15.5
b. Invest in updating or creating effective e-learning platforms and content	79	15.5	5.5
c. Deliver targeted training for teachers on effective e-learning and assessment	84	10.5	5.5
d. Ensure that all teachers and students are equipped with suitable devices for e-learning	72.5	16.5	11
e. Secure Internet connectivity for all teachers and students (e.g. through partnerships with internet providers to secure lower rates for students and teachers)	80.5	14	5.5
f. Develop alternative modes of instruction for students without Internet connectivity (e.g. radio, TV, instant messaging and other tools)	68.5	20.5	11
g. Other (please specify)	16.5	2	81.5

Section II. The views of teachers, school principals and senior administrators in schools

This section of the report examines the responses provided by teachers and school administrators. Table B1 in the Appendix presents the total number of responses received per country and the specific roles of the respondents. A total of 993 surveys were received for teachers and school administrators from 28 countries. Because the number of respondents across countries varied significantly, the data were weighted by a factor equal to one over the number of respondents per country in order to give each country the same weight in the analysis. Table 26 describes the characteristics of the sample of respondents to the survey analysed in this report.

The analysis that follows replicates the preceding analysis for senior government officials and administrators. The results are broadly consistent with those reported in the previous section, with a few exceptions. Those exceptions include how arrangements were made to develop the strategy of education continuity. Senior officials were more likely to report that the arrangements for education continuity involved government AND schools than teachers and school administrators. Amongst senior officials, 52% selected this option as the top approach used, compared to 30% of teachers. Conversely, teachers and school administrators were more likely to report that schools made their own arrangements for continuity as their top and second choice, without involvement from government.

Senior officials were also more likely to report that educational television was used to provide education continuity (78%) than teachers and school administrators (50%).

Teachers and school administrators believe that a greater percentage of students accessed most or all of the curriculum during the period of education at home than senior officials. Whereas teachers and school administrators estimated that 68% of the students, on average, accessed most or all of the curriculum, senior officials estimated that figure at 43%, on average.

There were also differences between both groups in their estimates of whether it is possible to determine the effectiveness of the delivery of education while students were not in schools. Whereas half of the senior officials believe it is not possible to assess how effective education delivery was, only 18% of the teachers or school heads share this belief.

The groups also differed in their assessment of how much students learned while at home, with teachers more likely to estimate that students learned less than they would have in school, a view shared by 51% of the teachers and school administrators, compared to 39% of senior officials.

There were also differences in the estimates of the extent to which teachers were able to participate in peer networks across schools for professional

Table 26 • Characteristics of respondents to the survey

Primary role	(%)
a. A public school teacher	27.57
b. A public school principal or member of the leadership team	14.07
c. A private school teacher	9.68
d. A private school principal or member of the leadership team	48.68
Type of school	**(%)**
a. Schools under the direct authority of a national ministry of education	20.56
b. Schools under the direct authority of a department or state ministry of education	14.28
c. Schools under the authority of a municipal government or local education authority	2.96
d. A public network of public schools (such as charter schools)	3.25
e. A network of independent schools (private or religious)	50.12
f. Other, specify	8.75
No answer	0.07

development during the period of education continuity. Whereas 80% of the senior administrators reported that teachers participated in such networks, only 50% of the teachers and school heads reported the same. There are similar differences in the estimate of whether teachers could access tools that enabled them to share knowledge with other teachers in the same country: 80% of the senior officials believed such tools were made available to teachers, a view shared only by 64% of teachers and school administrators.

A greater percentage of senior administrators than teachers and school administrators believe that there are plans to reopen and have specific knowledge of such plans. Whereas 38% of the senior administrators reported that there is a specific date for reopening, only 17% of the teachers knew this. Almost half of senior officials (48%) indicated that they have specific knowledge of the plans to reopen, compared to only 22% of teachers.

For those with knowledge of plans to reopen, senior officials were more knowledgeable about a number of areas than teachers and school administrators. For instance, while 80% of senior officials believe that teacher unions will be involved in plans to reopen, only 40% of the teachers believe the same. More senior officials were knowledgeable about the plans for reopening than teachers and school heads.

There are also important differences in knowledge about plans to address learning gaps and the curriculum, in knowledge about plans to adjust graduation and grade-transition criteria and in knowledge about plans to support teachers with professional development. Proportionately more teachers and school administrators reported a lack of knowledge than senior officials.

We also conducted the same analysis reported in this section of the report, for teachers and school administrators, separately for public and private schools. For the most part there are no differences in the responses provided by both groups, with a few exceptions. Teachers and administrators in public schools were more likely than their peers in private schools to indicate that planning the strategy for education continuity involved schools. Conversely, teachers and administrators in private schools were more likely to report that schools made their own arrangements for education continuity without government involvement. Proportionately more teachers and school administrators in private schools than in public schools did not respond whether their plans for reopening include adjustments to scheduling and the school calendar.

Instructional time lost

Respondents were asked to estimate the number of instructional days, excluding weekends and holidays, on which students had not been able to attend school, for each level of education, and also to estimate the additional number of days that they were expected to remain at home. Table 27 presents the averages of those estimates across countries. According to teachers, students have spent about 21-28 instructional days at home, on average, and were expected to remain an additional 10-12 instructional days outside school, depending on the level of education, for a total of about 30-50 instructional days that they would have been unable to learn in school. The statistics for each level and country are presented in Appendix B2.

Table 27 • Number of instructional days students could not attend school because of school closure

Level	Median	Mean	Std. Dev.
Number of instructional days already spent at home			
Primary school	21.04	19.5	13.2
Lower secondary school	22.41	21.93	12.27
Upper secondary school	28.16	53.53	142.04
Estimated number of additional instructional days to be spent at home			
Primary school	10.04	18.1	22.23
Lower secondary school	14.5	18.86	19.14
Upper secondary school	21.32	59.41	135.85
Total number of instructional days to be spent at home			
Primary school	32.67	38.25	31.93
Lower secondary school	33.44	40.83	27.17
Upper secondary school	50.86	112.97	200.57

Alternative learning opportunities during school closures

Responsibilities for alternative learning opportunities

How did students learn what was intended in the school curriculum while they could not attend school? Respondents were asked to indicate the principal means used to provide education continuity during the period of physical distancing. The responses indicate that governments played an important role making arrangements for education continuity. The modality most frequently mentioned as the main form of education continuity included schools making their own arrangements without governmental support (51%) followed by the government making alternative education arrangements that involved the schools (30%). Table 28 presents the various options ranked as first, second, third, fourth and fifth modality.

Delivery of alternative learning opportunities

Respondents were also asked to estimate the percentage of students who were able to access the curriculum, during the most recent week when it was not possible to attend school, through various means of education continuity. The most frequently mentioned options involve the participation of teachers. About 67%% indicated that students were accessing the curriculum directly from their teachers, and 53% indicated that they were doing so from teachers plus other means (Table 28a).

Table 28 • During the period when students could not attend school, how were they taught the school curriculum?

Methodology	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5	No rank
a. The government (any level) made alternative education arrangements that involved the schools	29.68	34.5	17.21	12.5	1.29	4.82
b. The government (any level) made alternative education arrangements that did not involve schools (educational television, radio).	12.43	32.25	40.75	8.64	1.11	4.82
c. Schools made their own alternative education arrangements, without government	51.04	16.18	22.29	1.96	3.71	4.82
d. Parents made their own arrangements, without support from schools	1.93	11.82	8.93	67.08	5.43	4.82
e. There were no alternative arrangements made	0.11	0.43	6	4.96	83.68	4.82

Table 28a • Estimates of the percentage of students who were able to access the school curriculum, through various means, during the time when unable to meet

Level of support	Median	Mean	Std. Deviation
Support from teachers	66.67	60.46	38.04
Support through other means	0.00	15.78	23.14
Support from teachers and other means	53.52	52.45	41.83
No support	0.00	5.18	10.94

Instructional resources used

Respondents were asked to estimate the percentage of students who accessed the curriculum, during the most recent week when it was not possible to attend school, through various means of education continuity. The most frequently mentioned options involve teachers. About 87%% indicated that students were accessing the curriculum directly from their teachers, and 50% indicated that they were doing so from teachers plus other means (Table 29).

A range of instructional resources have been used to provide education continuity. The most common are online instruction delivered by the students' regular teachers, existing online instructional resources, and

instructional packages with printed resources and educational television (Table 30).

Equity in access

In spite of the variety of resources used to provide education continuity, a significant percentage of students was unable to access the curriculum during the period when they could not attend school. Respondents estimated that only about 75% of students were able to access all or most of the curriculum, and an additional 30% indicated that they accessed a good amount but not all (Table 31). Appendix B3 presents these estimates per country.

In general, the education continuity strategy is viewed positively by respondents. Most reported it was well planned and executed, 18% saw it as chaotic, and almost 48% reported there was a lot of improvisation. Some 14% reported that co-ordination was lacking (Table 32). About 23% saw the strategy as designed in a top down fashion by the government. At the same time, about 70% reported the strategy was designed in a collaborative fashion, including teachers, and about 28% reported the collaboration also included parents, and 20% reported it also included the community. Some reported that there were conflicts with teachers (21%), parents (25%) or between the government and schools (18%). Over 62% reported communications were well managed and 82% reported that everybody did all they could to help.

When asked to estimate how effective the strategy of education continuity was, compared to what students normally learn in schools, 18% of the respondents indicated that it was not possible to know, 12% indicated that students learned what they would have

Table 29 • Estimates of the percentage of students who were able to access the school curriculum, through various means, during the time when unable to meet

Level of support	Median	Mean	Std. Deviation
Support from teachers	86.5	77.71	25.95
Support through other means	19	22.49	24.12
Support from teachers and other means	50.12	51.3	45.49
No support	2.92	8.8	13.43

Table 30 • What resources were used to provide education continuity?

Statement	Yes (%)	No (%)	No answer (%)
e. Online instruction delivered by the same teachers of the students learning	93.32	1.11	5.57
d. Existing online instructional resources	92.21	1	6.79
a. Instructional packages (textbooks, worksheets, printouts)	79.43	10.07	10.5
c. Educational television	49.3	29.99	20.71
b. Radio education	26.68	49.04	24.29
f. Online instruction provided by private tutors	25.68	41.29	33.04
g. Other modalities	20.06	30.56	49.38

Table 31 • Estimates of the percentage of students who were able to access all or most of the curriculum through the various approaches of education continuity available

Level of Support	Median	Mean	Std. Deviation
All or most of the curriculum	75	68.25	29.48
A good amount	30	30.95	25.79
Some, but not much	1.79	8.69	19.37
Very little or none	0.79	6.72	16.77

Table 32 • Evaluation of the strategy for education continuity

Statement	Completely agree (%)	Agree (%)	Not sure (%)	Disagree (%)	Completely disagree (%)	No answer (%)
It was well planned	16.22	56.81	11.93	12.08	0.32	2.63
It was well executed	7.62	60.49	15.87	2.72	1.97	11.33
It was fairly chaotic	0.75	16.77	22.81	43.55	5.22	10.9
There was a lot of improvisation	2.18	45.69	22.19	13.11	3.07	13.75
There was no co-ordination	1.11	12.61	9.63	41.4	22.99	12.25
It was designed in a top-down fashion by the government	3.61	18.94	13.11	22.15	28.62	13.58
It was designed in a top-down fashion by local education authorities	2.36	10.58	12.08	30.2	29.63	15.15
It was designed in a top-down fashion by school principals	7.54	28.88	6.43	28.48	14.37	14.3
It was designed in a collaborative manner including teachers	21.18	48.76	7.92	11.97	0.68	9.49
It was designed at the discretion of the teacher, in isolation	2.72	16.55	19.13	37.54	13.59	10.48
It was designed in a collaborative manner including parents	7.25	21.27	15.03	31.46	15.82	9.18
It was designed in a collaborative manner including the community	2	18.57	15.79	37.57	17.46	8.61
There was strong collaboration between public and private sectors	7	10.07	15.36	26.04	27.11	14.43
There were conflicts between schools and the government	2.53	19.09	19.67	28.96	18.84	10.92
There were conflicts with parents	2.32	22.75	13.21	47.04	5.21	9.46
There were conflicts with teachers	0.29	17.45	9.08	52.13	11.58	9.47
Communications were well managed	18.73	43.03	17.08	11.22	0.29	9.65
Everybody did all they could to help	46.23	35.32	7.29	1.61	0.14	9.4

Table 33 • Compared to what students normally learn in school, how effective was the strategy of education continuity in helping them learn?

Statement	Weighted %
It is not possible to assess how effective it was	18.11
No answer	2
They did not learn very much	0.18
They learned about what they would have learned if they had attended school	11.71
They learned some, but not very much	16.89
They learned, but less than they would have in school	51.11

learned in school, 17% reported students did not learn very much and 51% indicated that students learned, but less than they would have normally learned in school (Table 33).

Respondents are split with respect to whether the focus of the curriculum during the strategy for education continuity was similar to or different from what normally happens in school (Table 34). About 30% indicated

Table 34 • Compared to what is normally the focus in schools, what was the focus of the curriculum during the strategy of education continuity?

Statement	Weighted %
No answer	2.11
The focus and amount of teaching was similar to what happens in school	30.29
The focus was on fewer subjects than is normally the case in school	46.64
The focus was on keeping students engaged but there was not much focus on academic learning	20.96

Table 35 • To what extent where the following areas sufficiently addressed by the strategy of education continuity?

Statement	Not at all (%)	Very little (%)	Not sure (%)	To some extent (%)	To a great extent(%)	No answer (%)
Ensure the continuity of the academic learning of students	0.93	7.82	2.68	20.08	65.99	2.5
Provide professional support, advice to teachers	9.11	6.93	3.18	33.39	39.71	7.68
Ensure well-being of students	0.75	12.03	5.07	38.02	36.63	7.5
Support education of disadvantaged students	8.57	12.29	17.89	21.36	31.14	8.75
Address emotional needs of students	4.89	10.43	7.54	40.69	29.62	6.82
Ensure well-being of teachers	1.18	17.1	3.61	41.2	29.2	7.71
Ensure that career guidance was maintained	6.5	14.49	10.67	28.92	28.13	11.28
Ensure social development of students	1.14	14.93	8.82	43.43	27	4.68
Support education of students with special needs	5.36	12.53	10.57	37.09	26.78	7.68
Ensure continuity/integrity of the assessment of student learning	4.46	15.67	5.75	43.09	24.71	6.32
Revise graduation/grade transition policy to allow student progress	6.68	13.25	17.03	30.7	24.63	7.71
Ensure support for parents and caregivers to support student learning	5.21	9.86	13.18	42.21	22.21	7.32
Ensure medical attention to teachers affected by Covid-19	15.35	10.6	17.21	20.28	19.14	17.42
Ensure medical attention of students affected by Covid-19	24.17	16.53	17.53	9.96	16.78	15.03
Ensure physical education of students	5.93	15.99	11.82	44.91	13.64	7.71
Ensure distribution of food to students	38.14	13.86	8.39	10.61	12.89	16.11
Support students at risk of violence at home	14.39	9.53	34.84	18.49	12	10.75
Ensure provision of other social services to students	26.14	15.61	13.04	17.36	11.5	16.36
Ensure student collaboration and team work	5.36	16.99	16.28	44.38	11.21	5.78
Support students whose parents have limited command of the language of instruction	13.25	10.79	28.44	26.22	10.43	10.86
Other, specify	9.18	4	10.42	5.18	2.07	69.15

that it was similar, and 47% indicated that the focus was on fewer subjects than is normally the case, while 21% indicated that the focus was on keeping students engaged but not on academic learning.

When asked whether the following areas were sufficiently addressed by the strategy of education continuity, the most frequent response focused on academic learning: ensuring the continuity of academic learning (66%), followed by providing support to teachers (40%), ensuring the well-being of students (37%), providing support for disadvantaged students (31%), addressing the emotional needs of students (30%), and ensuring the well-being of teachers (29%) (Table 35). Fewer teachers reported that the strategy ensured support to parents to assist their students, ensured continuity and integrity of academic learning, revised graduation and transition policies, provided food to students, provided social services to students or supported students with special needs.

Support for teachers

To implement the strategy of education continuity, teachers were supported in various ways, particularly providing them access to resources, timely guidance from leadership and participation in peer networks within the school. One in five respondents indicated that teachers were not offered professional development during this period (Table 36).

A variety of resources were used to support teacher professional development, as shown in Table 37, mostly existing online learning platforms, new online platforms and tools that enable teachers to communicate with other teachers.

Table 36 • Professional development to support teachers during education continuity

Statement	Yes (%)	No (%)	No answer (%)
Providing them with access to resources (printed, online, etc.)	88.64	8.57	2.79
Just-in-time guidance from leadership as needed	81.6	10.9	7.5
Participation in peer networks within the school	86.71	8.96	4.32
Participation in peer networks across schools	49.64	41.04	9.32
Providing them funds to take courses	26.39	61.64	11.96
Teachers were not offered professional development during the pandemic	21.43	64.57	14

Table 37 • What resources were used to provide professional development for teachers?

Statement	Yes (%)	No (%)	No answer (%)
Existing online distance learning platform	88.6	4.97	6.43
New online platforms (virtual classrooms) so that teachers can access professional development and engage in self-directed or collaborative learning with peers	86.43	7.71	5.86
Tools that enable teachers to share knowledge with other teachers in the same country	64.04	22.11	13.86
Instructional packages, printouts, texts	60.29	25.25	14.46
Tools that enable teachers to collaborate with peers in other countries	39.57	43.36	17.07
Educational television	36.82	45.75	17.43
Radio education	29.43	54.79	15.79
Other modalities, please describe	4.93	12.18	82.89

Reopening of schools

When asked if they knew whether there were plans to reopen schools this academic year, 17% indicated that there were definite plans to reopen, an additional 30% indicated that there were plans to reopen schools, but no definite date had been set yet (Table 38).

Strategies for reopening schools

For the respondents who had definite knowledge of the plans to reopen schools, which represented 23% of the respondents from 13 countries, we analysed what those plans were (Table 39). This group includes the following countries:

In those countries, the groups more likely to be involved in the process of reopening the schools include the ministries of education and health, local authorities, principals and principals' associations and parents. In most cases (73%) the process of school reopening will be decided at the national level; only in 27% of the cases will the process of school reopening be decided locally (Table 40).

In most cases (70%), the reopening plans cover all educational institutions, but in 27% of the cases the plans will refer only to some levels of education. Only in 6% of cases will the plans focus on specific geographic regions (Table 41).

There is variation with respect to the strategy to reopen schools: in some cases schools will reopen on the same date (45%), in others they will open on different dates, depending on the level of education (37%) or grade (40%). In 14% of the cases, schools will reopen on different dates based on their location (Table 42).

Table 38 • Are there plans to reopen schools this academic year?

Statement	Weighted %
1. Yes, there is a definite date, if so specify month/day	17.36
2. There are plans to reopen, but there is no definite date	30.46
3. There is no clarity as to whether schools will reopen	22.29
4. Schools will not reopen this academic year	21.43
5. I don't know	5.43
No answer	3.04

Table 39 • Countries whose plans to reopen schools are known

Country	Number of respondents
Brazil	1
Canada	1
Chile	1
Croatia	17
Dominican Republic	7
France	1
Jamaica	1
Jordan	1
Kazakhstan	2
Madagascar	1
Mexico	92
Peru	11
Portugal	1

Table 40 • What groups are likely to be involved in the process of reopening schools?

Statement	To a great extent (%)	Don't know (%)	Not much/ not at all (%)	No answer (%)
a. Ministry of Education	98.62	1.23	0.08	0.08
b. Ministry of Health	87.68	12.09	0.15	0.08
c. Civil protection	24.75	41.66	16.22	17.37
d. Local authorities	65.38	22	10.31	2.31
e. Police	13.76	49.5	26.13	10.61
f. Students	53.89	14.7	28.64	2.77
g. Teachers' unions	34.18	12.24	42.88	10.7
h. Principals or principal associations	64.59	12.93	20.17	2.31
i. Parents	64.18	14.07	19.37	2.38
j. Local community	36.15	33.92	27.85	2.08
k. NGOs	23.49	26.35	45.75	4.4
l. International organisations	23.17	30.48	42.03	4.31
m. Private partners	15.23	19.69	45	20.08
n. Other (please specify)	4.77	16.76	16.45	62.03

Table 41 • What are the schools covered by the reopening plans?

Statement	Yes (%)	Don't know (%)	No (%)	No answer (%)
a. All educational institutions (from pre-primary to secondary levels)	70	14.31	12.62	3.08
b. Educational institutions covering some levels of education only (please specify)	27.48	22.32	3.23	46.96
c. Educational institutions in some geographical areas only (please specify)	6.23	22.21	14.45	57.11

Table 42 • When do schools plan to reopen?

Statement	Yes, definitely (%)	Don't know (%)	No (%)	No answer (%)
a. All schools will re-open on the same date	45	25.92	13.08	16
b. Schools will re-open on different dates based on the levels of education they cover	36.62	31.31	9.85	22.23
c. Schools will re-open on different dates based on their geographical location	13.91	38.05	10.45	37.59
d. Schools will re-open on different schedules based on the grade	40.2	21.91	6.38	31.51

Once schools reopen, attendance will not be mandatory in 23% of the cases; in 43% of the cases it will be mandatory except for students with family members who are sick. In one in three cases, (34%) attendance will be mandatory (Table 43).

The strategies for school reopening also comprise a wide range of approaches, amongst which the most frequently cited include classroom-based teaching with attendance in shifts (63%), a progressive return of students (51%), and a hybrid model of in-person and distance learning to facilitate social distancing (44%). Only one in three (29%) respondents reported a return to normal scheduling and school attendance (Table 43).

Table 43 • What strategies will be used for school reopening?

Statement	Yes, definitely (%)	Don't know (%)	No (%)	No answer (%)
a. Return to normal scheduling and student attendance, as was practiced before the pandemic	29.15	5.23	41.31	24.31
b. Progressive return of students (e.g. by age cohorts)	50.81	33.72	11.62	3.85
c. Classroom-based teaching and learning with school attendance scheduled in shifts to reduce student numbers in schools and facilitate social distancing	63.15	21.92	3.62	11.31
d. Hybrid model of distance- and classroom-based teaching and learning to reduce student numbers in schools and facilitate social distancing	43.92	32.31	18.15	5.62
e. Classroom teaching conducted in schools' outdoor spaces	16.94	33.95	28.41	20.71
f. Student and teacher returns contingent upon results of antibody testing	23.52	27.29	28.21	20.98
g. None	1.69	18.15	14.62	65.54
h. Other	0.92	18.69	5.62	74.77

Table 44 • Do plans for school reopening include arrangements to assess and remediate learning gaps?

Statement	Yes, definitely (%)	Don't know (%)	No (%)	No answer (%)
a. Assessment of any gaps in student learning that may have accumulated during confinement period	76.92	11.77	9.69	1.62
b. Remedial measures to reduce students' learning gaps (in general)	65.69	21.38	9.69	3.23
c. Remedial measures with a special focus on disadvantaged students	60.03	19.45	16.14	4.38
d. Remedial measures with a special focus on students who were unable to access e-learning	60.57	13.14	21.91	4.38
e. Remedial measures with a special focus on students at risk of drop-out	55.69	25.31	14.08	4.92
f. Remedial measures with a special focus on students at risk of grade repetition	57	16.54	21.38	5.08
g. Remedial measures with a special focus on students who had dropped out of school before the crisis	44.08	15.69	35.15	5.08
h. Remedial measures with a special focus on students with special education needs	48.92	21.69	24.69	4.69
i. Remedial measures with a special focus on immigrant and refugee students	17.31	43.31	34.08	5.31
j. Remedial measures with a special focus on ethnic minority or indigenous students	17.54	42.15	34	6.31
k. Remedial measures with a special focus on students in programmes with a vocational orientation (where a large part of the programme consists of practical or work-based components which cannot be compensated through online learning)	22.62	34.92	37.23	5.23
l. Remedial measures with a special focus on all students transitioning from one level of education to the next (e.g. from pre-primary to primary education, from primary to lower secondary, from lower secondary to upper secondary, from upper secondary to tertiary)	51.89	29.72	13.16	5.23
m. Students transitioning from school into the labour market	21.94	41.88	14.24	21.94
n. Other measures to address learning gaps (please specify)	22.29	26.13	9.76	41.81

Most teachers do not know the national and state government-issued guidelines elaborating the conditions for school reopening.

Assessment and remediation

Plans for school reopening include arrangements to assess and remediate learning gaps for all students, for disadvantaged students, for students who were unable to access e-learning during the confinement period, for students at risk of dropping out or repeating a grade, and for students transitioning from one level to the next (Table 44).

Supporting the well-being of students

Plans for school reopening also include provisions to address the well-being of students, particularly with counseling and assessments of students' mental health, and by supporting students in psychological distress those who have been victims of violence at home, and students from socio-economically disadvantaged backgrounds (Table 45).

Adjustments of the curriculum

While 46% of the teachers indicated that there are plans to adjust the curriculum, 23% do not have such plans, and 50% do not yet know whether they will adjust the curriculum or not. Some 52% of the respondents expected that teachers will need to teach differently after the return to classes, and an additional 31% do not know yet.

Preparation of teachers and school leaders

The reopening plans include training and counseling for teachers and for school leaders. Twenty-one of the respondents indicated that the plans include adjustment to the graduation criteria, and only 31% reported that they will not include such adjustments (Table 46). However, 55% of the respondents indicated that the reopening plans do not include adjustments to the

Table 45 • Plans to reopen to address well-being of students

Statement	Yes, definitely (%)	Don't know (%)	No (%)	No answer (%)
a. Assessment of students' mental health (efforts to identify students that may be experiencing particularly challenging circumstances)	59.46	22.23	9.31	9
b. Counselling for students	84.38	9.08	0.69	5.85
c. Hiring additional school doctors, nurses, psychologists, specialised teachers	9.62	39.11	40.42	10.85
d. Special support measures for students from socio-economically disadvantaged backgrounds	57.97	21.79	9.16	11.09
e. Special support measures for students who may be victims of violence at home	74.08	20.85	1.77	3.31
f. Special support measures for students in psychological distress	74.08	13.54	9.23	3.15
g. Other support measures (please specify)	2.62	20.25	5.62	71.52

Table 46 • Which of these measures are part of the reopening plans?

Statement	Yes, definitely (%)	Don't know (%)	No (%)	No answer (%)
a. Counseling for teachers	76.38	21.38	0.38	1.85
b. Hiring of additional teachers or teaching assistants	16.69	25.31	46.15	11.85
c. Training for teachers before and/or after re-opening of schools	74.13	21.79	1.85	2.23
d. Training for school leaders before and/or after re-opening of schools	45.92	31.46	10.54	12.08
e. Support from technology experts or companies	43.26	41.26	3.85	11.62
f. Other support measures (please specify)	1.23	25.67	6.38	66.72

entry criteria for the next year, and only 6% reported that they will include such adjustments.

One in two (40%) of the respondents indicated that the reopening plans include adjustments to the scheduling and school calendar, with only 8% indicating that they will not include such adjustments.

A third (32%) of the respondents reported that they are considering extending the current school year or adjusting the schedule of next school year. But 28% are not considering such adjustments.

One in two (40%) of the respondents are planning time to recover learning loss during the evenings, weekends or summer; only 28% have not considered such extensions in learning time.

Health and safety measures

The reopening plans include the following activities to promote health: review and develop new hygiene standards to promote health, communicate new protocols to students and parents, and deep clean school facilities, sanitary facilities and transportation (Table 47).

The reopening plans will include training on basic health and hygiene protocols, including physical distancing norms, mandatory use of masks and antiseptic gel, for students, teachers and staff (Table 48).

For students who become Covid-19 positive, the reopening plans envisage requiring that those students self-quarantine, and requiring that staff and students are tested. In some cases, the school (43%) or the classroom (57%) will be closed (Table 49).

Table 47 • Health measures included in the reopening plans

Statement	Extremely likely (%)	Somewhat likely (%)	Neither likely nor unlikely (%)	Somewhat unlikely (%)	Extremely unlikely (%)	No answer (%)
a. Assessment of students' physical health (presence of COVID 19-like symptoms, infection history of students and family members during the confinement period, etc.)	45.96	24.79	24.87	2.69	0.69	1
b. Development/review of standards and procedures for school hygiene prior to taking concrete steps	70.98	24.17	1.46	0	0.08	3.31
c. Disinfection/deep cleaning of school facilities	77.37	11.39	8.62	0	0.08	2.54
d. Disinfection/deep cleaning only of sanitation facilities	57.69	18.46	2.69	0.46	0.62	20.08
e. Disinfection/deep cleaning of public transportation used by students to reach the school premises	52.08	5.15	30.54	0.54	0.23	11.46
f. Procurement of (additional) soap dispensers	68.38	17.54	1.15	1.54	0.38	11
g. Procurement of automatic soap dispensers (so that students do not touch any surfaces)	50.42	25.21	2	16.76	1.69	3.92
h. Procurement of masks for students and teachers in school	55.77	15.77	21.54	0.85	1.54	4.54
i. Procurement of gloves for students and teachers in school	28.46	11.85	21.54	25	9.23	3.92
j. Procurement of antiseptic gel dispensers to be placed outside/inside each classroom	76.4	16.3	1.38	0.69	0.69	4.53
k. Procurement of antiseptic wipes to be distributed to all students and teachers	43.31	19	21.62	1.92	10.23	3.92
l. Communication about school organisation to parents and students	79	14.31	1.38	0.31	0.38	4.62
m. Other (please specify)	11.24	1.46	10.93	4.77	4.39	67.21

Lessons learned

The reopening plans contemplate making time to analyse the lessons learned during the lockdown, identify effective mitigation strategies for future closures, learn from the experience of other countries, update emergency planning for large-scale closures and adopt protocols to address cases of infection in the school community (Table 50).

The reopening plans also contemplate procuring devices for students and teachers to support e-learning in the future, investing in the creation of effective e-learning platforms and providing professional development to teachers for effective e-learning instructions (Table 50a).

Table 48 • Health measures included in the reopening plans

Statement	Extremely likely (%)	Somewhat likely (%)	Neither likely nor unlikely (%)	Somewhat unlikely (%)	Extremely unlikely (%)	No answer (%)
a. Mandatory use of gloves for all students, teachers and school staff	18.83	17.76	17.68	27.44	17.37	0.92
b. Mandatory use of masks for all students, teachers and school staff	43.46	27.15	13.92	11.69	1.23	2.54
c. Mandatory use of antiseptic gel by students, teachers and school staff before entering a classroom or the canteen	70.59	16.01	0.77	9.47	0.15	3
d. Mandatory use of antiseptic wipes for students and teachers to clean their desks every day	37.23	22.77	25.62	9.15	0.69	4.54
e. Mandatory application of social distancing protocols	73.75	9.47	4.85	9.08	0.31	2.54
f. Closure of all common areas in school (e.g. canteen, gym, library)	20	20.15	25.62	23	8	3.23
g. Installation of additional open-air handwashing facilities outside the school building	26.23	22.54	23.46	14.15	10	3.62
h. Training students, teachers and staff on basic hygiene and barrier gestures	74.15	8.23	5.62	8.85	0.38	2.77
i. Other (please specify)	5.77	0.92	2.92	1.62	7.54	81.23

Table 49 • Security measures in the reopening plans

Statement	Yes (%)	No (%)	No answer (%)
a. The school will be closed	43.38	26.54	30.08
b. The classroom will be closed	56.8	13.99	29.21
c. The affected students or teachers will be required to quarantine	79.31	1.92	18.77
d. All students and staff will be tested	62.15	10.08	27.77
e. None	1.69	30.98	67.33
f. Other (please specify)	1	22.79	76.21

Table 50 • Learning provisions in reopening plans

Statement	Yes (%)	No (%)	No answer (%)
a. Analyse the lessons learned during lockdown within the country	84.31	10.77	4.92
b. Identify effective mitigation measures for future school closures	80.02	14.6	5.38
c. Undertake research into what other countries have done and engage in international peer learning	84.47	10.61	4.92
d. Update existing emergency planning for school facilities to account for large-scale school closures	77.48	17.14	5.38
e. Consider re-purposing school buildings for use as temporary quarantine facilities or hospitals	23.54	61.85	14.62
f. Adopt protocols for schools to follow in the event that a new case of infected student, teacher, school staff or parent is reported	83.85	10.62	5.54
g. Designate a space in the school as an isolation room	66.15	19.23	14.62
h. Other (please specify)	3.62	18.63	77.75

Table 50a • E-learning readiness in reopening plans

Statement	Yes (%)	No (%)	No answer (%)
a. Procure of devices and equipment for students and teachers to facilitate e-learning	66.49	29.52	4
b. Invest in updating or creating effective e-learning platforms and content	85.62	9.08	5.31
c. Deliver targeted training for teachers on effective e-learning and assessment	77.98	18.09	3.93
d. Ensure that all teachers and students are equipped with suitable devices for e-learning	69.92	24.77	5.31
e. Secure Internet connectivity for all teachers and students (e.g. through partnerships with Internet providers to secure lower rates for students and teachers)	62.08	32.23	5.69
f. Develop alternative modes of instruction for students without Internet connectivity (e.g. radio, TV, instant messaging, and other tools)	56.26	32.51	11.22
g. Other (please specify)	2.62	20.77	76.62

Appendix A. The views of senior education administrators

Table A1.1 • To which countries do the responses provided in this survey refer?

Country	Number of respondents	Country	Number of respondents
Austria	1	Italy	1
Belgium	1	Jamaica	1
Brazil	3	Japan	1
Canada	3	Latvia	1
Chile	1	Lithuania	5
Colombia	1	Mexico	89
Costa Rica	1	Netherlands	1
Croatia	1	Norway	1
Czech Republic	1	Peru	1
Dominican Republic	11	Portugal	1
Estonia	1	Republic of Korea	2
Finland	1	Slovenia	1
France	1	South Africa	1
Georgia	2	Spain	2
Germany	1	Sweden	3
Greece	1	United Kingdom	1
Hungary	1	United States	3
Iceland	1	Uruguay	2

Table A2.1 • Primary level, number of instructional days already spent at home

Country	Number of respondents	Median	Mean	Standard Deviation
Austria	1	30	30	NA
Belgium	1	24	24	NA
Brazil	3	36	32	30.2
Canada	3	27	29	4.36
Chile	1	28	28	NA
Colombia	1	14	14	NA
Costa Rica	1	30	30	NA
Croatia	1	34	34	NA
Czech Republic	1	40	40	NA
Dominican Republic	11	30	25.27	17.22
Estonia	1	58	58	NA
Finland	1	29	29	NA
France	1	30	30	NA
Georgia	2	19.5	19.5	20.51
Germany	1	0	0	NA
Greece	1	31	31	NA
Hungary	1	32	32	NA
Iceland	1	0	0	NA
Italy	1	36	36	NA
Jamaica	1	38	38	NA
Latvia	1	40	40	NA
Lithuania	5	27	17.8	16.57
Mexico	89	0	15.01	16.89
Netherlands	1	32	32	NA
Norway	1	25	25	NA
Peru	1	32	32	NA
Portugal	1	28	28	NA
Republic of Korea	2	46	46	0
Slovenia	1	34	34	NA
South Africa	1	22	22	NA
Spain	2	31.5	31.5	3.54
Sweden	3	0	0	0
United Kingdom	1	20	20	NA
United States	3	28	19.33	16.77
Uruguay	2	35	35	4.24

Table A2.2 • Primary level, estimated number of additional instructional days to be spent at home

Country	Number of respondents	Median	Mean	Standard Deviation
Austria	1	12	12	NA
Belgium	1	6	6	NA
Brazil	3	50	40.33	36.47
Canada	3	34.5	34.5	0.71
Colombia	1	16	16	NA
Costa Rica	1	53	53	NA
Croatia	1	31	31	NA
Czech Republic	1	10	10	NA
Dominican Republic	11	25	19.55	15.2
Estonia	1	16	16	NA
France	1	0	0	NA
Georgia	2	15	15	14.14
Germany	1	0	0	NA
Greece	1	15	15	NA
Hungary	1	0	0	NA
Iceland	1	0	0	NA
Italy	1	27	27	NA
Jamaica	1	23	23	NA
Latvia	1	0	0	NA
Lithuania	5	2.5	5.25	7.54
Mexico	89	0	12.69	17.62
Netherlands	1	1	1	NA
Norway	1	0	0	NA
Peru	1	140	140	NA
Portugal	1	28	28	NA
Republic of Korea	2	11.5	11.5	3.54
Slovenia	1	5	5	NA
South Africa	1	15	15	NA
Spain	2	5	5	7.07
Sweden	3	0	0	0
United Kingdom	1	20	20	NA
United States	3	28	19	16.46
Uruguay	2	25	25	14.14

Table A2.3 • Lower secondary level, number of instructional days already spent at home

Country	Number of respondents	Median	Mean	Standard Deviation
Austria	1	30	30	NA
Belgium	1	24	24	NA
Brazil	3	36	32	30.2
Canada	3	27	29	4.36
Chile	1	28	28	NA
Colombia	1	14	14	NA
Costa Rica	1	30	30	NA
Croatia	1	34	34	NA
Czech Republic	1	40	40	NA
Dominican Republic	11	30	21.09	17.27
Estonia	1	58	58	NA
Finland	1	29	29	NA
France	1	30	30	NA
Georgia	2	19.5	19.5	20.51
Germany	1	0	0	NA
Greece	1	31	31	NA
Hungary	1	32	32	NA
Iceland	1	0	0	NA
Italy	1	36	36	NA
Jamaica	1	38	38	NA
Latvia	1	40	40	NA
Lithuania	5	27	17.8	16.57
Mexico	89	0	14.66	16.97
Netherlands	1	32	32	NA
Norway	1	32	32	NA
Peru	1	32	32	NA
Portugal	1	28	28	NA
Republic of Korea	2	46	46	0
Slovenia	1	34	34	NA
South Africa	1	22	22	NA
Spain	2	31.5	31.5	3.54
Sweden	3	0	0	0
United Kingdom	1	20	20	NA
United States	3	28	19.33	16.77
Uruguay	2	35	35	4.24

Table A2.4 • Lower secondary level, estimated number of additional instructional days to be spent at home

Country	Number of respondents	Median	Mean	Standard Deviation
Austria	1	12	12	NA
Belgium	1	6	6	NA
Brazil	3	0	23.67	40.99
Canada	3	34.5	34.5	0.71
Colombia	1	16	16	NA
Costa Rica	1	53	53	NA
Croatia	1	31	31	NA
Czech Republic	1	10	10	NA
Dominican Republic	11	25	17.27	16.14
Estonia	1	16	16	NA
France	1	5	5	NA
Georgia	2	15	15	14.14
Germany	1	0	0	NA
Greece	1	5	5	NA
Hungary	1	0	0	NA
Iceland	1	0	0	NA
Italy	1	27	27	NA
Jamaica	1	23	23	NA
Latvia	1	0	0	NA
Lithuania	5	2.5	5.25	7.54
Mexico	89	0	12.52	17.67
Netherlands	1	15	15	NA
Norway	1	5	5	NA
Peru	1	140	140	NA
Portugal	1	28	28	NA
Republic of Korea	2	11.5	11.5	3.54
Slovenia	1	10	10	NA
South Africa	1	15	15	NA
Spain	2	5	5	7.07
Sweden	3	0	0	0
United Kingdom	1	20	20	NA
United States	3	28	19	16.46
Uruguay	2	25	25	14.14

Table A2.5 • Upper secondary level, number of instructional days already spent at home

Country	Number of respondents	Median	Mean	Standard Deviation
Austria	1	30	30	NA
Belgium	1	24	24	NA
Brazil	3	36	32	30.2
Canada	3	27	29	4.36
Chile	1	28	28	NA
Colombia	1	14	14	NA
Costa Rica	1	30	30	NA
Croatia	1	34	34	NA
Czech Republic	1	40	40	NA
Dominican Republic	11	30	26.55	13.87
Estonia	1	58	58	NA
Finland	1	29	29	NA
France	1	30	30	NA
Georgia	2	19.5	19.5	20.51
Germany	1	0	0	NA
Greece	1	31	31	NA
Hungary	1	32	32	NA
Iceland	1	27	27	NA
Italy	1	42	42	NA
Jamaica	1	38	38	NA
Latvia	1	40	40	NA
Lithuania	5	27	17.8	16.57
Mexico	89	25	24.54	14.21
Netherlands	1	32	32	NA
Norway	1	32	32	NA
Peru	1	32	32	NA
Portugal	1	28	28	NA
Republic of Korea	2	46	46	0
Slovenia	1	34	34	NA
South Africa	1	22	22	NA
Spain	2	31.5	31.5	3.54
Sweden	3	30	32	3.46
United Kingdom	1	20	20	NA
United States	3	28	19.33	16.77
Uruguay	2	35	35	4.24

Table A2.6 • Upper secondary level, estimated number of additional instructional days to be spent at home

Country	Number of respondents	Median	Mean	Standard Deviation
Austria	1	12	12	NA
Belgium	1	6	6	NA
Brazil	3	0	23.67	40.99
Canada	3	34.5	34.5	0.71
Colombia	1	16	16	NA
Costa Rica	1	53	53	NA
Croatia	1	31	31	NA
Czech Republic	1	0	0	NA
Dominican Republic	11	30	23.64	14.98
Estonia	1	1611	1611	NA
France	1	15	15	NA
Georgia	2	15	15	14.14
Germany	1	0	0	NA
Greece	1	0	0	NA
Hungary	1	0	0	NA
Iceland	1	0	0	NA
Italy	1	32	32	NA
Jamaica	1	23	23	NA
Latvia	1	0	0	NA
Lithuania	5	5	6.5	7.9
Mexico	89	20	28.64	53.78
Netherlands	1	15	15	NA
Norway	1	5	5	NA
Peru	1	140	140	NA
Portugal	1	5	5	NA
Republic of Korea	2	6.5	6.5	3.54
Slovenia	1	5	5	NA
South Africa	1	15	15	NA
Spain	2	5	5	7.07
Sweden	3	20	13.33	11.55
United Kingdom	1	20	20	NA
United States	3	33	22.33	19.35
Uruguay	2	37.5	37.5	3.54

Table A3.1 • Considering the support provided by teachers and schools and other modalities, about what percentage of the students were able to access all or most of the school curriculum, a good amount, not much, or none at all
Student access, by country

Country	Num of Respon-dents	All or most of the curri-culum	A good amount	Some, but not much	Very little or none
Austria	1	NaN	NaN	NaN	NaN
Belgium	1	70	20	5	5
Brazil	3	3.33	23.33	13.33	10
Canada	3	66.67	33.33	0	0
Chile	1	5	30	60	5
Colombia	1	55.8	23.2	21	0
Costa Rica	1	70	10	10	10
Croatia	1	80	20	0	0
Czech Republic	1	0	0	0	0
Dominican Republic	11	41.73	39.18	19.09	10.91
Estonia	1	99.4	0	0	0.6
Finland	1	70	30	0	0
France	1	100	0	0	0
Georgia	2	0	0	0	0
Germany	1	0	0	0	0
Greece	1	NaN	NaN	0	0
Hungary	1	NaN	NaN	NaN	NaN
Iceland	1	85	15	0	0
Italy	1	0	0	0	0
Jamaica	1	0	70	0	0
Japan	1	NaN	NaN	NaN	NaN
Latvia	1	100	0	0	0
Lithuania	5	32.8	23.8	2.2	1
Mexico	89	54.15	32.55	12.44	6.28
Netherlands	1	0	0	0	0
Norway	1	100	0	0	0
Peru	1	0	0	0	0
Portugal	1	80	10	5	5
Republic of Korea	2	98.8	0	0	1.2
Slovenia	1	0	0	0	0
South Africa	1	10	15	15	60
Spain	2	49.5	0	0	0
Sweden	3	53.33	13.33	0	0
United Kingdom	1	0	100	0	0
United States	3	0	0	0	0
Uruguay	2	60	57.5	15	6

Table A4.1 • Countries whose plans to reopen schools are known

Country	Number of respondents	Country	Number of respondents
Austria	1	France	1
Belgium	1	Georgia	2
Chile	1	Germany	1
Colombia	1	Greece	1
Costa Rica	1	Iceland	1
Croatia	1	Japan	1
Dominican Republic	2	Mexico	10
Finland	1	Norway	1
France	1	Portugal	1
Georgia	2	Republic of Korea	2
Estonia	1	Spain	1
Finland	1	Uruguay	1

Appendix B. The views of teachers and school administrators

Table B1.1 • To which countries do the responses provided in this survey refer?

Country	Number of respondents	Country	Number of respondents
Argentina	3	Jordan	1
Brazil	2	Kazakhstan	12
Canada	3	Madagascar	2
Central African Republic	3	Mexico	517
Chile	1	Nigeria	1
China	1	Pakistan	1
Colombia	3	Peru	119
Croatia	63	Portugal	3
Dominican Republic	217	Russian Federation	15
Ecuador	3	Spain	5
France	1	Timor-Leste	1
Indonesia	1	Tunisia	1
Italy	1	United States of America	11
Jamaica	1	Uruguay	1
			993

Table B2.1 • Primary level, number of instructional days already spent at home

Country	Number of respondents	Median	Mean	Standard Deviation
Argentina	3	0	0	0
Brazil	2	27.5	27.5	3.54
Canada	3	24	18.67	16.65
Central African Republic	3	0	8.33	14.43
Chile	1	35	35	NA
Colombia	3	27	27	5
Croatia	63	31	23.51	17.31
Dominican Republic	217	25	21.04	23.68
Ecuador	3	30	23.33	20.82
France	1	0	0	NA
Indonesia	1	0	0	NA
Italy	1	41	41	NA
Jamaica	1	30	30	NA
Jordan	1	30	30	NA
Kazakhstan	12	0	2.42	8.37
Madagascar	2	21.5	21.5	4.95
Mexico	517	0	12.57	25.13
Nigeria	1	0	0	NA
Pakistan	1	30	30	NA
Peru	119	0	20.88	50.35
Portugal	3	22	15.67	13.65
Russian Federation	15	30	31.27	11.51
Spain	5	26	16.8	15.39
Timor-Leste	1	0	0	NA
Tunisia	1	46	46	NA
United States of America	11	0	15	21.08
Uruguay	1	29	29	NA

Table B2.2 • Primary level, estimated number of additional instructional days to be spent at home

Country	Number of respondents	Median	Mean	Standard Deviation
Argentina	3	0	0	0
Brazil	2	35.5	35.5	7.78
Canada	3	7.5	7.5	10.61
Central African Republic	3	20	21.67	2.89
Chile	1	40	40	NA
China	1	0	0	NA
Colombia	3	35	40	22.91
Croatia	63	6	70.65	344.67
Dominican Republic	217	1	23.33	35.17
Ecuador	3	30	30	30
France	1	0	0	NA
Indonesia	1	0	0	NA
Italy	1	20	20	NA
Jamaica	1	0	0	NA
Jordan	1	10	10	NA
Kazakhstan	12	0	0.83	2.89
Madagascar	2	8	8	5.66
Mexico	517	0	10.07	16.06
Nigeria	1	0	0	NA
Pakistan	1	22	22	NA
Peru	119	0	35.22	65.65
Portugal	3	9	17	22.11
Russian Federation	15	0	2.93	6.08
Spain	5	14	16.4	17.07
Timor-Leste	1	0	0	NA
Tunisia	1	90	90	NA
United States	11	0	5.73	10.43
Uruguay	1	0	0	NA

Table B2.3 • Lower secondary level, number of instructional days already spent at home

Country	Number of respondents	Median	Mean	Standard Deviation
Argentina	3	29	19.67	17.04
Brazil	2	27.5	27.5	3.54
Canada	3	24	26	5.29
Central African Republic	3	0	0	0
Chile	1	35	35	NA
China	1	0	0	NA
Colombia	3	27	27	5
Croatia	63	0	11.08	16.59
Dominican Republic	217	0	12.98	25.23
Ecuador	3	30	23.33	20.82
France	1	35	35	NA
Indonesia	1	0	0	NA
Italy	1	41	41	NA
Jamaica	1	30	30	NA
Jordan	1	30	30	NA
Kazakhstan	12	20	20.33	11.06
Madagascar	2	21.5	21.5	4.95
Mexico	517	0	11.85	21.86
Nigeria	1	13	13	NA
Pakistan	1	30	30	NA
Peru	119	0	13	17.28
Portugal	3	22	15.67	13.65
Russian Federation	15	30	27.73	15.98
Spain	5	26	16.8	15.39
Timor-Leste	1	40	40	NA
Tunisia	1	46	46	NA
United States	11	0	10.73	18.56
Uruguay	1	29	29	NA

Table B2.4 • Lower secondary level, estimated number of additional instructional days to be spent at home

Country	Number of respondents	Median	Mean	Standard Deviation
Argentina	3	0	0	0
Brazil	2	35.5	35.5	7.78
Canada	3	32.5	32.5	24.75
Central African Republic	3	20	15	13.23
Chile	1	40	40	NA
China	1	0	0	NA
Colombia	3	35	40	22.91
Croatia	63	0	8.41	16.14
Dominican Republic	217	0	13.64	31.99
Ecuador	3	30	30	30
France	1	14	14	NA
Indonesia	1	0	0	NA
Italy	1	20	20	NA
Jamaica	1	0	0	NA
Jordan	1	10	10	NA
Kazakhstan	12	11.5	11.17	11.3
Madagascar	2	8	8	5.66
Mexico	517	0	9.6	16
Nigeria	1	40	40	NA
Pakistan	1	22	22	NA
Peru	119	0	27.79	54.99
Portugal	3	12	18	21.63
Russian Federation	15	0	2.93	6.08
Spain	5	14	16.4	17.07
Timor-Leste	1	20	20	NA
Tunisia	1	90	90	NA
United States	11	0	3	6.71
Uruguay	1	0	0	NA

Table B2.5 • Upper secondary level, number of instructional days already spent at home

Country	Number of respondents	Median	Mean	Standard Deviation
Argentina	3	0	10	17.32
Brazil	2	30	30	0
Canada	3	24	18.67	16.65
Central African Republic	3	20	19.33	19.01
Chile	1	35	35	NA
China	1	0	0	NA
Colombia	3	32	774.67	1290.67
Croatia	63	0	20.79	51.86
Dominican Republic	217	23	19.23	21.37
Ecuador	3	30	23.33	20.82
France	1	35	35	NA
Indonesia	1	5	5	NA
Italy	1	41	41	NA
Jamaica	1	30	30	NA
Jordan	1	30	30	NA
Kazakhstan	12	21	24.25	11.51
Madagascar	2	19	19	1.41
Mexico	517	24	76.17	903.58
Nigeria	1	13	13	NA
Pakistan	1	30	30	NA
Peru	119	5	20.01	31.23
Portugal	3	25	27.33	6.81
Russian Federation	15	30	22.47	17.32
Spain	5	29	29.6	4.93
Timor-Leste	1	40	40	NA
Tunisia	1	46	46	NA
United States	11	30	30.09	12.83
Uruguay	1	29	29	NA

Table B2.6 • Upper secondary level, estimated number of additional instructional days to be spent at home

Country	Number of respondents	Median	Mean	Standard Deviation
Argentina	3	0	24	41.57
Brazil	2	38	38	4.24
Canada	3	7.5	7.5	10.61
Central African Republic	3	20	16.67	15.28
Chile	1	40	40	NA
China	1	0	0	NA
Colombia	3	35	40	22.91
Croatia	63	0	23.94	68
Dominican Republic	217	0	18.22	28.58
Ecuador	3	30	30	30
France	1	14	14	NA
Indonesia	1	10	10	NA
Italy	1	20	20	NA
Jamaica	1	0	0	NA
Jordan	1	10	10	NA
Kazakhstan	12	12	11.42	11.35
Madagascar	2	10	10	2.83
Mexico	517	20	701.01	15045.17
Nigeria	1	40	40	NA
Pakistan	1	221	221	NA
Peru	119	0	195.51	1559.6
Portugal	3	33	29	15.39
Russian Federation	15	0	2.93	6.08
Spain	5	37	57.6	52.79
Timor-Leste	1	20	20	NA
Tunisia	1	60	60	NA
United States	11	15	22.64	27.9
Uruguay	1	0	0	NA

Table B3.1 • Considering the support provided by teachers and schools and other modalities, about what percentage of the students were able to access all or most of the school curriculum, a good amount, not much, or none at all
Student access, by country

Country	Number of respon-dents	All or most of the curri-culum	A good amount	Some, but not much	Very little or none
Argentina	3	96.33	31.67	1.33	0.67
Brazil	2	35	47.5	15	2.5
Canada	3	0	33.33	0	0
Central African Republic	3	75	25	0	0
Chile	1	75	10	10	5
China	1	NaN	54	0	0
Colombia	3	85	30	10	2
Croatia	63	75.3	22.51	2.79	0.71
Dominican Republic	217	55.76	37.18	7.66	3.35
Ecuador	3	66.67	31.67	0	0
France	1	80	5	5	5
Indonesia	1	96	4	0	0
Italy	1	100	0	0	0
Jamaica	1	98	100	100	0
Jordan	1	100	80	0	0
Kazakhstan	12	89.5	9.58	0	0
Madagascar	2	0	1	34	65
Mexico	517	69.11	33.13	11.15	6.76
Nigeria	1	80	90	0	0
Pakistan	1	80	18	1	1
Peru	119	68.56	35.49	6.21	3.14
Portugal	3	90	8.33	1.67	0
Russian Federation	15	72.67	50.6	1.6	0.87
Spain	5	54.4	38.4	14	1.2
Timor-Leste	1	30	30	10	30
Tunisia	1	10	20	10	60
United States	11	65.45	15.33	1.91	1
Uruguay	1	95	5	0	0

Appendix C. Senior officials by country

Data accessible at: http://www.oecd.org/education/Appendix-C-Senior-Officials-by-Country.xlsx

Appendix D. Teachers by country

Data accessible at: http://www.oecd.org/education/Appendix-D-Teachers-by-country.xlsx

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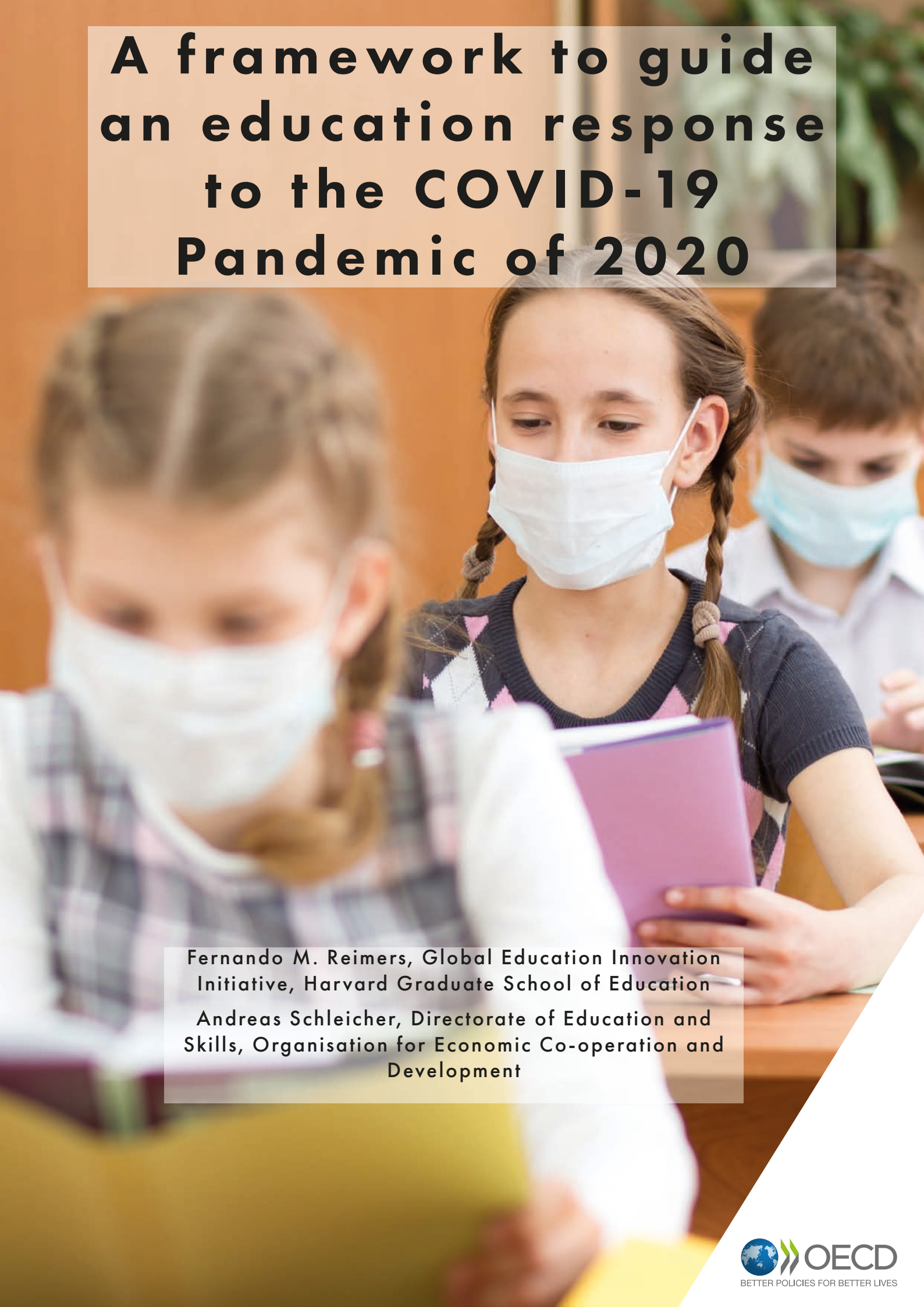
A framework to guide an education response to the COVID-19 Pandemic of 2020



Fernando M. Reimers, Global Education Innovation Initiative, Harvard Graduate School of Education

Andreas Schleicher, Directorate of Education and Skills, Organisation for Economic Co-operation and Development

OECD
BETTER POLICIES FOR BETTER LIVES

Summary

This report aims at supporting education decision making to develop and implement effective education responses to the COVID-19 Pandemic. The report explains why the necessary social isolation measures will disrupt school-based education for several months in most countries around the world. Absent an intentional and effective strategy to protect opportunity to learn during this period, this disruption will cause severe learning losses for students.

The report proposes that leaders of education systems and organizations develop plans for the continuation of education through alternate modalities, during the period of necessary social isolation. It offers a framework of areas to be covered by such plans.

Based on a rapid assessment of education needs and emerging responses in ninety eight countries, the report identifies the most salient needs that should be addressed in these plans, as well as the areas likely to face more implementation challenges. It also examines the education responses of various countries to the crisis. Based on an analysis of data from the most recent administration of the PISA survey, the report also describes the challenges facing various education systems to depend on online education as an alternative modality.

Introduction[1]

As the COVID-19 Pandemic ravages the world, it is essential to attend to the educational needs of children and youth during the crisis. This document is intended to support education leaders at various levels of educational governance, in public and private educational organizations, in formulating adaptive, coherent, effective and equitable education responses to a crisis that will significantly disrupt educational opportunities globally.

To be sure, the COVID-19 Pandemic is first and foremost a matter of Public Health, and mitigating its impact will depend greatly on the actions of scientists and pharmaceutical manufacturers in discovering a vaccine or other pharmaceuticals to prevent or treat COVID-19 infections, and of finding approaches to delivering such medicines on a broad scale. Absent effective pharmaceutical interventions, mitigating the impact of the Pandemic will depend on the actions of public health and government officials in slowing down the spread of infection, through measures such as social distancing.

"These large-scale non-pharmaceutical interventions vary between countries but include social distancing (such as banning large gatherings and advising individuals not to socialize outside their households), border closures, school closures, measures to isolate symptomatic individuals and their contacts, and large-scale lockdowns of populations with all but essential internal travel banned."[2]

Because the forecasts of the development of a vaccine place it at best in September of 2020, a full six months ahead, the main strategy available to prevent rapid spread of infections in the near future will likely consist of social distancing. While this strategy, if adopted by all or most of the population, is likely to succeed in slowing down the velocity of infection, as demonstrated in China, Japan, Korea and Singapore, its efficacy depends on timely and effective leadership by political leaders and on a receptive and disciplined response by citizens. The evidence on leadership and followership in various countries around the world is mixed, at least to date, which will require continued social distancing measures and will extend the duration of the Pandemic and augment its impact. Current and expected infections and deaths at present and in the coming months are dire. The Center for Systems Science and Engineering at John Hopkins University reports 788,522 confirmed cases globally, and 37,878 deaths, as of March 30, 2020 .[3] Researchers at Imperial College in London, estimate the global impact in the year 2020 to range between 20 million deaths, with effective non-pharmaceutical interventions in place, and 40 million deaths, without such interventions .[4] In the United States alone, Dr. Anthony Fauci, Director of the National Institute of Allergy and Infectious Diseases, estimates that the Pandemic will cause between 100,000 and 200,000 deaths . [5]

As a result of the scale of the impact of the Pandemic, this is not just a matter of Public Health. The Pandemic, and the necessary responses to contain it, will impact social, economic and political life. The restrictions on mobility created by social distance have diminished economic supply and demand, severely impacting businesses and jobs. This impact will be harder in the most vulnerable populations within countries, and in the countries with the weakest health infrastructures.

The restrictions caused by non-pharmaceutical interventions like social distancing have also impacted education at all levels, and will continue to do so for at least several months, as learners and teachers are unable to physically meet in the schools and universities.

These limitations in the ability to meet during a protracted pandemic will likely limit opportunities

1 Acknowledgement: We appreciate the helpful feedback and suggestions of the following colleagues to a draft of this document Dirk van Damme, Pablo Fraser, Luis Enrique Garcia, Aurelio Nuno, Sergio Paez, Earl Phalen, Beatriz Pont and Bella Wong.

2 Seth Flaxman, Swapnil Mishra, Axel Gandy et al. Estimating the number of infections and the impact of nonpharmaceutical interventions on COVID-19 in 11 European countries. Imperial College London (2020) page 3. https://www.imperial.ac.uk/media/imperial-college/medicine/sph/ide/gida-fellowships/Imperial-College-COVID19-Europe-estimates-and-NPI-impact-30-03-2020.pdf

3 Johns Hopkins University. Coronavirus Resource Center https://coronavirus.jhu.edu/map.html

4 Patrick GT Walker, Charles Whittaker, Oliver Watson et al. The Global Impact of COVID-19 and Strategies for Mitigation and Suppression. WHO Collaborating Centre for Infectious Disease Modelling, MRC Centre for Global Infectious Disease Analysis, Abdul Latif Jameel Institute for Disease and Emergency Analytics, Imperial College London (2020) page 2 https://www.imperial.ac.uk/media/imperial-college/medicine/sph/ide/gida-fellowships/Imperial-College-COVID19-Global-Impact-26-03-2020v2.pdf

5 Fauci Estimates That 100,000 To 200,000 Americans Could Die From The Coronavirus. National Public Radio. March 29, 2020. https://www.npr.org/sections/coronavirus-live-updates/2020/03/29/823517467/fauci-estimates-that-100-000-to-200-000-americans-could-die-from-the-coronavirus

for students to learn during the period of social distancing. It is well known that time spent learning, or learning time, is one of the most reliable predictors of opportunity to learn. In the United States, researchers have documented the effects of 'summer learning loss' demonstrating that extended interruption of one's studies causes not only a suspension of learning time, but causes a loss of knowledge and skills gained. A review of research on summer learning loss in the United States, demonstrates that during the summer vacation students lose the equivalent of one month of academic year learning, the loss is greater in math than in reading, and the loss increases with grade. The loss is also greater for lower income students .[6]

Furthermore, differences among students in support from parents who can provide for them educational opportunities directly at home or accessing them privately, differences in the capacity of different types of schools to support the learning of their students remotely, and differences among students in their resilience, motivation and skills to learn independently and online, are likely to exacerbate already existing opportunity gaps. In addition, differences across school systems in their capacity to design and implement effective education responses during the exigency, will amplify gaps in opportunity across jurisdictions. As a result, absent an intentional and effective education response, the COVID-19 Pandemic is likely to generate the greatest disruption in educational opportunity worldwide in a generation. This disruption will impact the livelihoods of individuals, and the prospects of their communities.

It is imperative, for this reason, that education leaders take immediate steps to develop and implement strategies which mitigate the educational impact of the Pandemic. We believe that cooperation can assist education leaders in devising effective education responses, and that the first and simplest form of cooperation is to exchange knowledge about what schools, communities and countries are currently doing to protect educational opportunities during the pandemic.

The purpose of this document is to support such process of exchange of knowledge. This document contains a framework to guide the development of context-specific education strategies, supported by the results of a rapid assessment conducted between March 18 and March 27 of 2020. The assessment surveyed respondents online about the education challenges created by the Pandemic, about their responses to those challenges, and about resources currently being used to advance education through alternative means. The survey we designed for this purpose is presented in Appendix A. The survey was distributed via networks of educators and influencers, those in the networks of the OECD and of the Global Education Innovation Initiative at the Harvard Graduate School of Education, with assistance from colleagues in several education organizations such as Save the Children, WISE, and others. While the survey does not represent jurisdictions or stakeholder groups, its goal was to include respondents reflecting a variety of perspectives and positions in the education sector. Respondents were asked to provide information that served to characterize their vantage point, their position, institution, the country their responses referred to, the level of government to which their responses referred. They were also asked to provide an email address for contact. Only those surveys who included responses to the majority of the questions, and who characterized their vantage point, were included.

Below we offer a checklist to guide the development of an education strategy during the Pandemic. This can be used by national, state or local education authorities or by leaders of education networks. In countries where international development organizations partner with governments to support educational development, they can take on the role of assisting in the development of the education response.

6 Cooper, H., et al (1996) The effects of summer vacation on achievement test scores: A narrative and meta-analytic review. Review of Educational Research 66(3): 227-268. https://journals.sagepub.com/doi/10.3102/00346543066003227

A checklist for an education response to the COVID-19 Pandemic

1. Establish a task force or steering committee that will have responsibility to develop and implement the education response to the COVID-19 Pandemic. To the extent possible ensure those in the task force represent different constituents in the education system or school network and bring important and diverse perspectives to inform their work, for example various departments curriculum, teacher education, information technology, teacher representatives, parent representatives, students, representatives of industry when relevant.

2. Develop a schedule and means of frequent and regular communication among task force members, during the period when social distancing will be in effect.

3. Define the principles which will guide the strategy. For example: protecting the health of students and staff, ensuring academic learning and providing emotional support to students and faculty. These principles will provide focus for the initiatives to be undertaken and will help prioritize time and other limited resources.

4. Establish mechanisms of coordination with public health authorities so that education actions are in synch and help advance public health goals and strategies, for example, educating students, parents, teachers and staff on the necessity for social distancing.

5. Re-prioritize curriculum goals given the reality that the mechanisms of delivery are disruptive. Define what should be learned during the period of social distancing.

6. Identify the feasibility of pursing options to recover learning time once the social distancing period is over, for example, an intensive review period during the break prior to the start of the new academic year.

7. Identify means of education delivery. When feasible, those should include online learning, as it provides the greatest versatility and opportunity for interaction. If not all students have devices and connectivity, look for ways to provide them to those students. Explore partnerships with the private sector and the community in securing the resources to provide those devices and connectivity.

8. Clearly define roles and expectations for teachers to effectively steer and support students' learning in the new situation, through direct instruction where possible or guidance for self-directed learning.

9. Create a website to communicate with teachers, students and parents about curriculum goals, strategies and suggested activities and additional resources.

10. If an online education strategy is not feasible, develop alternative means of delivery, they could include TV programs, if a partnership with television stations is feasible, podcasts, radio broadcasts, and learning packets either in digital form or on paper. Explore partnerships with community organizations and the private sector to deliver those.

11. Ensure adequate support for the most vulnerable students and families during the implementation of the alternative education plan.

12. Enhance the communication and collaboration among students to foster mutual learning and well-being.

13. Create a mechanism of just in time professional development for teachers and for parents to be able to support learners in the new modality of instruction. Create modalities that foster teacher collaboration and professional communities and that increase teacher autonomy.

14. Define appropriate mechanisms of student assessment during the exigency.

15. Define appropriate mechanisms for promotion and graduation.

16. As needed, revise regulatory framework in ways that make online education and other modalities feasible, and in ways that support teacher autonomy and collaboration. This includes providing school day credit for days taught in alternative education plans.

17. Each school should develop a plan for continuity of operations. As a way to support them, education authorities can provide curated examples of plans in other schools.

18. When the school provides meals to students, develop alternative means of distribution of food to students and their families.

19. When the school provides other social services,

such as mental health supports, develop alternative forms of provision.

20. Schools should develop a system of communication with each student, and a form of checking-in daily with each student. Perhaps in the form of texts from teachers if parents have access to mobile phones.

21. Schools should develop mechanisms of daily checking in with teachers and school staff.

22. Schools should provide guidance to students and families about the safe use of screen time and online tools to preserve student well-being and mental health as well as provide protection from online threats to minors.

23. Identify other school networks or systems and create forms of regular communications with them to share information about your needs and approaches to solve them, and to learn from them as a way to foster rapid improvement in delivering education in the new modalities.

24. Ensure that school leaders get the financial, logistical and moral support they need to succeed.

25. Develop a communications plan. Map key constituencies, and key messages to support the execution of the education strategy during the exigency,and ensure those are effectively communicated through various channels.

Priority responses by countries

1. Education leaders should adopt a proactive approach to contributing to the mitigation of the impact of the Pandemic and to prevent learning loss during the period of necessary social distancing. They should also contribute to the creation of opportunities to help reskill those displaced by the Pandemic and facilitate their reintegration into the labor market.
To execute on these goals education departments would benefit from establishing an agile leadership group or steering committee in charge of overseeing the education response to the Pandemic, develop a strategy with clear implementation plans, monitor the implementation of the strategy, and where possible engage with similar groups in other education jurisdictions to access knowledge about similar efforts ongoing and their results, and accelerate their learning and ongoing improvement of their strategy.
Because a Pandemic is the quintessential adaptive challenge, creating opportunities for rapid learning and continuous improvement is necessary. Also, in addressing this adaptive challenge, collaboration will be essential, everyone will need to step up, get out of the comfort zone, in order to get the job of educating students done. It may be advisable to structure the work of this task force in two different time horizons. The first one, most immediate, focused on completing the ongoing academic year. The second one, focused on the following academic year in the event a vaccine has not been developed prior to starting it and that social distance measures continue to be necessary. These different timeframes should also influence the various options to be deployed. For example, in the short term, in the countries or school systems that do not already have an existing infrastructure to support online learning and universal access to devices, it is unlikely that online education can be deployed to deliver education. Other modalities will be necessary, of lower cost and relative ease of implementation, such as radio education or educational television. In the medium term, however, it is possible to provide the infrastructure for online learning, an investment which is likely to have benefits that extend well beyond the current predicament.

2. An effective public health response requires support from education institutions. Education systems should be working in coordination with public health authorities to educate students, parents, teachers, and the general public about the necessity of non-pharmaceutical interventions such as social distancing to curb the velocity of contagion.

3. An education strategy should prevent learning loss resulting from non-pharmaceutical interventions to mitigate the impact of the Pandemic, which is likely to be considerable, equivalent at a minimum to two months of academic learning and potentially more. It should be recognized, however, that the extraordinary circumstances under which any likely alternative modality of education could be continued during the Pandemic, make it virtually impossible for systems and institutions to achieve the same goals. This requires reprioritizing curricular goals and defining what should be learned during the period of social distancing.
To do so, every school should have a plan to ensure continuity of operations during the Pandemic. Schools could be supported in developing such plans for continuity by curating and providing access to similar plans developed by other schools. For example, a school in Atherton, California, explains how they drew on comparative analysis to develop their plan:

"Greetings from Silicon Valley. In the spirit of sharing and international collaboration, we're sending out our Flexible Plan for Instructional Continuity at Sacred Heart Preparatory, Atherton. Our plan is the product of collaboration with colleagues on our campus and around the world. We have built on our own experience and the experiences of others. Our plan is based on known best practices for face-to-face and remote instruction. But also, it responds to lessons learned from colleagues at international schools and schools around the world who suddenly had to close for multiple weeks at a time as a result of pandemic. We are grateful to our teaching colleagues around the world who have generously offered their insights and experiences, most especially the Taipei American School in Taiwan and the Concordia International School in Shanghai."

4. Second only to supporting learning, a key priority of education institutions should be the well-being of students and staff. Maintaining effective social relationships between learners and educators will contribute to that goal. A protracted pandemic, and its multiple effects in the health, income and well-being of individuals and communities, is likely to strain the psychological reserves of all, including students and teachers. Educators and leaders of education systems should make explicit and visible their goals for well-being, and pursue strategies that help maintain well-being in the face of a global health event that will have a considerable toll in the lives and health of individuals, which may include members of the communities in

which students live. As such impact becomes proximal to every learner and educator, this may impact their motivation and functioning. For this reason, continuing educational activities, in some form, may contribute to the well-being of students during the crisis, maintaining a sense of normalcy and regularity in an otherwise unpredictable situation where the normal functioning of individuals is constrained by the limitations on mobility.

The development of skills, attitudes and values purpose, resiliency and self-efficacy, should be explicitly cultivated through activities that foster connection and affirmation. There is a potential tradeoff between ensuring well-being and significantly increased screen time derived from a transition to distance learning. Education systems and institutions need to decide the right balance with respect to this tradeoff. It will also be desirable to explicitly suggest that institutions provide guidance to parents and students about the safe use of online tools, social networking, television and video gaming.

5. It is imperative to support forms of organization that provide students time to engage in predictable and structured learning opportunities. When possible, those should draw on on-line activities because they provide the richest modality for interactive learning. Achieving this would require ensuring access to devices and connectivity for the students who do not have them. When this is not possible, other modalities such as television, radio, podcasts, DVDs and learning packets should be used for the delivery of educational content to students. This content should be designed to provide students opportunities for response and interaction. It may be necessary to have two different strategies for the short and medium term, in the event the Pandemic is not controlled before the start of the next academic year. In the short term, there it is likely not feasible to create an infrastructure of connectivity and to provide devices to all students in systems where those are not already available. As a result, it may be necessary to depend on lower cost technologies such as radio and educational television. However, it is imperative to invest in the development of such infrastructure where it is lacking, something which is difficult to do out of the ordinary education budgets, but which the response to this Pandemic may contemplate as an essential investment. This investment could provide devices to students and teachers and connectivity, to support a model of online learning that allows the greatest possible interaction in real time among students, among students and teachers, and with parents, as well as the creation of school networks and professional teacher communities across schools.

6. The role of teachers is essential to the success of the learning experience, even more so than the physical environment of schools or the technological infrastructure. When the structuring power of time and place that schools provide, dissolves and online learning becomes the dominant mode, the role of teachers does not diminish, quite on the contrary. Through direct instruction or through guidance provided in self-directed learning, in synchronous or asynchronous modes, the teacher remains essential in steering students' learning.

7. It is critical to facilitate teacher professional collaboration and learning, and to provide teachers with access to resources and online platforms for collaboration (technology and curated education resources) so they can keep abreast of the rapidly evolving challenges and the educational and social responses that are needed, and can support learning for their students in whatever modality of deliver is feasible, ideally online. Building partnerships between schools and higher education institutions might be a way to augment the capacity of districts and school systems to provide adequate professional development to teachers and to parents.

8. It is essential to create curated catalogues of high quality education resources aligned with the standards and, when a curriculum is available at the national, state or local level, to the curriculum, as a way to facilitate access to relevant learning materials to learners and teachers. Where curation by government authorities is not feasible, crowd-sourcing supported by reputational metrics can serve as a substitute, including rating systems which include the views of teachers on the value of different sites. It is unreasonable to expect teachers to curate their own resources.

9. In many jurisdictions schools provide various social services, as well as meals, to students. Alternative delivery mechanisms should be developed to continue the supply of those critical services and supports. Doing so may require the same flexibility necessary to support the innovative responses suggested in this document, for instance, instead of delivering meals, which may be logistically complicated, it may be more effective to transfer funds to families using the banking system, which tends to function effectively in most countries. Every effort should be made to facilitate links and collaboration between teachers and families.

10. A communications strategy is critical to help maintain coherence and collaboration as the entire school system seeks to support education during the pandemic. A critical element in a communication strategy is communication with families. Conventional

means of communications, voice mails and flyers, may not be adequate, so depending on trusted school staff, or the home school liaisons, may help keep parents informed of what they can do to support their children, and supported in doing it.

11. Regulatory frameworks need to allow educational institutions the necessary flexibility to develop adaptive responses to the crisis. For example, in those jurisdictions where online instruction is not recognized by government authorities as an alternative to face to face instruction, those barriers should be removed. Similarly, greater flexibility may be required for the work organization of teachers and for teachers to adjust the balance between educational services, social support, teacher professional collaboration and work with families. Furthermore, teacher candidates may not be able to complete the required hours of practicum stipulated in the licensure requirements of their jurisdiction. Educational institutions may need greater flexibility to determine how to assess that teacher candidates have demonstrated the necessary competencies to graduate.

Similar flexibility in responding to this serious adaptive challenge will be required of unions in interpreting contracts in ways that support teachers in working in the ways the exigency demands if students are to be educated during the Pandemic.

12. Similar flexibility with respect to funds and regulations would enable supporting innovative ways to educate students during the Pandemic, perhaps with potential valuable long term effects. For example, the current Pandemic is an opportunity to increase parental engagement, and to support parents in gaining competencies to parent in effective and supportive ways. In some countries there are shortages of teachers, and this opportunity could be a way to build a pathway for future teacher aides or teachers, using workforce development funds to train parents to be educators. This would also mitigate the financial impact of this crisis on the lower income households.

13. Because the economic dislocations caused by social distancing, those dislocated will require assistance reintegrating into the labor force, once the distancing measures are lifted. The period of distancing is an opportunity to provide online learning opportunities for job skill development. Governments should explore partnerships with the private sector to extend the availability of those opportunities through online or similar modalities during the exigency.

How are countries responding to the Pandemic?

We included 330 responses to the survey in the analysis, representing 98 different countries. A few of the responses were from educational organizations working in multiple countries. For most countries (75) three or fewer surveys were received, but 13 countries were represented with more than five surveys. Table 1 presents the number of surveys that were received per country.

Table 1 • Countries which responded to the survey and number of responses received per country

Country	Number of Respondents	Country	Number of Respondents	Country	Number of Respondents
Afghanistan	10	Haiti	1	Paraguay	1
Algeria	4	Honduras	2	Peru	4
Argentina	6	Hungary	2	Philippines	5
Australia	3	Iceland	2	Poland	5
Austria	2	India	14	Portugal	3
Bahrain	2	Iran	1	Puerto Rico	2
Bangladesh	5	Iraq	2	Qatar	1
Belgium	3	Ireland	4	Romania	2
Benin	2	Israel	3	Russian Federation	1
Botswana	1	Italy	6	Saudi Arabia	1
Brazil	3	Japan	4	Singapore	1
Bulgaria	2	Jordan	2	Slovenia	1
Cameroon	2	Kenya	5	South Africa	7
Canada	3	Kosovo	1	South Korea	3
Chad	1	Kuwait	1	Spain	19
Chile	2	Kyrgyzstan	1	Sudan	1
China	3	Latvia	1	Sweden	2
Colombia	6	Lebanon	1	Switzerland	1
Comoros	1	Liberia	1	Tanzania	3
Costa Rica	6	Lithuania	2	Thailand	1
Czech Republic	2	Malawi	1	Tunisia	5
Ecuador	3	Malaysia	2	Turkey	3
Egypt	3	Malta	1	Uganda	2
El Salvador	3	Mauritania	1	UK-Spain-Brazil	1
England	1	Mexico	15	UAE	6
Estonia	4	Middle East	1	United Kingdom	4
Finland	2	Nepal-Cambo-dia-Myanmar	1	United States of America	25
France	12	Nepal	2	Uruguay	2
Georgia	1	Netherlands	3	Vietnam	1
Germany	4	Nigeria	5	Yemen	1
Ghana	3	Norway	1	Zambia	1
Global	3	Pakistan	8	Zimbabwe	2
Greece	2	Palestine	1		
Guatemala	1	Panama	1		

Source: Source: Global Education Innovation Initiative at Harvard and OECD Rapid Assessment of COVID-19 Education Response. March 18-27, 2020

The respondents included teachers, School coaches and advisors, School Principals, School superintendents, Professors, Technical and managerial staff in civil society organizations in education including providers of professional development, education administrators, advisors and policy makers in Ministries of education and in private school networks, technical and administrative staff in international development organizations, and education consultants.

School closures and changes in education delivery

According to the respondents, in the vast majority of the countries there has been a government directive that students and teachers do not come to school. The duration of the directive ranges from two weeks to a month, renewable. In a few cases the suspension of classes is indefinite. Only in four countries: Comoros, Honduras, the Russian Federation and Singapore has attendance to school not been suspended as of March 20th. In a few countries the policy response includes a mix that provides some discretion to schools to suspend classes. In Argentina Schools are open with teachers working in rotative shifts only to deliver teaching resources and food for those in need. In Australia and Benin there has not been a government directive to suspend activity in schools, but some schools have suspended them on their own. In Bahrain students were asked to not come to school, but teachers, except for mothers, have been asked to continue to come to school.

When asked what has the government or network of schools done to date to support the ongoing academic instruction of students, a large percentage indicate 'nothing', followed by providing encouragement to schools to use online resources. Some of the responses suggest that guidelines from the Ministry are not anchored in the realities of schools. Several of the respondents mention clear plans with an implementation strategy that can support schools in continuing instruction during the crisis. Some schools have been able to rely on online platforms to continue instruction and in some countries, governments are relying on educational television to broadcast content. The following responses illustrate some of the government or school network initiatives to sustain instruction:

- "Provide online teaching materials and resources" **(Argentina)**
- "Encourage remote/online learning with Prof. Learning. Each school using platforms available and easy for staff and students to learn and access. (eg Google Drive/Microsoft Teams)" **(Australia)**
- "Educational programmes are being broadcast on national television / emphasize the importance to continue "home education"" **(Belgium)**
- "The school organizes teachers of various subjects to conduct online teaching, and the provincial and municipal education departments organize experts to provide the school with teaching resources and teaching plans." **(China)**
- "Begun to put together online reading and other study resources and to make public television and webpage, social media announcements about how to access those resources." **(Costa Rica)**
- "The Ministry has launched a website: https://nadalku.msmt.cz/cs with tools for online education." **(Czech Republic)**
- "Ministry of Education and Research (MoER) provides daily support and guidelines for all educational institutions, incl. youth work (hobby schools, open youth centres) , https://www.hm.ee/et/koroonaviiruse-leviku-tokestamine-info-haridusasutustele . Additionally, Foundation Innove (https://www.innove.ee/uudis/info-ja-nouanded-vanematele-oma-lapse-toetamiseks-COVID-19-pandeemia-ajal/) and Information Technology Foundation for Education (https://www.hitsa.ee/e-ope-korduma-kippuvad-kusimused) are providing support, information and guidelines on distance learning issues. In Estonia, all learning materials are already now available on paper and online in parallel. Therefore, many schools have been using digital version in the past and do not need extra support or guidance. We are currently working on supporting the ICT-systems to be able to provide full services to all schools, teachers, students and parents. Furthermore, on Sunday 15 March an open webinar was held (supported by the MoER) to provide guidelines for parents for supporting students in their distance learning activities. Conversation rounds between the education inspectors of the MoER and educational specialists of the local authority to show support, determining best practices and problems that have arisen. Inspectors concentrate and share best practices across the country and find solutions to problems." **(Estonia)**
- "Schools are asked to ensure to arrange education

services in exceptional conditions. Finnish National Agency for Education is guiding schools to plan and organize different kind of flexible learning arrangements. The pupils are asked to stay at home if the education is organised as distance education." **(Finland)**

- "A pedagogical continuity is put in place to maintain regular contact between the student and their teachers. To this end, the teachers shall ensure, in particular by making use of existing networks (in particular digital workspaces, electronic mail or similar tools specific to private schools), that students have access to course materials and are able to carry out the homework or exercises required for their learning. This pedagogical continuity service can also be based on a free pedagogical platform of the Cned: "My class at home". This service offers the possibility of holding virtual classes, thus maintaining the human link between the pupil, his classmates and his teachers." **(France)**
- "Lessons will be broadcast from March 30. TV-lessons cover all mandatory subjects in grades I-XII except of foreign languages and sport. Besides, the EMIS - Education Management Information system - the agency under the Ministry of Education has conducted the following activities:

  1. A Microsoft Office 365 user profile (up to 600,000 students and up to 55,000 teachers) has been created for Georgian public schools (administration, teachers, and students);

  2. A portal has been created that allows the student and parent to access the student profile without the administration of the school and the teacher.

  3. Virtual classrooms have been created for all school classes and subjects in the Microsoft TEAMS program;

  4. Virtual consulting spaces have been set up in all districts of Georgia where volunteer technology experts from the "New School Model" help teachers implement distance learning;

  5. Data is being collected to establish access of teachers and students to the Internet and digital technologies; According to the statistics: In Teams there are 750 active users daily, by the April 23 Teams has 138698 users; Number of Active Users in Office 365 on March 23 - 143140; Email active username number on March 23, 14329; OneDrive active username on March 23, 12484; Besides, Ministry's project "New School Model" support team will actively work with reform schools to refine distance learning practices and share experiences with other schools / teachers." **(Georgia)**
- "Teaching has been shifted to digital. The government tries to give support for this to schools/ teachers but most of the initiatives seem to be bottom up. One witnesses a remarkable dynamism and activity in many schools." **(Hungary)**
- "National lessons daily broadcasts by exemplar k12 teachers (24 classrooms, simultaneously, 6h a day- for both Arabic and Hebrew speakers); Supporting teachers skills- digital classroom environments and webinars; Digital learning tasks and rich media content up to 80% of national curriculum available via teacher portal as well as student and parents portals." **(Israel)**
- "The Ministry of Education has : created dedicated online pages, video tutorials and virtual meeting places; offered e-learning platforms; provided a supporting task force; coordinated a plurality of actions in order to develop new learning environments; facilitated the use of digital content and new models of didactic organization; provided teachers with free remote training and updating tools, also through regional working groups; provided technical assistance to schools; started monitoring initiatives; introduced forms of economic support for socio-economically disadvantaged students." **(Italy)**
- "National Government, MEXT (Ministry of Education, Culture, Sports, Science and Technology), supports local boards of education providing adequate measures as much as possible to support children's study, such as initiating appropriate home study programs and conducting supplementary lessons after the ending of the school closures. MEXT has also set up and is publicizing a learning support portal, which introduces various suggestions and tips for learning each subject, free learning materials and videos that can be used at home, etc., in addition to the website for sharing good practice taken at schools and boards of education. Also METI provides information of on-line learning with their website." **(Japan)**
- "The National Centre for Education (which is subordinated to the Ministry of Education and Science of the Republic of Latvia) has developed the Methodological Guidelines for Professional and General Education Institutions for the Implementation of Distance Learning to support the implementation of distance learning at all schools. It provides advice to school leaders, teachers and parents on how to organize and adapt the learning process to the distance mode, how to modify the

learning programme, suggests available ICT tools and platforms, as well as provides guidelines how to ensure the well-being all teachers and pupils. In addition, Guidebook to Parents, Guidebook to Teachers and ICT Recommendations to Teachers have been published online. These materials are available on the website of the Ministry of Education and Science in Latvian and Russian as the two main languages of instruction https://www.izm.gov.lv/lv/macibas-attalinati. The National Television of Latvia in cooperation with the National Centre for Education has prepared a special weekly selection of educational and entertainment TV programmes for different age groups. The National Television also broadcasts famous theatre plays for school age audiences. With coordination of the Ministry of Education and Science technological support is provided to learners who do not have the Internet at home. The largest mobile network operators LMT and BITE are supplying mobile phones and tablets to about 5000 pupils (about 3% of the total number of school pupils) in Latvia. Steps are taken in cooperation with the ICT associations and municipalities to increase the streaming capacity of Internet connection to some schools in Latvia. To ensure the continuity of learning process, it is allowed that printed textbooks and printed learning materials are made available to pupils. Some schools prepare special daily packages of textbooks and printed materials to be delivered to pupils." **(Latvia)**

- "Schools responded very rapidly, establishing remote contact with the students. We developed a support network with guidance for the preparation of online classes, organizational matters, and making available a wide array of free open content resources. Right now, we are preparing for the 3rd term, providing an orientation guide for the organization of the school, schedules, roles for a normalization of the 3rd term. The big challenge posed in this context is reaching out to the low SES students. We created a network of partner institutions ensuring some contact, but this is an urgent matter." **(Portugal)**
- "Provided support for moving courses online through partnerships with various providers (Google, Microsoft etc.), signed a partnership with the national television channel for a Teleschool programme, work to readapt the calendar of school activities in order for the school year to finish normally for students, without students needing to repeat the year" **(Romania)**
- "(1) Particularly for those pupils and students in primary, secondary and upper secondary vocational education who do not have the necessary devices themselves and for whom this is not arranged through the school or the municipality, an investment of 2.5 million euros to ensure pupils and students have the necessary devices for online learning. (2) Primary and secondary schools can remain open for children from whom the parents are working in critical jobs like health and policing. (3) Educational institutions in higher and upper secondary vocational education can remain open to facilitate students who cannot use distance learning at home. Institutions can make their own choices for dealing with facilities on campus as long as they fit within the general instructions with regards to the pandemic. (4) The internships and other education-related activities outside the institution can continue, unless the employer has to stop the activity due to the pandemic. The safety of the student is paramount. (5) Informing students who are studying abroad has our special attention. (6) Together with educational organizations and the municipalities, we made additional agreements about how all children receive the best possible education during this time of crisis, please see our answers to the other questions." **(Netherlands)**

Curriculum and resources

When asked if particular areas of the curriculum had been prioritized, a majority of the respondents indicated that no prioritization has taken place.

When asked to identify what instructional resources had been deployed to support the academic instruction of students while they are unable to come to school, a wide range of platforms and online sites with education content were mentioned. They are listed in Appendix B.

Very few respondents mentioned they were relying on instructional packages, radio broadcasts or podcasts to support home instruction. Some respondents mentioned that countries were relying on public television stations to broadcast daily programs focused on some subjects and grades.

When asked what resources were been used to support the professional development of teachers in guiding online instruction very few respondents provided answers to this question. The following are examples of those exceptional cases which responsed:

"Opentunti https://opentunti.fi/ Yle Triplet: https://yle.triplet.io/ www.amazingeducationalresources.com Collection of tools and material supporting remote learning https://yle.fi/aihe/oppiminen The openly available open education resources and learning material: aoe.fi- Library of Open Educational Resources (OER), which can be used for searching, finding, compiling, and sharing open educational resources from all levels of education Finna.fi - the collections of Finnish archives, libraries and museums. There are also separate material banks and lists for teaching circulating among teachers and supporting also self-learning" (Finland)

"https://www.cned.fr/maclassealamaison/ Online websites of the ministry of education provide some guidelines. The universities have also begun providing some information/guidelines, for examples on how to use virtual tools such as Zoom." (France)

"National Institute for School Teachers and Staff Development (NITS) provide several program for teachers. https://www.nits.go.jp/en/" (Japan)

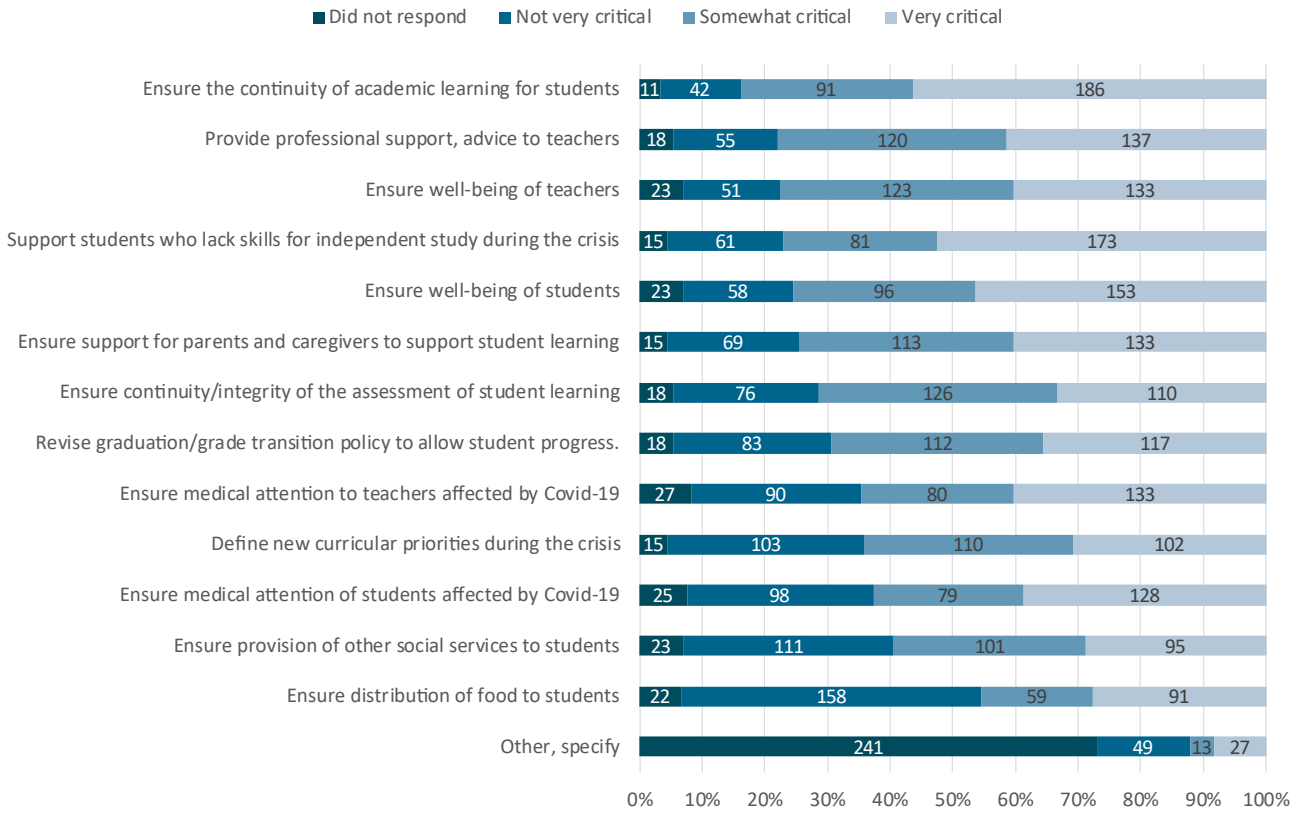
"Learning resources (in Latvian): https://mape.skola2030.lv, https://visc.gov.lv/. Tools for teachers for online learning, assessment and interaction with students: https://socrative.com, https://create.kahoot.it, https://quizizz.com, https://quizlet.com. Practical information, tools and advice on distance learning, and a special Q&A section on distance learning is available on the websites of the Ministry of Education and Science https://www.izm.gov.lv/lv/macibas-attalinati and the National Centre for Education https://visc.gov.lv/aktualitates/info_20200318.shtml" (Latvia)

What needs do respondents identify as most critical at this time?

Respondents were asked to rank the importance of government decisions during the crisis with respect to a series of topics. The responses are presented in the following table. The domains identified as highest priority are: ensuring academic learning for students, supporting students who lack skills for independent study, ensuring the well being of students, providing professional support for teachers and ensuring wellbeing of teachers and medical attention to teachers. However, a significant number of respondents see also as very critical or somewhat critical other priorities such as revising graduation policies, ensuring integrity of the assessment process, defining new curricular priorities and ensuring provision of social services and food to students.

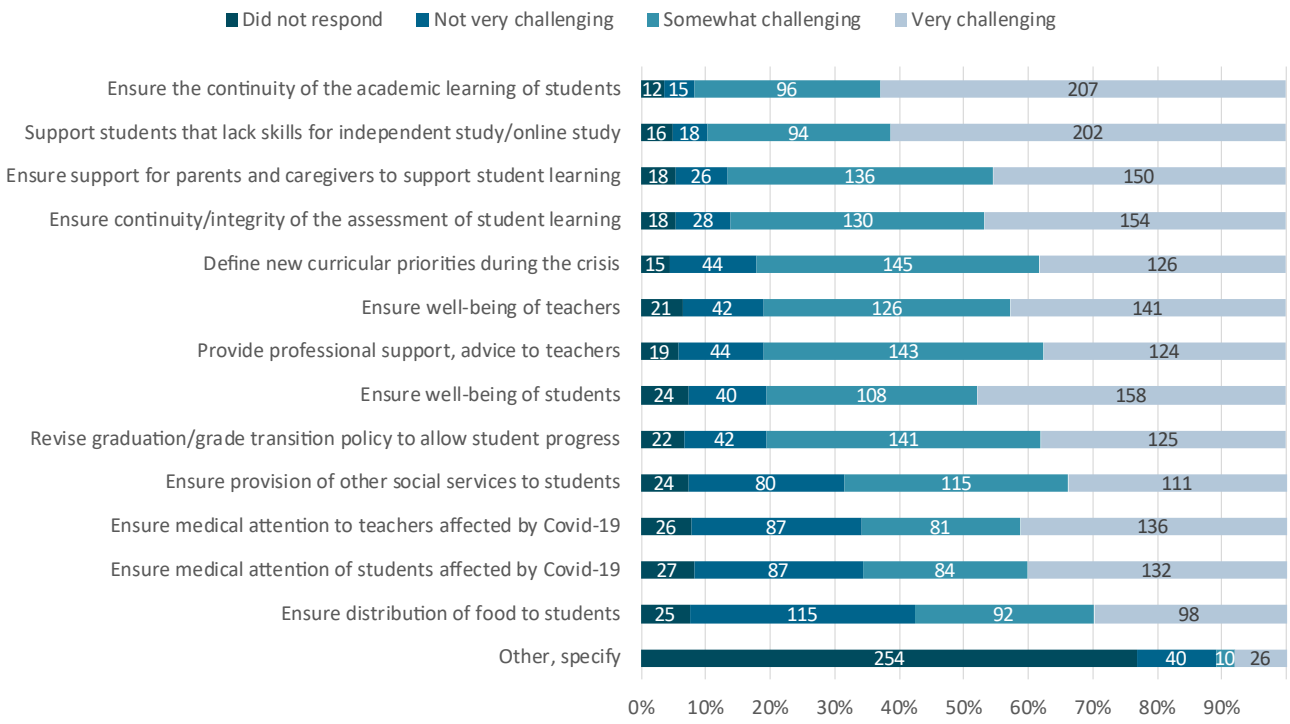
Respondents were also asked to identify which of those issues would be the most challenging to address. The responses are available in Table 3. The issues identified as very challenging by most respondents are ensuring the continuity of academic learning for students, supporting the students who lack skills for independent study, ensuring continuity and integrity of the assessment of student learning, ensuring support for parents so they can support student learning, and ensuring the well-being of students and of teachers. A considerable number of respondents, however, also considered the remaining topics as very challenging.

Table 2 • How critical are the following education priorities in response to the crisis?



Source: Global Education Innovation Initiative at Harvard and OECD Rapid Assessment of COVID-19 Education Response. March 18-27, 2020

Table 3 • How challenging would it be to address the following priorities?



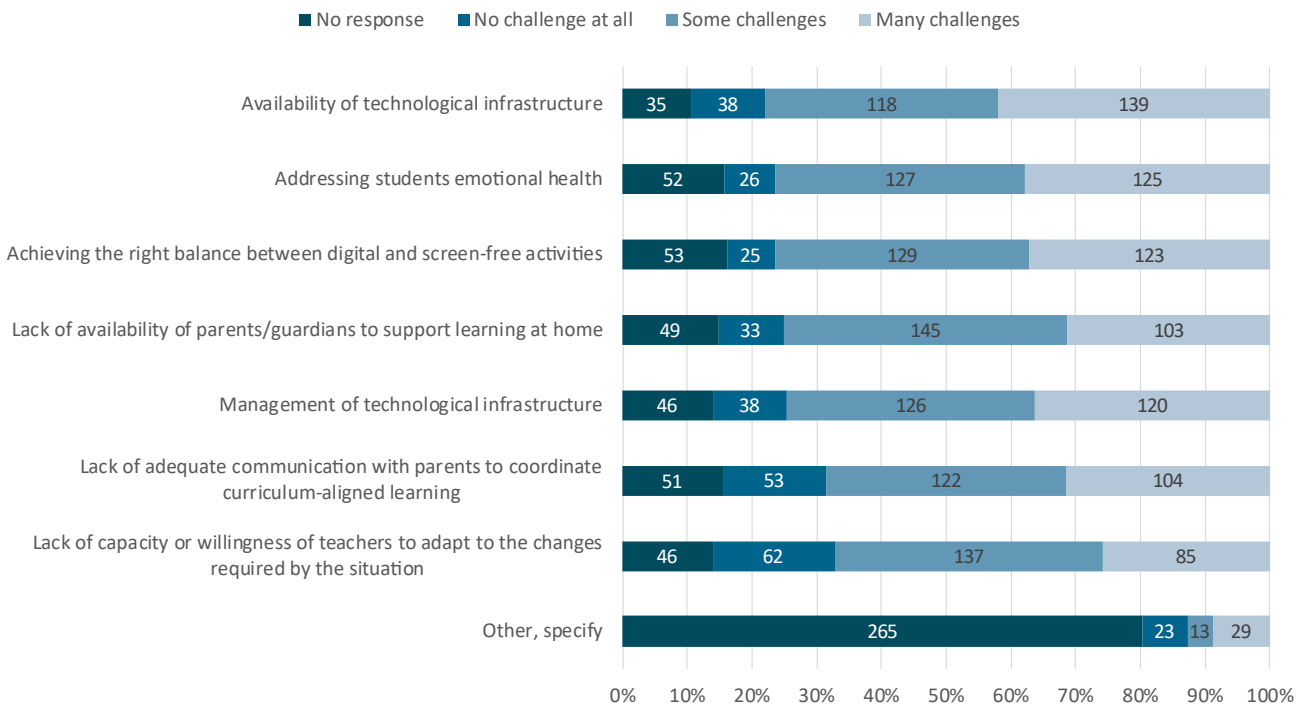
Source: Global Education Innovation Initiative at Harvard and OECD Rapid Assessment of COVID-19 Education Response. March 18-27, 2020

Education Response to the COVID-19 Crisis

The domains for which most people considered that an education response involved the most challenges were the availability of technological infrastructure, addressing student emotional health, addressing the right balance between digital and screen free activities and managing the technological infrastructure. These results are shown in Table 4.

These results are consistent with the results from the PISA 2018 survey. According to PISA, even among OECD countries, an average of 9% of 15-year-old students do not even have a quiet place to study in their homes, and in Indonesia, the Philippines and Thailand this figure is over 30%. Even in Korea, a top-performer in PISA, one in five students from the quarter of the most socio-economically disadvantaged schools don't have a place to study at home. Access to a computer that students can use to do their work in their homes poses similar challenges. In Denmark, Slovenia, Norway, Poland, Lithuania, Iceland, Austria, Switzerland and the Netherlands, over 95% of students report that they have a computer to use for working at home, but in Indonesia it is only 34%. For example, virtually every 15-year-old in socio-economically advantaged schools in the United States has a computer to work with at home, but only three out of four students in disadvantaged schools have one; and in Peru, it is 88% of students in privileged schools, versus just 17% in disadvantaged schools.

Table 4 • How challenging has it been to implement the following?

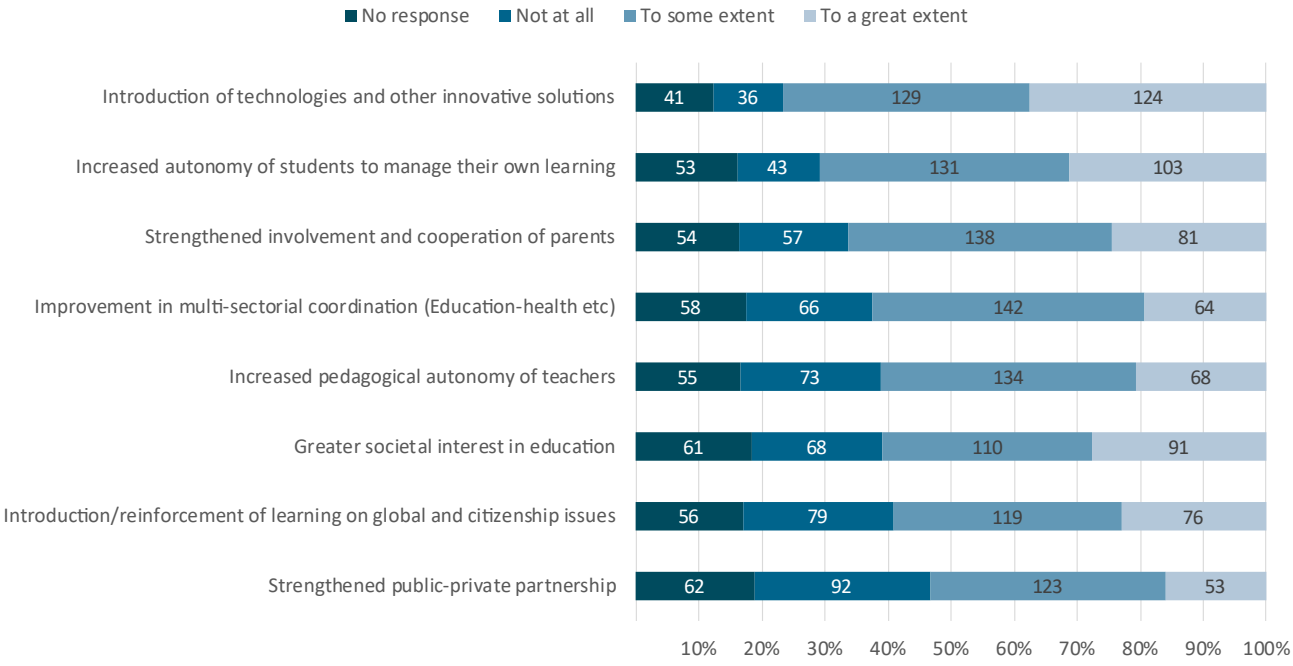


Source: Global Education Innovation Initiative at Harvard and OECD Rapid Assessment of COVID-19 Education Response. March 18-27, 2020

Is there an education silver lining to this crisis?

A significant percentage of the respondents of the survey see that unexpected positive educational results of the changes caused by the crisis include the introduction of technologies and other innovative solutions and an increase in the autonomy of students to manage their own learning as seen in Table 5.

Table 5 • Have there been unexpected positive educational results from the changes?



Source: Global Education Innovation Initiative at Harvard and OECD Rapid Assessment of COVID-19 Education Response. March 18-27, 2020

Readiness of students and schools to learn online during the Pandemic. Insights from PISA.

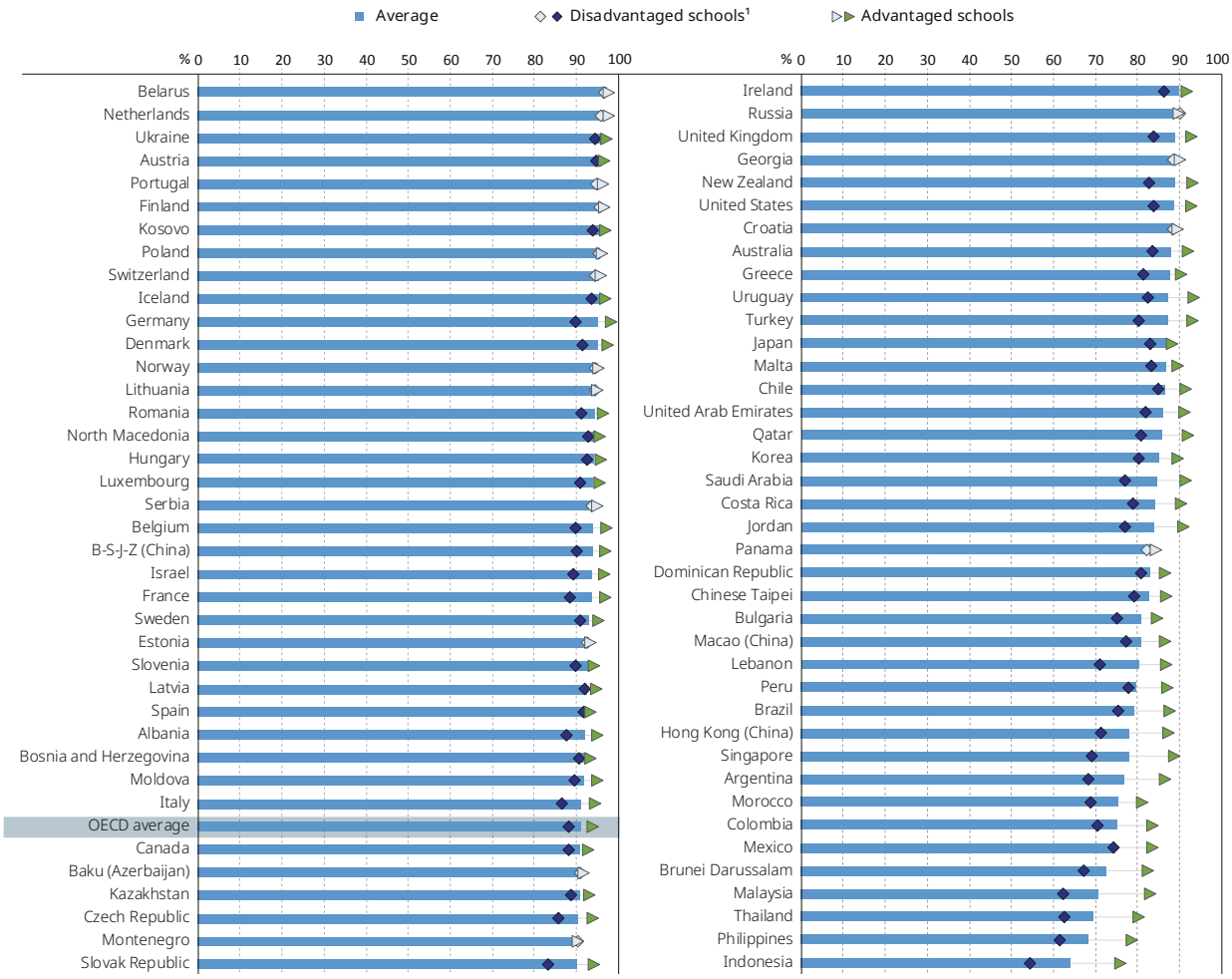
The evidence provided by the OECD's Programme in International Student Assessment (PISA) shows that most of the education systems participating in the most recent administration of PISA in 2018 are not ready to offer most students opportunities to learn online. The figures are based on representative samples from 79 education systems involving over 600,000 15-year-olds. Unless otherwise noted, numbers refer to average across the 36 OECD countries. Figures not provided in this note are accessible through the PISA database.

Student access to the digital world

To start with the very basics. On average across OECD countries, 9% of 15-year-old students do not even have a quiet place to study in their homes, and in Indonesia, the Philippines and Thailand this figure is over 30% (Figure 1). This is not a random group, but it tends to be students from the most disadvantaged backgrounds. Even in PISA top-performer Korea one in five students from the quarter of socio-economically

Figure 1 • Access to a quiet place to study

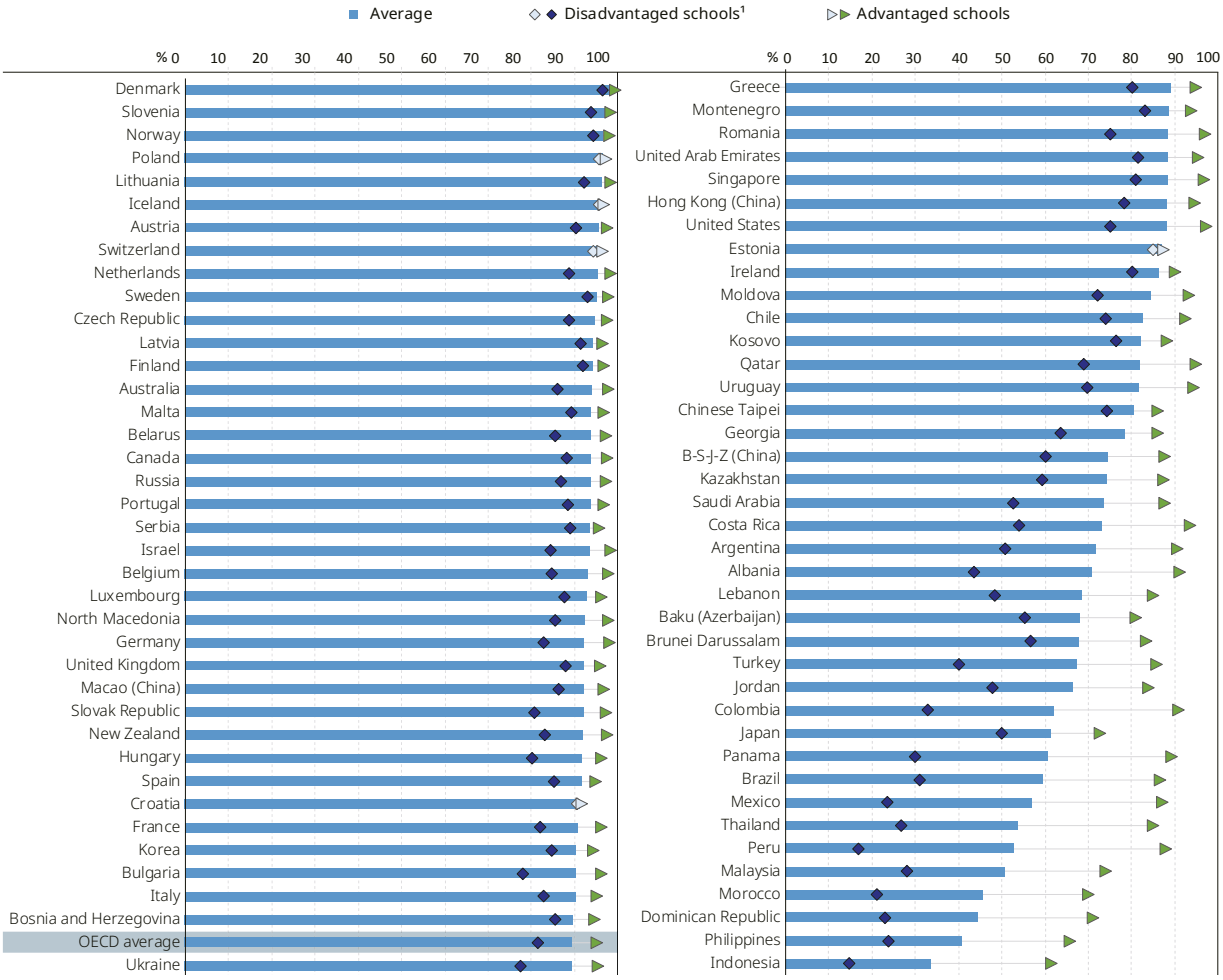
Percentage of students that have access to a quiet place to study, PISA 2018



Note: Statistically significant values are shown in darker tones.
1. A socio-economically disadvantaged (advantaged) school is a school whose socio-economic profile (i.e. the average socio-economic status of the students in the school) is in the bottom (top) quarter of the PISA index of economic, social and cultural status amongst all schools in the relevant country/economy.
Countries and economies are ranked in descending order of the average percentage of students that have access to a quiet place to study.
Source: OECD, PISA 2018 Database

Figure 2 • Access to a computer for schoolwork

Percentage of students that have access to a computer they can use for schoolwork, PISA 2018



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Countries and economies are ranked in descending order of the average percentage of students that have access to a computer they can use for schoolwork.
Source: OECD, PISA 2018 Database

most disadvantaged schools don't have a place to study at home.

Online learning doesn't just require a place to study, but also a computer which students can use to their work in their homes. Here too, the PISA data reveal important gaps (Figure 2). While in Denmark, Slovenia, Norway, Poland, Lithuania, Iceland, Austria, Switzerland and the Netherlands over 95% of students report that they have a computer to use for their work at home, it is only 34% in Indonesia. Here, too, there tend to be very large gaps across socio-economic groups. For example, virtually every 15-year-old in socio-economically advantaged schools in the United States has a computer to work in their homes, but only three out of four students in disadvantaged schools have one. And in Peru, it is 88% of students in privileged schools but just 17% in disadvantaged schools who have a computer for work.

Then there is internet required for online learning. Here again, there are countries where internet access at home is close to universal while in others it reaches just half of 15-year-olds (Figure 3). In Mexico, 94% of 15-year-olds from privileged backgrounds have a link to the internet in their homes, but just 29% of those from disadvantaged backgrounds. This is an area where also geography matters in many countries.

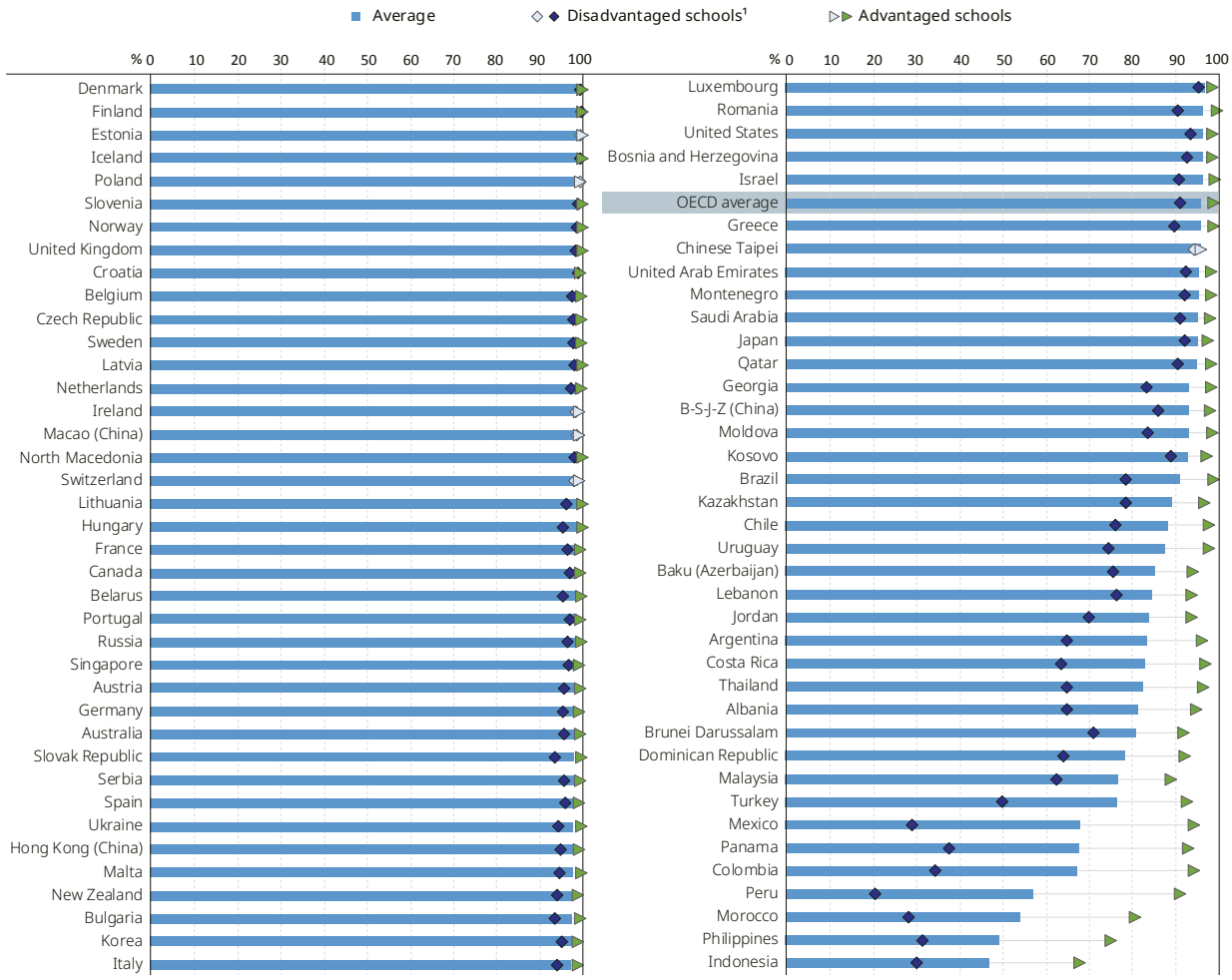
Preparedness of teachers and schools

The other part of the equation is, of course, how well educational institutions are equipped and accustomed to online learning, and how well teachers are prepared and engaged in online learning.

Even where online education does not directly rely on

Figure 3 • Access to a link to the internet

Percentage of students that have access to a link to the internet, PISA 2018



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Countries and economies are ranked in descending order of the average percentage of students that have access to a link to the internet.
Source: OECD, PISA 2018 Database

schools, the state of technology in schools provides some indication of the readiness of the education system. Moreover, the success of many students over the coming weeks and months will critically hinge on maintaining close relationships with their teachers. This is particularly true for students from disadvantaged backgrounds, who may not have the parental support or who lack the resilience, learning strategies or engagement to learn on their own. There should be no illusions about the impact that the combination of economic hardship and school closures could have on the poorest children. The needs of these children will be front-of-mind for their teachers, which underlines the importance of keeping teachers closely engaged and connected with learners. There is one further consideration: The PISA 2018 assessment revealed that even among 15-year-old students, on average across OECD countries, just one in 9 students was able to distinguish between fact and opinion, based on implicit cues pertaining to the content or source of the information. Thus, without considerable guidance and support from teachers, it is unlikely that students will be able navigate the world of online learning on their own.

Availability of technology

For a start, on average across OECD countries, there is almost one computer available at school for every 15-year old student for educational purposes (the computer-student ratio is equal to 0.8). In Austria, Iceland, Luxembourg, Macao (China), New Zealand, the United Kingdom and the United States, the computer-student ratio is 1.25 or more, while in Albania, Brazil, Greece, Kosovo, Montenegro,

Morocco, Turkey and Viet Nam, there is only one computer available for every 4 students (ratio = 0.25) or less.

In most countries, the distribution of computers in schools tends to be more equitable than at home. In fact, in 16 countries and economies, the computer-student ratio is greater in disadvantaged schools than in advantaged schools. In 17 countries and economies, the number of computers available per student is greater in advantaged schools than in disadvantaged schools.

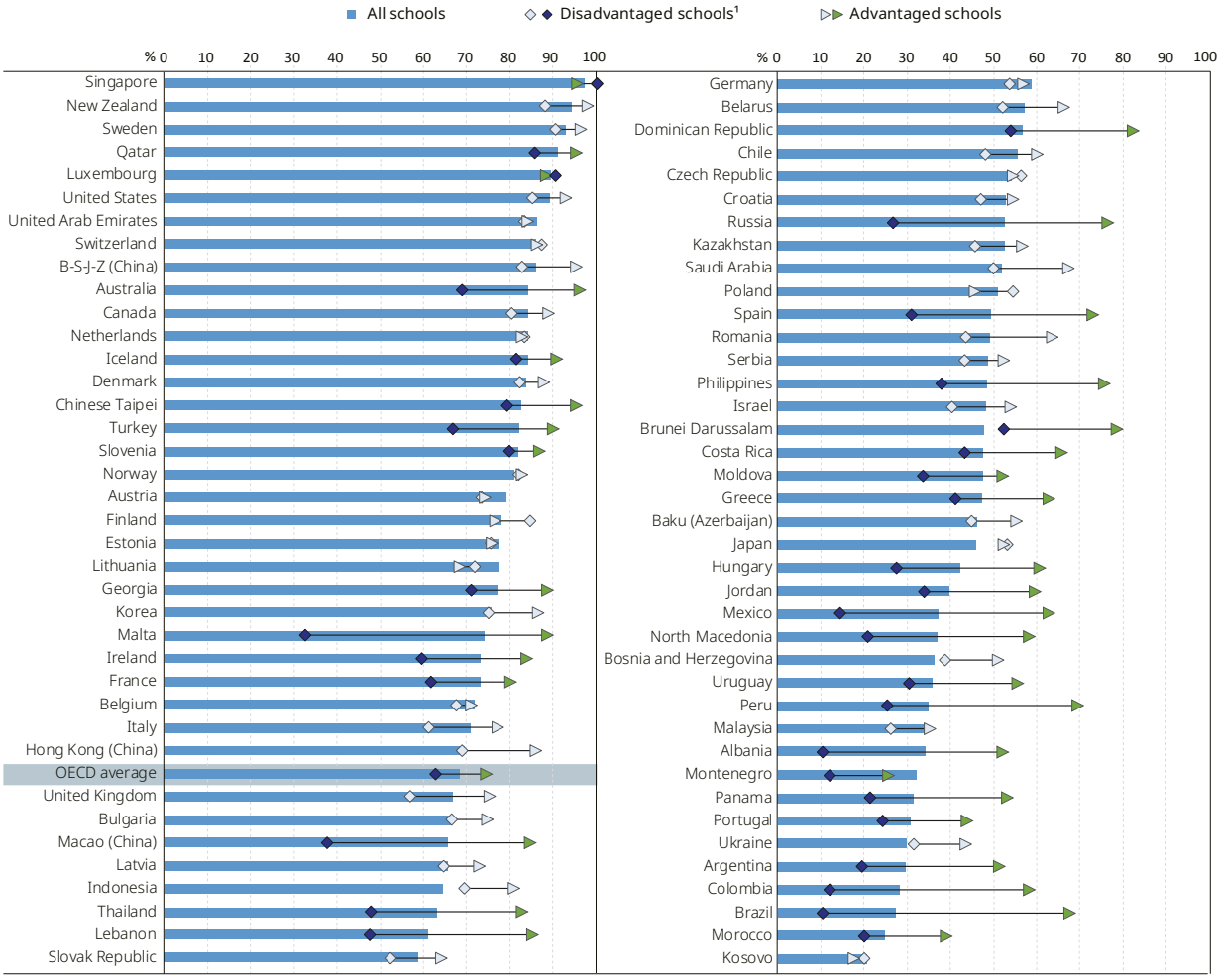
There has been notable progress in equipping schools with computers, with a widespread increase in the computer-student ratio between 2009 and 2018. The largest increases in the average number of computers per 15-year-old student were observed in Estonia, Iceland, Lithuania, Luxembourg, Sweden, the United Kingdom and the United States. On average across OECD countries, there was one additional computer available per every four students in 2018 than was available in 2009 (0.26 of an additional computer per student).

Adequacy of technology

The existence of devices does not say much about their adequacy. In PISA, little more than two-thirds of 15-year-old students are enrolled in schools whose principal reported that the digital devices at school are sufficiently powerful in terms of computing capacity, in Japan it is less than half, and in Kosovo just one in five (Figure 4). Also here the data show large gaps between socio-economic groups.

Figure 4 • Digital devices at the school are sufficiently powerful in terms of computing capacity

Percentage of students in schools whose principal agreed or strongly agreed that the digital devices at the school are sufficiently powerful in terms of computing capacity, PISA 2018



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Countries and economies are ranked in descending order of the percentage of the sufficiently powerful digital devices at the school in terms of computing capacity, in all schools.
Source: OECD, PISA 2018 Database

Equally important, while in the four Chinese provinces taking part in PISA (Beijing, Jiangsu, Shanghai and Zhejiang), Lithuania, Singapore, Slovenia and Denmark 9 out of 10 students are in schools whose school principal reported that their school's internet bandwidth or speed is sufficient, this is only the case for 6 out of 10 school principals on average across OECD countries and for less than a third in Uruguay, Brunei Darussalam, Portugal, Mexico, Germany, the Republic of North Macedonia, Argentina, Colombia, Panama, Morocco, Brazil, Peru and Kosovo (Figure 5).

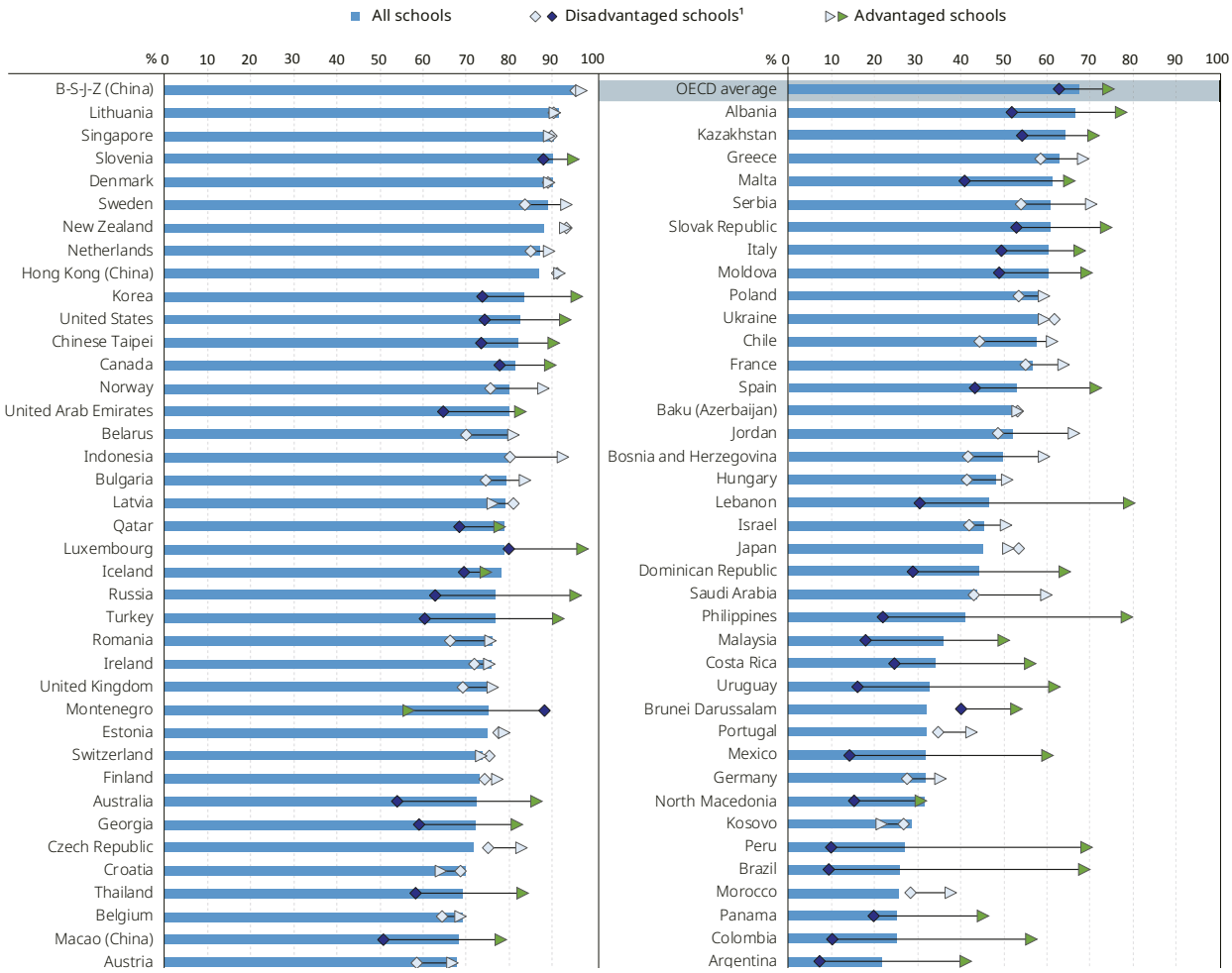
The picture is similar when it comes to the adequacy of Software. Even in a technologically advanced country such as Japan only 40% of 15-year-old students are enrolled in schools whose principal reports that there is sufficient availability of adequate software (Figure 6).

It is noteworthy that students attending schools with more computers per student scored lower in the PISA assessment than their peers in schools with fewer computers per student. On average across OECD countries, one additional computer per student in a school was associated with a 12-point decline in reading scores before accounting for other factors, and with a 6-point decline after accounting for students' and schools' socio-economic profile. While this negative association between computers-per-student and students' scores may have many reasons, it does suggest that it takes more than providing technology to reap benefits in terms of better learning. This is a warning signal at a time when online learning becomes the only option.

Fixed work stations at school will not be of much help when students need to learn at home. In this sense, it

Figure 5 • Sufficient Internet bandwidth or speed

Percentage of students in schools whose principal agreed or strongly agreed that the school's Internet bandwidth or speed is sufficient, PISA 2018



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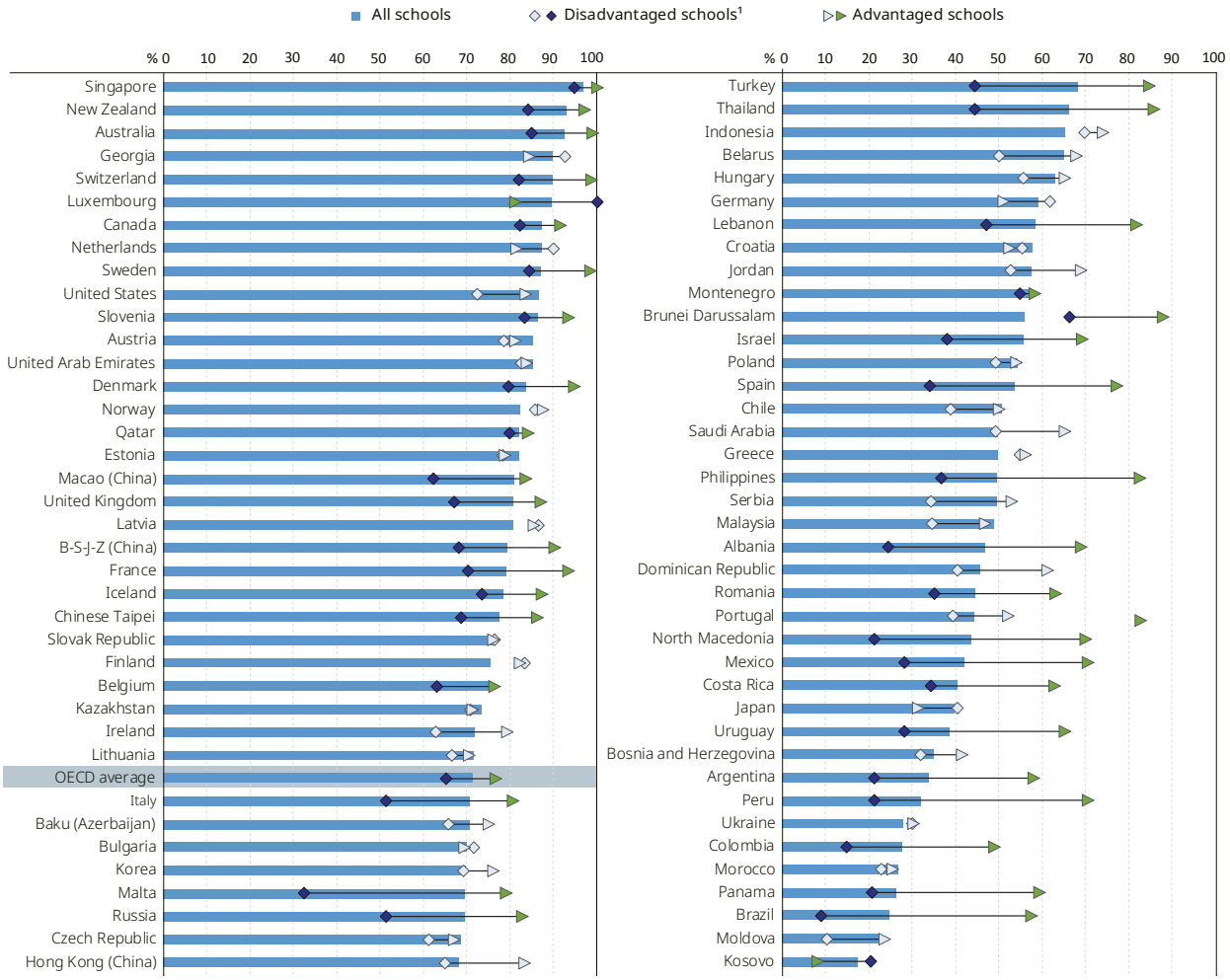
Countries and economies are ranked in descending order of the percentage of sufficient school's Internet bandwidth or speed in all schools.
Source: OECD, PISA 2018 Database

Figure 6 • Sufficient availability of adequate software

Percentage of students in schools whose principal agreed or strongly agreed that the availability of adequate software is sufficient, PISA 2018



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Countries and economies are ranked in descending order of the percentage of the sufficient availability of adequate software, in all schools.
Source: OECD, PISA 2018 Database

is encouraging that 40% of all computers available to 15-year-olds in school are portable. In a few high-income countries, most computers available at school are portable: in Denmark, Norway, Singapore and Sweden, 9 out of 10 computers are portable and in the United States, 8 out of 10 computers are portable. By contrast, in 50 countries and economies, only 30%, at most, of all computers available at school are portable. In Cyprus, Georgia, Jordan, Malta, Morocco, the Philippines and Thailand, only 1 in 10 computers, at most, are portable.

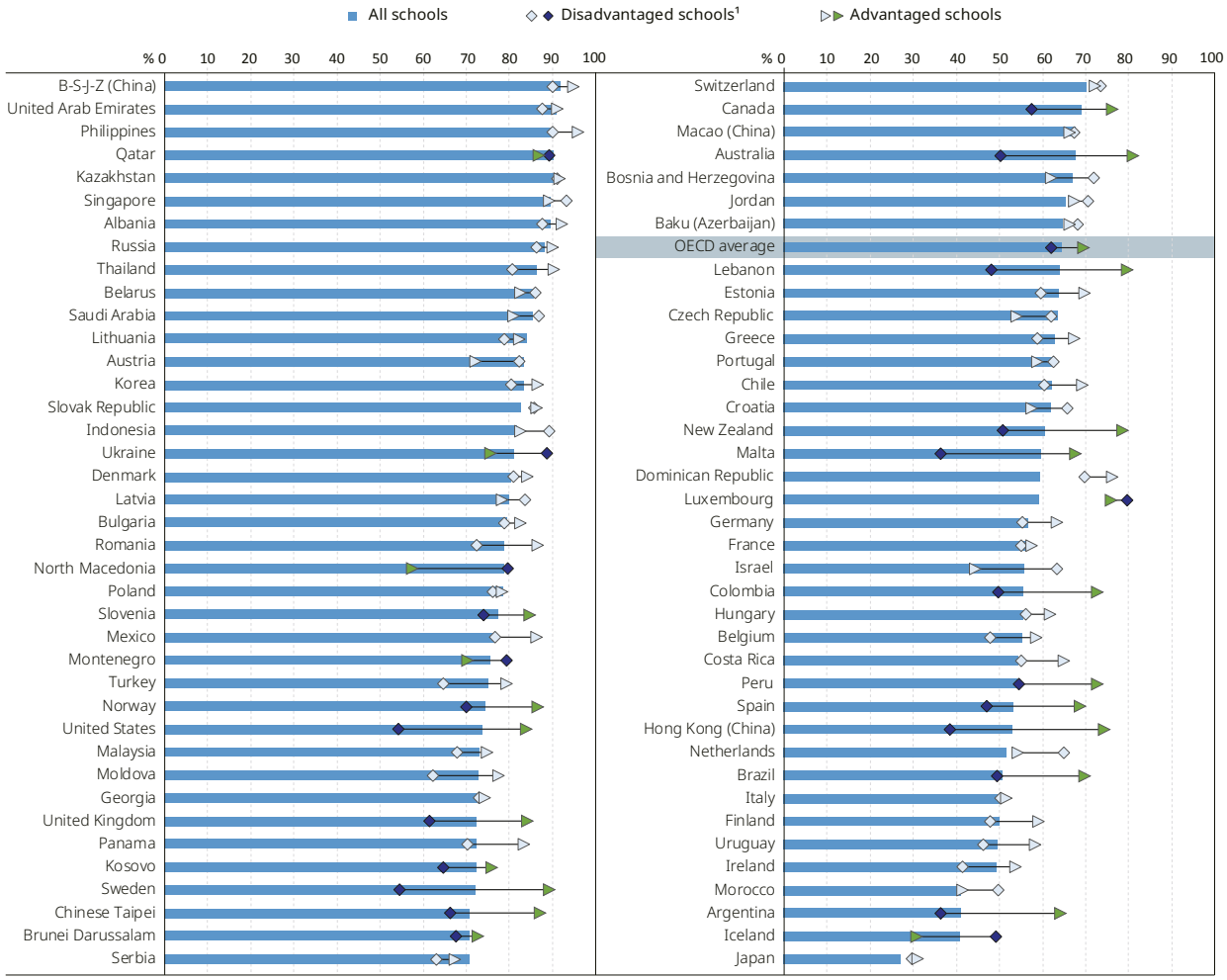
Portable computers are more frequently available in socio-economically advantaged than in disadvantaged schools, on average across OECD countries and in 21 education systems that participated in PISA 2018. Indeed, the growth in the availability of portable computers at school between 2015 and 2018 was due to gains amongst schools in the second, third and top quarters of the distribution of schools' socio-economic profile, while amongst disadvantaged schools, the share of portable computers did not change during the period. As a result, the disparity in access to portable computers related to socio-economic status increased between 2015 and 2018.

Use of technology and preparedness of teachers

Technology is only as good as its use. PISA 2018 asked school principals about different aspects of their school's capacity to enhance teaching and learning using digital devices. On average across OECD countries, 65% of 15-year-olds are enrolled in schools

Figure 7 • Teachers have the necessary technical and pedagogical skills to integrate digital devices in instruction

Percentage of students in schools whose principal agreed or strongly agreed that teachers have the necessary technical and pedagogical skills to integrate digital devices in instruction, PISA 2018



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Countries and economies are ranked in descending order of the percentage of schools where teachers have the necessary technical and pedagogical skills to integrate digital devices in instruction.

Source: OECD, PISA 2018 Database

whose school principal considers that their teachers have the necessary technical and pedagogical skills to integrate digital devices in instruction. This highlights the enormous training needs that lie ahead of education systems to get ready for educational technology. Again, this varies considerably between socio-economically advantaged and disadvantaged schools. In Sweden, for example, this is 89% in advantaged schools but just 54% in disadvantaged schools. These number signal that schools may reinforce rather than moderate the disadvantage that comes from individual home backgrounds (Figure 7).

On average across OECD countries, about 60% of 15-year-old students are enrolled in schools whose principals consider that teachers have sufficient time to prepare lessons integrating digital devices, ranging from close to 90% in the four Chinese provinces to little more than 10% in Japan (Figure 8). The picture is similar when it comes to the availability of effective professional resources for teachers to learn how to use the digital devices available (Figure 9). About 55% of students were in schools where teachers are provided with incentives to integrate digital devices into their teaching or have sufficiently qualified technical assistant staff (Figure 11).

Access to effective online learning platforms

What counts perhaps most in this crisis is access and availability of effective online platforms for learning. On average across OECD countries, just about half of 15-year-olds are enrolled in schools whose principal reported that an effective online learning support platform is available. Again, there is large

variation within and across countries. In Singapore, the four Chinese provinces and Macao (China) and Denmark, 9 out of 10 students are enrolled in schools that have an effective online learning support platform, whereas in Argentina, Costa Rica, Kosovo, Panama, Luxembourg, Japan, Peru, the Republic of North Macedonia, Belarus and Morocco it is less than 30% (Figure 12).

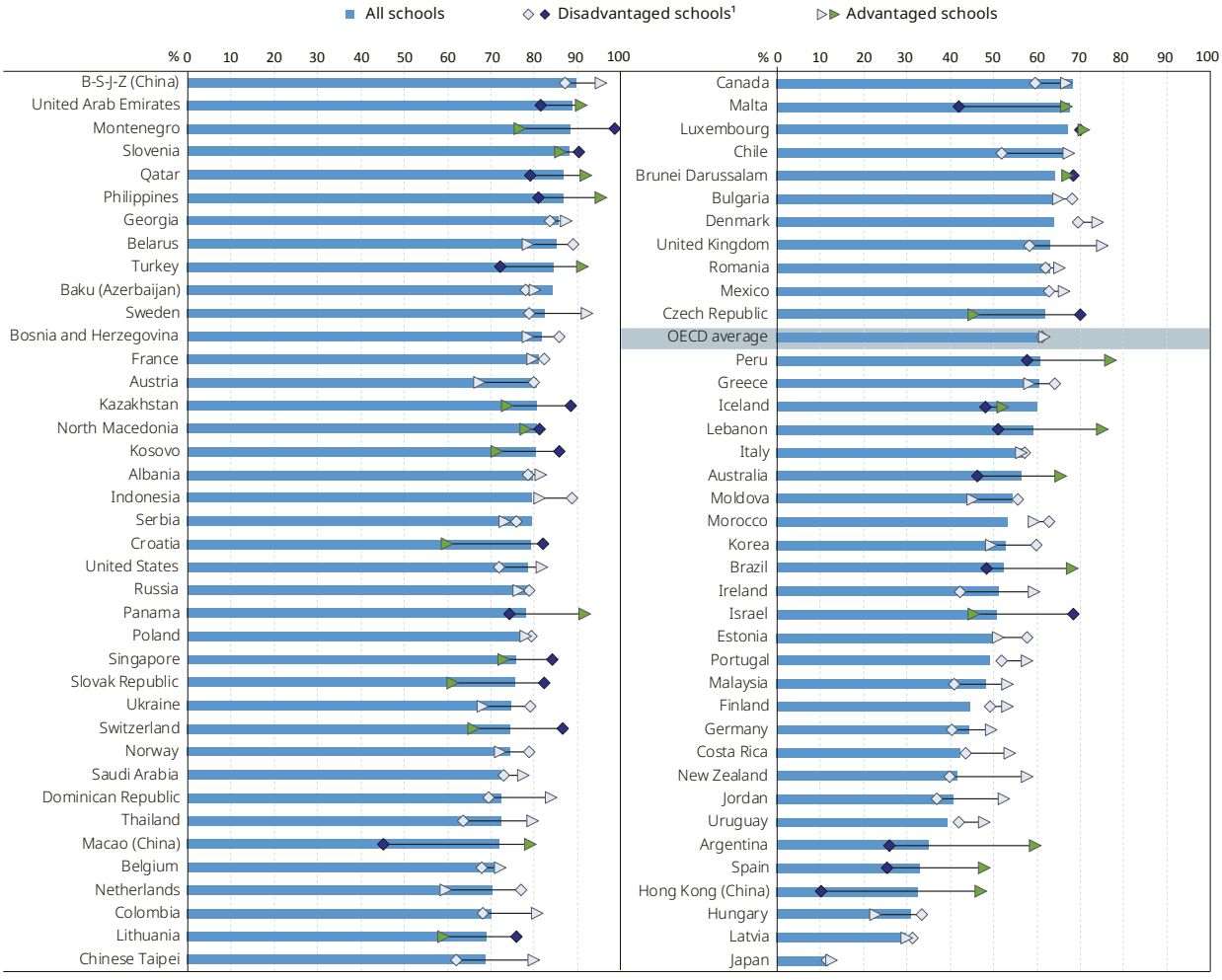
Students attending schools with a greater capacity to enhance teaching and learning using digital devices scored higher in PISA, on average across OECD countries. For example, students in schools whose principal reported that the school's Internet bandwidth or speed is sufficient scored 10 score points higher in reading, on average across OECD countries, while students in schools where teachers have the necessary technical and pedagogical skills to integrate digital devices in instruction scored 5 points higher. However, after accounting for students' and schools' socio-economic profile, differences in reading scores turned out to be not statistically significant for 10 out of the 11 indicators calculated, on average across OECD countries.

School practices for using digital devices effectively

Using digital devices and ICT effectively, to enhance teaching and learning, may also depend on schools' policies and practices. PISA 2018 asked school principals whether they had formal guidelines (e.g.

Figure 8 • . Teachers have sufficient time to prepare lessons integrating digital devices

Percentage of students in schools whose principal agreed or strongly agreed that teachers have sufficient time to prepare lessons integrating digital devices, PISA 2018



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Countries and economies are ranked in descending order of the percentage of schools where teachers have sufficient time to prepare lessons integrating digital devices.
Source: OECD, PISA 2018 Database

written statements, programmes or policies) or specific practices (e.g. regularly scheduled meetings) that focus on how to use digital devices effectively in the classroom.

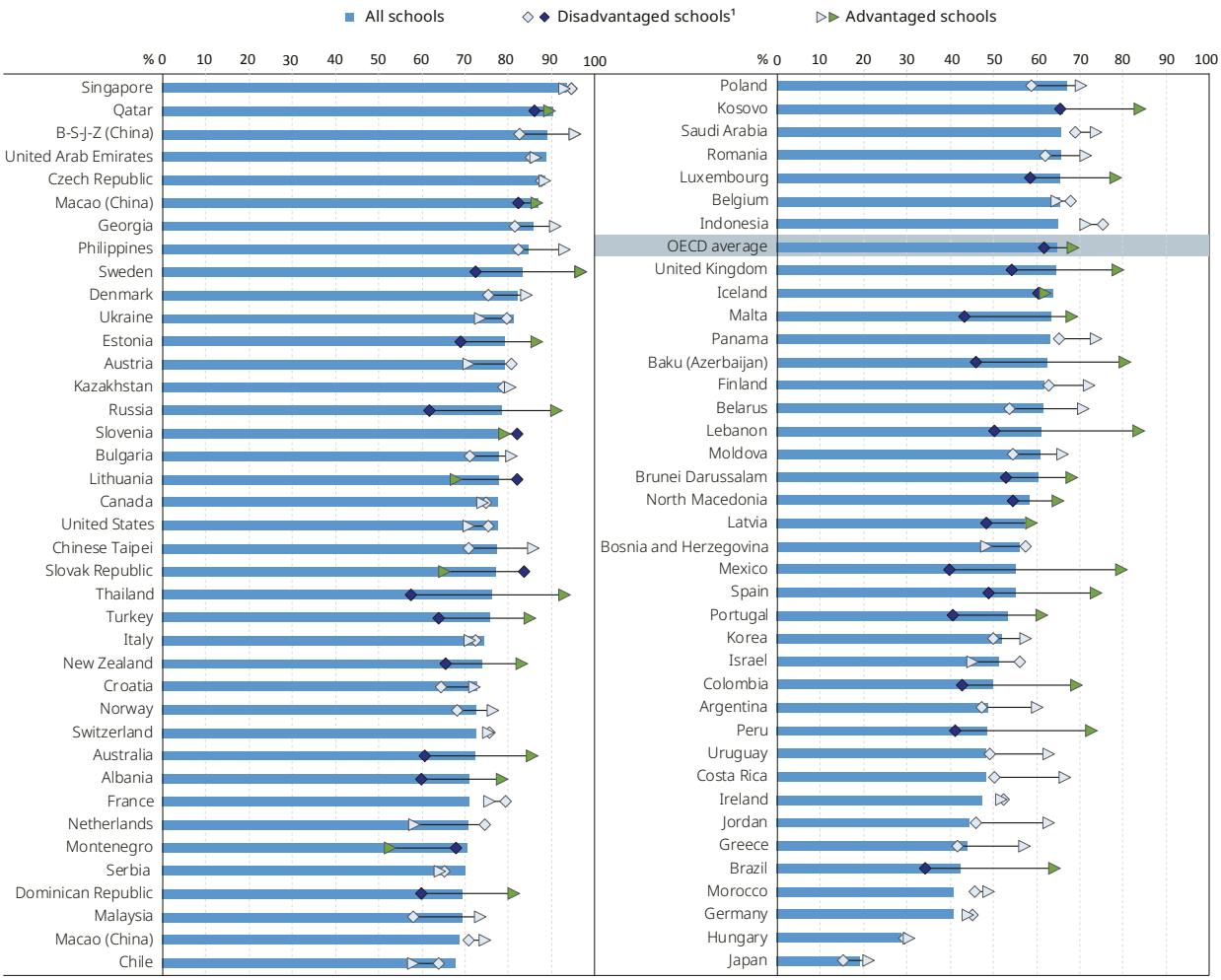
On average across OECD countries, the most common school practices intended to improve learning through the use of digital devices were: having regular discussions between principals and teachers about the use of digital devices for pedagogical purposes (63% of students attended schools that practice this); having written school statements about the use of digital devices (62% of students); and having a specific programme to prepare students for responsible Internet behaviour (60% of students).

By contrast, on average across OECD countries, the least common practices were: having a specific programme to promote collaboration amongst teachers on the use of digital devices (36% of students attended schools that have such a programme); having a scheduled time for teachers to meet to share, evaluate or develop instructional materials and approaches that use digital devices (44% of students); and having a written statement specifically about the use of digital devices for pedagogical purposes at school (46% of students).

School guidelines and practices to enhance teaching and learning using digital devices are more often observed in socio-economically advantaged schools than disadvantaged schools.

Figure 9 • Effective professional resources for teachers to learn how to use digital devices are available

Percentage of students in schools whose principal agreed or strongly agreed that effective professional resources for teachers to learn how to use digital devices are available, PISA 2018



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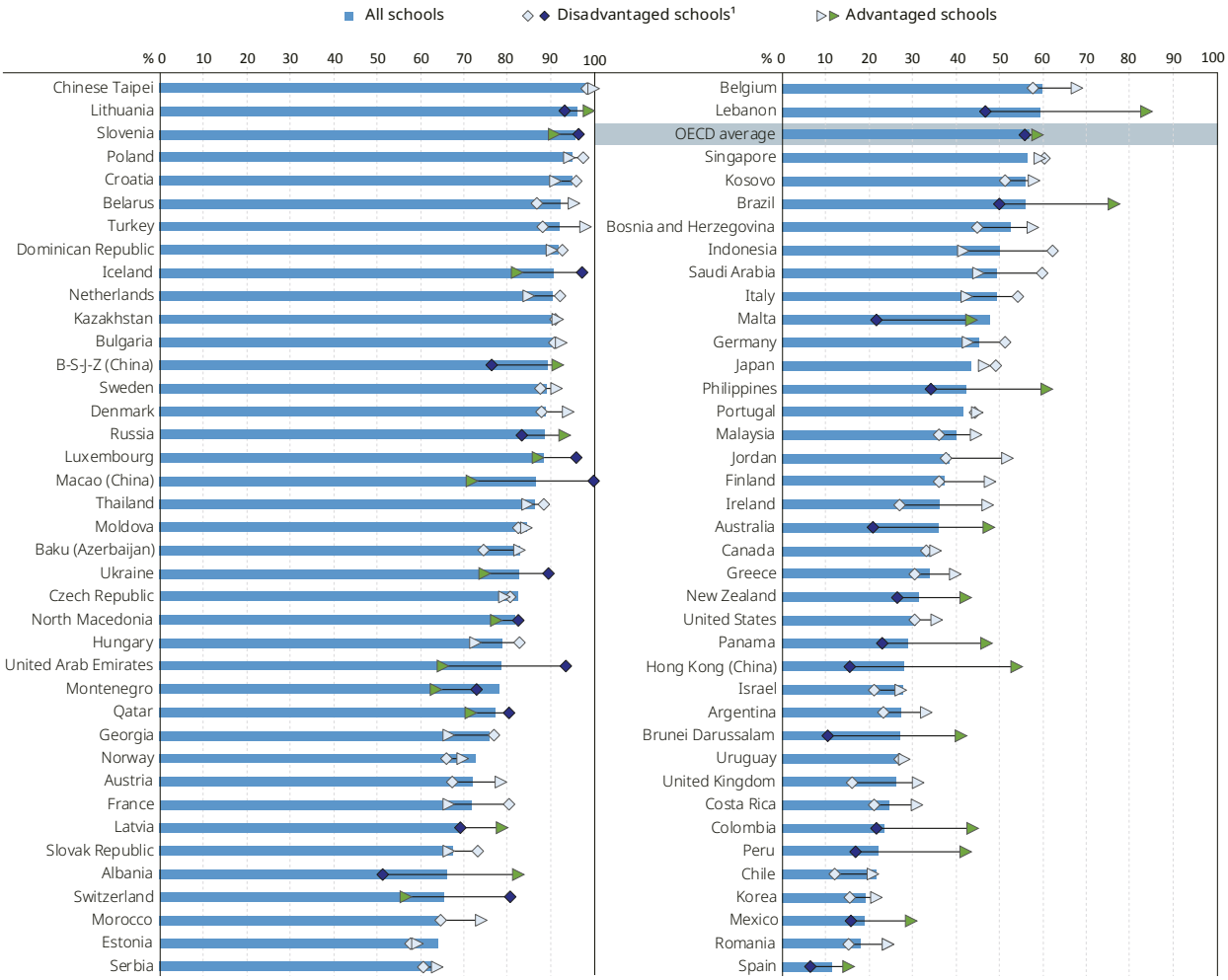
Countries and economies are ranked in descending order of the percentage of schools where effective professional resources for teachers to learn how to use digital devices are available
Source: OECD, PISA 2018 Database

Figure 10 • Teachers are provided with incentives to integrate digital devices in their teaching

Percentage of students in schools whose principal agreed or strongly agreed that teachers are provided with incentives to integrate digital devices in their teaching, PISA 2018



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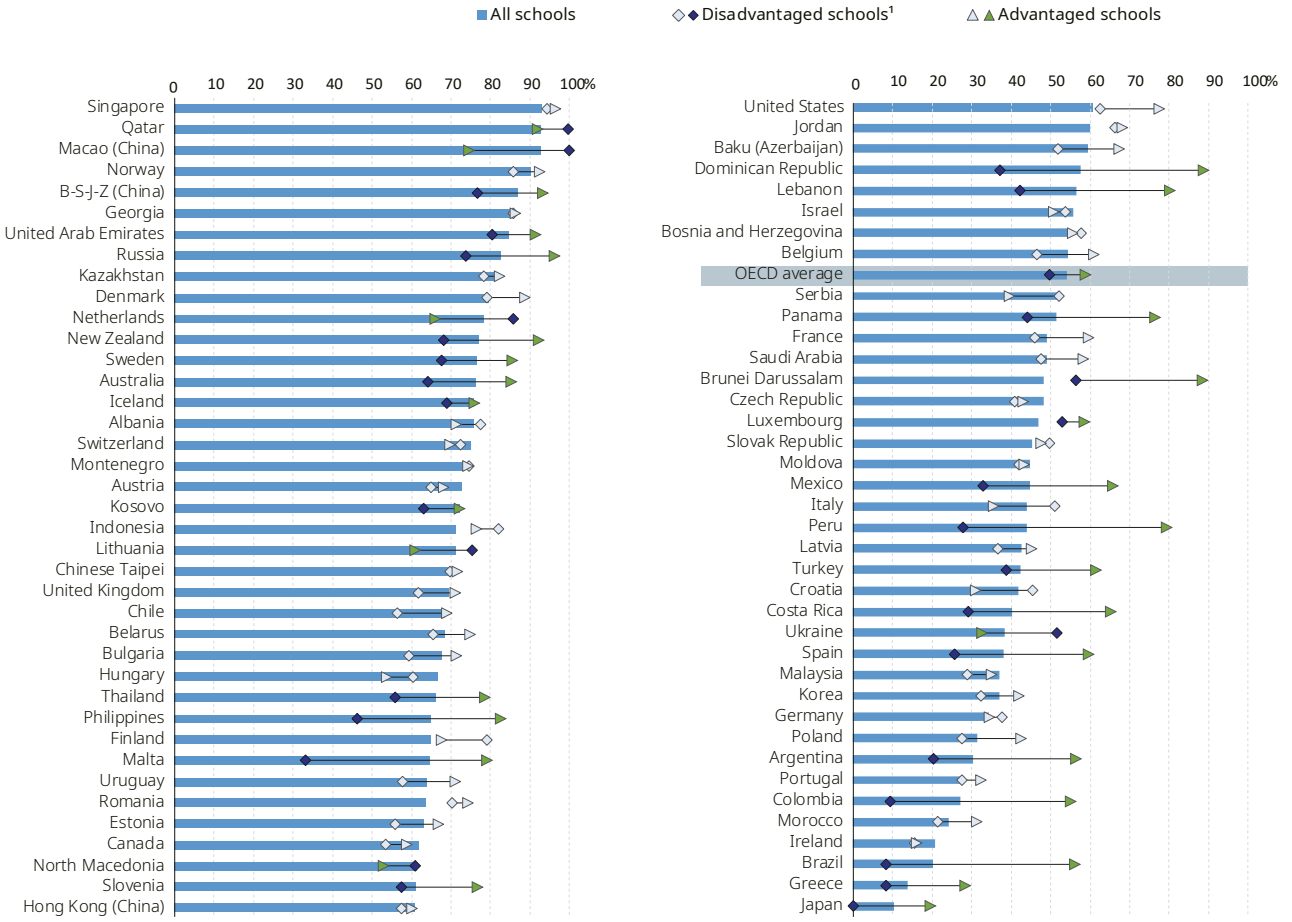
Countries and economies are ranked in descending order of the percentage of schools where teachers are provided with incentives to integrate digital devices in their teaching

Source: OECD, PISA 2018 Database

Figure 11 • The school has sufficient qualified technical assistant staff

Percentage of students in schools whose principal agreed or strongly agreed that the school has sufficient qualified technical assistant staff, PISA 2018



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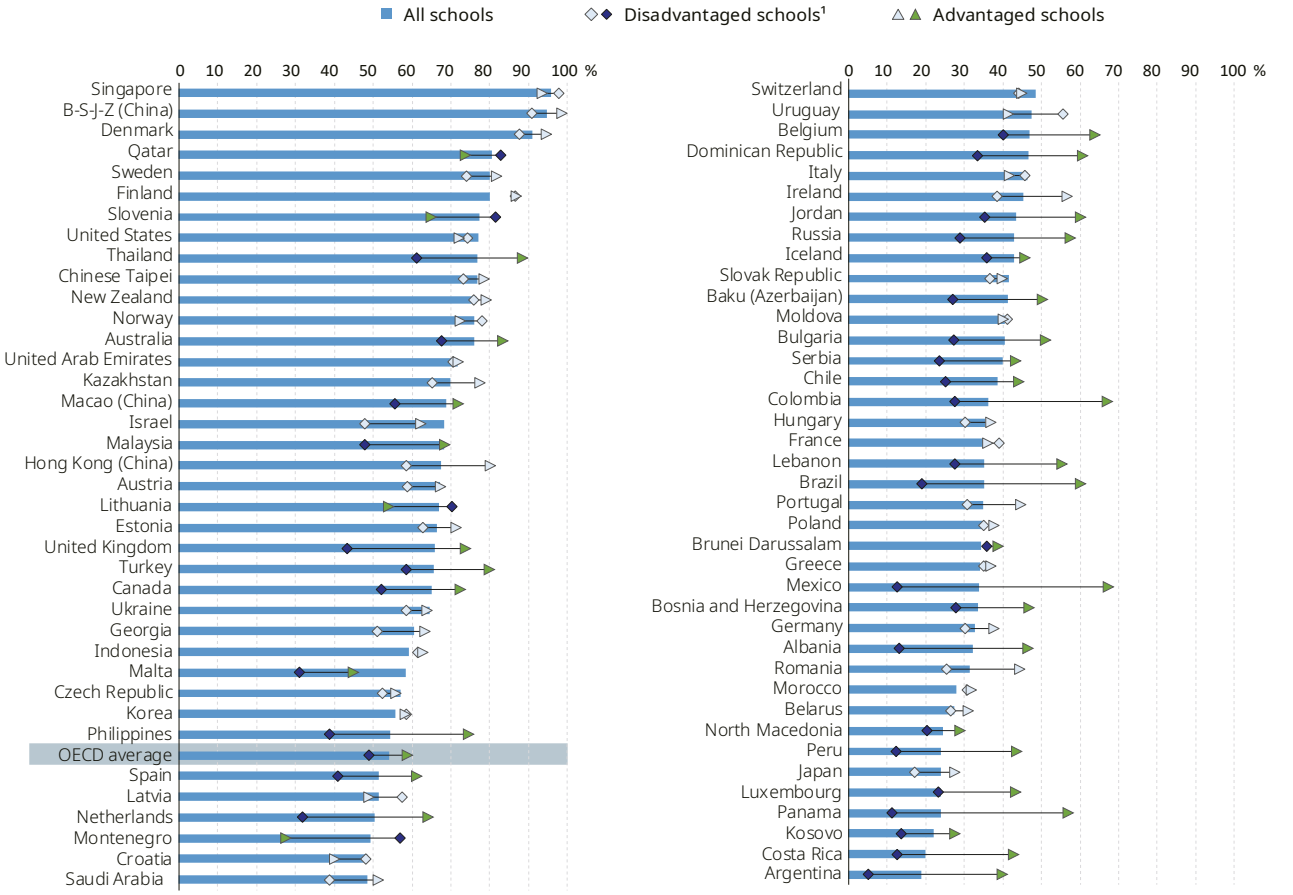
Countries and economies are ranked in descending order of the percentage of schools that have sufficient qualified technical assistant staff
Source: OECD, PISA 2018 Database

Figure 12 • An effective online learning support platform is available

Percentage of students in schools whose principal agreed or strongly agreed that an effective online learning support platform is available, PISA 2018



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Countries and economies are ranked in descending order of the percentage of schools where an effective online learning support platform is available
Source: OECD, PISA 2018 Database

Appendix A. Survey

Framework for Rapid Response to COVID-19

The Global Education Innovation Initiative at the Harvard Graduate School of Education and the Directorate of Education and Skills of the OECD are collaborating in the development of a decision-support framework to support governments in devising education responses to the COVID-19 Pandemic.

This rapid response framework will be based on an analysis of current global needs and practices to support the education of students at the basic levels during the Pandemic. The framework will also highlight innovative practices in the response to the Pandemic.

We hope that the information in this rapid assessment of needs and responses will assist education policy makers, other educators and other organizations in civil society in strengthening the education response to the Pandemic in the coming weeks. The report with the results will be provided to all respondents and will be widely disseminated among the education community. No individual respondent will be identified by name. Participation in this survey is entirely optional. If you begin the survey, you can suspend participation at any time and not submit your responses. If you complete and submit the survey you are consenting to the use of the information you provide for the purposes described here.

If you are able to provide information on how a particular government entity, or network of schools, is responding to the Pandemic, or if you are able to describe the needs for information that such entities have, please fill out this survey by March 24.

Please do not fill out the survey if you do not believe you have accurate information on the questions included in the survey.

Do not guess in providing answers, if you don't know the answer to a question just don't respond.

https://harvard.az1.qualtrics.com/jfe/form/SV_3f4XNi1b6uePs7X

Many thanks for your participation in this survey.

Andreas Schleicher

OECD,

Education and Skills Directorate

Fernando Reimers

Global Education Innovation Initiative,

Harvard Graduate School of Education

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1. What level of government is the reference for the responses you provide in this survey
   a. National ministry of education
   b. State ministry of education
   c. Municipal ministry of education
   d. Network of schools (public)
   e. Network of schools (private)
   f. Other (specify)
2. What is the country to which the responses provided in this survey refer to?
   a. Select country
3. Has the operation of schools been suspended in the country and level of government you are describing in this survey at this point?
   a. Yes, the government has mandated the suspension of school activities

b. The government has not yet mandated the suspension of school activities, but it is likely to do so over the next few weeks.

c. Schools have discretion over whether to suspend classes

4. If classes have been suspended, or are likely to be suspended, what is the length of the suspension of classes at this point?

Identifying Needs

5. How critical is it that the level of government you are describing makes decisions about the following, in the response to the COVID-19 Pandemic (likert scale)

a. Ensure the continuity of the academic learning of students
b. Ensure support for parents and caregivers to support student learning.
c. Ensure continuity/integrity of the assessment of student learning
d. Revise graduation/grade transition policy to allow student progress.
e. Ensure distribution of food to students
f. Ensure provision of other social services to students
g. Ensure well-being of students
h. Ensure medical attention of students affected by COVID-19
i. Provide professional support, advice to teachers
j. Ensure well-being of teachers
k. Ensure medical attention to teachers affected by COVID-19
l. Other, specify

6. Which of these are the most challenging issues to address, in the response to the COVID-19 Pandemic (likert scale)

a. Ensure the continuity of the academic learning of students
b. Ensure support for parents and caregivers to support student learning.
c. Ensure continuity/integrity of the assessment of student learning
d. Revise graduation/grade transition policy to allow student progress.
e. Ensure distribution of food to students
f. Ensure provision of other social services to students
g. Ensure well-being of students
h. Ensure medical attention of students affected by COVID-19
i. Provide professional support, advice to teachers
j. Ensure well-being of teachers
k. Ensure medical attention to teachers affected by COVID-19
l. Other, specify

Characterizing responses

7. What has the government/network you are describing here done to support the continuity of the academic experience of students?

8. What instructional resources have you been able to use to support the academic experience of students while they are unable to come to school?

a. Online websites, please provide website
b. Printed Instructional packages, please describe
c. Radio education, please describe
d. Educational television, please describe
e. Using existing online distance learning platform/resources, please describe

f. Develop new online platforms (virtual classrooms) so that teachers can continue engaged with students or students engage in self-directed or collaborative learning

g. Partner with private education platforms

h. Other modalities, please describe

9. What specific actions are in place to support the education of students from disadvantaged backgrounds during the time when school operations are suspended?

10. What actions have been undertaken to continue distribution of students who receive meals in schools during the Pandemic?

11. What actions have been undertaken to provide other social services to students during the pandemic?

12. What actions have been undertaken to support the well-being of students during the pandemic?

13. What professional support/advice is being offered to teachers during the pandemic?

14. What actions have been undertaken to support the well-being of teachers during the pandemic?

15. What resources have you been able to use to support the professional development of teachers and their capacity to innovate during the Pandemic?

a. Online websites, please provide website

b. Printed Instructional packages, please describe

c. Radio education, please describe

d. Educational television, please describe

e. Using existing online distance learning platform/resources, please describe

f. Develop new online platforms (virtual classrooms) so that teachers can access professional development and engage in self-directed or collaborative learning with peers

g. Partner with private education platforms

h. Tools that enable teachers to share knowledge with other teachers in the same country

i. Tools that enable teachers to collaborate with peers in other countries

j. Other modalities, please describe

.16. What actions have been undertaken to support parents to help learning and well-being of students at home?

17. Are there other actions which have been undertaken that aim at supporting the education of students during the pandemic?

18. What are the implementation challenges with the responses which have been adopted so far?

a. Lack of technological infrastructure

b. Management of IT infrastructure

c. Achieving the right balance between digital and screen-free activities

d. Addressing students emotional health

e. Lack of capacity or willingness of teachers to adapt to the changes required by the situation.

f. Lack of availability of parents/guardians to support learning at home.

g. Lack of adequate communication with parents to coordinate curriculum-aligned learning

h. Other, specify

19. Are there any positive unexpected educational actions or results of the changes which responding to the Pandemic has made necessary?

a. introduction of technologies and other innovative solutions

b. increased pedagogical autonomy of teachers

c. introduction/reinforcement of learning on global and citizenship issues (global health issue, interconnectedness of the world, sense of cizitenship and responsibility etc)

d. strengthened involvement and cooperation of parents

e. increased autonomy of students to manage their own learning

f. improvement in multi-sectorial coordination (Education-health etc)

g. strengthened public-private partnership

20. Is there anything else you would like to add?

21. Can you provide an email address where we can contact you, if necessary?

22. What is your role in the education system?

23. What is the source of the information you provide in this survey?

a. From my direct involvement in a school

b. From my direct involvement in a network of schools

c. From my direct involvement in the government

d. From my direct involvement in the private sector in education

e. Other, specify

Appendix B. Online platforms and education resources identified by respondents of the survey.

We are including these resources without checking them or evaluating them in any way. We do not have information on the quality or representativeness of these resources.

Online platforms:

Google, Google classroom, Google suite, Google Hangout, Google Meet

Facebook

Microsoft one note

Microsoft, SEQTA, education Perfect

Google Drive/Microsoft Teams

Moodle

Zoom

Seesaw

ManageBac

Ed Dojo

EdModo

https://mediawijs.be/tools

Youtube

youtube, ebscohost, progrentis

PhET

Screencastify

RAZ Kids

IXL

Web-sites

https://learning.careyinstitute.org/; https://www.learninginpractice.org/moving-learning-online?preview=true

https://eduthek.at/schulmaterialien

e-education.brac.net

www.techedu.gov.bd

https://www.klascement.net/thema/geen-les-op-school

Www.mon.bg

https://play.google.com/store/apps/details?id=secondary.academy.miya&hl=en

educarchile.cl

learnenglishbritishcouncil,

https://educationaboveall.org/#!/news/eaa-provides-home-learning-support-for-parents-and-guardians

https://hundred.org/en/articles/a-guide-for-caring-for-children-during-extended-family-confinement; https://www.jenniferchangwathall.com/resources

https://www.mckinsey.com/business-functions/organization/our-insights/leadership-in-a-crisis-responding-to-the-coronavirus-outbreak-and-future-challenges?cid=other-eml-alt-mip-mck&hlkid=c253534b9ada4e3da6593104054fe111&hctky=9652078&hdpid=16a43b5b-480b-4b3b-b8cf-bc20fcc11b08#

https://www.cois.org/about-cis/perspectives-blog/blog-post/~board/perspectives-blog/post/managing-ambiguity-a-competency-to-harness-now-and-for-the-future

http://1s1k.eduyun.cn/

www.alianzaeducativa.edu.co

https://micuentofantastico.cr/recursos/; : https://micuentofantastico.cr/coleccion-fantastica/

https://cajadeherramientas.mep.go.cr/

https://nadalku.msmt.cz/cs

www.televisioneducativa.gob.mx

https://www.esl-lab.com/

Hitsa.ee

https://www.hm.ee/et/koroonaviiruse-leviku-tokestamine-info-haridusasutustelehttps://www.hitsa.ee/e-ope-korduma-kippuvad-kusimusedhttps://www.facebook.com/groups/278900333094971/?ref=group_headerâ€¢ https://www.innove.ee/uudis/info-ja-nouanded-vanematele-oma-lapse-toetamiseks-COVID-19-pandeemia-ajal/

https://www.hitsa.ee/e-ope-korduma-kippuvad-kusimused

www.innove.ee www.hm.ee www.hitsa.ee

https://minedu.fi/koronavirus-ja-varautuminen,

www.continuitepedagogique.org

http://solidarite.edtechfrance.fr/

http://pronote.0640055m.ac-bordeaux.fr/pronote/professeur.html?login=true

www.jobsandinternshipsabroad.com

unterricht.de;

simpleclub.de

TV5MONDE
Wikipedia.org
www.galileo.edu.gt/ges
https://www.nkp.hu/
https://www.oktatas.hu/kozneveles/ajanlas_tantermen_kivuli_digitalis_munkarendhez/
https://fraedslugatt.is/
https://krakkaruv.spilari.ruv.is/
Centralswayam.gov.in
https://mhrd.gov.in/e-contents
https://seshagun.gov.in/shagun
https://swayam.gov.in/about
www.educate.ie
www.educateplus.ie
scoilnet.ie
ncca.ie
jct.ie
pdst.ie
education.gov.il
https://pop.education.gov.il/sherutey-tiksuv-bachinuch/
https://dolly.economia.unimore.it/2019/
https://www.riconnessioni.it/galleria/
https://www.mext.go.jp/edutainment/
https://www.nhk.or.jp/school/
https://katariba.online/
http://www.kumamoto-kmm.ed.jp/
https://www.mext.go.jp/a_menu/ikusei/gakusyushien/index_00001.htm
https://www.mext.go.jp/content/20200319-mxt_kouhou02-000004520_1.pdf METI on-line learning support website;
https://www.learning-innovation.go.jp/COVID_19/
Www.welovereading.org
https://darsak.gov.jo/
http://tiny.cc/LearningintheTimeofCorona
https://docs.google.com/document/d/1wB8a2Hz5olGI7Rks0GB3BHHmEAZ9TYyUZelTRMhfFoM/mobilebasic
www.MakeMusic.com
www.brainpop.com
Raz Kids
iXL
Mystery Science
In Thinking
www.kognity.com
www.scirra.com
Explore Learning/Gizmos
EBSCO
World Book Online
www.follett.com
https://soma.lv
https://maconis.zvaigzne.lv
https://www.uzdevumi.lv
https://www.zvaigzne.lv/
https://www.fizmix.lv
https://www.nsa.smm.lt/
https://sites.google.com/itc.smm.lt/nuotolinis/naujienos
https://www.smm.lt/web/lt/nuotolinis
www.aprende.edu.mx
www.telesecundaria.sep.gob.mx
www.librosdetexto.sep.gob.mx
https://www.gob.mx/conaliteg
https://docs.google.com/spreadsheets/d/1SA1N1fQkrPkkoTNKXOwm90g7kBZD6BBCN94i0HFlG2c/edit#gid=538165332
http://sep.puebla.gob.mx/index.php/component/k2/content/estudiantes
www.knotion.com
www.udir.no
http://aaghi.aiou.edu.pk/
Ucas-edu.workplace.com
https://www.fractalup.com
Readtheory.org
noredink.com
Google classroom
Edmodo
Khan Academy
Quizlet
http://www.gov.pl/zdalnelekcje
https://epodreczniki.pl/
Genial.ly
eduelo.pl
epodreczniki.pl
testportal.pl
superkid.pl
HSLDA
https://apoioescolas.dge.mec.pt/
www.scoalapenet.ro
www.sio.si
www.zrss.si
https://sites.google.com/sparkschools.co.za/home-

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www.quarantainecolleges.nl

https://communities.surf.nl/group/59

https://support.google.com/edu/classroom

www.eba.gov.tr

https://portal.nesibeaydin.com.tr

https://www.learn.khanacademy.org,

http://science.cleapss.org.uk/

Learning A to Z, BrainPop

Albert.io

Newsela

biblegateway

Rediker

Plus Portals LMS, GAFE, EduBlogs, Kahoot, Nearpod, WeVideo, FlipGrid, EdPuzzle, GMeet, Zoom, Adobe for Education, various museums and fine arts sites

Annenberg

www.rea.ceibal.edu.uy

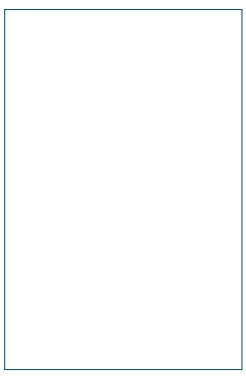
www.toolsofthemind.org

Audible

Cambridge resources

Managebac

Seesaw



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Education and COVID-19: Focusing on the long-term impact of school closures

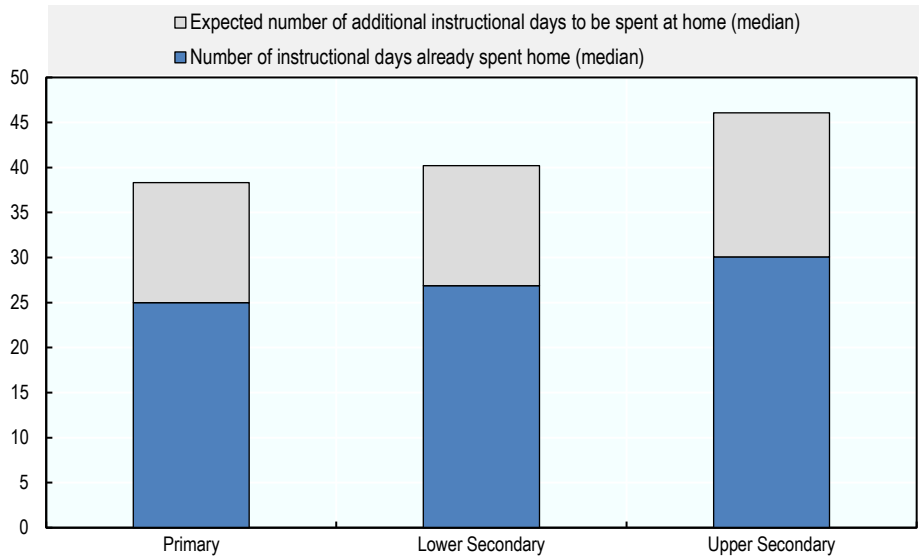
29 June 2020

The COVID-19 crisis has forced school closures in 188 countries, heavily disrupting the learning process of more than 1.7 billion children, youth, and their families. During this time, distance-learning solutions were implemented to ensure education continuity, and much of the current debate focuses on how much students have learnt during school closures. However, while this potential learning loss may only be temporary, other elements that happen in the absence of traditional schooling, such as the curbing of educational aspirations or the disengagement from the school system, will have a long-term impact on students' outcomes. This "hysteresis" effect in education requires specific attention, and this paper outlines a dual strategy to bring disengaged students back to school, and mitigate effectively student disengagement in case of future lockdowns.

The COVID-19 crisis has forced school closures in 188 countries, heavily disrupting the learning process of more than 1.7 billion children, youth, and their families. With the pandemic slowing down, governments are now developing the next steps of their strategy to cope with a crisis of an unprecedented scope. In many countries, it implies to plan the safe reopening of schools, and it has taken various forms. Some countries, such as France or Germany, have already welcomed back students, while others, such as Spain or Italy, will maintain the school gates closed until September. Despite these different reopening timelines that reflect national preferences and contexts, there is a broad consensus on the need to analyse and evaluate the consequences of school closures (Gouëdard, Pont and Viennet, 2020[1]).

Country representatives attending the yearly meeting of the OECD Implementing Education Policies project (June 2020) expressed their particular interest in measuring the potential learning loss associated to school closures. In the OECD-Harvard Graduate School of Education Survey, the impact of school closures on education continuity was estimated to be at least 2 months of instruction for half of the primary and secondary school students (Figure 1). During this time, distance-learning solutions such as online classrooms, TV and radio broadcasts, and computer-assisted learning were implemented to bridge the gap between schools and learners, but the overall impact on learning remains uncertain.

Figure 1. Impact of school closures on education continuity, May 2020



Note: At the time of the survey, respondents were not only asked how many days were the schools closed, but also how many additional days were the schools expected to remain closed
Source: Reimers and Schleicher (2020[2]), *Educational Opportunity during the COVID-19 Pandemic*.

A tale of learning loss: when governments should focus on keeping students engaged to avoid hysteresis in education

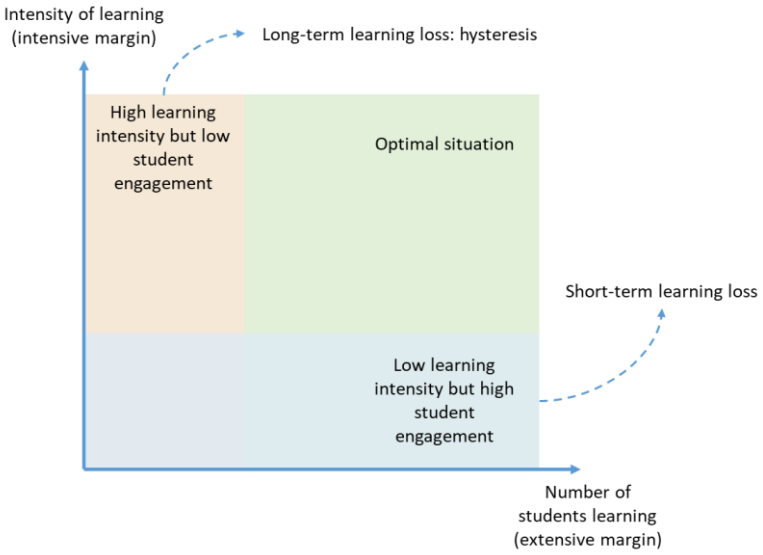
In labour economics, hysteresis usually refers to the long-term effect of unemployment on a worker's ability to find a job. It could refer in education to the long-term impact of school closures on students' outcomes. During the COVID-19 crisis, and in the absence of traditional schooling, we expected that levels of learning would not match what face-to-face teaching would have achieved. For instance because it takes time to adapt and switch to distance-learning, international reports already highlighted the difficulties schools face to integrate the technologies of information and communication into the classroom (OECD, 2018[3]; OECD, 2019[4]). This potential learning loss is determined by two concurring factors.

On the one hand, **how much** students have learnt during school closures — the "intensive margin" — refers to the efficiency of education continuity solutions. It is now the focus of analysis in many countries, as they aim to identify the most efficient distance-learning tools. This discussion is necessary to guide the research agenda, and capitalise on the crisis momentum to shape the future of education. According to Hattie (2020[5]), we should not, however, overly focus on the impact of school closures on students' learning. He recalls that the literature has only shown "tiny" effects of the school year length on students' outcomes, and that the Christchurch earthquakes in 2011, which led to prolonged school closures, did not undermine students' performance in school examinations at the end of the year, mostly because teachers focused afterwards on "what has to be learnt".

The effects of 2 months of disrupted learning may fade out by the time students complete their school education.

On the other hand, **how many** students who continued to learn during the school closures — the "extensive margin" — refers to the share of students engaged in the education continuity solutions. It reveals a different issue, as distance-learning solutions are often associated with attendance challenges and higher absenteeism. Between 5 and 8% of French students could not be reached by their teachers two weeks after school closures, according to the French Minister of Education (LesEchos, 2020[6]). In Los Angeles (United States), the nation's second-largest school district, around 13% of high school students still had not had any contact with teaching staff three weeks following the lockdown (The New-York Times, 2020[7]). These attendance challenges, still largely undocumented, increase the risk of disengagement or dropout, especially among students in difficult socio-economic and family situations.

Figure 2. A theoretical model for learning loss during school closure



This risk, acknowledged worldwide (Saavedra, 2020[8]), prompts the existence of a potential hysteresis of the COVID-19 crisis in education as some students went off the grid during the school closures (Figure 2). It stems from the many elements, often linked to the socio-economic background, leading to a withdrawal

from the school system that will induce a long term impact on students' outcomes. Such elements encompasses for instance the struggle some students face to maintain their learning pace from home due to inadequate resources; the erosion of their basic academic skills due to lack of practice; the difficulty in re-engaging with education activities; their demotivation as they fall further behind; and the curbing of their educational aspirations due to the uncertainty of the learning environment. Given the critical role proper IT resources and parental involvement have played in ensuring education continuity during the crisis (Gouëdard, Pont and Viennet, 2020[1]), the hysteresis induced by school closures may be more prevalent among students from less privileged backgrounds.

The hysteresis induced by school closures may be more prevalent among students from less privileged backgrounds.

Against this backdrop, governments should not solely focus on the short-term effects of the 2 months of disrupted learning, which may fade out by the time students complete their school education. The policy focus should be set on keeping students engaged in learning to limit hysteresis, the long term impact on students' outcomes, which also potentially aggravates inequalities in education. This requires to pay careful attention to the indicators that will determine how the COVID-19 crisis will influence students' outcomes in the long term, such as the curbing of their educational aspirations and in extreme cases, their dropping-out rate.

How to prevent students from disengaging from learning during school closures?

Some countries have developed initiatives to limit dropout during school closures. In Spain, students from the "Second Chance Schools" (Escuelas de Segunda Oportunidad, E2O), a network of schools providing 15-29 year old not in education, employment, or training (NEET), an original pedagogical model, benefitted from individualised follow-ups carried out by telephone, in which academic, health and personal doubts were discussed (CEDEFOP, 2020[9]). In England and Wales (United Kingdom), schools remained open to vulnerable children and young people, those either supported by the social care system or identified as vulnerable by educational providers and local authorities (Department for Education, UK, 2020[10]). In Germany, social pedagogues called "transition coaches" support students at school to limit dropouts and ensure they complete general or vocational education. During the pandemic, transition coaches have adjusted their services to ensure the continuity of tailored support, providing advice to young people as much as possible by phone (CEDEFOP, 2020[11]).

For countries now defining their mid-term strategies, the potential long-term educational impact of the crisis requires these countries to pursue a double objective. First, there is an urgency to collect comprehensive data to gain an accurate picture of dropouts or disengaged students during school closures, develop specific support to bring those students back to school, and engage in diagnostic assessment to identify their learning needs. The OECD Project for International Student Assessment (PISA) is currently developing a specific questionnaire module to build a comparative dataset and document the educational impact of the crisis across countries (OECD, 2020[12]). In the meantime, governments can establish different forms of targeted communication to reinitiate contact with disengaged students, and adopt a flexible curriculum centred on key competences to restore students' confidence. Second, countries need to prepare strategies to mitigate effectively this risk in case of future lockdowns. This can include among others:

- To monitor closely student engagement by following up on their attendance, behaviour, and learning progress.

- To address the potential barriers to student engagement by offering adequate resources (such as laptops or tablets, and safe places to learn).
- To provide individualised support to students so they can get the best out of the new modes of education delivery (Gouëdard, Pont and Viennet, 2020[1]).

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For further information

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Strengthening online learning when schools are closed: The role of families and teachers in supporting students during the COVID-19 crisis

24 September 2020

The COVID-19 crisis has forced education systems worldwide to find alternatives to face-to-face instruction. As a result, online teaching and learning have been used by teachers and students on an unprecedented scale. Since lockdowns – either massive or localised - may be needed again in the future to respond to new waves of the infection until a vaccine becomes available, it is of utmost importance for governments to identify which policies can maximise the effectiveness of online learning. This policy brief examines the role of students' attitudes towards learning in maximising the potential of online schooling when regular face-to-face instruction cannot take place. Since parents and teachers play a fundamental role in supporting students to develop these crucial attitudes, particularly in the current situation, targeted policy interventions should be designed with the aim of reducing the burden on parents and help teachers and schools make the most of digital learning.

Key findings and recommendations:

- The current COVID-19 crisis has obliged most education systems to adopt alternatives to face-to-face teaching and learning. Many education systems moved activities online, to allow instruction to continue despite school closures.
- Considering the alternative of no schooling, online schooling has been an important tool to sustain skills development during school closures. That being said, there are still concerns that online learning may have been a sub-optimal substitute for face-to-face instruction, especially so in the absence of universal access to infrastructure (hardware and software) and lack of adequate preparation among teachers and students for the unique demands that online teaching learning pose.
- Developing strong attitudes towards learning can help students overcome some of the potential challenges posed by online learning such as, for instance, remaining focused during online classes or maintaining sufficient motivation. They are also crucial in supporting students using information and communications technology (ICT) effectively and making the most of new technologies for learning. Positive attitudes towards learning, self-regulation and intrinsic motivation to learn play an important role in improving performance at school in general, but may be especially important should online learning continue.
- Students' attitudes and dispositions are influenced to a great degree by the support they receive from families and teachers and by the role models they are exposed to. Different forms of support from families and teachers, including parental emotional support and teacher enthusiasm, are found to be important for the development of positive attitudes towards learning and can ensure that students acquire the attitudes and dispositions that can maximise their ability to make the most of online learning opportunities. Yet, some families and teachers may struggle to provide such support - especially during the COVID-19 crisis - because of a lack of time, insufficient digital skills or lack of curricular guidelines.
- Education systems should aim to strengthen engagement between schools and parents in order to improve information and guidance to parents on effective practices for supporting their children's learning. At the same time, teachers need support to incorporate technology effectively into their teaching practices and methods and help students overcome some of the difficulties that are associated with this form of learning environment. Supporting teachers' training about the use of digital resources for pedagogical practice and promoting teaching practices adapted to this context is key to ensure that ICT is leveraged effectively.

As a response to the COVID-19 crisis, many countries around the world closed schools, colleges and universities to halt the spread of the virus. According to data from UNESCO, the peak in school closures was registered at the beginning of April 2020, when around 1.6 billion learners were affected across 194 countries, accounting for more than 90% of total enrolled learners (UNESCO, 2020[1]). The sudden closure of schools meant that education policy makers, school principals and teachers had to find alternatives to face-to-face instruction in order to guarantee children's right to education. Many systems have adopted online teaching (and learning) on an unprecedented scale, often in combination with widespread remote learning materials such as television or radio. Until effective vaccines or therapeutics for the novel Coronavirus become available, it is likely that schooling may continue to be disrupted. Even if the worst case scenario of a second wave of the outbreak were not to materialise, localised and temporary school closures may still be needed to contain transmission of COVID-19. For instance, children coming in contact with infected individuals may be required to self-isolate and the lack of adequate spaces for them to attend classes or of qualified educators to be deployed in those circumstances will force certain schools to adopt blended models to guarantee social distancing. This has already been the case, for

instance, in Germany, where, just two weeks after re-opening, some schools were closed again over Coronavirus infections. Against this uncertain backdrop, it is therefore important to identify which policies can maximise the effectiveness of online teaching and learning.

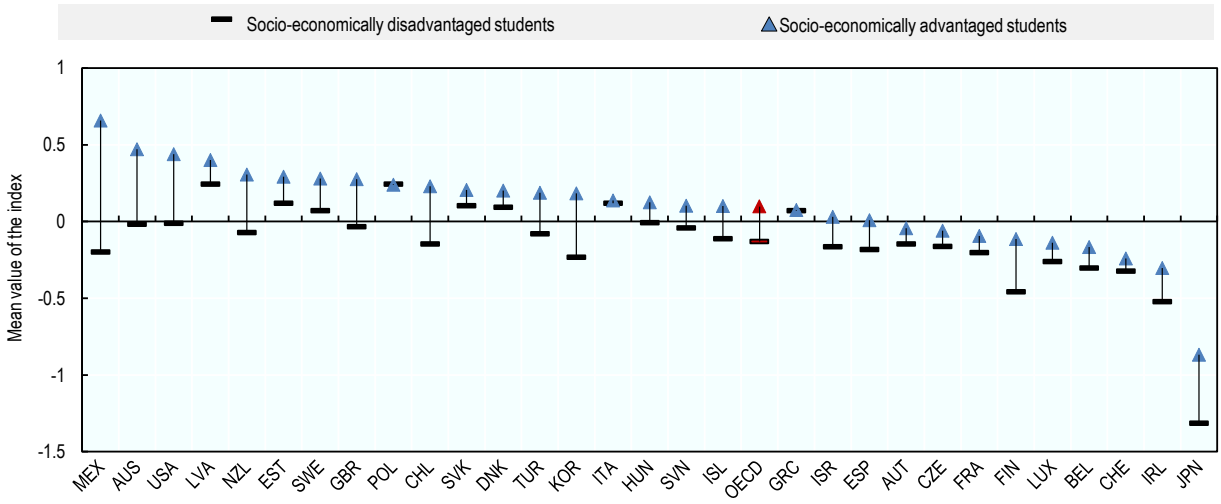
In spite of being a desirable option compared to no schooling – which would have caused major interruptions in student learning with possible long-lasting consequences for the affected cohorts (Burgess, 2020[2]; Hanushek and Woessmann, 2020[3]) - the sudden switch to using digital instruction may have led to sub-optimal results if compared to a business as usual in-presence instruction, as teachers, students and schools all had to unexpectedly adjust to a novel situation. This policy brief takes stock of some of the difficulties encountered by students, teachers and schools while adapting to online learning in order to understand how remote schooling can be improved further, should online learning become necessary to prevent widespread transmission.

The first concern which has arisen is that online learning is only available to children that have access to a broadband connection at home that is fast enough to support online learning. While network operators have mainly been successful to maintain services and efficiently utilise pre-existing capacity during phases of lockdown (OECD, 2020[4]), there are still geographical areas and population groups that are underserved, especially in rural and remote areas and among low-income groups. For example, in many OECD countries, fewer than half of rural households are located in areas where fixed broadband at sufficient speeds is available. In addition, children need to have access to devices such as computers and the necessary software to participate in online learning activities, which is often a challenge for lower-income households.

For those students that are connected, the second concern is that certain students have not been able to receive a sufficient number of hours of instruction. For example, in the United Kingdom, 71% of state school children received no or less than one daily online lesson (Green, 2020[5]), while in Germany only 6% of students had online lessons on a daily basis and more than half had them less than once a week (Woessmann et al., 2020[6]). Some economists have estimated that, as a consequence of this, students in the United States will resume their schooling in the fall of 2020 with roughly 70% of the learning gains relative to a typical school year on average and that the learning gains might be even smaller in mathematics, amounting to just 50% (Kuhfeld and Tarasawa, 2020[7]). It is therefore important for education policy-makers to understand which factors have prevented certain children from receiving sufficient instruction – among them, in addition to the lack of infrastructure, the absence of adequate preparation in schools and among teachers, as well as, in some cases, the lack of curriculum guidelines. These elements have also determined a great variation, across schools and countries, in the quality of online learning, raising the concern that disparities in educational outcomes across socioeconomic groups may be reinforced in the absence of corrective measures. For example, in the United States, over one-third of students have been completely excluded from online learning, particularly in schools with large shares of low-income students, while elite private schools experienced almost full attendance (The Economist, 2020[8]; Khazan, 2020[9]). Similarly, evidence from England (United Kingdom) suggests that children from better-off families spent 30% more time on home learning than those from poorer families during the lockdown, and their parents reported feeling more able to support them than socio-economically disadvantaged parents, while students from richer schools had access to more individualised resources (such as online tutoring or chats with teachers) (IFS, 2020[10]).

Further concerns relate to the fact that the effectiveness of online learning might have been hindered, in some cases, by the lack of basic digital skills among certain students and teachers, making them unprepared to adapt to the new situation so abruptly (OECD, 2020[11]). For example, descriptive evidence based on PISA 2018 shows that there were major differences across countries and socio-economic groups in the use of technology for schoolwork before the pandemic among 15-year-olds, raising the concern that students who were less experienced might be those suffering the most from the shock caused by online learning.

Figure 1. Mean Index of ICT use outside of school for schoolwork, by socio-economic groups



Note: The index of ICT use outside of school for schoolwork measures how frequently students do homework on computers, browse the Internet for schoolwork, use e-mail for communications related to school, visit the school website, and/or upload or download materials on it. Higher values of this index correspond to more frequent and more varied uses. Socio-economically disadvantaged/advantaged students are defined as the students in the bottom/top quartile of the PISA index of socio-economic status.
Source: OECD, PISA 2018 Database.

Figure 1 indicates that, in almost all countries, students from low socio-economic backgrounds made less frequent use of digital technologies compared to their peers from high socio-economic backgrounds before the pandemic in 2018. Disparities were particularly striking in Australia, Mexico, South Korea and the United States. Similar differences are observed between students from public and private schools, with the latter making more frequent use of digital technologies for schoolwork (OECD, Forthcoming[12]).

In addition, some teachers might also have struggled to adapt to online teaching so abruptly due to a lack of adequate digital skills, possibly contributing to a great heterogeneity in the quality of online teaching across schools. An antecedent result in the literature is in fact that the effectiveness of ICT for learning purposes depends considerably on the digital competencies of teachers and on whether technology is incorporated into pedagogical practices (OECD, 2010[13]) in an effective manner (see Box 1).

Box 1. Impact of digital learning on students' performance: What do we know?

While in recent years governments of many countries have been investing increasing resources to raise the availability of digital devices across schools and households, some academic literature has tried to establish the mechanisms through which the use of digital devices affects students' learning. What has emerged is that simply providing access or using digital technologies does not automatically lead to better academic results (Escueta et al., 2017[14]). For example, Angrist and Lavy (2002[15]) assessed the impact of Israel's Tomorrow-98 programme, which was launched in the mid-90s to provide schools with computers and teachers with training for computer-aided instruction. They document a negative relationship between the programme-induced use of computers and maths scores. Similar findings come from the evaluation of a Dutch subsidy scheme for computers and software in schools, which had a negative impact on student achievement in language, arithmetic and information processing (Leuven et al., 2007[16]). Other studies have found negligible effects of ICT use. In 2008, a large scale experiment was launched in Italy to provide 156 classes with large grants to buy ICT: despite its huge cost – in the order of EUR 1 500 per student – the CI@ssi2.0 programme was found to have only a negligible effect

on student achievements (Checchi, Rettore and Girardi, 2015[17]). Similarly, a field experiment involving the provision of free computers to low-income schoolchildren for home use in the US state of California did not improve educational outcomes (Fairlie and Robinson, 2013[18]). Such negative or negligible effects have been mainly attributed to uses of ICT that substitute for more effective traditional instruction (Bulman and Fairlie, 2016[19]): for example, a study suggests that classroom computers are beneficial to students' achievements when used to look up information but detrimental when used to practice skills and procedures (Falck, Mang and Woessmann, 2018[20]). Other studies illustrate that digital tools are beneficial to student learning when they are used to complement traditional teaching, e.g. extending study time and enhancing student motivation (Fleischer, 2012[21]; Peterson et al., 2018[22])

Based on this knowledge, efforts should be made by governments and school principals to support teachers in incorporating online tools effectively into their instruction practices, e.g. by fostering teachers' pedagogies aimed at providing students with guidance and motivation towards active learning (Peterson et al., 2018[22]). Pedagogical practices should also ensure that the use of digital technologies and online tools corresponds to learners' needs, prior competencies and digital literacy and teachers should act as mentors to guide students and help them remain focused on the learning elements of tasks (OECD, 2019[23]).

However, effective pedagogical practices and ease with digital tools are necessary but not sufficient conditions to ensure the effectiveness of online teaching and learning. Students' attitudes towards learning are strong drivers of their academic achievements in regular times. Indeed, these may be crucial in sustaining students' motivation and active learning in times of home schooling. The following section of this brief focuses on how the development of positive attitudes towards learning can promote effective skills development in a digital environment. It also identifies how positive learning attitudes can be best promoted by parental emotional support and teacher enthusiasm.

Positive learning attitudes can improve performance at school and help students keep their motivation when schools are closed

Recently, there has been increasing attention devoted to sustaining the development of different non-cognitive skills among students – e.g. personality traits, goals and motivation – since they have been found to have direct positive effects on several socio-economic outcomes, including wages, schooling and performance in achievement tests. Evidence indicates that these skills are malleable and amenable to policy intervention and classroom practice (Heckman et al., 2014[24]).

This section will focus on six learning attitudes:

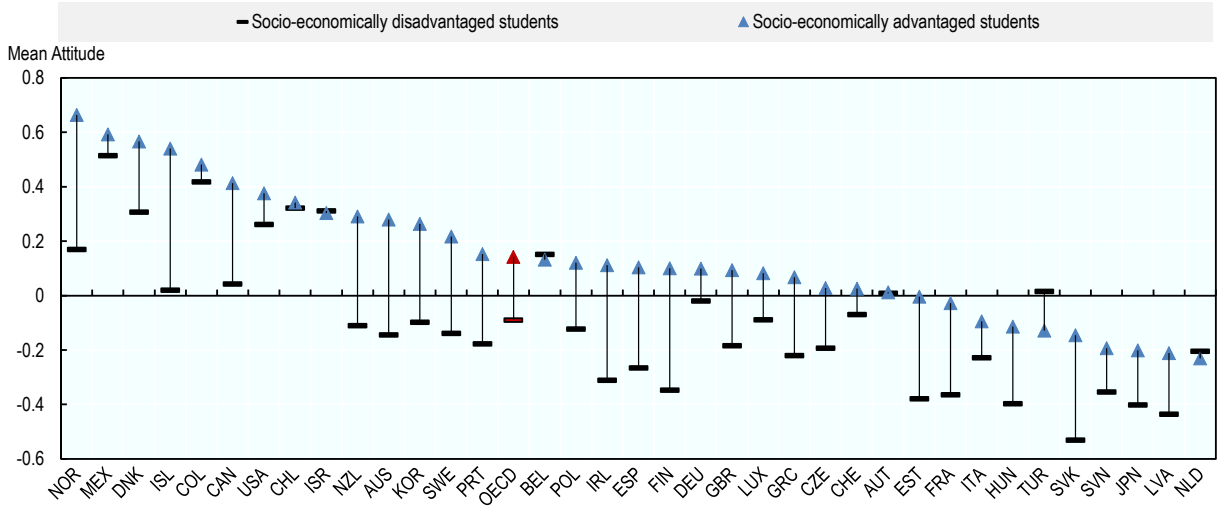
- students' ambition to learn and understand as much as possible (*ambitious learning goals*);
- the relevance students attribute to school for their future working careers (*value of school*);
- the sense of belonging to the school community (*sense of belonging)*;
- students' commitment to work hard and to improve performance (*motivation to master tasks*);
- students' ability to overcome difficulties on their own (*self-efficacy*);
- the satisfaction students get from learning and reading (*enjoyment of reading*).

Evidence from the *OECD Skills Outlook 2021* (OECD, Forthcoming[12]) shows that all the above-mentioned attitudes are particularly important for students' success[1] in that they are positively associated to their performance in reading, mathematics and science. While many of these attitudes are developed at early

[1] Other previous evidence is contained for example in (Behncke, 2009[41]), (Heckman, Stixrud and Urzua, 2006[40]).

stages of one's learning path, they are very likely to be carried over in adulthood, making individuals more resilient to changing societies and more disposed to life-long learning (OECD, Forthcoming[12]; Tuckett and Field, 2016[25]). Learning attitudes are not just innate and their development is highly influenced by schooling, parental care and investments, with high risk of major inequalities across socio-economic groups. Data show, for instance, that in a vast majority of OECD countries, socio-economically advantaged students are significantly more likely to have ambitious learning goals as compared to disadvantaged students (Figure 2). This eventually affects also their proficiency and academic performance.

Figure 2. Mean value of ambitious learning goals, for advantaged vs. disadvantaged students



Note: Positive values on this scale mean that the student developed more ambition than the average student across OECD countries. Socio-economically disadvantaged/advantaged students are defined as the students in the bottom/top quartile of the escs index.
Source: OECD, PISA 2018 Database.

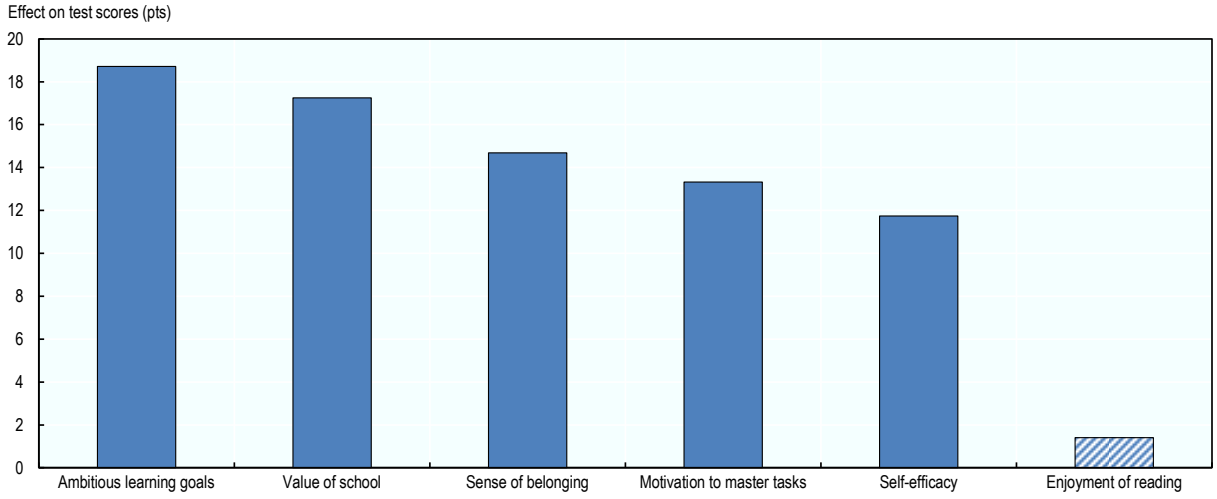
While positive attitudes towards learning are important drivers of students' educational attainments during normal times, they are likely to be even more important in the current context, because of the unique challenges posed by online learning: online learning requires students to rely on intrinsic motivation and self-directed learning. Developing strong learning attitudes, for instance, is fundamental if pupils are to remain focused and motivated in difficult learning environments and could therefore be key to address the main difficulties that students may encounter again in the near future, if a second wave of school closures were to materialise before the health crisis has been fully addressed.

Figure 3 provides indication of the importance of attitudes for learning when this learning is mediated by digital technologies by comparing the association between a very frequent use of ICT for schoolwork and students' performance in reading among students who are, respectively, in the top and bottom quartiles of each learning attitude. Results show that, among students who make a very frequent use of ICT for schoolwork, those with stronger attitudes towards learning achieve significantly higher proficiency levels than their peers with less positive attitudes.[2] Further analyses shows that, while positive attitudes tend to beneficial to students' educational achievements in general, this positive association is even stronger when restricting the sample to high ICT users, suggesting that learning attitudes can be key to incorporate technologies and online tools effectively into learning. When giving closer consideration to the role of

[2] Results hold when accounting for students' grade compared to modal grade in the country and type of programme (general, pre-vocational, vocational), mitigating the concern that results might be driven by school characteristics.

different learning attitudes, data show that students' dispositions to develop ambitious learning goals and to attribute high value to school may be particularly important for maximining the effect of online learning. For instance, in Ireland, among students making an extensive use of ICT for schoolwork, those with strong ambitious learning goals score 32 points more in reading tests compared to their peers lacking ambitious goals.[3]

Figure 3. Association between learning attitudes and reading performance among students making intensive use of ICT outside of school for schoolwork



Note: The figure displays the association between high/low values of learning attitudes and performance in reading among students making intensive use of ICT outside of school for schoolwork. Bars represent the difference in reading test scores between students in the top vs bottom quartiles of learning attitudes (OECD average). Only students making an extensive use of ICT are considered. Regression controls include: the PISA index of student's and school's socio-economic status, age, gender, immigration status, dummy variables for attending a private and a rural school. Regressions are estimated for each of the attitudes separately. Country fixed effects are included in the regression. Bars with patterns indicate coefficients that are not statistically significant at the 5% level. Results hold when adding controls for students' grade compared to modal grade in the country and type of programme (general, pre-vocational, vocational).
Source: OECD, PISA 2018 Database.

Attitudes and dispositions toward learning are important drivers of students' educational achievements. In the context of online learning, they can help students to incorporate more efficiently digital technologies and online tools into the learning process.

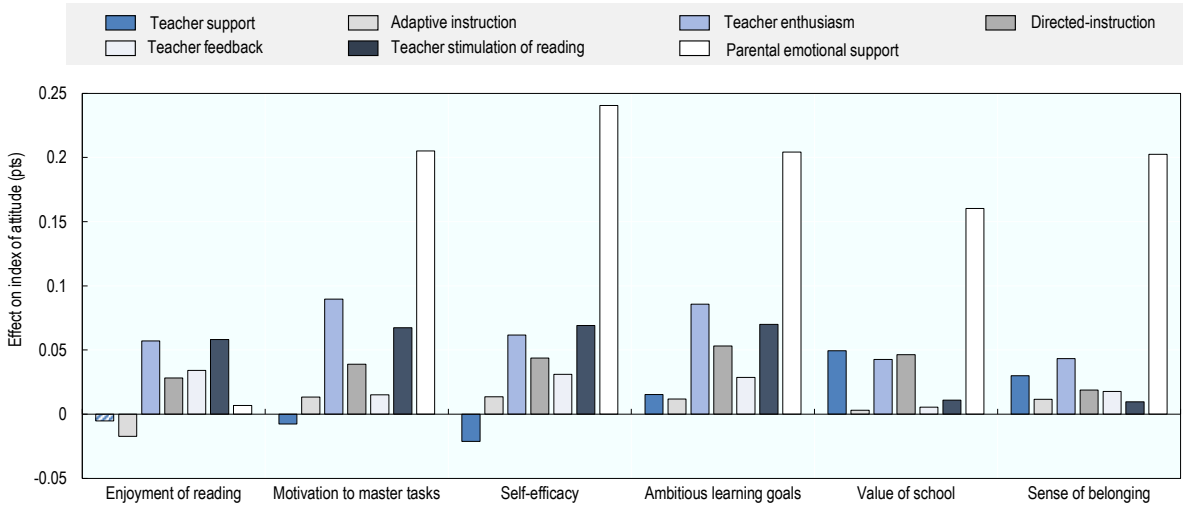
Families and teachers: Can they provide effective support to digital learning?

Learning attitudes are rooted in the support that students receive from teachers and families. Analyses based on PISA 2018 in the *OECD Skills Outlook 2021* (OECD, Forthcoming[12]) shed light on the crucial role played by both teacher practices and parental emotional support as important drivers of the development of attitudes. Different forms of support can be incentivised and shaped by effective policy intervention, generally, but even more so in the extraordinary circumstances related to the COVID-19

[3] Analogous results are found for the other subjects assessed in PISA, i.e. science and mathematics.

pandemic. Therefore, it is important to understand which are the most suitable forms of support that teachers and families can embrace to sustain the digital learning process of children.

Figure 4. Association of learning attitudes and different forms of support by parents and teachers



Note: The figure displays the change in each attitude index associated with one-unit increases in the indexes of parental and teachers' support. Estimates are reported at the OECD average. Regression controls include: the PISA index of student's and school's socio-economic status, age, gender, immigration status, a measure of cognitive ability. Country fixed effects are included in the regression.
Source: OECD, PISA 2018 Database.

Figure 4 shows that students display more positive attitudes and dispositions towards learning when they benefit from more parental emotional support.[4] Parental emotional support matters for most attitudes and displays a strong association with students' self-efficacy. More specifically, the forms of emotional support that are found to be most beneficial are when parents encourage their children to be confident and when they support their children's educational efforts and achievements (OECD, Forthcoming[12]). On the teachers' side, the analysis suggests that education environments where teachers are able to convey enthusiasm towards the content of their instruction support the development of positive learning attitudes in students, in particular ambitious learning goals, motivation to master tasks, self-efficacy and enjoyment of reading. The importance of teacher enthusiasm as a driving factor of student learning has been shown extensively in the literature: for instance, enthusiastic teachers help instill in their students positive subject-related affective experiences and a sense of the personal importance of the subject (Keller et al., 2014[26]) and they motivate and inspire students, increasing the productive time they spend on learning tasks (Keller et al., 2015[27]; Hoidn and Kärkkäinen, 2014[28]; Kunter et al., 2013[29]).

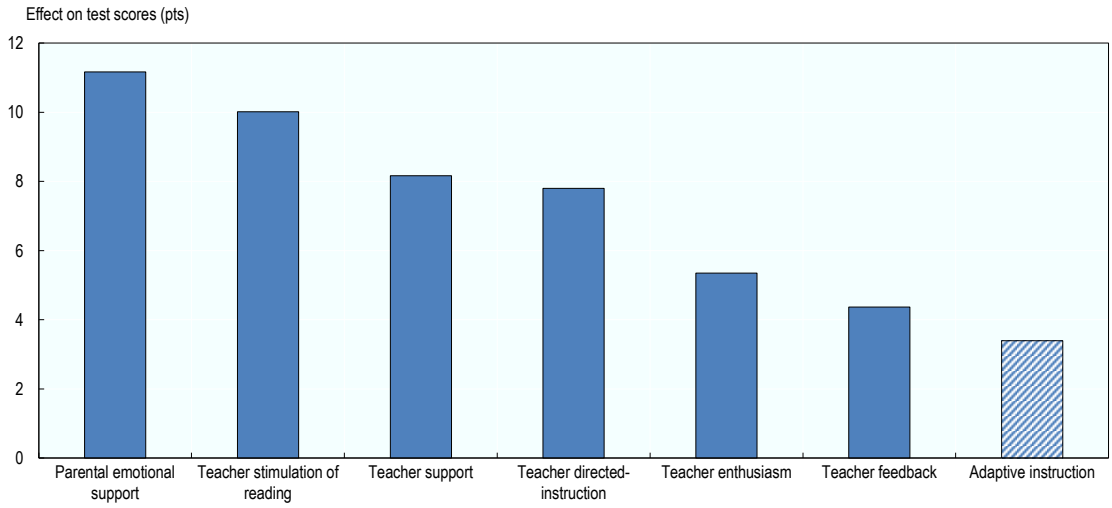
To give an indication of the benefits brought about by parental and teachers' support to students' academic achievements, Figure 5 focusing on students making intensive use of ICT outside of school for schoolwork, compares performance in reading between those who report to have received, respectively, very high and very low levels of support[5] – both from families and from teachers. This evidence, based on PISA 2018,

[4] Parental emotional support is an index constructed in PISA grouping the following forms of support embraced by parents: parents support their children's educational efforts and achievements, they support their children when they are facing difficulties and they encourage them to be confident.

[5] High and low levels of support have been defined based on the values taken by the indices of parental emotional support and teacher practices, constructed in PISA. More specifically, students receiving low/high support are those in the bottom/top quartile of the corresponding index.

shows that several forms of support can be particularly effective in enhancing student learning. For example, among high ICT users, pupils who receive very high emotional support from parents or whose teachers are more predisposed to support them and stimulate their reading tend to perform significantly better in all subjects assessed in PISA. Parental emotional support is particularly effective: for instance, in the Slovak Republic, students who use ICT very often and who receive very high support from families score on average 23 points more than their peers with less support from families. Receiving strong emotional support from parents is similarly effective in some other countries, such as Austria and Slovenia.

Figure 5. Association between students' performance in reading and support from families and teachers among students making intensive use of ICT outside of school for schoolwork



Note: The figure displays the association between high/low levels of support and performance in reading among students making intensive use of ICT outside of school for schoolwork. Bars represent the difference in reading test scores between students in the top vs bottom quartiles of support from families and teachers (OECD average). Only students making an extensive use of ICT are considered. Regression controls include: the PISA index of student's and school's socio-economic status, age, gender, immigration status, dummy variables for attending a private and a rural school. Separate regressions are estimated for each type of support, while controlling for the continuous indices of the others. Country fixed effects are included in the regression. Bars with patterns indicate coefficients that are not statistically significant at the 5% level.
Source: OECD, PISA 2018 Database.

This evidence suggests that parents can play a crucial role during home schooling such as ensuring that their children follow the curriculum and supporting their children emotionally to sustain their motivation and ambitious goals in a situation where they might easily be discouraged from learning autonomously, also due to the lack of peer effects. Parental involvement during this phase could significantly help students to address the main challenges posed by online learning, spurring their active and autonomous learning. However, many obstacles may hinder an effective engagement by parents: for example, they might struggle to engage in their children's schoolwork while combining their job obligations or other family obligations - a challenge that may be especially acute for single parents. Parents might also feel uncapable of supporting them due to lack of digital skills, familiarity with the content of their children's schoolwork or negative attitudes towards the material. For example, differences in educational levels of parents might give rise to further inequalities in educational attainments and this should therefore be of great concern for policy-makers. A recent study from the Netherlands shows, for instance, that less educated parents have been less supportive of their children efforts during the lockdown and that this has been partly driven by the fact that they were feeling less capable to help them (Bol, 2020[30]). Parents with low education might also hold negative attitudes towards learning themselves, thus underestimating the importance of their support for their children's skill development and, as result, help them less than highly educated parents. Another concern is that gender differences in math attitudes and achievements can be worsened during

home schooling, when many children are supported mainly by their mothers in their schoolwork (Del Boca et al., 2020[31]; Farré and González, 2020[32]; Sevilla and Smith, 2020[33]). What is known is that many women have high levels of mathematics anxiety and previous research indicates that girls may be especially sensitive to internalising mathematics anxiety when exposed to it from female adult figures (Beilock et al., 2010[34]). It is therefore crucial for governments and schools to take immediate actions in order to tackle these issues and foster parental involvement.

Together with families, teachers play a fundamental role in helping students to make a more beneficial use of digital learning. In particular, the most effective practices relate to how teachers stimulate reading in students (e.g. the teacher poses questions that motivate students to participate actively or shows students how the information in texts builds on what they already know) as well as more general teacher support (e.g. when the teacher shows interest in every student's learning, continues teaching until all the students understand and provides extra-help when students need it) and directed-instruction (e.g. the teacher sets clear goals for students' learning, asks questions to check whether students understand the material, presents summary of previous classes at the beginning of each lesson). Similarly to parental emotional support, these teacher practices can significantly improve students' performance at school and might be particularly relevant in this context, helping students to remain focused on their learning tasks and to keep their motivation and dispositions to learning. To give an example, in Australia, among students that rely extensively on ICT for schoolwork, those whose teachers are more able to stimulate their reading score on average 17 points more than their peers with lower support from teachers. Similar results are observed for some other countries, such as Australia and Switzerland.

If learning attitudes are key drivers of students' (online) learning achievements, the main challenge facing governments is therefore how to promote the development of those attitudes and how to support teachers and parents in strengthening them. Some countries have already implemented policies in this direction. These are discussed in the next section.

Policies to support families and teachers

The analysis presented so far has highlighted the importance of both families and teachers in supporting students' learning and motivation, in regular times but even more so during school closures. It is therefore important for governments to facilitate their effective engagement. Finding effective ways for working parents to provide childcare and support to their children in schoolwork while combining their jobs obligations is an important challenge that many governments are attempting to address. Most OECD countries have already put in place interventions in this direction by extending, for instance, family leave opportunities. In Slovenia working parents who are unable to reconcile work and family obligations are entitled to up to three-months paid leave, paid at 80% of their earnings by the government. Similarly, in Germany parents with children under 12 years of age are entitled to six weeks paid leave, paid at 67% of earnings up to a ceiling of EUR 2 016 per month. In the United States, according to the Families First Coronavirus Response Act, parents with children under 18 years of age whose school has closed are entitled to up to 12 weeks paid family leave, paid at two-thirds of earnings, up to a limit of USD 200 per day and USD 12 000 over the duration. Other countries have put in place similar provisions – e.g. Canada, France, Italy, Switzerland, the United Kingdom, etc. - and will continue them whilst schools remain closed. Measures of this sort are crucial to spur parental involvement in their children's learning activities while preserving their jobs.

The provision of information to parents on how to effectively support their children's learning can also improve educational outcomes, both during a lockdown and in normal times. For example, Wide Open School, a web platform created in the United States, offers resources for educators and families for students from preschool to upper secondary education. Part of these resources aim to develop disciplinary technical skills as well as creativity, critical thinking or social-emotional skills, while other resources support

families, e.g. by helping lower income families get devices and better broadband or by providing them with guidance about social-emotional wellbeing. Beyond offering access to curated resources, the platform also suggests a daily schedule to help students and families have a good balance of activities (Vincent-Lancrin, 2020[35]).

Education systems can also aim to strengthen school-parent engagement in order to provide appropriate information and guidance to parents on effective practices for supporting their children's learning. An example from Latvia is the Educational TV Channel Tava Klase, which delivers high-quality educational material tailored for different age groups and provides a way for parents to connect with schools (van der Vlies, 2020[36]). As an indicator of its success, a recent survey of parents, students and teachers show that there is a strong positive association between the clarity of communications between schools and parents, and parents' confidence that their children would achieve their learning goals (Burns, 2020[37]).

Teachers also need support to rapidly adapt their instruction practices to distance learning, whether regular or ad hoc. In this respect, France has mobilised its network of local digital education advisers to support the transition from face-to-face to distant learning. The network of digital education advisers has supported both teachers and school principals - by providing them with online training about the availability and use of digital resources for pedagogical practice and by promoting teaching practices adapted to educational continuity and progressive school re-opening – and students – by working with local authorities to lend and deliver computers and learning worksheets to all students (Vincent-Lancrin, 2020[38]). Other countries have decided to complement schooling resources and teachers' efforts in delivering high-quality online classes by also providing home schooling broadcast on television or social networks. As an example, in the United Kingdom, the BBC has started to collaborate with teachers and educational experts and provides daily lessons to pupils in year 1 to 10, including videos and interactive activities aimed at keeping up students' motivation and at stimulating their socio-emotional skills (Van Lieshout, 2020[39]).

Conclusions

The current COVID-19 crisis has forced many countries to close schools, colleges and universities to halt the spread of the virus. Due to the long-lasting negative consequences that school closures would have on skill accumulation, many education systems moved rapidly online on an unprecedented scale. Since lockdowns may be introduced again in the future until effective vaccines or therapeutics become available, it is of utmost importance for governments to reflect on the main difficulties that students, parents, teachers and school principals have encountered in adapting to this phase of massive online learning and intervene to better harness the potential of online learning. For example, they should first expand infrastructure, ensuring that nobody is excluded from online lessons, and support students and teachers to use online tools and technologies in an effective manner.

Based on forthcoming analysis in the *Skills Outlook 2021*, this policy brief illustrates that students' attitudes and dispositions to learning, such as ambition or motivation, are important drivers of their educational achievements and can help ensure that online learning is as effective as possible. In addition, this brief showed that families and teachers play a crucial role in guiding children through the challenges of home learning: parents can provide emotional and learning support to their children, while teachers can act as mentors, encouraging active learning and motivation and checking that nobody falls behind. Such interventions can considerably contribute to making online learning more effective. Given the crucial role that families and teachers play in the context of school closures, governments can spur their effective engagement by, for example, expanding family leave opportunities and by strengthening school-parents communication.

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THE IMPACT OF COVID-19 ON EDUCATION

INSIGHTS FROM *EDUCATION AT A GLANCE 2020*

Andreas Schleicher

OECD

The impact of COVID-19 on education - Insights from *Education at a Glance 2020*

This brochure focuses on a selection of indicators from *Education at a Glance*, selected for their particular relevance in the current context. Their analysis enables the understanding of countries' response and potential impact from the COVID-19 containment measures. The following topics are discussed:

The impact of the crisis on education

COVID-19 and educational institutions

Introduction

As the world becomes increasingly interconnected, so do the risks we face. The COVID-19 pandemic has not stopped at national borders. It has affected people regardless of nationality, level of education, income or gender. But the same has not been true for its consequences, which have hit the most vulnerable hardest.

Education is no exception. Students from privileged backgrounds, supported by their parents and eager and able to learn, could find their way past closed school doors to alternative learning opportunities. Those from disadvantaged backgrounds often remained shut out when their schools shut down.

This crisis has exposed the many inadequacies and inequities in our education systems – from access to the broadband and computers needed for online education, and the supportive environments needed to focus on learning, up to the misalignment between resources and needs.

The lockdowns in response to COVID-19 have interrupted conventional schooling with nationwide school closures in most OECD and partner countries, the majority lasting at least 10 weeks. While the educational community have made concerted efforts to maintain learning continuity during this period, children and students have had to rely more on their own resources to continue learning remotely through the Internet, television or radio. Teachers also had to adapt to new pedagogical concepts and modes of delivery of teaching, for which they may not have been trained. In particular, learners in the most marginalised groups, who don't have access to digital learning resources or lack the resilience and engagement to learn on their own, are at risk of falling behind.

Hanushek and Woessman have used historical growth regressions to estimate the long-run economic impact of this loss of the equivalent to one-third of a year of schooling for the current student cohort. Because learning loss will lead to skill loss, and the skills people have relate to their productivity, gross domestic product (GDP) could be 1.5% lower on average for the remainder of the century. The present value of the total cost would amount to 69% of current GDP for the typical country. These estimates assume that only the cohort currently in school are affected by the closures and that all subsequent cohorts resume normal schooling. If schools are slow to return to prior levels of performance, the growth losses will be proportionately higher. Of course, slower growth from the loss of skills in today's students will only be seen in the long term. However, when considered over this term, the impact becomes significant. In other words, countries will continue to face reduced economic well-being, even if their schools immediately return to pre-pandemic levels of performance. For example, for the United States, if the student cohorts in school during the 2020 closures record a corona-induced loss of skills of one-tenth of a standard deviation and if all cohorts thereafter return to previous levels, the 1.5% loss of future GDP would be equivalent to a total economic loss of USD 15.3 trillion (Hanushek E and Woessman L, forthcoming[1]).

The COVID-19 pandemic has also had a severe impact on higher education as universities closed their premises and countries shut their borders in response to lockdown measures. Although higher education institutions were quick to replace face-to-face lectures with online learning, these closures affected learning and examinations as well as the safety and legal status of international students in their host country. Perhaps most importantly, the crisis raises questions about the value offered by a university education which includes networking and social opportunities as well as educational content. To remain relevant, universities will need to reinvent their learning environments so that digitalisation expands and complements student-teacher and other relationships.

Reopening schools and universities will bring unquestionable benefits to students and the wider economy. In addition, reopening schools will bring economic benefits to families by enabling some parents to return to work. Those benefits, however, must be carefully weighed against the health risks and the requirement to mitigate the toll of the pandemic. The need for such trade-offs calls for sustained and effective co-ordination between education and public health authorities at different levels of government, enhanced by local participation

and autonomy, tailoring responses to the local context. Several steps can be taken to manage the risks and trade-offs, including physical distancing measures, establishing hygiene protocols, revising personnel and attendance policies, and investing in staff training on appropriate measures to cope with the virus.

However, the challenges do not end with the immediate crisis. In particular, spending on education may be compromised in the coming years. As public funds are directed to health and social welfare, long-term public spending on education is at risk despite short-term stimulus packages in some countries. Private funding will also become scarce as the economy weakens and unemployment rises. At tertiary level, the decline in the international student mobility following travel restrictions is already reducing the funds available in countries where foreign students pay higher fees. More widely, the lockdown has exacerbated inequality among workers. While teleworking is often an option for the most qualified, it is seldom possible for those with lower levels of education, many of whom have been on the front lines in the response to the pandemic, providing essential services to society.

Throughout this crisis, education systems are increasingly looking towards international policy experiences, data and analyses as they develop their policy responses. The OECD's publication *Education at a Glance* contributes to these efforts by developing and analysing quantitative, internationally comparable indicators that are particularly relevant to the understanding of the environment in which the sanitary crisis has unfolded. While the indicators in the publication *Education at a Glance* date from before the crisis, this brochure puts these indicators into the context of the pandemic. It provides insights into its economic consequences for education, but also the dynamics of reconciling public health with maintaining educational provision. The policy responses presented in this brochure cover key measures announced or introduced before the end of June 2020.

The impact of the crisis on education

Public financing of education in OECD countries

While the long-term impact of the crisis is uncertain, the **pandemic may affect public spending** on education as funds are diverted into the health sector and the economy

11% of public expenditure was devoted to education before the pandemic*

The spread of **COVID-19** has sent shockwaves across the globe

Economic pressures

Global economic activity is expected to fall by at least **6%** in 2020

Some countries have introduced short-term support measures:

- Supply of digital learning devices
- Financial support to students and schools
- Funds for safety and cleaning equipment

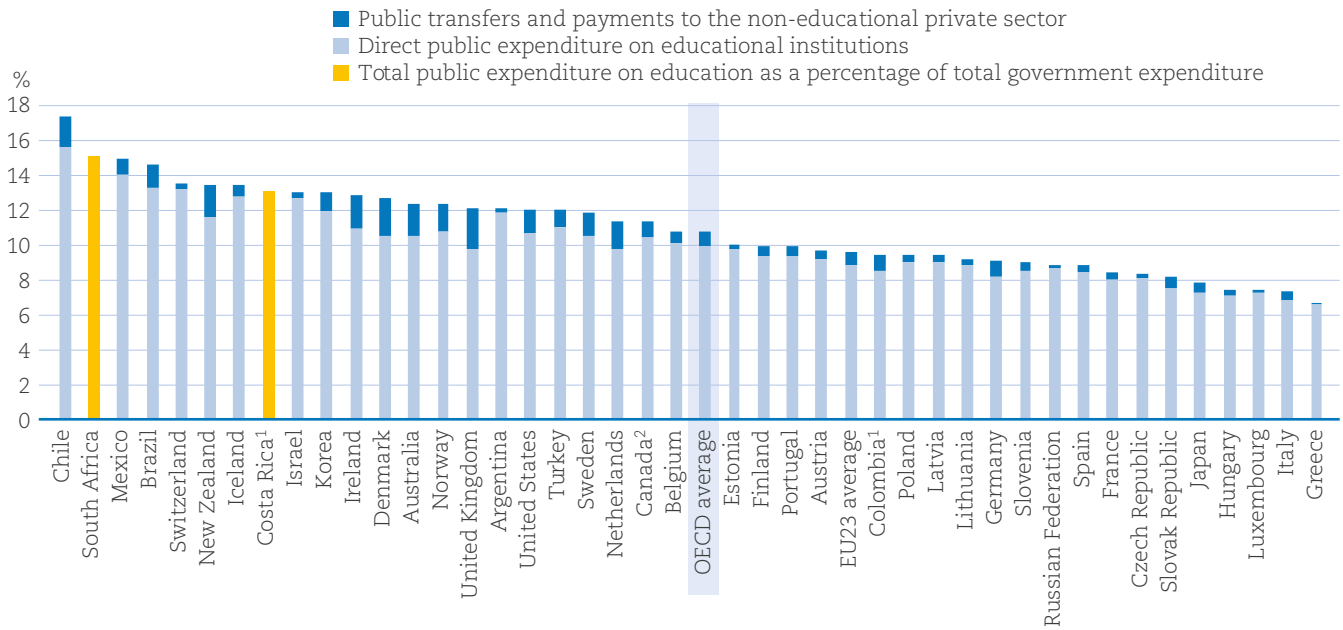
in 2017, on average across OECD countries

The spread of COVID-19 has sent shockwaves across the globe. The public health crisis, unprecedented in our lifetimes, has caused severe human suffering and loss of life. The exponential rise in infected patients and the dramatic consequences of serious cases of the disease have overwhelmed hospitals and health professionals and put significant strain on the health sector. As governments grappled with the spread of the disease by closing down entire economic sectors and imposing widespread restrictions on mobility, the sanitary crisis evolved into a major economic crisis which is expected to burden societies for years to come. According to the OECD's latest *Economic Outlook*, even the most optimistic scenarios predict a brutal recession. Even if a second wave of infections is avoided, global economic activity is expected to fall by 6% in 2020, with average unemployment in OECD countries climbing to 9.2%, from 5.4% in 2019. In the event of a second large-scale outbreak triggering a return to lockdown, the situation would be worse (OECD, 2020[2]).

All this has implications for education, which depends on tax money but which is also the key to tomorrow's tax income. Decisions concerning budget allocations to various sectors (including education, healthcare, social security and defence) depend on countries' priorities and the prevalence of private provision of these services. Education is an area in which all governments intervene to fund, direct or regulate the provision of services. As there is no guarantee that markets will provide equitable access to educational opportunities, government funding of educational services is needed to ensure that education is not beyond the reach of some members of society. In 2017, total public expenditure on primary to tertiary education as a percentage of total government expenditure was 11% on average across OECD countries. However, this share varies across OECD and partner countries, ranging from around 7% in Greece to around 17% in Chile (Figure 1).

However, government funding on education often fluctuates in response to external shocks, as governments reprioritise investments. The slowdown of economic growth associated with the spread of the virus may affect the availability of public funding for education in OECD and partner countries, as tax income declines and emergency funds are funnelled into supporting increasing healthcare and welfare costs.

Figure 1. **Total public expenditure on education as a percentage of total government expenditure (2017)**
Primary to tertiary education



1. Year of reference 2018.
2. Primary education includes pre-primary programmes.
Countries are ranked in descending order of total public expenditure on education as a percentage of total government expenditure.
Source: *Education at a Glance* (2020), Figure C4.1. See *Education at a Glance* (OECD, 2020[3]) for more information and Annex 3 for notes (https://doi.org/10.1787/69096873-en).

Economic crises have put pressure on public budgets in the past. In some countries, this has led to reductions in public funding for education. While cross-country comparisons do not show a strong relationship between spending on education and educational outcomes across OECD countries, due to significant differences in the productivity of education systems, reducing spending without improving productivity is likely to negatively affect the quality of education. It may take a few years to see the effect of a crisis on education funding. In the aftermath of the last financial crisis, despite severe budget cuts in all OECD countries, the majority continued to increase public spending on education between 2008 and 2009, with the first signs of a slowdown only appeared in 2010 as austerity measures imposed cuts on education budgets in about one-third of OECD countries (OECD, 2013[4]).

However, the current crisis may affect education budgets more quickly as public revenues decline sharply and governments review the prioritisation of education in national budgets (IIEP-UNESCO, 2020[5]). Forecasts predict that the pandemic will lead to slower growth in government spending in the coming year, and that if the share of government spending devoted to education were to remain unchanged, education spending would continue to grow but at significantly lower rates than before the pandemic (Al-Samarrai, Gangwar and Gala, 2020[6]).

In the short term some countries have implemented immediate financial measures to support students and education systems in coping with the disruptions and economic impact of school and university closures. Examples include:

- The Higher Education Relief Package, launched in April 2020 by the Australian government, which provided funding to Australians who have been displaced as a result of the COVID-19 crisis and who were looking to improve their skills or retrain. This package reduced the cost of taking short online courses, provided exemptions from loan fees for domestic students for a period of six months starting in May and guaranteed funding for domestic students, even if enrolments dropped. (Australian Government, 2020[7]) .

- The launch of the Canada Emergency Student Benefit announced in April 2020 which seeks to provide financial support to post-secondary students and recent high school graduates who are unable to find work due to COVID-19 over the summer months. The Canada Student Service Grant will also provide financial support to students who do national service and serve their communities during the pandemic crisis. The government has also announced plans to double student grants and broaden the eligibility for financial assistance (Trudeau, 2020[8]), as well as additional support in the form of scholarship funding extensions for students and postdoctoral researchers affected by the COVID-19 pandemic (Ministry of Education, 2020[9]).

- Distance learning support measures announced by the Italian government in March 2020 to equip schools with digital platforms and tools for distance learning, lend digital devices to less well-off students, and train school staff in methodologies and techniques for distance learning (Republic of Italy, 2020[10]). In May 2020 Italy announced new measures which seek to provide extra funding to cover costs arising from responses to the pandemic crisis at the school and university level (Republic of Italy, 2020[11]). This extra funding will cover the costs associated with special services, safety equipment and cleaning material needed in schools and universities for the next academic year, among other things. Additional financial resources were approved to recruit new teachers for primary to secondary level for the next school year. Emergency financial grants to cover partial or total course-related costs were announced for less well-off tertiary students.

- Support packages for tertiary students announced by the New Zealand government in April 2020 to help students continue their studies after the crisis. Measures include increasing the amount of student loans and providing additional support to students to cover extra course-related costs (Ministry of Education, 2020[12]).

- England's (United Kingdom) financial support for schools launched in April 2020, which provides additional funding to schools to support them with costs associated with the coronavirus. The additional costs covered by the fund include utilities and resources needed to keep the school open during holidays for priority groups of children, support for free school meals for eligible children not

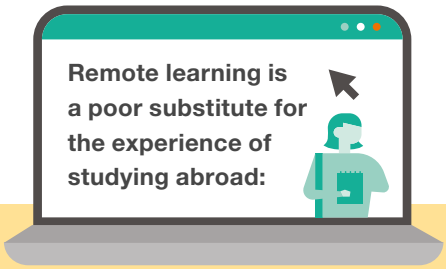
attending school, as well as additional cleaning costs, where schools have suspected or confirmed cases of the virus (Department for Education, 2020[13]).

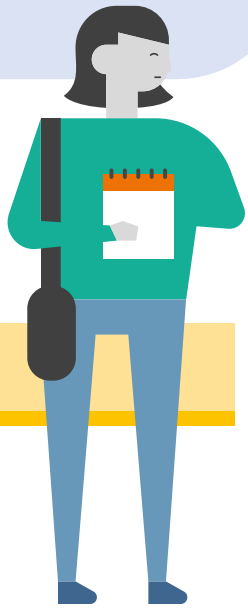
- The announcement of the CARES Act Higher Education Emergency Relief Fund by the education authorities in the United States which provides funding to institutions to provide emergency financial aid grants to students whose lives have been disrupted (U.S. Department of Education, 2020[14]). The CARES Act Elementary and Secondary School Emergency Relief Fund aims to provide financial support to school districts affected by the disruption and closure of schools from COVID-19 (New Jersey Department of Education, 2020[15]).

International student mobility

6% of tertiary students across the OECD are international or foreign

This share increases to **22%** in doctoral programmes





THE CRISIS HAS AFFECTED:

continuity of learning

safety and legal status of international students

students' perception of the value of studying abroad for their degree

Students are missing out on:

- ✕ international exposure
- ✕ input into foreign job markets and networking

Fewer international students **may significantly affect the funding model of some institutions** where international students pay higher tuition fees than domestic ones.

One of the aspects of tertiary education which *Education at a Glance* tracks each year is international student flows. This is an area where future editions of this publication may reveal a sharp reversal of trends in the year that COVID-19 struck. The global spread of the COVID-19 pandemic severely affected higher education as universities closed their premises and countries shut their borders in response to lockdown measures. The crisis has affected the continuity of learning and the delivery of course material, the safety and legal status of international students in their host countries, and students' perception of the value of their degree.

International students were particularly badly hit at the start of the lockdown as they have had to sort out the implications of university closures on their status on campus and within their host country. Students had to decide whether to return home with limited information about when they might return, or remain in their host country with restricted employment and

education opportunities, all while sorting out their visa status. Some countries, such as Canada or the United Kingdom, have offered leniency around visa rules, or allowed students to remain on campus (Immigration, Refugees and Citizenship Canada, 2020[16]; UKCISA, 2020[17]) but this has not been the case everywhere.

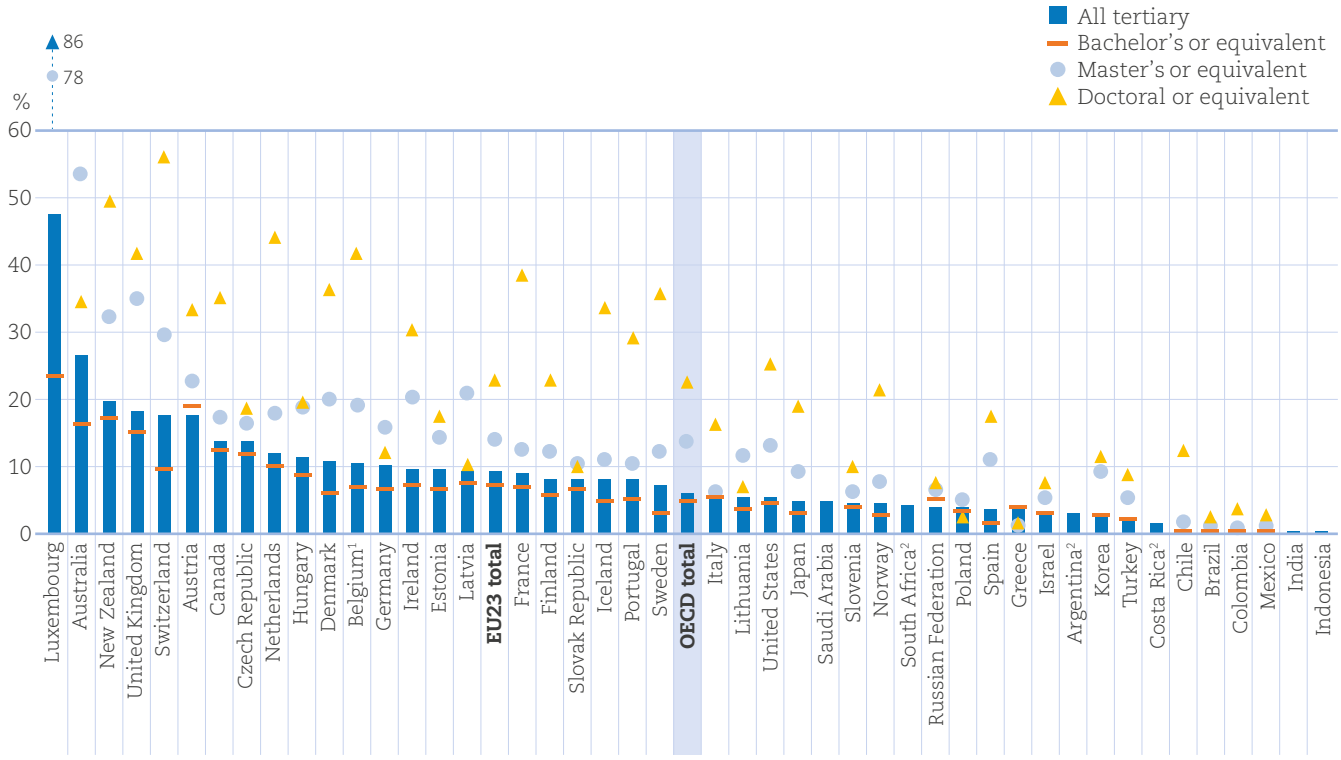
To ensure the continuity of education despite the lockdown, higher education institutions have sought to use technology and offer online classes and learning experiences as a substitute for in-class time. However, many universities struggled and lacked the experience and time they needed to conceive new ways to deliver instruction and assignments. Examinations were also affected, causing disruption to students' learning trajectories and progression. Although many higher education institutions offered online courses before the pandemic, few students considered it as the sole alternative to physical in-person learning. For example, in the United States, only 13% of first-cycle tertiary students were exclusively enrolled in distance education courses in 2017 (NCES, 2019[18]). With the reopening of institutions for the coming academic year severely compromised and travel likely to remain restricted even after the confinement period, international students are being forced to deal with the reality of online learning.

Beyond the transactional learning experience, these students are also losing out on other benefits of international mobility such as international exposure, access to a foreign job market and networking. A survey of EU students studying in the United Kingdom found that the main reasons for choosing to study abroad were to broaden their horizons or experience other cultures, improve their labour-market prospects and improve their competence in English (West, 2000[19]). Similarly, the opportunity to live abroad, learn or improve a foreign language and meet new people, were among the three top reasons cited by students participating in the EU-ERASMUS programme (European Comission, 2014[20]).

A decrease in the share of international students may, in turn, have severe repercussions on the funding model of some higher education institutions where international students pay higher tuition fees than domestic ones. Countries such as Australia, Canada, the United Kingdom and the United States that rely heavily on international students paying differentiated fees will suffer the greatest losses. For instance, at the bachelor's or equivalent level, public institutions in Australia, Canada and the United States charged foreign students over USD 13 900 more per year than national students on average in 2017/18. Given the large share of international students in these countries, international student inflows provide an important source of revenue for tertiary institutions. In Australia, the estimated revenue from foreign students' tuition fees exceeds one-quarter of the total expenditure on tertiary educational institutions (OECD, 2017[21]).

Perhaps most importantly, the crisis has exposed the value proposition of universities. Students are unlikely to commit large amounts of time and money to consume online content. Students go to universities to meet great people, have inspiring conversations with faculty, collaborate with researchers in the laboratory and experience the social life on campus. To remain relevant, universities will need to reinvent learning environments so that digitalisation expands and complements, but does not replace, student-teacher and student-student relationships. Students are already demanding a partial refund of their tuition fees and many institutions have made pro-rata refunds on room and board, or have offered fee deferrals. With the enrolment of international students for the next academic year severely compromised, this will cut into universities' bottom line, affecting not only their core education services, but also the financial support they provide domestic students, as well as research and development activities.

Figure 2. **Incoming student mobility in tertiary education, by level of study (2018)**
International or foreign student enrolment as a percentage of total enrolment in tertiary education



Note: All tertiary education includes short-cycle tertiary programmes, which are not presented separately in the figure.
1. Data on short-cycle tertiary programmes are based on nationality and refer to the Flemish community only.
2. Year of reference 2017.
Countries are ranked in descending order of the percentage of international or foreign students in tertiary education.
Source: *Education at a Glance* (2020), Figure B6.4. See *Education at a Glance* (OECD, 2020[3]) for more information and Annex 3 for notes (https://doi.org/10.1787/69096873-en).

The financial losses are not limited to higher education institutions. Countries have traditionally relied on international student mobility to facilitate the immigration of foreign talent and contribute to both knowledge production and innovation nationally. Indeed, international student mobility is particularly high for doctoral programmes, where one in five students comes from abroad on average across OECD countries (Figure 2). Some countries, such as Australia, New Zealand and the United Kingdom, have also reduced barriers to the migration of highly qualified students, facilitating their entry into the labour market after graduation (OECD, 2017[22]; OECD, 2016[23]). A decline in international student mobility in these countries risks affecting productivity in advanced sectors related to innovation and research in the coming years.

Higher education has often been considered a refuge in periods of low employment, enabling adults to develop their skills. In contrast to previous economic downturns, the lockdown measures of this current crisis have affected the delivery of learning and the experience of studying abroad in ways that have no precedent. It has also raised awareness of the vulnerability of international students in times of crisis. All of this is likely to influence students' perception of the value they will get from studying abroad in relation to the price they are willing to pay. Faced with these challenges, higher education institutions will need to develop a new value proposition that reassesses the quality of learning and delivery mechanisms in the classroom, and that addresses the needs of an international student population that may be less willing to cross borders for the sole purpose of study.

COVID-19 and educational institutions

The loss of instructional time delivered in a school setting

Across the 46 OECD and partner countries covered in *Education at a Glance...*

FEB 2020
China was the first to close schools, with other countries shortly following

MAR 2020
By the end of March, all 46 countries had closed some or all of their schools

JUN 2020
By the end of June, the duration of school closures ranged from 7 to 19 weeks across OECD and partner countries

WEEKS CLOSED	# COUNTRIES
7	2
8-12	6
12-16	24
16-18	13
>18	1

Some of these periods have included schools breaks. Some countries have also reorganised their school years to minimise loss of instruction time.

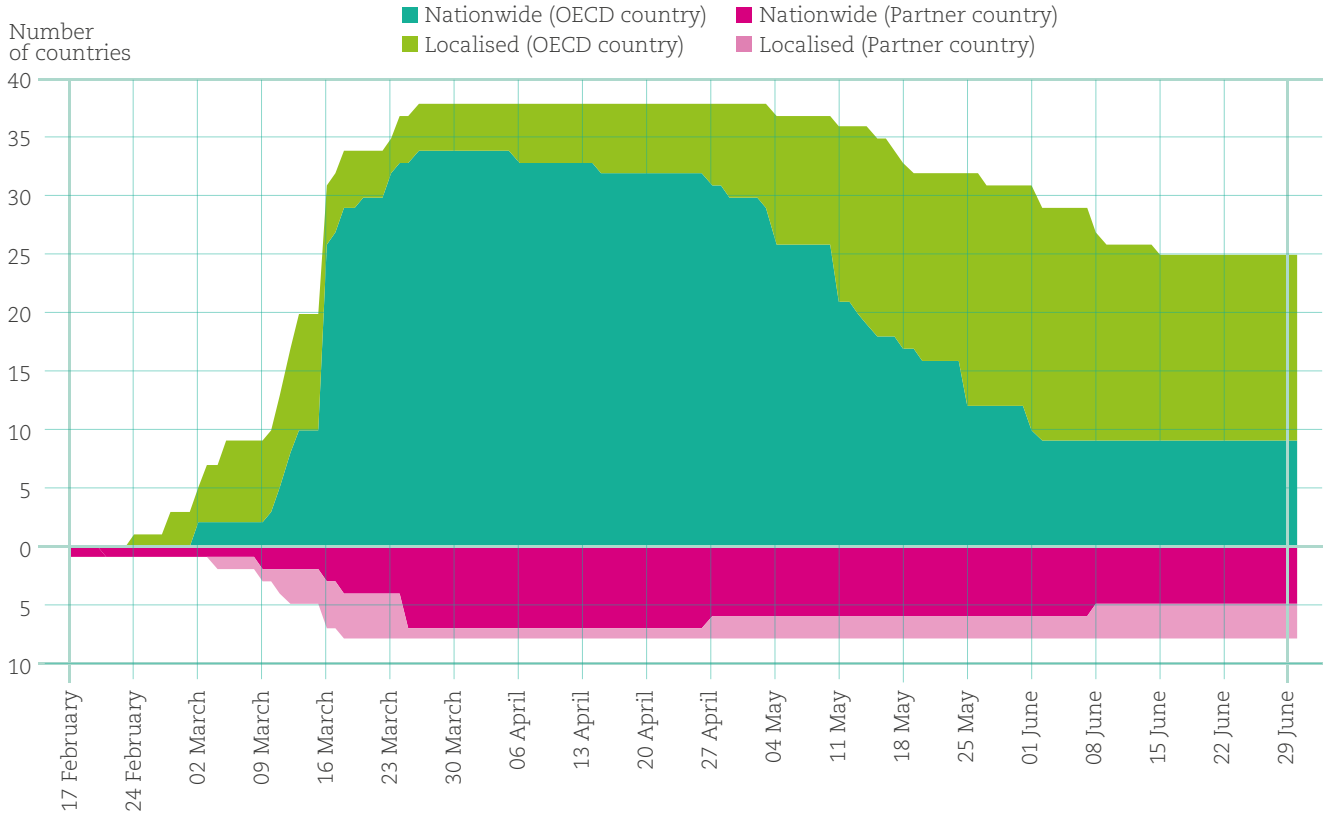
In their first attempts to contain the spread of the virus, many countries imposed a lockdown and schools and/or universities have closed for several months across all OECD and partner countries.

Out of the 38 OECD countries and 8 partner countries covered by *Education at a Glance 2020*, the People's Republic of China was the first to close schools in response to the COVID-19 pandemic. School closures were imposed on 16 February 2020 in some parts of China, where the scheduled spring semester starts earlier, and extended nationwide about a week later. Other countries also began to close schools (closing school premises, without necessarily completely ceasing teaching and learning) as the pandemic expanded. Preliminary information from various sources (see below) provides a snapshot of responses during this ongoing and evolving global pandemic.

By the end of March, school closures had been implemented to some extent in all 46 countries covered by *Education at a Glance*, but to different degrees: 41 countries closed schools across the country while 5 (Australia, Iceland, the Russian Federation, Sweden and the United States) closed them at a subnational or local level (Figure 3). However, not all countries hit by the pandemic closed all of their schools. For example, primary schools in Iceland remained open if class sizes were below 20 students. In Sweden, most primary and lower secondary schools remained open, while upper secondary schools switched to mainly distance learning from mid-March (UNESCO, 2020[24]).

It is difficult to estimate accurately the number of instruction weeks affected in all countries, as in some countries individual schools or local authorities have autonomy over the

Figure 3. **Number of countries with school closures due to COVID-19**
Data covers the period between 17 February 2020 and 30 June 2020



Note: This figure covers educational institutions from early childhood education to tertiary education. Localised school closure refers to school closures of some levels of education only and/or for some subnational entities.
Source: UNESCO (2020[24]), *COVID-19 educational disruption and response,* https://en.unesco.org/covid19/educationresponse; *Education at a Glance 2020*, Figure D1.4.

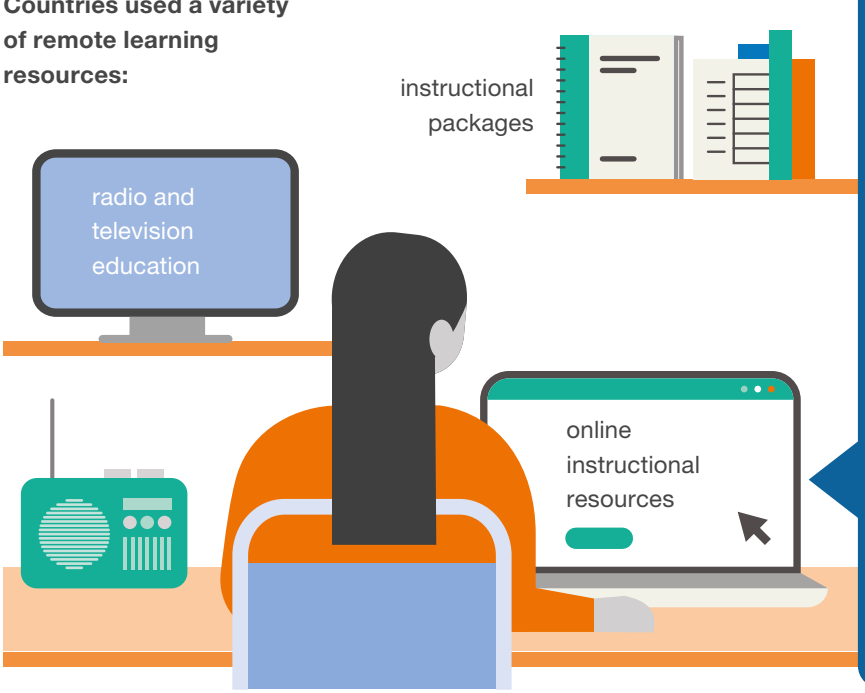
organisation of the school year and the reopening of schools. However, by the end of June 2020, some degree of school closure was effective for at least 7 weeks in 2 countries (4%), 8-12 weeks in 6 countries (13%), 12-16 weeks in 24 countries (52%), 16-18 weeks in 13 countries (28%) and more than 18 weeks in China (UNESCO, 2020[24]).

The actual impact may have been less severe as some of these periods included scheduled school breaks. In many European and Southern Hemisphere countries, Easter holidays scheduled in mid-April and/or spring vacations between April and early May mitigated the impact of school closure by up to two weeks. In Japan for example, there is a two-week spring vacation in late March (see Figure X3.D1.2 in Annex 3 of *Education at a Glance* for more information) (UNESCO, 2020[24]; European Commission/EACEA/Eurydice, 2019[25]).

Moreover, some countries have reorganised their school years to minimise the loss of instruction time. For example, in some jurisdictions in Australia and Chile the winter school holidays were brought forward; in Korea the school year started in April (about one month later than the typical start) by shortening the summer vacation, and in Lithuania compulsory school holidays were introduced in the last two weeks of March (OECD, 2020[26]).

Measures to continue students' learning during school closure

Countries used a variety of remote learning resources:



Online platforms were used in nearly all OECD and partner countries. These tools included:

- Educational content for exploring if desired
- Real-time lessons on virtual meeting platforms
- Online support services for parents and students
- Self-paced formalised lessons

Countries used a variety of resources to support students' learning while they were unable to come to school, including instructional packages (textbooks, worksheets and printouts), radio education, educational television and online instructional resources. Countries usually used several tools in order to reach the largest proportion of students possible. In the OECD and partner countries, online platforms were the most popular tool used during school closures (Schleicher and Reimers, 2020[27]).

Online platforms were used in nearly all OECD and partner countries. Online learning tools ranged from educational content which students could explore at their own discretion and formalised learning programmes conducted at their own pace, to real-time lessons led by their teachers using virtual meeting platforms. For example, Estonia collaborated with private services to provide a wealth of educational content free to students during school closure. In France, already-existing distance learning programme *"Ma classe à la maison"* (My classes at home) became available for all students in primary and secondary schools (Ministère de l'Éducation Nationale et de la Jeunesse, 2020[28]). In Greece, teachers conducted virtual real-time classes in conjunction with other online learning tools (Ministry of Education and Religious Affairs, 2020[29]; Schleicher and Reimers, 2020[27]).

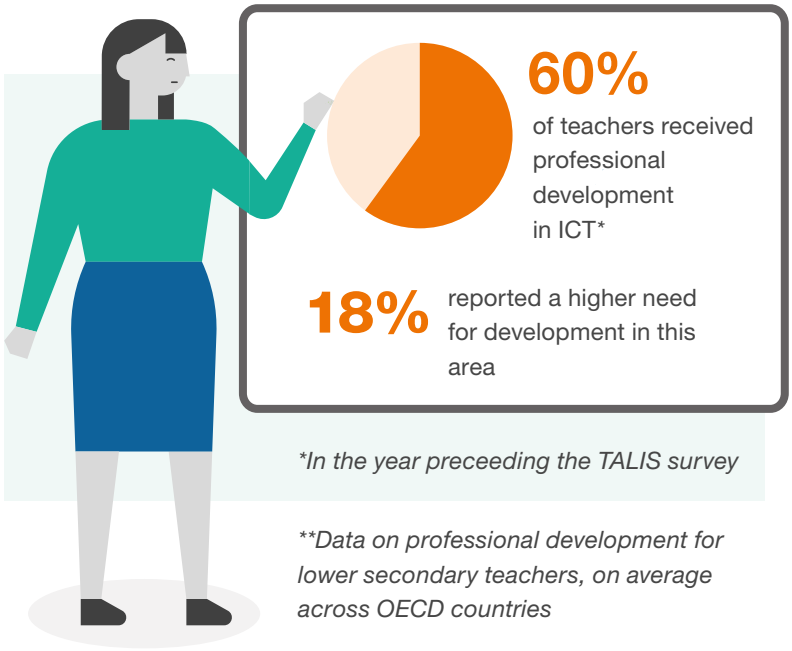
Another popular learning arrangement in many OECD countries were television broadcasts providing educational content to continue students' learning. In some countries, TV programmes mostly catered for younger children in primary schools (for example, in Greece, Korea and Portugal), who may have had difficulty using online learning platforms or conducting self-directed learning. TV broadcasts are also a way to reach students who do not have adequate resources for online instruction. Despite these advantages, broadcasts can be limited to covering only a few subjects due to the short amount of time devoted to these TV programmes. For example, two channels in Spain covered one of five subjects (Spanish, mathematics, social science, natural sciences and arts and/or physical education) per day during a one-hour slot (Ministry of Education and Vocational Training, 2020[30]; Schleicher and Reimers, 2020[27]).

Other measures were also used to help students learn at home. For example in Luxembourg, the government set up a new support system for students and parents to support home schooling. In Mexico, a telephone line "Your Teacher Online" has been activated to offer mentoring to students (OECD, 2020[26]).

In the majority of the OECD and partner countries, these measures were conducted by the government with active involvement from individual schools. However, in Estonia, Finland, Japan and the Netherlands, individual schools had more autonomy in organising these alternative education arrangements (Schleicher and Reimers, 2020[27]).

Teachers' preparedness to support digital learning

Teachers have reported high need for training in the use of information and communication technologies (ICT):



**In the year preceeding the TALIS survey*

***Data on professional development for lower secondary teachers, on average across OECD countries*

Teachers are also not relying heavily on distance learning for their own development**

36% reported participating in online courses or seminars

More than **2x** as many reported participating in courses or seminars in person

During the pandemic, remote learning became a lifeline for education but the opportunities that digital technologies offer go well beyond a stopgap solution during a crisis. Digital technology offers entirely new answers to the question of what people learn, how they learn, and where and when they learn. Technology can enable teachers and students to access specialised materials well beyond textbooks, in multiple formats and in ways that can bridge time and space. Working alongside teachers, intelligent digital learning systems don't just teach students science, but can simultaneously observe how they study, the kind of tasks and thinking that interest them, and the kind of problems that they find boring or difficult. The systems can then adapt the learning experience to suit students' personal learning styles with great granularity and precision. Similarly, virtual laboratories can give students the opportunity to design, conduct and learn from experiments, rather than just learning about them.

Moreover, technology does not just change methods of teaching and learning, it can also elevate the role of teachers from imparting received knowledge towards working as co-creators of knowledge, as coaches, as mentors and as evaluators.

That being said, the COVID-19 crisis struck at a point when most of the education systems covered by the OECD's 2018 round of the Programme for International Student Assessment (PISA) were not ready for the world of digital learning opportunities. A quarter of school principals across the OECD said that shortages or inadequacy of digital technology was hindering learning quite a bit or a lot, a figure that ranged from 2% in Singapore to 30% in France and Italy (OECD, 2019[31]). Those figures may even understate the problem, as not all principals will be aware of the opportunities for instruction that modern technology can provide.

Technology is also only as good as its use. According to OECD's Teaching and Learning International Survey (TALIS) in 2018 just 53% of teachers on average let their students frequently or always use information and communication

technologies (ICT) for projects or classwork (Figure 4). However, in Denmark and New Zealand the share reaches 80% or more, and in Finland, Israel or Romania those numbers have more than doubled over the five years leading up to the survey.

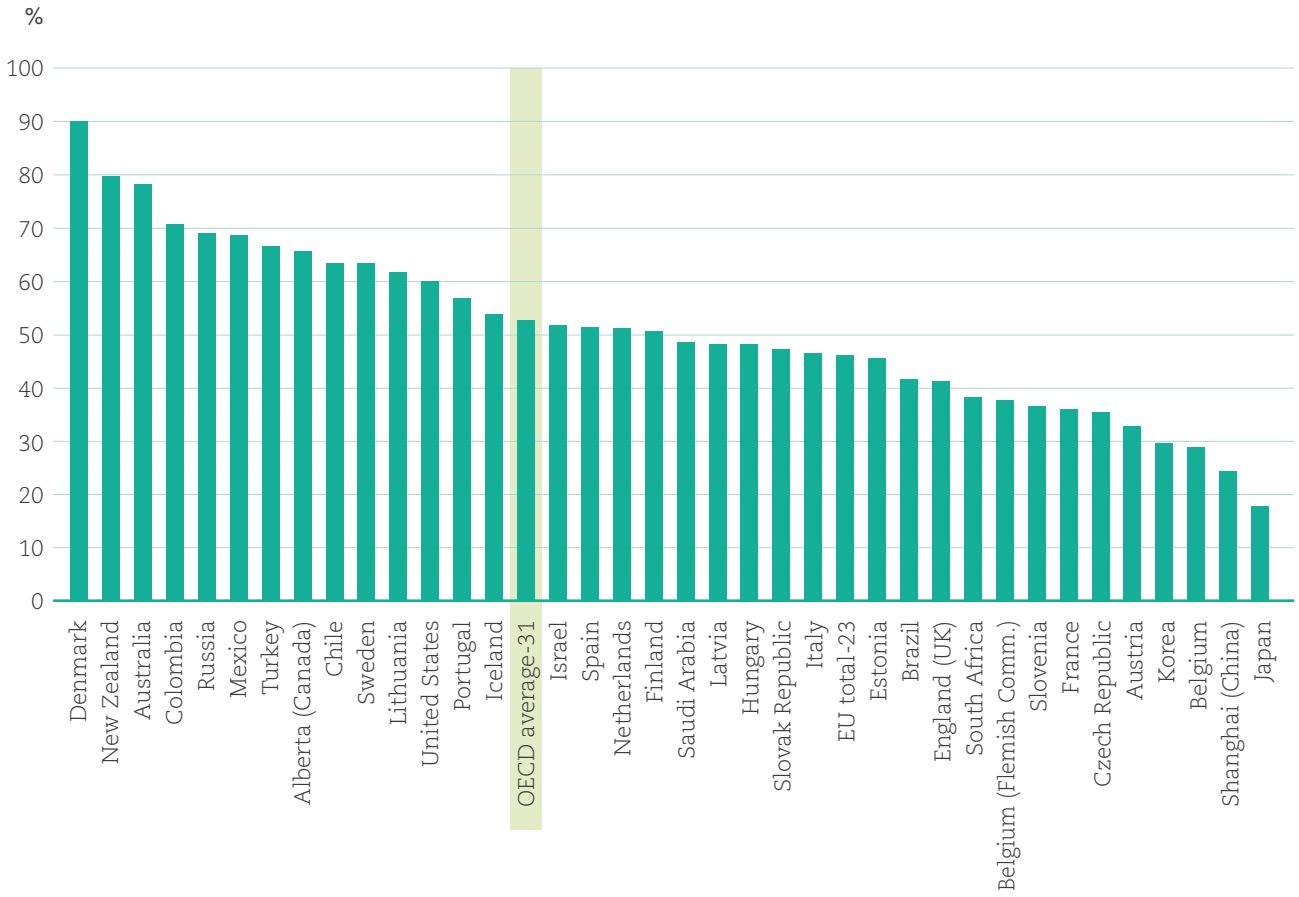
According to TALIS, younger teachers use technology more frequently in the classroom, but so too do teachers for whom technology was included in their formal training. However, only 60% of teachers received professional development in ICT in the year preceding the survey, while 18% reported a high need for development in this area.

These figures highlight that teachers need to renew their skills regularly in order to be able to innovate their practices and adapt to the rapid transformations inherent in the 21st century. This is even more important in the current context, where the COVID-19 health crisis has pushed teachers to adapt very quickly, especially in countries where they do not necessarily have the pedagogical and technical skills to integrate digital tools into learning.

Data from TALIS provide insights into the frequency and intensity of teachers' continued professional development before the outbreak as well as their readiness to engage in distance learning. The data show that, on average, teachers attended about 4 different types of continuous professional development activities in the 12 months prior to the survey, and 82% of teachers report that the professional development activities they participated in had an impact on their teaching practices (OECD, 2019[32]).

While most teachers participate in professional development, the programmes they enrol in are not always the ones they find most valuable. According to teachers, the professional

Figure 4. **Percentage of lower secondary teachers who "frequently" or "always" let students use ICT for projects or class work**



Note: The OECD average is the arithmetic average based on lower secondary teacher data across 31 OECD countries and economies with adjudicated data.
Countries and economies are ranked in descending order of the percentage of teachers who "frequently" or "always" let students use ICT for projects or class work.
Source: OECD (2019[32]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, https://dx.doi.org/10.1787/1d0bc92a-en, Web table I.2.1.

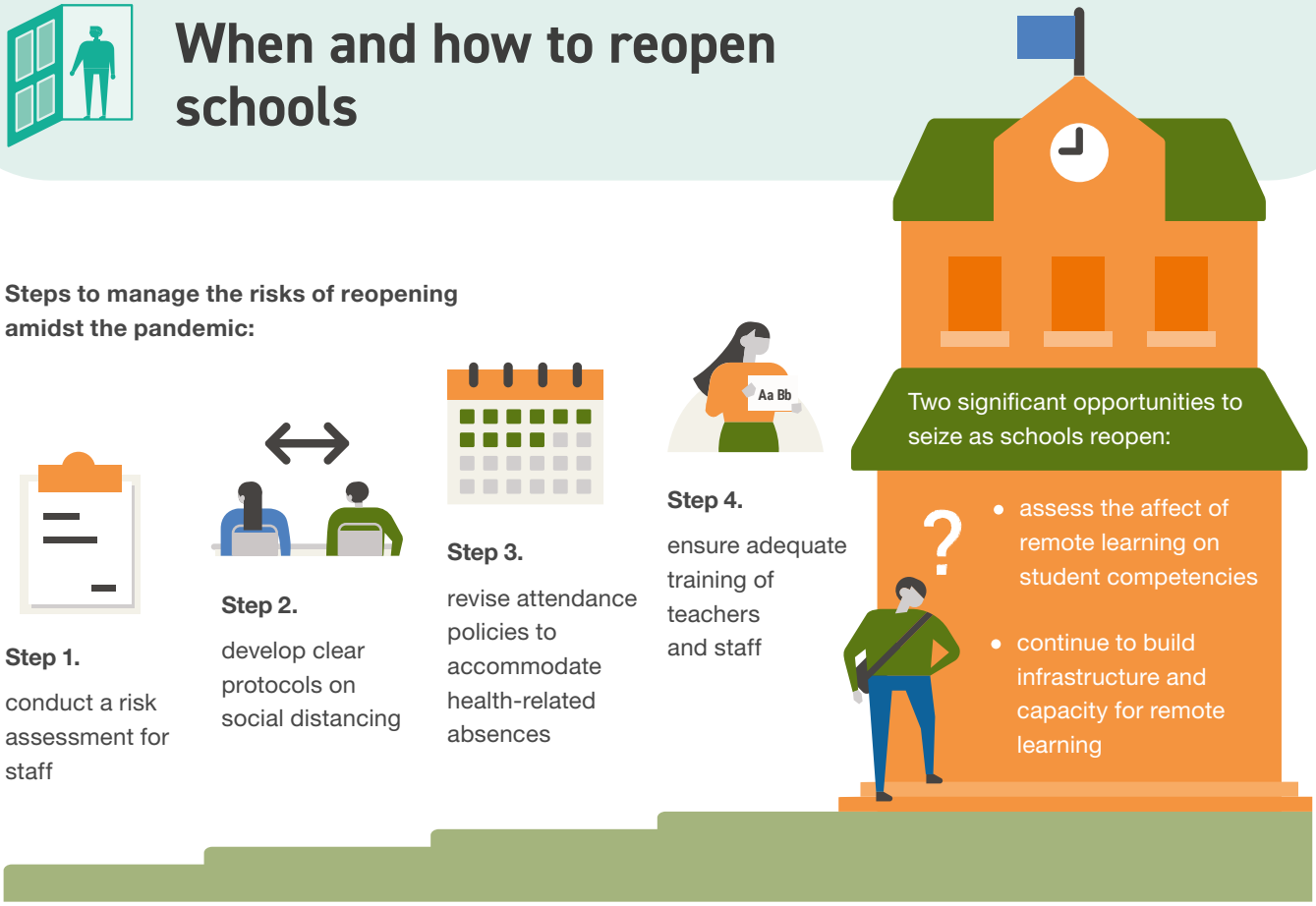
development programmes that have the most impact are those based on strong subject and curriculum content which involve collaborative approaches to instruction, as well as the incorporation of active learning (OECD, 2019[32]). However, teachers are more likely to participate in courses or seminars than more collaborative forms of professional development. On average across OECD countries, 76% of lower secondary teachers reporting attending courses or seminars in person, while only 44% of teachers participated in peer and/or self-observation and coaching as part of a formal school arrangement (Figure 5).

ICT skills are particularly important given the radical shift towards online teaching during the COVID-19 lockdown in many OECD countries. Even before the crisis, teachers reported a strong need for training in the use of ICT for teaching, with 18% on average across OECD countries identifying this as a high training need (OECD, 2019[32]). This is the second commonest training need teachers identified, just after teaching special needs students. However, not only are teachers reporting a need for ICT training, they are also not relying on distance learning for their own professional development. Data on professional development show that on average across OECD countries, 36% of lower secondary teachers reported participating in online courses or seminars, less than half the share participating in courses or seminars in person. Although this is the case in most countries, there are some exceptions such as Korea and Shanghai (People's Republic of China) where over 90% of teachers reported undertaking online professional development in the past year. This practice is also widespread in Australia, Chinese Taipei, England (United Kingdom), Israel, Mexico, the Russian Federation and the United States, where the share is over 50% (Figure 5).

Figure 5. **Percentage of lower secondary teachers who participated in selected types of professional development (2018)**
Teaching and Learning International Survey (TALIS)

Note: The OECD average is the arithmetic average based on lower secondary teacher data across 31 OECD countries and economies with adjudicated data.
1. For example, a degree programme.
2. Refers to the adjudicated region of Ciudad Autónoma de Buenos Aires (CABA).
Countries and economies are ranked in descending order of the percentage of lower secondary teachers who attended courses/seminars in person in the 12 months prior to the survey.
Source: OECD (2019[32]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, https://dx.doi.org/10.1787/1d0bc92a-en, Web table 1.5.7.

When and how to reopen schools



A survey recently conducted by the OECD and Harvard University on the education conditions faced in countries and on the approaches adopted to sustain educational opportunity during the pandemic has found that the learning that has taken place during the period when schools were closed was at best only a small proportion of what students would have learned in school (Schleicher and Reimers, 2020[27]). The period of learning at home has made visible the many benefits that students gain from being able to learn in close contact with their teachers and peers, and with full access with the wide variety of educational, social and health-related services which schools offer. This public awareness of the importance of schools and of teachers could be strategically deployed to increase engagement and support from parents and communities for schools and for teachers. This will be particularly important in the current context as the health and economic costs of the pandemic risk reducing the funds available to education.

There are unquestionable benefits to reopening educational institutions in terms of supporting the development of knowledge and skills among students and increasing their economic contribution over the longer term. In fact, the learning loss which has already taken place, if left unremedied, is likely to exact an economic toll on societies in the form of reduced productivity and growth. Reopening schools will also bring economic benefits to families by enabling them to return to work, once public health authorities deem that this is feasible.

Those benefits, however, must be carefully weighed against the health risks and sanitary measures needed to minimise the health impact of the pandemic. Evidence from previous epidemics suggests that school closures can prevent up to 15% of infections (OECD, 2020[33]). While this impact is modest compared with other public policy measures (for instance workplace social distancing can reduce transmission by up to 73%, case isolation by around 45% and household quarantine by around 40%), it is not negligible. In some countries there are also high levels of interaction between the youngest children and the older generations most at risk from the virus.

The need to consider such trade-offs calls for sustained and effective co-ordination between education and public health authorities at different levels of government. Such collaboration should be enhanced through local participation and autonomy that enable responses to be tailored to the context. Many respondents to the OECD/Harvard study indicate that the plans are for schools to reopen progressively, beginning in areas with the lowest rates of transmission and lowest localised risk (Schleicher and Reimers, 2020[27]).

After mid-April, some OECD countries gradually started to reopen schools. By the end of May, more than two months after the school closures began in most OECD countries, schools were reopened (at least partially) in two-thirds of OECD countries (UNESCO, 2020[24]; Schleicher and Reimers, 2020[27]). Younger students were the first to return to school in Denmark (childcare and primary schools with additional measures such as reduced class sizes and physical distancing), France (primary schools in most regions with limitations on the number of children in a classroom), the Netherlands (primary schools) and Norway (kindergarten and grades 1 to 4 in primary schools with additional measures such as reduced class sizes and physical distancing). In contrast, schools reopened first for older students in Greece and Korea, especially for final year students who were sitting secondary school qualification examinations or entrance examinations for tertiary education. However, in Ireland, Italy, Lithuania, Portugal (except grades 11 and 12) and Spain (except for grades 10 and 12, where attendance will be voluntary) the plans were for primary and secondary schools to be closed until June (inclusive), that is to say the end of the school year 2019/20 (OECD, 2020[26]; Schleicher and Reimers, 2020[27]; UNESCO, 2020[24]).

Several steps can be taken to manage the risks and trade-offs. First of all, it is important to develop clear protocols on physical distancing measures, including avoiding activities that require large gatherings, staggering the start and end of the school day, staggering meal times, moving classes to temporary spaces or outdoors, and having students attend in shifts to reduce class size. Equally important are protocols and practice on hygiene measures, including handwashing, respiratory etiquette, use of protective equipment, cleaning procedures for facilities and safe food preparation practices.

It is just as important to protect teachers, administrative staff and students who are at high risk due to age or underlying medical conditions, with plans to cover absent teachers and continue remote education to support students unable to attend school. Governments and teacher organisations may also need to revise personnel and attendance policies to accommodate health-related absences and support remote and hybrid learning combining online and on-site teaching.

Investment in human capacity will be central to this. School leaders need to have the capacity and training to establish procedures for when students or staff become unwell, and to put in place partial or complete school closures where needed. They need to be able to conduct a risk assessment for teachers and other staff and take appropriate action to support them. Effective guidance and procedures are needed for monitoring student and staff health, maintaining regular contact with local health authorities, and updating emergency plans and contact lists. When students enter school premises, their temperature may need to be taken and infected students isolated and cared for by specialised medical staff, without stigmatising them. Teachers, too, may need to be tested before the school reopens and the health and sanitary managers of schools should take the temperature of teachers when they enter the premises.

Similarly, administrative and teaching staff need training on how to cope with the virus, to recognise risks and to implement appropriate measures. This includes implementing physical distancing and hygiene practices, such as increasing both the intensity and frequency of cleaning and disinfection activities and improving waste management practices. Cleaning staff need to be trained in disinfection and be equipped with personal protection equipment as far as possible.

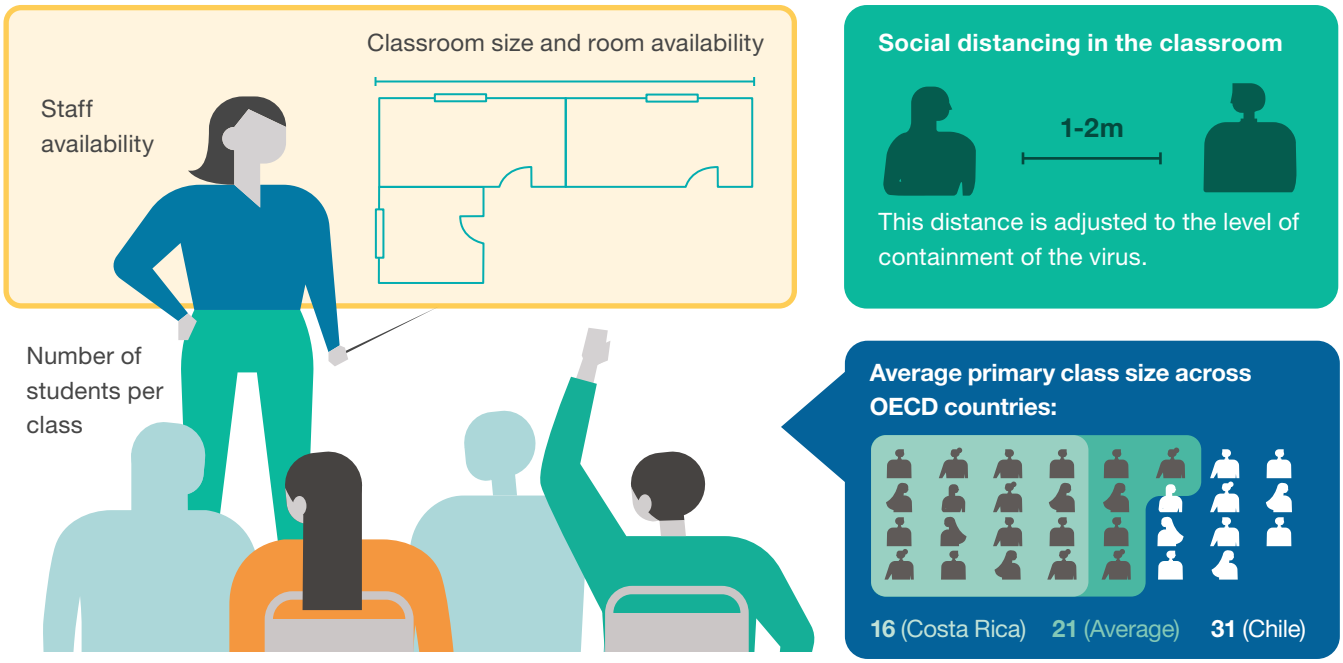
As schools reopen, there are two significant opportunities to seize, building on plans which many of the respondents to this survey indicate are already in the making. The first is to take stock of the lessons learned in this crisis as children return to school and to assess the learning loss. This exercise in student assessment should focus not just on the extent to which students gained the knowledge and skills intended in the curriculum, but also on what skills and competencies they demonstrated, or failed to demonstrate, during the period of remote learning. Effective learning out of school has clearly placed greater demands on students' autonomy, capacity for

independent learning, executive functioning, self-monitoring and capacity to learn on line. These are all essential skills for the present and the future. It is likely that some students were more proficient in them than others and that, as a result, were able to learn more than their peers while not in school. The plans to return to school should therefore focus on more intentional efforts to cultivate these essential skills among all students.

The second, which is equally important, will be to build on the already ongoing efforts to develop the infrastructure for online and remote learning, and to continue to develop the capacity of students and teachers to learn and teach in that way. This is essential first because there is a possibility that, until a vaccine is widely available, any return to school may have to be again interrupted as a result of future outbreaks, at least locally. But beyond COVID-19 pandemic, there are evident benefits to students in expanding their learning time and opportunities beyond the school gate by being able to learn using a variety of distance learning approaches. Plans for school reopening could consider blended modalities to allow all students to access the curriculum.

Class size, a critical parameter for the reopening of schools

Maintaining a safe distance between pupils and staff depends on:



Social distancing has proven to be one of the most effective measures to prevent the spread of the COVID-19. Within a school context, this means reducing contact between groups of children and maintaining a safe distance of 1-2 metres between pupils and staff. In some countries, the safety distance depends on the level of containment of the virus achieved. For example, schools in less-affected areas in Japan (Level 1) are required to maintain a distance of 1 metre while those in more-affected ones (Levels 2 or 3) must maintain a distance of 1-2 metres (MEXT, 2020[34]). Guidance in many countries has been to reduce or halve the size of the classes in order to maintain the required distance between students. Some countries

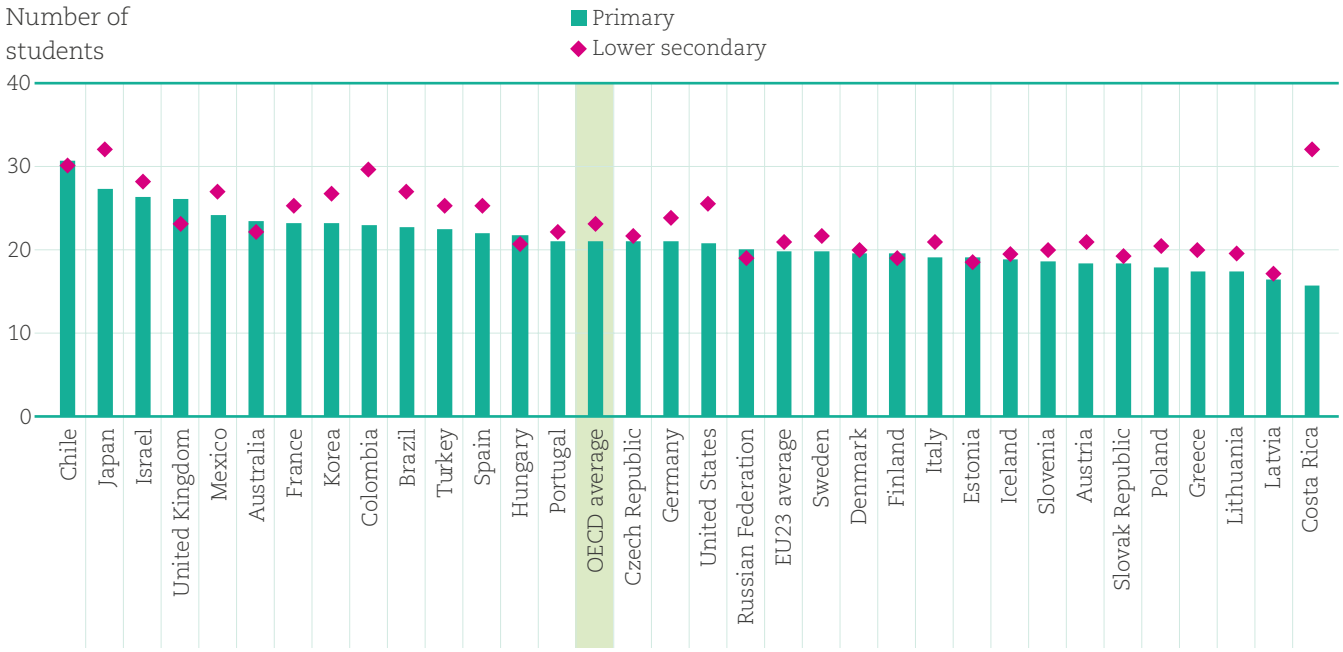
have specified the maximum number of students allowed in the classroom at any given time. For example, France and the United Kingdom have recommended a limit of 15 students in primary classes, provided the safety distances are maintained (Ministère de l'Education Nationale et de la Jeunesse, 2020[35]; Department for Education, 2020[36]).

Ensuring a minimum safety distance between pupils and staff will depend on many factors such as classroom size, room availability, and the number of students per class. Countries with smaller class sizes may find it easier to comply with new restrictions on social distancing provided they have the space to accommodate the number of students safely. Although France and the United Kingdom recommend the same limit on the number of children per primary class, public institutions in France have class sizes of 23 students on average, smaller than the United Kingdom where the average is 27 students per class. With more than 30 students per class in lower secondary level, countries such as Chile, Colombia and Japan may face more difficulties in reorganising classes into smaller groups of students to maintain a safe distance between desks (Figure 6).

While returning to school is compulsory in most OECD countries for students in the permitted age groups or specific levels of education (except for sick students or those with a vulnerable or sick family member), attendance is optional in Canada, the Czech Republic, France, and Spain, with remote and online learning for students who wish to stay at home. These hybrid measures aim to secure support for the reopening of schools while optimising their capacity for social distancing (Schleicher and Reimers, 2020[27]).

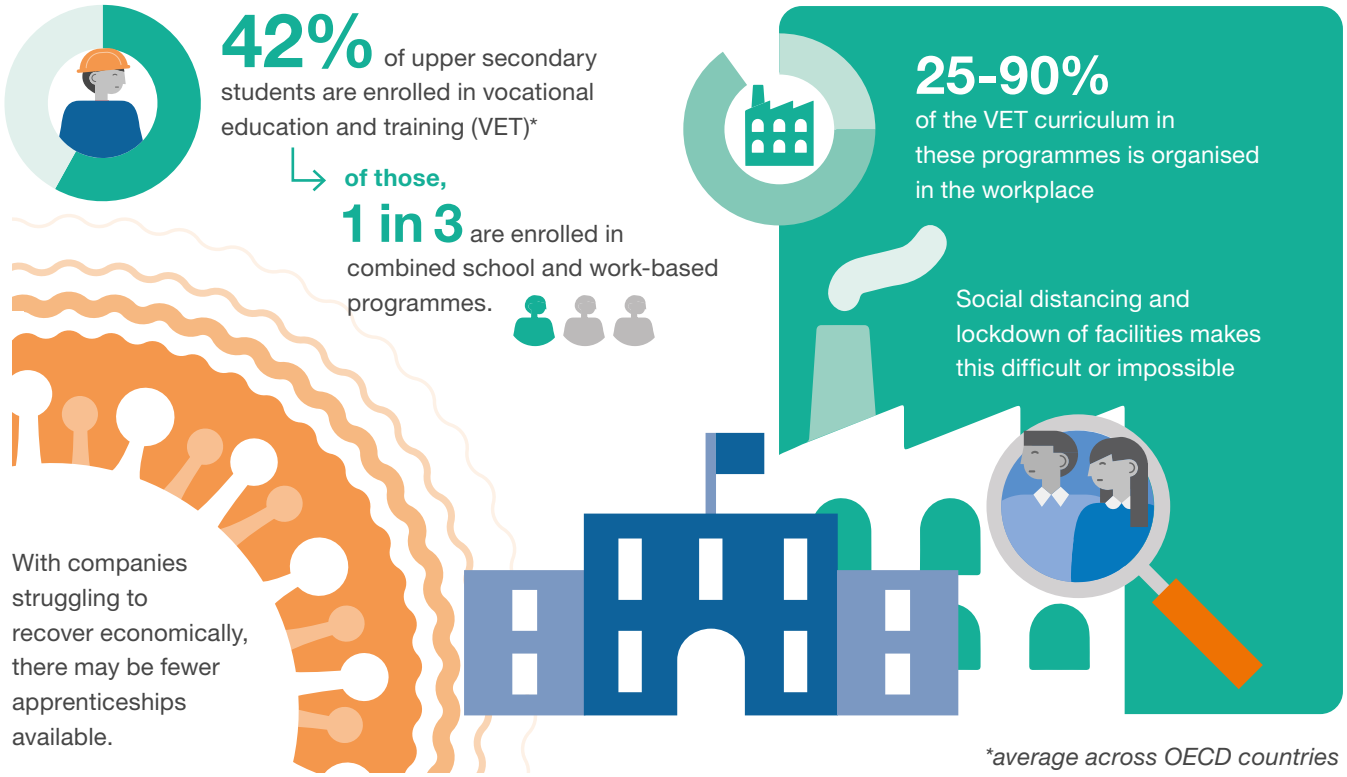
To ensure all students have the opportunity to benefit from face-to-face teaching in a context of reduced class sizes, schools in about 60% of OECD member and partner countries are organising shifts to alternate students throughout the day when they cannot accommodate them all on site (Schleicher and Reimers, 2020[27]). Unless schools can establish effective forms of hybrid learning which combine on-site and online learning experiences, the consequence of such a measure will be reduced classroom instruction time than before school closures. Distance learning has therefore remained in place in most countries until the end of the academic year to continue to support students, including for those who have opted not to or cannot attend class for sanitary or personal health reasons.

Figure 6. **Average class size, by level of education (2018)**



Countries are ranked in descending order of the average class size at the primary level.
Source: *Education at a Glance* (2020), Figure D2.3. See *Source* section for more information and Annex 3 for notes (https://doi.org/10.1787/69096873-en).

Vocational education during the COVID-19 lockdown



*average across OECD countries

While remote learning has offered some educational continuity when it comes to academic learning, vocational education and training (VET) has been particularly hard hit by the crisis. Compared to general programmes, VET programmes suffer a double disadvantage as social distancing requirements and the closure of enterprises have made practical and work-based learning that are so crucial for the success of vocational education difficult or impossible. Yet, this sector plays a central role in ensuring the alignment between education and work, the successful transition of students into the labour market, and for employment and the economic recovery more generally. Not least, many of the professions that formed the backbone of economic and social life during the lockdown hinge on vocational qualifications.

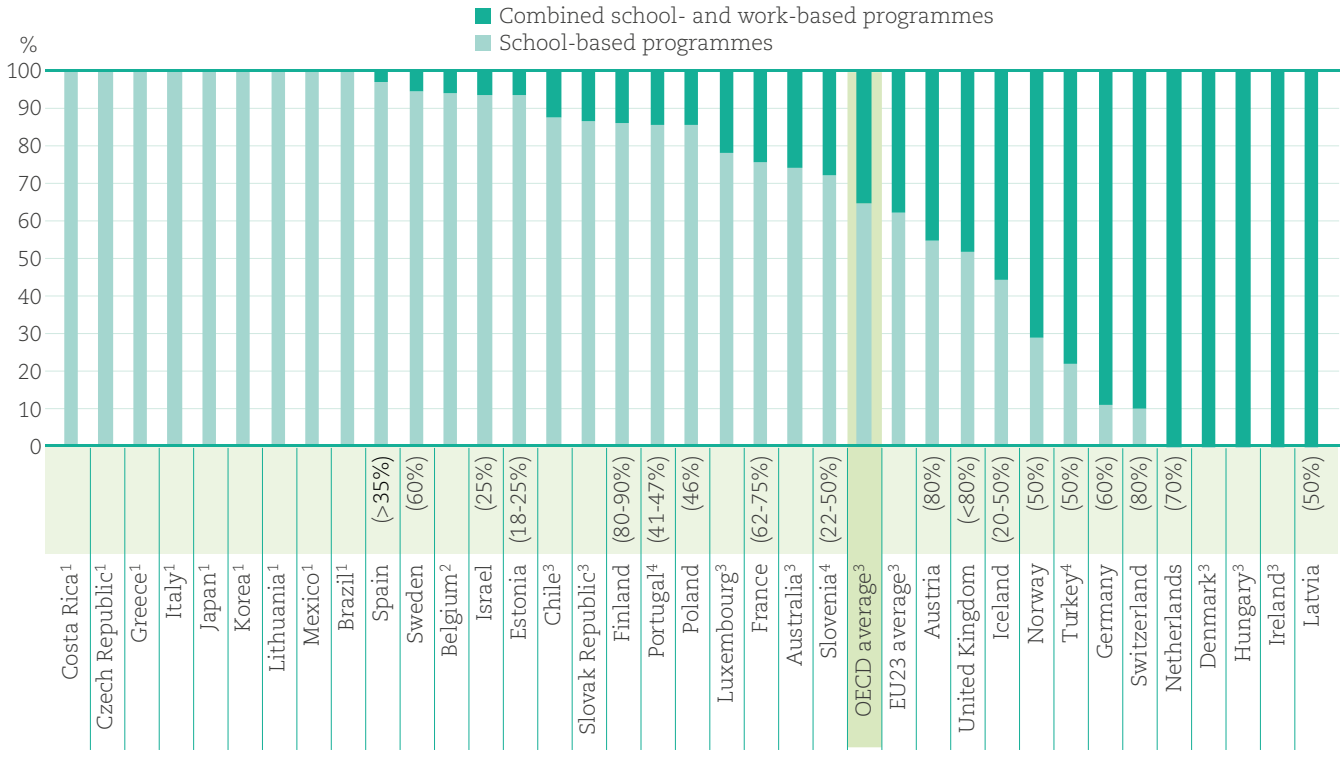
Whether they are school-based or combined school- and work-based programmes, practical teaching forms an important part of the VET curricula. This involves hands-on experience in workshops, laboratories or in the workplace, specific equipment, and careful attention from teachers to ensure that tasks are correctly performed. In some countries, the work-based component can account for more than 60% of total learning time. VET programmes that rely most heavily on practical training, such as agriculture, health, engineering, construction and crafts, will struggle the most to adjust to remote learning. Even in cases where practical training can be simulated remotely, the learning experience is more limited.

Among VET qualifications, combined school- and work-based programmes, where 25-90% of the curriculum is organised as work-based learning in enterprises, have been particularly affected as businesses have closed or reduced their operations. For example, apprentices who were placed in companies and sectors such as catering or tourism that have come to a standstill as a result of border closures and

the confinement of populations have largely stopped their work activities. With an economic crisis looming, it is still an open question whether companies will be able to take on apprentices as they struggle to recover from the economic setback. Overall, more than 44% of upper secondary VET students are enrolled in combined school- and work-based programmes in 12 out of the 35 OECD countries with available data. Of these countries, the proportion of students enrolled in these programmes exceeds 90% in Denmark, Germany, Hungary, Ireland, Latvia, the Netherlands and Switzerland (Figure 7).

Although VET programmes are generally attractive to employers and offer strong employment prospects to students, the pandemic has created considerable uncertainty over what will happen next. Some initiatives have already been announced. According to a joint OECD/Harvard survey carried out in May 2020, in 70% of countries for which data are available, plans to reopen schools generally include provisions and remedial measures for students in vocationally oriented programmes (Schleicher and Reimers, 2020[27]). The measures do not stop at the early reopening of schools for VET students; in many countries, there is a genuine understanding

Figure 7. **Distribution of upper secondary vocational students by type of vocational programme (2018)**



Note: Figures in parentheses refer to the most typical duration of the work-based component as a percentage of the total programme duration for combined school- and work-based programmes. For example, in Germany, more than 98% of students in combined school- and work-based programmes are enrolled in a programme where the duration of the work component accounts for about 60% of the total programme duration. See Table B7.3 for more information.
1. Data on typical duration of the work-based component are not applicable because the category does not apply.
2. The most typical duration of the work-based component is at least 46% for the Flemish Community of Belgium and 60% for the French Community of Belgium.
3. Data on the most typical duration of the work-based component are missing.
4. The share of students enrolled in combined school- and work-based programmes as a percentage of all student enrolled in upper secondary vocational education is estimated based on the results of the INES ad-hoc survey on VET.
Countries are ranked in descending order of the share of students enrolled in school-based vocational programmes.
Source: *Education at a Glance* (2020), Figure B7.6. See *Education at a Glance* (OECD, 2020[3]) for more information and Annex 3 for notes (https://doi.org/10.1787/69096873-en).

that apprenticeship streams should not be the first victims of the current situation, and many have already taken measures to support the continuation of VET. These include (OECD, 2020[37]):

- increasing the use of online and virtual platforms more appropriate to VET to ensure continuity of learning
- financing training breaks or extensions to avoid breaks in learning resulting in fees, repayments or other penalties for both learners and providers
- providing wage support for apprentice retention to allow apprentices to maintain contact with employers and if possible continue working through remote working or virtual meetings
- leveraging links between work-based and school-based VET to provide alternative school-based VET in cases where upper secondary VET students are unable to secure an apprenticeship, including work-based components
- offering flexible skills assessment and awarding of qualifications as, in many sectors, particularly healthcare, a direct route to qualification may need to be established quickly in response to the COVID-19 crisis
- informing, engaging and communicating with learners, providers and social partners about new guidance on the delivery of assessment, or to ensure apprentices are informed of changes to regulations and practices
- investing in VET to mitigate future skills shortages and minimise the shock of the crisis.

Conclusion

As we enter the COVID-19 recovery phase, it will be critical to reflect on the role of educational systems – and particularly vocational education – in fostering resilient societies. The global health crisis and the lockdown that followed have brought to the fore professions that have often been taken for granted, renewing our awareness of their value to society. This has helped restore a sense of esteem for those workers who have worked relentlessly during this time to keep economies afloat.

The outlook is very uncertain. But, if anything, the pandemic has exposed our vulnerability to crises and revealed how precarious and interdependent the economies we have built can be. Disruptions on the scale we have just witnessed are not limited to pandemics, but may also result from natural, political, economic and environmental disorder. Our capacity to react effectively and efficiently in the future will hinge on governments' foresight, readiness and preparedness. Through their role in developing the competencies and skills needed for tomorrow's society, education systems will need to be at the heart of this planning. This includes rethinking how the economy should evolve to guard against adversity, and defining the skills, education and training required to support it. This also means working in close collaboration with other government sectors and the private sector to increase the attractiveness and labour-market prospects of certain professions, including those considered paramount for the common good.

Real change often takes place in deep crises, and this moment holds the possibility that we won't return to the status quo when things return to "normal". While this crisis has deeply disruptive implications, including for education, it does not have predetermined outcomes. It will be the nature of our collective and systemic responses to these disruptions that will determine how we are affected by them.

In this sense, the pandemic is also a call to renew the commitment to the Sustainable Development Goals. Ensuring that all young people have the opportunity to succeed at school and develop the knowledge, skills, attitudes and values that will allow them to contribute to society is at the heart of the global agenda and education's promise to our future society. The current crisis has tested our ability to deal with large-scale disruptions. It is now up to us to build as its legacy a more resilient society.

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Updated data can be found on line at http://dx.doi.org/10.1787/eag-data-en.

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The impact of COVID-19 on student equity and inclusion: supporting vulnerable students during school closures and school re-openings

19 November 2020

A holistic approach to education – that addresses students' learning, social and emotional needs – is crucial, especially in times of crisis. School closures related to the current COVID-19 pandemic mean that students from diverse backgrounds who are more at risk of increased vulnerability are less likely to receive the support and extra services they need, and the gap between students that experience additional barriers and that do not might widen. Closures can also have considerable effects on students' sense of belonging to schools and their feelings of self-worth – these are key for inclusion in education.

This Policy Brief describes OECD Member Countries' initiatives to address the different needs of vulnerable students during the COVID-19 pandemic. Beyond school closures, it also examines the issue of school re-openings by presenting countries' current measures and providing policy pointers aimed to ensure that the pandemic does not further hinder the inclusion of vulnerable students in education systems.

The current coronavirus (COVID-19) pandemic is having a profound impact, not only on people's health, but also on how they learn, work and live. Among the most important challenges created by COVID-19 is how to adapt a system of education built around physical schools. At its peak, more than 188 countries, encompassing around 91% of enrolled learners worldwide, closed their schools to try to contain the spread of the virus.[1] School closures have a very real impact on all students, but especially on the most vulnerable ones who are more likely to face additional barriers.[2] Children and youth from low-income and single-parent families; immigrant, refugee,[3] ethnic minority[4] and Indigenous[5] backgrounds; with diverse gender[6] identities and sexual orientations;[7] and those with special education needs[8] suffer by being deprived of physical learning opportunities, social and emotional support available in schools and extra services such as school meals. [9] They risk falling further behind and becoming isolated with school doors closed. These students are likely to lose the most in terms of educational outcomes[10] and the support provided by schools if countries take insufficient measures to promote educational equity and inclusion.

The following sections describe OECD Member Countries' initiatives to address the different needs of vulnerable students during the COVID-19 pandemic. Beyond school closures, this Policy Brief also examines the issue of school re-openings by presenting countries' current measures and providing policy pointers aimed to ensure that the pandemic does not further hinder the inclusion of vulnerable students in education systems.

1 https://en.unesco.org/covid19/educationresponse.

2 In this Brief, the notion of "vulnerable" is used to qualify students in a situation of vulnerability and with diverse needs, with an emphasis on the dimensions encompassed by the OECD Strength through Diversity project framework which focuses on the inclusion of students from an immigrant background; students from ethnic groups, national minorities and Indigenous people; students with special education needs (SEN); gender; gender identity and sexual orientation; and gifted students. Because of a lack of available information, the last group is not mentioned in this Brief. The understanding of the terms "vulnerable students" and the groups they encompass vary across contexts. Moreover, some countries prefer the use of "disadvantaged students", ''at-risk students'' or, less commonly, "marginalised students". Other countries prefer the wording 'diverse student groups at risk of increased vulnerability" to emphasise and address the systemic barriers that increase the risk of vulnerability for students.

3 https://oecdedutoday.com/immigrant-refugee-students-coronavirus/

4 https://oecdedutoday.com/including-marginalised-roma-students-during-coronavirus/

5 https://www.bbc.com/news/world-australia-51971891; https://www.nytimes.com/es/2020/04/10/espanol/coronavirus-grupos-indigenas.html

6 https://www.unwomen.org/en/digital-library/multimedia/2020/4/infographic-covid19-violence-against-women-and-girls

7 https://www.hrc.org/blog/how-school-counselors-can-support-lgbtq-youth; https://outrightinternational.org/content/lbti-caucus-statement-response-covid-19-pandemic

8 https://oecdedutoday.com/coronavirus-students-special-education-needs/

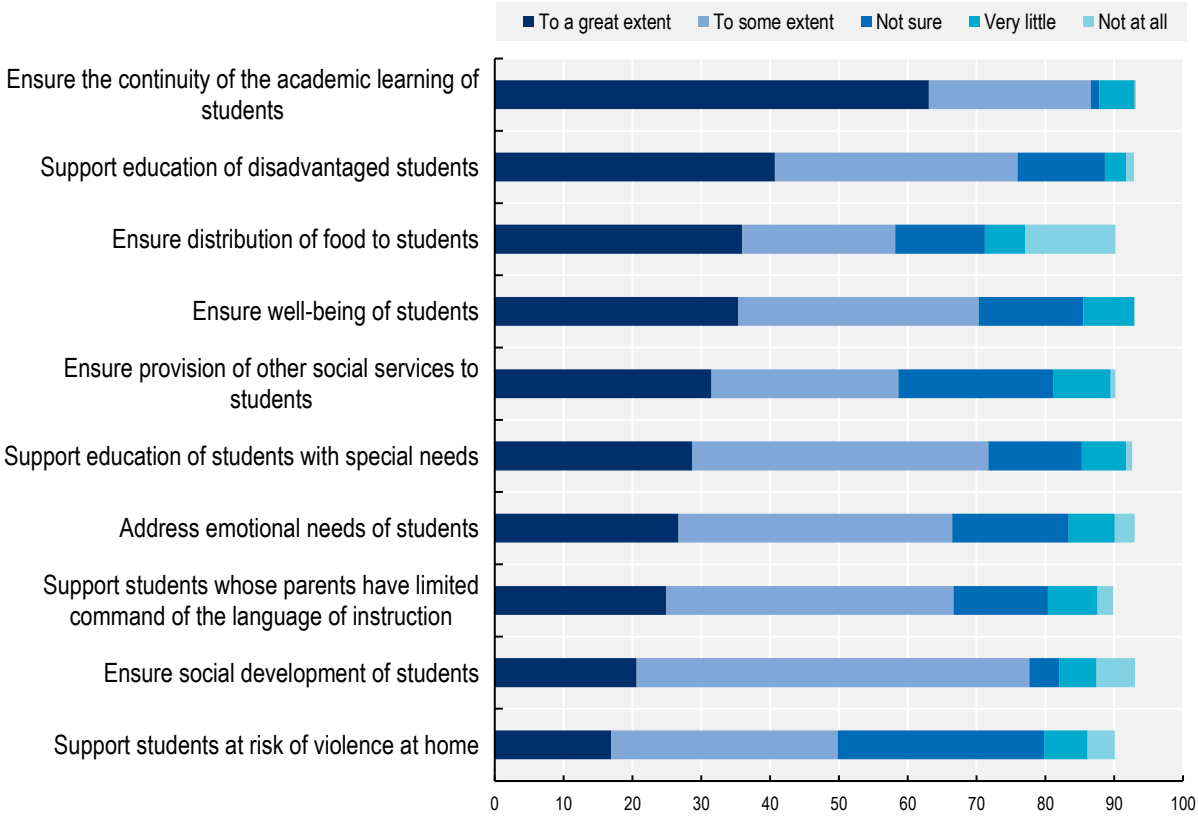
9 https://oecdedutoday.com/coronavirus-school-closures-student-equity-inclusion/

10 https://www.edworkingpapers.com/sites/default/files/ai20-226-v2.pdf

How can countries and schools ensure equity and inclusion in education during school closures?

Figure 1. Countries focus points in strategies of education continuity

Countries self-reported focus on different areas of inclusion and equity during the school closures.



Note: The data used includes information from the 36 countries that have responded to the OECD/Harvard Survey, namely: Austria, Belgium, Brazil, Canada, Chile, Colombia, Costa Rica, Croatia, Czech Republic, Dominican Republic, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Italy, Jamaica, Japan, Korea, Latvia, Lithuania, Mexico, Netherlands, Norway, Peru, Portugal, Slovenia, South Africa, Spain, Sweden, United Kingdom, United States of America and Uruguay. The answers have been weighted to account for the number of responses submitted for each country.
Source: Calculations based on data collection produced for the "A framework to guide an education response to the COVID-19" (Reimers and Schleicher, 2020[1]).

Country policy responses

During the coronavirus crisis, many countries have been using digital pedagogical tools and virtual exchanges between students and their teachers, and among students, to deliver education as schools closed. Vulnerable students might however have little access to such tools and require further attention and support. To respond to the challenges they face, countries have developed specific and sometimes innovative policy initiatives such as providing equitable and inclusive access to digital learning resources and good learning conditions, ensuring that socio-emotional needs are being met, offering equitable and

inclusive access to extra services for vulnerable students, and ensuring support by and to teachers (Figure 1).

While the most vulnerable students might not have access to digital learning resources, some governments and civil society organisations have provided these students with computers or tablets as well as internet access, or they have organised teaching through television, phones or radio.

Providing equitable and inclusive access to digital learning resources

An almost universal response to school closures has been the creation of online learning platforms to support teachers, students and their families. However, not all students have the same access to information and communication technologies (ICTs), which also varies greatly across countries (OECD, 2020[2]). While the most vulnerable students might not have access to digital learning resources, some governments and civil society organisations have provided them with computers or tablets as well as internet access, or have organised teaching through television, phones or radio. A number of countries offer useful insights into some of the most equitable and inclusive solutions to provide access to digital learning resources and effective distance education.

Partnerships with national educational media and free online learning resources to reach all learners

- In New Zealand, a new online learning space, hard copy learning packs and special television programmes have been offered to reach all learners;[11]
- The French Ministry of Education created and strengthened partnerships with several national media such as culture and education-oriented television and radio channels in order to offer further educational material and reach as many students as possible;[12]
- Similarly, the Portuguese Ministry of Education launched the "#EstudoEmCasa"[13] educational programme to enrich students' education during the crisis. This programme is mainly directed at primary students and has been broadcasted on the public television channel. To enhance this educational resource, a Roadmap with nine Guiding Principles was also disclosed to students, families and schools[14] with a set of information on the operation of this initiative. Weekly television grids were shared with students, families and schools in order to facilitate the planning and monitoring of transmissions;
- In Colombia, the government developed an online platform with more than 80,000 pedagogical resources to which low-income families have free access.[15] When these families do not have an internet connection, they can access the platform without consuming their mobile data;

11 https://www.beehive.govt.nz/release/making-learning-home-accessible-m%C4%81ori-learners-and-wh%C4%81nau.

12 https://www.education.gouv.fr/lancement-de-l-offre-arte-sur-edutheque-2348.

13 https://www.dge.mec.pt/noticias/estudoemcasa.

14 https://www.dge.mec.pt/sites/default/files/escolas_estudoemcasa.pdf.

15 https://www.mineducacion.gov.co/portal/salaprensa/Noticias/396244:Acceso-a-version-movil-del-portal-educativo-Colombia-Aprende-sera-gratuito-para-los-usuarios-con-servicios-de-telefonia-movil-prepago-y-pospago-de-hasta-71-214.

- In the United Kingdom, the government has been collecting resources that can be useful for students with special education needs and their families.[16] Moreover, both Dyslexia Assist[17] and National Autistic Society[18] have developed and shared material for both children and adults that are affected by the two types of special education needs (SEN).

Distribution of free electronic devices and learning material

- Some countries have worked on reaching students without any access to technology by distributing free material. For example, Chile distributed nearly 125,000 computers with an Internet connection in various cities across the country;[19]
- Likewise, the Government of Slovenia, with the help of private donors, collected thousands of electronic devices to support those vulnerable children without access to a computer;[20]
- The Italian capital, Rome, besides providing basic services to families from low socio-economic backgrounds, has worked on identifying Roma students without digital devices and internet connection.[21] The city offered them computers and tablets and tried to solve connection issues in order to ensure the continuity of their education;
- As an example of comprehensive guidelines for the continuity of migrants' education, the UNHCR has prepared advice[22] on how immigrant and refugee students can benefit from national virtual learning responses;
- Students in refugee camps in Greece received weekly homework packages if unable to connect to online platforms by phone or Internet;[23]
- The state of New South Wales in Australia has a long-standing practice of using technology to offer real-time distance teaching sessions through video conference lessons, phone lessons, satellite lessons and virtual excursions.[24] It also offers non-real-time teaching practices (e-mail and online learning management systems, such as Moodle) to students in remote regions who would otherwise be excluded from learning;
- In Portugal, schools, public and private organisations partnered in order to provide laptops and internet access to some students from disadvantaged backgrounds. When it was not possible, in co-operation with Post Office Services and the National Scouts Group, a mechanism was implemented allowing students who lived far from schools or without access to the Internet to receive hard copies lessons and tasks from schools. Deliveries of homework/assignments on paper to students and the following collection and return to the teachers were also organised;[25]

16 https://www.gov.uk/government/publications/coronavirus-covid-19-online-education-resources/coronavirus-covid-19-list-of-online-education-resources-for-home-education#special-educational-needs-and-disabilities-send

17 https://dyslexia-assist.org.uk/for-parents/.

18 https://www.autism.org.uk/services/helplines/coronavirus/resources/tips.aspx

19 https://www.mineduc.cl/apoyos-del-mineduc-durante-la-pandemia-del-covid-19/.

20 https://www.gov.si/novice/2020-04-08-ministrstvo-za-izobrazevanje-znanost-in-sport-s-projektom-digi-sola-do-ucenk-in-ucencev-iz-socialno-ogrozenih-okolij/.

21 https://www.imolaoggi.it/2020/04/22/coronavirus-roma-buoni-spesa-pc-e-tablet-per-i-campi-rom/.

22 https://www.unhcr.org/5e81cf1d7.pdf.

23 https://theirworld.org/news/education-delivered-to-children-on-greek-islands-refugee-camps-coronavirus.

24 https://education.nsw.gov.au/policy-library/associated-documents/de-enrolproc.pdf.

25 OECD Strength through Diversity Webinar, 5 October 2020.

- Besides the creation of online learning platforms and the distribution of computers, the Ministry of Education of Chile distributed printed pedagogical materials to more than 380,000 students in rural schools, disadvantaged areas and locations with a poor internet connection. In the most remote regions, the Ministry partnered with the national Air Force to distribute the materials needed to many students.[26]

Providing equitable and inclusive access to good learning conditions

According to PISA 2018, on average across OECD countries, 9% of 15-year-old students do not have a quiet place to study in their homes (OECD, 2020, p. 2[2]). Some vulnerable student groups are likely to be the most represented among those who do not have a proper environment to study. For example, immigrant and Roma students living in camps or crowded households might struggle to find a quiet space to study and are more likely to lose motivation. Moreover, many students in vocational and educational training (VET) systems often cannot access an appropriate space to practice at home (OECD, 2020[3]).

Even though it is difficult to directly respond to these challenges (e.g. by providing a quiet and equipped space for each students), countries have nonetheless taken some measures to foster equitable and inclusive access to good learning conditions. In addition, in this context, parental support for home-schooling is needed more than ever to provide children with the best learning conditions and support them in their studies during school closures. However, not all students groups receive the same amount of parental support. A study conducted in the Netherlands found that during school closures, even if nearly all parents stressed the importance of helping their children in keeping up with their study at home, students from advantaged socio-economic background received more parental support and had access to more educational resources than those from disadvantaged backgrounds.[27] Some parents, such as parents of immigrant and refugee students, may not be able to work from home (due to their over-representation among those considered essential workers)[28] or support their children with home-schooling due to their limited education and/or lack of proficiency in the language of instruction. In this case, the continuity of limited physical educational services and the availability of multi-languages resources, respecting hygiene and social distancing, can be key for many students. Several countries, such as France, the United Kingdom and the Netherlands, authorised various schools to keep several classrooms open to welcome children whose parents worked in essential services and were working extra hours during the peaks of the pandemic. Furthermore, even though little information is available on gifted students during the pandemic, parental engagement is crucial for them as they are more likely than other groups to lose motivation due to a lack of intellectual stimulus or self-isolation from their classmates.

Continuity of limited physical educational services for the most vulnerable

- In Australia, travel to remote communities for emergencies and for continuation of essential services was allowed and exempt from any travel restrictions in order to ensure basic services, including education, could still be delivered to all communities;[29]
- In the Netherlands, educational institutions in higher and upper secondary vocational education could remain open to facilitate students without access to distance learning at home. Also, primary and secondary schools could remain open for children whose parents were working in critical jobs (Reimers and Schleicher, 2020, p. 13[1]);

26 https://www.mineduc.cl/apoyos-del-mineduc-durante-la-pandemia-del-covid-19/.

27 https://osf.io/preprints/socarxiv/hf32q/.

28 https://www.axios.com/immigrant-work-coronavirus-nurses-health-care-744f5229-6381-4ac2-9f53-ef0a78e0489e.html.

29 https://www.niaa.gov.au/indigenous-affairs/coronavirus-covid-19/information-individuals.

- In Norway, schools remained open for a variety of students who were identified as vulnerable students, such as students with particular SEN, students with parents working in essential activities and students who could not be at home for other reasons, such as violent settings;[30]
- In Sweden there has not been any school closure during the COVID-19 outbreak to ensure that young children and vulnerable students could have continuity in accessing contacts with teachers and educators;[31]
- In Portugal, approximately 800 schools across the country hosted children whose parents worked in essential services, as well as provided food support to students from disadvantaged economic backgrounds.[32] Some Learning Support Centres also provided face-to-face and distance support. Schools reinforced their articulation with the Resource Centres for Inclusion, in order to ensure the continuity of their specialised support services for students.

Parental engagement

- In Ireland, the Ministry of Education provided numerous resources online to support parents during school closures. Among the materials available, there are several documents providing guidance on the continuity of schooling for parents of children in primary schools. In addition, documents specifically dedicated to parents of children at risk of educational disadvantage and with students with SEN have been provided;[33]
- Various international organisations and non-governmental organisations (NGOs) such as Save the Children in Spain,[34] created and diffused online resources to support parents during the crisis. These materials range from mere recommendations and guidelines,[35] to short and condensed explanatory videos providing advice on how to help children manage their emotions, how to promote their participation at home and in society or how to play creative games;
- In Portugal, families with children younger than 12 years old (who did not return to school until after the summer holidays 2020) received extra financial support by the government.[36] This support has been extended to families with children who suffer from chronic illness or physical impairments, even if above 12 years old. A document on the role of Resource Centres for Inclusion in supporting families was also published on the *Apoio às Escolas* website. *CRI goes home*[37] is a guide of strategies and activities for children, young people, and families which contains a set of practical guidelines related to psychology, psychomotricity, occupational therapy, physiotherapy and speech therapy.

30 OECD Strength through Diversity Webinar, 5 October 2020.

31 OECD Strength through Diversity Webinar, 5 October 2020.

32 https://dre.pt/web/guest/home/-/dre/130835147/details/maximized?serie=II&day=2020-03-29&date=2020-03-01.

33 https://www.education.ie/en/Schools-Colleges/Information/continuity-of-schooling/continuity-of-schooling.html#parents.

34 https://www.savethechildren.es/consejos-para-madres-y-padres-en-tiempos-de-coronavirus.

35 https://www.unicef.org/es/coronavirus/seis-maneras-en-que-padres-y-madres-pueden-ayudar-sus-hijos-durante-coronavirus.

36 https://www.portugal.gov.pt/pt/gc22/comunicacao/noticia?i=medida-de-apoio-excecional-declaracao-a-preencher-pelos-pais-em-caso-de-encerramento-de-escola.

37 https://www.dge.mec.pt/sites/default/files/cri_vai_a_casa.pdf

Distributing information and providing online resources in different languages

Language can be an important barrier to the inclusion in education of some diverse student groups, mainly for those from an immigrant background and some Indigenous communities. Language is an essential component of educational policy to guarantee not only improved educational outcomes, but also the well-being, sense of belonging and self-worth of these student groups (OECD, 2017[4]; Cerna, 2019[5]). During school closures, some countries have included a language component in their policy response in order to foster the inclusion of these vulnerable groups. Focusing on language enhances the accessibility and quality of information and learning materials. It might help avoid exacerbating existing educational gaps by leaving no one behind. Precisely, it might foster the engagement and the sense of belonging of some vulnerable student groups and their family who may feel left out by immediate responses to the pandemic. Most countries have worked on communicating information on health and education in relation to the COVID-19 in different languages. Though less common, a few countries implemented initiatives aimed at providing online multi-lingual learning resources in order to reach the students who may face language barriers in education.

Information on health and education during the crisis

- The Slovak government, with the help of staff from NGOs present on the ground, has been communicating in Romani to Roma families, informing them about the crisis and the measures to adopt in order to protect themselves and access basic services;[38]
- In Austria, the Education Minister prepared a letter for parents in 12 languages to inform them about school closures during COVID-19;[39]
- To reach non-native language speaking parents, the Oakland School District in the United States has provided flyers to families about school meals in five different languages.[40] Likewise, the state of Iowa established a "Multi-lingual COVID-19 Phone Line" in partnership with several local associations;[41]
- The Government of Sweden has offered online information in various languages on the country's strategy in response to the COVID-19 pandemic. It also provides links to websites where recent events and measure related to the crisis are available in different languages, including in relation to education;[42]
- Similarly, in Norway, information and updates on school organisation during the COVID-19 crisis have been distributed in different languages to meet the needs of diverse families;[43]
- In Portugal, a campaign for the awareness and prevention within Roma communities was developed: "For you, for all, stay at home!"[44] It was promoted by *Sílaba Dinâmica* – Intercultural Association, in partnership with *Letras Nómadas* – Association for Research and Promotion of

38 https://fra.europa.eu/sites/default/files/fra_uploads/slovakia-report-covid-19-april-2020_en.pdf.

39 https://www.bmbwf.gv.at/Themen/schule/beratung/corona/corona_elternbrief_bm.html.

40 https://drive.google.com/drive/folders/1BfRqzr71bi21XXh6LFQ74gFfpHxDHmSF.

41 https://idph.iowa.gov/Emerging-Health-Issues/Novel-Coronavirus/ELL.

42 https://www.government.se/government-policy/the-governments-work-in-response-to-the-virus-responsible-for-covid-19/strategy-in-response-to-the-covid-19-pandemic---other-languages/.

43 OECD Strength through Diversity Webinar, 5 October 2020.

44 https://www.youtube.com/watch?v=-CEIrluY-DY.

Roma Communities and *Ribalta Ambição* – Association for Gender Equality in Roma Communities, with the support of the Portuguese High Commission for Migration;

- Canada, in collaboration with the International Organisation for Migration (IOM), developed new fact sheets for a refugee audience about COVID-19 and current quarantine/isolation requirements for travellers. The fact sheets entitled "Resettling to Canada during the COVID-19 pandemic" are available in multiple languages and the information they contain is provided to refugees by IOM before they depart for Canada;[45]
- Various cities across Europe, Australia and Canada have also been working in close relationship with local associations to provide ethnic groups and immigrant families facing language barriers with comprehensive information on the evolution of the pandemic, how to protect their health and how to access basic services.[46]

Multi-lingual learning resources

- Through the National Institute of Indigenous Languages, part of the Ministry of Culture, the Government of Mexico not only shared information and prevention during the pandemic, but also shared learning materials in Spanish and Indigenous languages.[47] By the beginning of April 2020, there were 61 interpreters and translators as well as nearly 140 learning tools (audio, video, maps etc.) available in Spanish and most of the Indigenous languages spoken in the country;
- In the United States, Colorín Colorado, an educational website, provides advice to educators and families on supporting English language learners, from pre-primary to upper secondary school, throughout the pandemic;[48]
- To support learning of English as an additional language in New Brunswick, Canada, online courses for families and students were put in place and made accessible;[49]
- To respond to the language barriers faced by various Indigenous communities, a coalition of several universities around the world created the VirALLlanguages initiatives.[50] The recently started project aims to promote a "coronavirus education" reliable and accessible to all by providing culturally-appropriated translations.[51]

Ensuring that socio-emotional needs are being met

Ensuring that students' social and emotional needs are being met and that the most vulnerable continue to receive extra services are challenges for governments and schools. During school closures, various countries have attempted to respond to the well-being needs of different vulnerable student groups (OECD, 2020[6]). Students' sense of belonging to the school community may be lost unless they can keep in touch for learning, but also social activities, such as virtual games and reading buddies, via online resources like Zoom. The lack of social contact can be particularly impactful for vulnerable students: those with broken families, abusive families, in foster care, suffering from food insecurity or lacking housing. For example,

45 https://www.canada.ca/en/immigration-refugees-citizenship/services/coronavirus-covid19/refugees.html.

46 https://www.coe.int/en/web/interculturalcities/covid-19-special-page#{"62433518":[7]}.

47 https://www.inali.gob.mx/.

48 https://www.colorincolorado.org/coronavirus-ell.

49 OECD Strength through Diversity Webinar, 5 October 2020.

50 https://virallanguages.org/about-us/.

51 https://globalvoices.org/2020/05/11/promoting-coronavirus-education-through-indigenous-language.

many LGBTQI+ students may experience exclusion and even verbal or physical violence at home. Transgender students lacking family or community support may struggle to access hormones needed and emotional or psychological support, which can have a worrying impact on their education. When providing such services, it is also important to pay increased attention to the gender dimension of the current crisis. Girls incur additional risks compared to boys during school closures, which span from an increased burden in domestic duties, mental health disparities and lack of access to sexual and reproductive health care, to greater risk of gender-based violence, including sexual assault. All these factors may impact girls' well-being differently than for boys. Also, immigrant or refugees students that may not yet be fully integrated in their host communities may particularly struggle to maintain a healthy social life, without the occasions provided by their school life. This lack of socialisation – or socialisation mediated by online tools – may result in specific difficulties for students with SEN, in particular those who struggle with social and communication problems such as students with an autism spectrum disorder or those that have learning disabilities.

As already mentioned, the COVID-19 crisis may trigger symptoms of anxiety or other forms of mental disorders in children, adolescents and their parents. People with depression and bipolar disorder are particularly vulnerable to disruptions in routines and their usual patterns of daily life. They need routine, regularity and social interaction to be able to manage their mood symptoms and a breakdown in these factors can precipitate a relapse.[52] Moreover, parents that are experiencing anxiety symptoms during this crisis may inadvertently passed them on to their children. However, modelling how to react to stressful times by coping with anxiety in healthy ways can set an important example for their children.[53] It is thus important that parents adopt age-appropriate tools and ways to communicate with their children about the situation, as consideration of a child's development stage is key for a communication that is effective and neither underestimates or overestimates their understanding (Dalton, Rapa and Stein, 2020[7]). In particular, providing children with an accurate explanation that is meaningful to them will ensure that they do not feel unnecessarily frightened or guilty about the situation.

Counselling options and socialisation opportunities to support young people and their families

- Access to social and medical services and counselling may no longer be available in person. To address this, the American School Counsellor Association provides advice to schools[54] about online counselling and other services during the COVID-19 related school closures;
- Kids Help Phone in Canada offers e-mental health services to children.[55] On 29 March 2020, the Government of Canada announced CAD 7.5 million in funding to Kids Help Phone to provide children and youth with mental health support and counselling services during this difficult time;
- Autism Spectrum Australia provides online diagnostic assessments and tele-therapy for affected students;[56]

52 https://www.otago.ac.nz/christchurch/research/mentalhealthclinicalresearch/lockdown/index.html.

53 https://childmind.org/article/anxiety-and-coping-with-coronavirus/.

54 https://www.schoolcounselor.org/asca/media/asca/home/EmergencyShutdown.pdf.

55 https://kidshelpphone.ca/get-info/were-here-for-you-during-covid-19-novel-coronavirus/.

56 https://www.autismspectrum.org.au/how-can-we-help/helping-you-to-navigate-covid-19.

- Services such as *Kidshelpline* in Western Australia[57] and *Telefono Azzurro* in Italy[58] provide free, private and confidential 24/7 phone and online counselling services;
- UNICEF in Italy[59] offers remote counselling and psychological support for refugee and immigrant children, their parents or guardians, over the phone or on line;
- Being in quarantine can exacerbate feelings of isolation,[60] so providing opportunities for socialisation to immigrant and refugee students is crucial. That is why in Sweden an online initiative was launched to set up virtual meetings between newcomers and Swedes.[61]

Tools to discuss COVID-19 with vulnerable students and their families

- In the United States, several states have advised educational staff and families to follow the "Recommendations to support and protect children's emotional well-being during the pandemic" developed by the nation's leading research organisation Child Trends.[62] These recommendations include the use of creative approaches for children to stay connected; provide age-appropriate information; seek professional help if children show signs of trauma that do not resolve relatively quickly; or emphasise strengths, hope, and positivity. Moreover, the National Association of School Psychologists has published some suggestions for communications with children, such as the importance to consider that children look to adults for guidance on how to react to stressful events, the need to acknowledge concern without panic and explaining preventive measures in appropriate terms;[63]
- The United States' National Public Radio (NPR), the main independent and non-profit media organisation, also created a comic that helps demystify the virus. This comic explains what COVID-19 is, how to protect yourself, and helps separate fact from fiction;[64]
- The Spanish Ministry of Education and Professional Training created a web page informing on the measures adopted during the crisis,[65] where it dedicated a section to the well-being and care of students and families. Among other materials, the Ministry shared prevention videos, recommendations and contact to obtain socio-emotional support;
- In Portugal, with the involvement of the Order of Portuguese Psychologists, guidelines were produced for school psychologists and brochures for parents and students, were shared online, including: (i) Self-care recommendations for teachers and early childhood educators; (ii) Helping children cope with stress; (iii) How to deal with a situation of isolation; (iv) How to explain to a child the measures of social distance and isolation; (v) How to maintain distance teaching, learning and training activities; (vi) Families in Isolation during the Pandemic –

57 http://kidshelpline.com.au/.

58 https://azzurro.it/coronavirus/.

59 https://blogs.unicef.org/blog/covid-19-support-refugee-migrant-children-italy/.

60 https://reimaginingmigration.org/covid-19-trauma-and-immigrant-origin-students-with-dr-maryam-kia-keating/.

61 https://ec.europa.eu/migrant-integration/intpract/coping-with-corona-swedish-language-buddy-online.

62 https://www.childtrends.org/publications/resources-for-supporting-childrens-emotional-well-being-during-the-covid-19-pandemic.

63 https://www.nasponline.org/resources-and-publications/resources-and-podcasts/school-climate-safety-and-crisis/health-crisis-resources/helping-children-cope-with-changes-resulting-from-covid-19.

64 https://www.npr.org/sections/goatsandsoda/2020/02/28/809580453/just-for-kids-a-comic-exploring-the-new-coronavirus.

65 https://www.educacionyfp.gob.es/destacados/covid19.html.

Parents Kit / Activity Calendars for children and adolescents ; (vii) Studying in pandemic times – Guide for parents and caregivers;[66]

- National and international institutions such as WHO and UNICEF have also been very active,[67] mobilising their knowledge and expertise to support parents in, for example, explaining the situation to their children with autism, helping them manage a disrupted schedule or their already-existing anxiety;
- The Inter-Agency Standing Committee Reference Group on Mental Health and Psychosocial Support in Emergency Settings[68] published My Hero is You – how kids can fight COVID-19! –[69] a culturally and linguistically accessible book which explains how children can protect themselves, their families and friends from coronavirus and how to manage difficult emotions in a new and rapidly changing reality.

Offering equitable and inclusive access to extra services for vulnerable students

In times of crisis, ensuring access to extra services to vulnerable students is crucial to foster equity, inclusion and their well-being. It can make a substantial difference in the lives of students coming from low socio-economic backgrounds and help prevent widening educational gaps. To support these students, numerous countries have taken initiatives, often in partnership with local associations, and resorting to emergency funds. These measures have helped many students to return safely to their homes or have access to some basic needs usually provided by their school such as free meals.

Financial support and free school meals

- The Government of Australia has used an existing support mechanism dedicated to Indigenous students called ABSTUDY, which provides support for travel, accommodation and tuition. During the crisis, many students from remote areas, mainly Indigenous, returned home and were eligible for extra support and help to safely return to their families;70
- The existence of a National Emergency Aid Fund allowed the French government to support thousands of students.[71] Many received financial support, free food and plane tickets to return home when studying abroad;
- Municipalities across countries have been at the frontline of the crisis response. In partnership with educational staff and civil society organisations they often provide basic services to vulnerable population. In Italy,[72] Portugal[73] and Serbia,[74] among other countries, municipalities have worked

66 OECD Strength through Diversity Webinar, 5 October 2020.

67http://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/news/news/2020/3/mental-health-and-psychological-resilience-during-the-covid-19-pandemic.

68 https://interagencystandingcommittee.org/the-inter-agency-standing-committee

69 https://interagencystandingcommittee.org/iasc-reference-group-mental-health-and-psychosocial-support-emergency-settings/my-hero-you.

70 https://www.niaa.gov.au/indigenous-affairs/coronavirus-covid-19/information-individuals#students.

71 https://www.education.gouv.fr/bo/2011/29/esrs1117348c.htm?menu=2.

72 http://www.vita.it/it/article/2020/04/02/covid-19-tra-i-rom-e-sinti-in-emergenza-abitativa-regna-la-paura/154824/.

73 https://www.publico.pt/2020/03/25/sociedade/noticia/sabao-nao-caro-preciso-agua-corrente-1909138.

74 https://www.coe.int/en/web/belgrade/-/roma-communities-civil-society-and-local-institutions-from-serbia-react-in-crisis.

with schools and associations to provide communities with running water, food and medication to many vulnerable Roma families from various communities;

- The Oakland Unified School District in the United States is offering "grab and go"[75] breakfast and lunch meals to the most vulnerable students and is supported by foundations such as eat.learn.play;[76]
- In the United Kingdom, the government explicitly requested that all schools provide free meals to students during school closures. If a family was unable to collect it, the school had to ensure the distribution of the meals;[77]
- Spain, in its Royal Decree-Law 7/2020 of 12 March 2020 that established the emergency measures to respond to the economic impact of the COVID-19, stated that families who benefit from a scholarship or a special support during the school year must receive economic support and direct services of food distribution;[78]
- In order to support tertiary students in case of school closures, the Swedish Government has considered that student loans that have been granted should not have to be paid back if no teaching is provided.[79]

Ensuring support to and by teachers

Teachers' role and skills are irreplaceable and their daily contact with students places them among the most important agents of inclusion in education. Amid the COVID-19 crisis, they are core actors, guiding their students through the intensification of online distance learning. Furthermore, teachers, as well as school leaders, are the most likely individuals to be close to students' families and can have a major role in both reaching the most vulnerable students and keeping their family engaged in their education.

Teachers can help these students to remain connected during school closures by providing Internet hotspots, hosting video chats, sharing videos with closed captioning, providing translated material and engaging with the students' families or guardians. While nearly 63 million teachers were touched by the crisis at the end of March 2020,[80] ensuring support by and to teachers during such a crisis constitutes a great challenge and a key policy area to ensure equity and inclusion in education during school closures. According to a brief published in May 2020 by the World Bank, three core principles must guide policies aimed to promote teachers' effectiveness and well-being: (1) support teacher resilience; (2) support teachers instructionally; and (3) support teachers technologically.[81] This section focuses on examples related to teacher networks and initiatives that have supported the most vulnerable and countries' initiatives to ensure accessible resources for teachers and teachers' socio-emotional well-being during the crisis.

Resources for teachers

- The Portuguese Ministry of Education also developed the website *Apoio às Escolas* with a set of resources to support schools in the use of distance learning methodologies that allow them

75 https://www.ousd.org/covid-19studentmeals?fbclid=IwAR2EcmBQKVwVf96JFNylqyvNkV-lZnLkuvdqgsW0EezxtXAMfH7let-IFtw.

76 https://eatlearnplay.org/.

77 https://www.gov.uk/government/publications/covid-19-free-school-meals-guidance/covid-19-free-school-meals-guidance-for-schools.

78 https://www.boe.es/buscar/act.php?id=BOE-A-2020-3580#a8.

79 https://www.government.se/articles/2020/03/the-governments-work-in-the-area-of-education-in-response-to-the-coronavirus/.

80 https://en.unesco.org/news/teacher-task-force-calls-support-63-million-teachers-touched-covid-19-crisis.

81 http://documents.worldbank.org/curated/en/331951589903056125/pdf/Three-Principles-to-Support-Teacher-Effectiveness-During-COVID-19.pdf.

to continue the teaching and learning processes. A dynamic space with the regular introduction of new resources and sharing of practices. A Facebook page was also created with information, documents and suggestions for working with students, as well as a YouTube channel for sharing classes and educational initiatives;[82]

- Some countries such as Italy have provided teachers with online teacher training resources on how to teach online. They also created online collaborative platforms that allow them to share their resources and give and receive peer feedback;[83]
- To support the teachers and parents in this new situation, Nordic countries have shared their e-learning solutions for free. They jointly shared 40+ remote learning solutions from Estonia, Finland, Denmark, Iceland, Latvia, Lithuania, Norway and Sweden;[84]
- The European Commission published an online catalogue called "Education Gateway" providing teaching materials and training opportunities for teachers and stakeholders in European education systems available in 23 European languages;[85]
- In collaboration with universities, New Brunswick, Canada, developed an online module aimed at training teachers for culturally and linguistically diverse classrooms. It was put in place to support mainstream teachers in gaining the skills set required to teach English as an additional language to students from migrant backgrounds during school closures.[86]

Support for teachers' socio-emotional well-being

- In May 2020, the Chilean Ministry of Education organised a seminar on "socio-emotional learning in times of pandemic." Among the different topics addressed was a part dedicated to key concepts and initiatives for the self-care of teachers;[87]
- The Education Hub in New Zealand has several missions, including empowering teachers. During the pandemic, the Hub published guidelines to support teachers in taking care of their own well-being and shared contacts where they can receive counselling, health and psychological services.[88]

Teachers' initiatives and networks to support the learning and the inclusion of the most vulnerable

- In Larissa, Greece, the municipality has been working closely with local associations to provide refugees with masks and daily support. There, in Koutsohero Refugee Camp, teachers are providing extended support to these students who have faced significant challenges to access quality education during the pandemic.[89] Mainly, they helped refugee students who do not speak Greek to register to local schools and have access to online platform. Thanks to this

82 OECD Strength through Diversity Webinar, 5 October 2020.

83 https://read.oecd-ilibrary.org/view/?ref=120_120544-8ksud7oaj2&title=Education_responses_to_Covid-19_Embracing_digital_learning_and_online_collaboration.

84 https://education-nation.99math.com/.

85 https://ec.europa.eu/education/resources-and-tools/coronavirus-online-learning-resources/online-platforms_en.

86 OECD Strength through Diversity Webinar, 5 October 2020.

87 https://www.mineduc.cl/wp-content/uploads/sites/19/2020/05/4claves_autocuidadodocente.pdf.

88 https://theeducationhub.org.nz/advice-for-teachers-on-looking-after-your-wellbeing-during-the-covid-19-lockdown/.

89 https://uil.unesco.org/system/files/larissa.pdf.

initiative, many students could access asynchronous distance education by approaching the educational material posted by the teachers whether in open lessons or in school blogs;

- In various Uruguayan upper secondary schools, school leaders and teachers have been closely collaborating since schools began to close to ensure that (1) schools acquire the necessary digital tools and (2) all students have access to online learning resources and stay engaged in their education. Among the different initiatives implemented are WhatsApp groups led by teachers to send educational resources to families; trainings for teachers and students on the use of ICTs; the involvement of students in curriculum adaptations; and extra support for students with SEN;[90]
- In Slovenia, within the frame of the project "Together for knowledge — Implementation of the activities of support mechanisms for the acquisition of knowledge for members of the Roma community"[91] Roma assistants and other educational staff have focused on ensuring provision of education for all Roma. They worked on maintaining regular communication with Roma children and parents, on collecting ICT equipment and on the development of an information infrastructure to ensure that distance education reaches all students;[92]
- In Portugal, teachers' associations and scientific associations were involved in the production and sharing of pedagogical and didactic materials from the various disciplines of the national curriculum. Contacts were also developed with the main educational content publishers, in order to extend the online resources available to teachers. A digital library model was also developed where teachers can access and share content;[93]
- In response to the wave of school closures across the United States due to COVID-19, a few teachers of blind students and advocates collaborated to organise a free homework help hotline for students who are blind or visually impaired. They offer help in navigating accessible websites, and tutoring student in braille reading and writing.[94]

Policy options to ensure equity and inclusion during school closures due to the COVID-19

- Providing equitable and inclusive access to digital learning resources:
  - **Partnerships with national educational media** (TV channels, Radio channels) to reach the as many learners as possible;

90 https://www.ces.edu.uy/index.php/liceos/29808-mantener-el-vinculo-pedagogico-gran-desafio-en-tiempos-de-coronavirus.

91 http://www.skupajzaznanje.si/.

92 OECD Strength through Diversity Webinar, 5 October 2020.

93 OECD Strength through Diversity Webinar, 5 October 2020.

94 https://www.pathstoliteracy.org/resources/national-homework-hotline-blindvisually-impaired-students-nhh-bvi.

  - **Free online learning resources** to reach all learners: Developing free educational content to be offered online. Facilitating partnerships with national telecom companies to provide free use of mobile data;
  - **Distribution of free electronic devices and learning material**: Distributing free electronic devices and providing internet connection to disadvantaged and vulnerable students, including in refugee camps and Roma settlements, and to students living in remote areas. Engaging in partnerships with grass-roots associations and other entities such as the country's National Air Force could ensure an efficient and broad distribution.

- Providing equitable and inclusive access to good learning conditions:
  - The **continuity of limited physical educational services for the most vulnerable**: Keeping classrooms and quiet spaces to study open for some students in difficulty. Allowing travel of educational staff to remote areas to ensure the continuity of educational provisions when distance learning is not possible;
  - **Parental engagement:** Encouraging such engagement to ensure support and good learning conditions to students, with a focus on vulnerable groups.
- Facilitating information in different languages:
  - **Information on health and education**: Offering online or distributing physically information on the pandemic and education-related issues in different languages to reach diverse populations such as Roma and immigrants, through partnerships with grass-root associations;
  - **Multi-lingual learning resources**: Offering online educational resources in different languages (e.g. Indigenous languages) and using culturally-adapted resources with the help of specialists and translators.
- Ensuring that socio-emotional needs are being met:
  - **Counselling options and socialisation opportunities**: Providing remote counselling services (e.g. virtual meetings, hotlines) to support the psychological and socio-emotional well-being of vulnerable students. Offering online initiatives to ensure socialisation activities from vulnerable groups such as immigrant students;
  - **Tools to discuss COVID-19** with vulnerable students and their families: Developing different tools across Ministries, international organisations, NGOs, national associations or media. Providing child-friendly videos and comics, organising press conferences and/or news broadcasts adapted for children to ensure children and adolescents have access to appropriate information and are equipped to take care of themselves and their surroundings.
- Offering equitable and inclusive access to extra services for vulnerable students:
  - **Financial support**: Unlocking or creating emergency funds for vulnerable students and their families. Providing extra funding to local authorities to support vulnerable children. Considering student loans waivers;
  - **Free school meals**: Ensuring the continuity of distributing free school meals for disadvantaged and vulnerable groups of students, in partnership with local associations.
- Ensuring support to and by teachers:
  - **Resources** for teachers: Making online resources available and designing training to support teachers in teaching diverse groups of students online;
  - Support for **teachers' socio-emotional well-being**: Organising fora and/or developing guidelines to set standards on how to best support teachers' well-being during school closures so that they are in turn able to support vulnerable students' well-being;
  - **Teachers' initiatives and networks** to support the learning and the inclusion of the most vulnerable: Providing opportunities for groups of teachers to organise locally or nationally to

share practices on how to best support vulnerable students. Facilitating teachers' access to online tools/groups to ensure educational continuity when other national initiatives are not well functioning, such as in informal settlements with no internet connection.

How can education systems support vulnerable students with the re-opening of schools?

Following the school closures due to COVID-19 pandemic, a number of countries have re-opened schools (at least partially) if health conditions had improved and return was deemed safe by health professionals, ministries, education trade unions, parents associations and other stakeholders. Reasons for re-opening varied but included the need to develop students' knowledge and skills, catch up on learning losses, provide extra services, allow parents to return to work, among others (Reimers and Schleicher, 2020[8]). Other reasons that might impact school decisions towards school re-opening can be the progression of research describing to what degree children contribute to the spreading of the infection. If children are considered to play a small role in it, governments might consider it "safe" to open schools for these students. In Norway for example, this last point was an important reason that led to first re-open schools for the youngest students, coupled with the fact that the youngest children were overall considered to be the most vulnerable group. They also tend to benefit the least from online distance education.[95] Nonetheless, decisions based on this element are likely to be re-considered since our knowledge on the virus constantly evolves and important debates continue regarding the infectiousness of young children.[96] Other countries are planning to re-open schools in the following months. Initial concerns have focused around issues of hygiene and safety in schools, catching up on learning losses and providing support measures for the well-being of students.

Table 1 shows plans of 16 OECD countries for re-opening of schools with respect to well-being. Many of those countries have been planning to provide counselling for students, special support measures for students from socio-economically disadvantaged backgrounds, special support measures for students who may have been victims of violence at home and special support measures for students in psychological distress. Some countries have also planning to assess students' mental health. Nonetheless, only Greece and Korea indicated plans to hire additional school doctors, nurses, psychologists or specialised teachers.

Table 1. Countries' plans for re-opening with respect to students' well-being

Country	Assessment of students' mental health (efforts to identify students that may be experiencing particularly challenging circumstances)	Counselling for students	Hiring additional school doctors, nurses, psychologists, specialized teachers	Special support measures for students from socioeconomically disadvantaged backgrounds	Special support measures for students who may be victims of violence at home	Special support measures for students in psychological distress
Austria	YES	YES	N/A	YES	N/A	YES
Belgium	N/A	YES	N/A	YES	YES	YES
Chile	YES	YES	N/A	YES	YES	YES
Colombia	YES	YES	NO	YES	YES	YES
Costa	NO	YES	NO	YES	YES	YES

95 OECD Strength through Diversity Webinar, 5 October 2020.

96 https://theconversation.com/children-might-play-a-bigger-role-in-covid-transmission-than-first-thought-schools-must-prepare-144947.

Rica						
Finland	NO	NO	NO	NO	NO	NO
France	YES	YES	N/A	YES	YES	YES
Germany	YES	YES	N/A	YES	YES	YES
Greece	YES	YES	YES	YES	YES	YES
Iceland	N/A	NO	NO	NO	NO	NO
Japan	YES	YES	N/A	YES	N/A	YES
Korea	YES	YES	YES	YES	YES	YES
Norway	N/A	YES	N/A	YES	YES	YES
Portugal	NO	NO	NO	YES	YES	NO
Spain	YES	YES	N/A	YES	YES	YES

Note: Given the rapid developments of events and measures, the information in the table may not be comprehensive or fully up to date.
Source: This table has been elaborated on the basis of the OECD and Harvard Graduate School of Education Survey on COVID-19 (Reimers and Schleicher, 2020[8]).

Country policy responses – A holistic approach to education

While the COVID-19 crisis has been slowing down in many countries, education systems have planned or are planning their school re-opening strategies. As Table 1 shows, the well-being of students and support for those from a socio-economic disadvantaged background is an important part of re-opening strategies in several countries. However, ensuring inclusion requires broader engagement and a comprehensive set of measures in order to ensure that all students feel that they are safe and belong to the school. This can eventually impact their educational outcomes. Beyond general equity issues alone and logistical issues related to the safety of all at school, it is important to pay particular attention to the most vulnerable groups and their specificities. For these groups, some major issues to consider include a heightened risk of school dropout, as observed during past crises, and increased inequalities, often the result of unequal access to alternative learning delivery methods. In certain contexts, students may also be affected by lack of nutrition, or exposure to violence, displacement, child labour and other adverse conditions, with girls and women being particularly vulnerable. During school re-opening, special attention must therefore be given, among other groups, to those living in poverty, geographically remote areas or urban slums, students from ethnic minorities and Indigenous communities, immigrant and refugee students, LGBTQI+ students and students with SEN.

Growing evidence shows that disadvantaged and vulnerable students have been on average significantly less engaged in remote learning. For example, in a study conducted in schools across the United Kingdom, teachers reported that 62% of “vulnerable students” and 58% of students with SEN were less engaged in remote learning than their classmates.[97] Little data is available on specific groups such as Roma or students from an immigrant background but the challenges they face, such as lack to access to technology a quiet place to study or language barriers, suggest that the numbers could be similar and even higher. As such, the learning loss and impact on socio-emotional well-being might be the most severe for these student groups. In the long run, significant decrease in educational attainment, well-being outcomes and the exacerbation of existing educational gaps are likely to have a severe and lasting impact on OECD economies.[98]

Countries should adopt a holistic set of measures to ensure educational equity and inclusive environments in order to limit further educational gaps for these student populations. It is crucial to consider both learning

97 https://www.nfer.ac.uk/schools-responses-to-covid-19-pupil-engagement-in-remote-learning/.

98 https://www.mckinsey.com/industries/public-sector/our-insights/covid-19-and-student-learning-in-the-united-states-the-hurt-could-last-a-lifetime.

and well-being needs of students. The second section of this Policy Brief focuses on countries' initiatives and provides recommendations for governments to respond to the educational needs of the most vulnerable students during school re-openings. It also pays special attention to the risk of repeated cycles of re-closures and re-openings as well as to hybrid models of education that might emerge from the COVID-19 crisis.

Beyond general equity issues alone and logistical issues related to the safety of all at school, attention has to be paid to the most vulnerable groups and their specificities.

Adopting a holistic approach to education

A holistic approach to education is one that considers the learning, social and emotional needs of students and that requires governments to work in partnership with other relevant agencies such as health and community organisations, social work agencies and other support services to address the complex needs of the most vulnerable students during and after the coronavirus crisis (Cerna, 2019[5]). In addition, partnerships with grass-root associations and, more broadly, recognising the legitimacy of non-formal education providers is also a crucial component as much during school closures as for school re-opening strategies. These actors are close to the field, might have tight relationships with vulnerable communities and can support local authorities in providing both educational services and extra support to vulnerable families and communities.

Inclusive education is a crucial component of broader social inclusion. As such, a comprehensive approach must take into account anti-discrimination frameworks to fight exclusion in education and in the broader society. Compliance with anti-discrimination and human rights policies and laws is key in order to ensure equity and inclusion during school-reopening, and that no child will be left behind. They can avoid, for example, that some children remain out of school because of unjustified refusals and might encourage the design of inclusive curriculum. At the school-level, anti-bullying campaigns can be powerful tools to encourage safe return to school, raise awareness, avoid stigmatisation and protect students for whom school may not necessarily be a safe place. Here, it might be important to consider programmes to address stigma and direct community mobilisation. Moreover, considering broad social inclusion entails giving everyone the possibility to feel a sense of belonging and communicate properly within the constraint imposed by the pandemic. For example, it has been highlighted that regular facemasks, though necessary to limit the spread of the virus, are ill-designed for certain student groups, such as students with specific SEN (e.g. students with hearing impairments), non-native speakers and young children who learn by observing mouth movements. In some countries, the use of transparent face masks in classroom settings with students with hearing/visual impairments and non-native speakers may be required and constitute an inclusive practice.[99]

In spite of alarming numbers on learning loss, the real impact of the crisis on students and especially vulnerable ones will yet need to be measured. Education systems across OECD should see the current situation not only as highly challenging, but also as an opportunity to place a stronger focus on reducing existing educational gaps by implementing initiatives to foster equity and inclusion for vulnerable student groups who might be the most impacted by the COVID-19 pandemic.

99 OECD Strength through Diversity Webinar, 5 October 2020.

Facilitating partnerships between different stakeholders

Co-operation between relevant authorities and agencies to respond to vulnerable students' needs

Re-opening schools safely while ensuring that no student is left behind will require strong partnerships between relevant ministries and state agencies responsible for equity and inclusion matters. Inter-ministerial delegations or specialised agencies working on multiple areas will also be crucial actors in the design and implementation of school re-opening strategies (Gouëdard, Pont and Viennet, 2020[9]). Such actors will be important to strengthen co-ordination between different stakeholders while having a direct insight into vulnerable students' situation and needs in the area.

- In Ireland, the Department of Education and Skills is working closely with the Department of Health, particularly with a National Public Health Emergency Team, on a plan for re-opening schools. The planning strategy has specific references to vulnerable groups, such as students with SEN and marginalised students;[100]
- In Slovenia, the Ministry of Education collaborated with the National Education Institute and the National Institute of Public Health. They released a report on the "Education in the Republic of Slovenia in reference to COVID-19" which includes possible models of education provision and recommendations for schools;[101]
- The French inter-ministerial delegations for Lodging and Access to Housing (DIHAL),[102] for instance, was created in 2010 to ensure the co-ordination of the Government's policies in relation to lodging and access to housing for people in difficulty. Among other activities, the DIHAL works closely with several Ministries and grass-roots associations to support children and adolescents living in slums (most of which are Roma and immigrants) in accessing decent housing and a quality education. Such a body could be an efficient intermediary between local actors and national policy-makers.

Co-operation between authorities and education trade unions

During school closures, teachers have been at the frontline for the implementation of alternative pedagogical strategies, sometimes designing their own methods to reach the most marginalised. Their proximity with students and families put them in a key position to understand students' needs (see above). Ensuring support by and to teachers and school leaders to guarantee equity and inclusion during school re-opening will also be a crucial element in countries' strategies (see below). Co-operation between policy-makers, teachers and school leaders is therefore key to ensure a holistic approach to inclusive school re-opening. Teachers can share their experience with students and families and contribute to developing more comprehensive initiatives.

In 2018, OECD TALIS found that across OECD countries, fewer than 50% of teachers thought that they could influence policy making. The rate does not exceed 30% when asked if they think that their views are valued (OECD, 2019[10]). These dynamics seem to have been at stake during the crisis when several unions have pointed out a lack of listening by national educational authorities. Education trade unions at different scales have however been very active during the pandemic and can make a difference in understanding the needs of students, including the most vulnerable ones. Unions worldwide have been

100 https://www.education.ie/en/covid-19/planning-for-reopening-schools.pdf.

101 https://www.zrss.si/digitalnaknjiznica/Covid_19/?fbclid=IwAR2e-FLDSw1dHw6fAFtbSGYvRt7j91JlVObVCVBBM6kepzx-vV7ur38NJ7Q.

102 https://www.gouvernement.fr/presentation-de-la-dihal.

asking authorities for more co-operation and to grant more importance to teachers' voice in law and policy making.

- In Germany, the German education union (VBE) called for a stronger inclusion of teachers in decision-making related to the crisis. Mainly, it mentioned the importance of participating in discussions around examination regulations, teacher trainings and common reflexion on school re-opening and more broadly on what comes after the crisis;[103]
- Likewise, at the European level, the European Trade Union Committee for Education issued a "Statement on the road to recovery from the COVID-19 crisis." Among its main recommendations, the document mentions the necessity of "effective social dialogue and collective bargaining", "boosting public investment in high quality public education for all" as well as specific guidance on how to ensure inclusion and equality in education during the crisis;[104]
- In Italy, the national education trade union wrote a Manifesto for inclusive education during COVID-19.[105] The Manifesto emphasises that students must be safeguarded to ensure value and continuity of the educational relationship. Specifically, they mention that (1) teaching must remain educative for students' critical abilities and citizenship; (2) distance teaching, an emergency tool, cannot replace the educational relationship between educators and students; (3) technologies and media are tools, not a panacea; (4) unequal access to remote education must be avoided; (5) collective elements in education are to be protected (schools' autonomy and collegial bodies); and (6) a comprehensive and constructive evaluation of students' performances is needed;
- In September 2020, in the Spanish Basque Autonomous Community, nearly 70% of education professionals conducted a strike to demand measures allowing for a safe return to school and to guarantee quality education.[106]

Co-operation between authorities and civil society

Co-operation between official institutions and civil society organisations is also key. As previous examples mentioned in this policy brief show, Ministries of Education have partnered with unexpected actors, such as national Air Forces to distribute learning material and digital devices in remote areas, and local authorities have co-operated with various associations to distribute hygiene kits, food, and educational material to vulnerable students and their communities. Grass-root associations constitute important actors who work on the ground and in which families and communities may have more trust than in official institutions. As associations and charities are often more aware of the necessities of their audiences, institutional actors tend to rely on them for a more efficient distribution of resources.

- In the United Kingdom, the Ministry of Children and Family has announced a commitment to the Family Fund, a charity that provides grants for families raising disabled or seriously ill children and young people, of GBP 37.3 million for the 2020-21 biennium. Of the total, GBP 10 million has been committed specifically in response to the unique difficulties presented by the coronavirus pandemic, and will help low-income families with children with SEN with the cost of equipment,

103 https://www.ei-ie.org/en/detail/16715/germany-trade-union-wants-teachers%e2%80%99-voice-to-be-heard-in-new-coronavirus-legislation.

104 https://www.csee-etuce.org/images/attachments/ETUCE_Statement_on_COVID-19__Final.pdf.

105 https://www.ei-ie.org/en/detail/16774/italy-a-trade-union-manifesto-for-inclusive-education.

106 https://www.csee-etuce.org/en/policy-issues/covid-19/294-latest-updates/3942-basque-country-thousands-of-education-workers-strike-for-a-safe-return-to-school-and-quality-education-for-all-students-2.

goods or services – from household items to sensory and educational equipment that they might not otherwise be able to afford.[107]

Co-operation can finally take different shapes and involve different stakeholders:

- For example, in Sweden in March 2020, a partnership between the Swedish National Agency for Education, the Swedish National Agency for Special Needs Education and Schools, Research Institutes of Sweden (RISE), the Swedish Edtech Industry, the Swedish Educational Broadcasting Company, the Swedish Association of Local Authorities and Regions (SKR) and a number of other collaboration partners was established. A new website[108] was launched quickly in order to put together different types of support and guidance concerning distance learning;
- Portuguese schools, together with the respective National Commission for the Promotion of the Rights and Protection of Children and Young People, organised students' welcoming and school work dynamics, through the Multidisciplinary Support Team for Inclusive Education in order to provide students at risk the conditions to promote their safety, training, education, well-being and integral development.[109]

Whole-school and whole-community approaches

Holistic measures to respond to students' needs must be based on a whole-school and whole-community approach. Strong partnerships between schools and communities imply an ongoing communication between educational staff and families to ensure they are well informed and can work together to identify and efficiently respond to the needs of students, mainly those of the most vulnerable. For example, evidence from past initiatives for Roma inclusion shows that policies and projects that are based on a community approach with an ongoing communication between educational staff, the students and their families and other stakeholders are the most efficient in increasing educational and well-being outcomes of students. Such an approach might be needed more than ever to ensure vulnerable students and their communities are equipped and consulted to overcome the challenges sparked by the COVID-19 crisis.

- A joint report[110] from Harvard's Graduate School of Education (HGSE) and the Massachusetts Institute of Technology (MIT) released in July 2020 suggests to promote strong relationships within the school community, among other considerations. The report, and its accompanying guide[111], encourages the involvement of teachers, students and their families as key stakeholders in the planning process and advises the implementation of local group activities to support all students;
- In Ireland, the Department of Education and Skills published guidelines on how to support students with SEN in this crisis, highlighting the importance of communication between teachers, school leaders and families of students with SEN. In particular, they suggest that schools co-ordinate the key messages for parents and guardians of children with SEN and ensure that the tone of the messages is supportive and shows understanding of the exceptional situation families find

107 https://www.gov.uk/government/news/37-million-to-support-children-with-complex-needs?utm_source=cd2ccf5f-e4da-48c3-9c73-a37a60f53cd8&utm_medium=email&utm_campaign=govuk-notifications&utm_content=daily

108 www.skolahemma.se.

109 OECD Strength through Diversity Webinar, 5 October 2020.

110 https://edarxiv.org/gqa2w.

111 https://edarxiv.org/ufr4q.

themselves in. Moreover, school leaders and teachers need to agree on communication protocols with families in order to protect the personal details of the families and the teachers involved;[112]

- In Canada, Settlement Worker in Schools (SWIS) programming continues to support newcomer youth and their families. SWIS is a long-time partnership between Immigration, Refugees and Citizenship Canada (IRCC), settlement service providers, and school boards/districts. SWIS workers are closely collaborating with school staff and teachers in accordance with public health guidelines and explore alternative service delivery as required. They play an essential role by reaching out to newcomer families, addressing literacy issues, sharing multi-lingual resources, assessing needs and assets, ensuring referrals are effective through culturally-competent support.[113]

Encouraging return to schools

School re-openings have been, or will likely be, on a voluntary basis, as the health risks will probably not have reduced enough to impose mandatory attendance. Families will need to evaluate their own household risk levels and decide whether they want their children to go back to school. A recent survey conducted in the United Kingdom from the National Foundation for Educational Research suggested that about half of the families would keep their children at home. In particular, the surveyed school leaders expected that 46% of parents would keep their children at home, while the percentage would increase to 50% of parents when considering schools in a disadvantaged area.[114] Where schools started to re-open, attendance rates have been highly variable, ranging for instance from 40% to 70% in primary schools in England.[115] Nonetheless, from September 2020, England is planning to impose a mandatory return of students to schools[116] and is making provisions to offer remote learning and other measures in case of another COVID-19 outbreak.

It is expected that vulnerable children or children from poorer families will be less likely to return to school as they start to re-open, which could further increase the educational gap between students from more and less advantaged socio-economic backgrounds. The absenteeism of vulnerable students could be linked to a disengagement in education, but also to the fact that poorer families have been disproportionally hit by this health crisis in various OECD countries

It could be worthwhile for countries to consider introducing a system of incentives to promote attendance, in particular for more vulnerable students. For instance, countries could provide free or subsidised meals for low income families, so that sending their children to school could also offer an economic and health benefit, as they would be receiving a balanced and healthy meal while decreasing families' expenses in a context of economic uncertainty. Moreover, countries could provide public, free and safe transportation to schools to provide a safe alternative for families that would not have to bring children to school and create large gatherings of people outside structures.

112 https://www.education.ie/en/Schools-Colleges/Information/National-Emergencies-Public-Health-Issues/guidance-continuity-of-schooling-supporting-pupils-with-sen-primary.pdf

113 OECD Strength through Diversity Webinar, 5 October 2020.

114 https://www.nfer.ac.uk/media/4060/schools_responses_to_covid_19_early_report_final.pdf

115 https://www.bbc.com/news/education-52854688

116 https://www.ft.com/content/74600603-7fa3-4238-bf2d-680682dfdf39

Addressing learning gaps

School closures might have created new educational gaps or exacerbated already existing ones. The evidence is clear that students from disadvantaged socio-economic backgrounds are the ones likely to suffer the most. Likewise, certain groups of diverse students (e.g. students from specific ethnic groups, students with SEN, etc.) who are already marginalised will be highly impacted, which could be even worse if they are also from a low socio-economic background.[117] Estimates from the United States,[118] for example, indicate that the learning loss from school closures in terms of reading and mathematics will be substantial for most students but particularly severe for vulnerable student populations, such as immigrant and refugee students or students with SEN. In the United Kingdom, a study conducted by the National Foundation for Educational Research with a sample of almost 3,000 school leaders and teachers in about 2,200 primary and secondary schools across England revealed that in most schools, teachers responded that they had covered less than 70% of the curriculum by July 2020. As a result, students are estimated to be three months behind on average in their learning. Moreover, the study suggests that boys are further behind in the curriculum compared to girls and that the learning gap for disadvantaged students has widened by at least 46%.[119] Likewise, a study on Flemish schools over a period of six years (2015 to 2020) found a significant learning loss for the students of the 2020 cohort. The study suggests that school closures led to a decrease in school averages of mathematics scores of 0.19 standard deviations and Dutch scores of 0.29 standard deviations as compared to the previous cohort. Furthermore, inequality within schools has risen by 17% for math and 20% for Dutch, while inequality between schools increased by 7% for math and 18% for Dutch.[120] Nonetheless, some studies showed different results, suggesting that the average performance of students remained unchanged.[121] There is still little evidence available on the topic and further research is necessary to consistently inform educational policymaking.

As reported by UNESCO,[122] it is fundamental to pay increased attention to the gender dimension of the impact of the pandemic on education. Girls that are staying at home from school may be asked to take care of household duties more than boys, which would subtract further time from their home-based studies. In some context, girls could be dropping out of schools at higher rates after such an extended period of school closures. Similarly, boys with lower socio-economic background may be forced to drop out of school to support their families' income that could be reduced or lost due to the pandemic. The gender gaps in education may worsen due to the crisis, affecting in different ways boys and girls. On the one hand, the reading gap among boys and girls, which on average disfavours boys, may be amplified by the school closures. A study from the UK reported that the gender gap in the numbers of children who say they take pleasure in reading and who read daily appears to have widened.[123] This fact raises concerns that boys could be at risk of losing out as a result of the coronavirus pandemic, as boys on average read less than girls for pleasure and score lower in reading in PISA. On the other hand, the impact of the shift to online or distance learning could also affect girls more significantly as most of OECD countries still experience a

117 https://www.nytimes.com/2020/06/05/us/coronavirus-education-lost-learning.html?action=click&module=Top%20Stories&pgtype=Homepage.

118 https://www.edworkingpapers.com/sites/default/files/ai20-226-v2.pdf.

119 https://www.nfer.ac.uk/schools-responses-to-covid-19-the-challenges-facing-schools-and-pupils-in-september-2020/.

120 https://feb.kuleuven.be/research/economics/ces/documents/DPS/2020/dps2017.pdf.

121 See the example of France: https://www.education.gouv.fr/evaluations-de-debut-de-sixieme-2020-premiers-resultats-307125 and https://www.education.gouv.fr/media/66963/download.

122 http://www.iiep.unesco.org/en/covid-19-school-closures-why-girls-are-more-risk-13406

123 https://www.theguardian.com/education/2020/jul/13/gender-gap-in-childrens-reading-grew-in-uk-lockdown-survey

digital gender divide,[124] which may prevent girls to engage fully in such modalities of instruction. Furthermore, women worldwide still have lower rates of access to the internet, with gender gaps that still amount to 5% in Europe and 12% in Latin America.[125] It is thus particularly important to account for all these factors, supported by disaggregated data by gender in order to analyse the gender dimension of the current pandemic and commit to incorporating it into decision making and reporting.

Initiatives will therefore be needed to support schools in helping students catch up on missed learning, especially those from vulnerable backgrounds. Countries have already begun to prepare catch-up strategies for students, sometimes with a special focus on disadvantaged ones. So far, several types of initiatives can be observed: summer schools, accelerated education programmes and other practices.

Summer schools

Evidence shows that summer and afterschool learning programmes can provide motivation and substantial learning gains for disadvantaged populations. Enrichment programmes, accelerated learning programmes and other kinds of intensive "learning camps" targeted to the most disadvantaged children have proven to be effective in many developing country contexts, both for bridging periods of learning loss and pathways for successful re-entry of out of school children.[126] In several countries, educational authorities planned such catch-up strategies for the 2020 summer break, often with a special focus on the most vulnerable students:

- Among other initiatives, the Province of Québec, Canada, has offered summer courses and learning camps to primary and secondary students "who have difficulties or need remedial instruction." These programmes are available on a voluntary basis, based on parents and schools' selection and will be designed based on the needs of the students and their specific situations;[127]
- In the United Kingdom, the Prime Minister announced in June 2020 that a GBP 1 billion fund would be used to help children catch up on their educational loss due to school closures. The government is preparing catch-up strategies over the summer and special programmes for the most disadvantaged students;[128]
- In Germany, the Ministry of Education in the state of Rhineland Palatine offered EUR 500,000 to fund a summer school to enable students to catch up before the new school year. In collaboration with municipal umbrella organisations, educational offers were made for students from first to eighth grade. In the last two weeks of the summer holidays, three hours of lessons per day were offered, especially in school buildings in the cities and municipalities of the associations. The lessons were taught by student teachers, trainee teachers, teachers and pedagogical staff, retired teachers and older students who were specially trained;[129]
- Some countries such as Sweden (Cerna et al., 2019[11]) already offer summer camps where immigrant students can, for example, improve their language skills in an informal setting by interacting with other foreign-born and native students as well as educational staff. Sweden also

[124] http://www.oecd.org/internet/bridging-the-digital-gender-divide.pdf

[125] https://webfoundation.org/2020/03/the-gender-gap-in-internet-access-using-a-women-centred-method/

126 https://www.cgdev.org/blog/equity-focused-approaches-learning-loss-during-covid-19.

127 https://www.quebec.ca/en/education/preschool-elementary-and-secondary-schools/etablissements-scolaires-prescolaires-primaires-et-secondaires-dans-le-contexte-de-la-covid-19/.

128 https://www.bbc.com/news/education-53100881.

129 https://bm.rlp.de/de/service/pressemitteilungen/detail/news/News/detail/gemeinsam-machen-wir-sommerschule-rlp-land-und-kommune-machen-sich-gemeinsam-fuer-schuelerinnen-und/

offers summer camps to students failing one or more subjects in grades 8 and 9. Other countries such as Austria offer language camps to children aged 6 and above.

Accelerated education programmes

Accelerated programmes could also be an effective response to the COVID-19 crisis. These programmes are flexible, age-appropriate and run in an accelerated timeframe in order to provide access to education for disadvantaged, out-of-school children and youth. In this case, countries may choose to follow an accelerated syllabus that focuses on core subjects. They can target especially those who missed out on or had their education interrupted for reasons such as crisis or conflict.[130]

- The Accelerated Education Working Groups (AEWG), an international network created in 2014 that gathers several international organisations and NGOs, published in 2017 a guide that establishes 10 common principles for inclusive and efficient accelerated programmes strategies.[131] In contexts of emergencies, these programmes have proven to strongly benefit vulnerable groups of students with little or no access to quality education;[132]
- In its guidance for COVID-19 control and prevention in schools, UNICEF recently advised considering accelerated education programmes to support children catch up on their lost learning due to the pandemic and help integrate previously out-of-school children;[133]
- In Norway, the government allocated a funding of approximately EUR 17 million to school leaders in order to help vulnerable students catch up learning losses. The funding could have been used for different initiatives, including the establishment of summer schools, the implementation of accelerated education programmes, homework assistance, hiring more teachers, etc.[134]

Other practices

Other practices could limit learning gaps heightened by the pandemic and especially benefit vulnerable groups of students (IIEP-UNESCO, 2020[12]), such as:

- Applying universal design to curricula, i.e. ensure inclusive systems that fulfil each learner's potential. It implies to design flexible, relevant and accessible curricula, textbooks free from stereotypes and omission and use assessment methods that allow students to demonstrate learning in various ways.;[135]
- Supporting non-formal learning activities at home or through partnerships with associations;
- At the school-level, encouraging after-school tutoring and peer-to-peer coaching initiatives as well as special after-school study classes (either mandatory or for selected groups) so that students can catch up on core subjects (IIEP-UNESCO, 2020[12]). Data from PISA 2018 shows that fewer than 50% of students are in a school providing such a form of study help. Peer-to-peer tutoring can be promoted in order to foster both learning and socialisation of students (OECD, 2020[13]);

130 https://www.unhcr.org/accelerated-education-working-group.html

131 https://s3.amazonaws.com/inee-assets/resources/AEWG_Accelerated_Education_Guide_to_the_Principles-screen.pdf.

132 https://archive.ineesite.org/en/accelerated-education.

133 https://www.unicef.org/lac/en/media/12486/file.

134 OECD Strength through Diversity Webinar, 5 October 2020.

135 See UNESCO webinar: https://www.youtube.com/watch?v=sJbYhtFEuYI.

- The French Ministry of Education, for example, announced that reducing learning gaps between students will be a priority in its school re-opening strategy. Among other measures, it will finance 1.5 million additional hours for teachers to support students after school hours.[136]

Ensuring that the well-being of students remains a priority

The link between physical and emotional health and academic success is well-known. A core mission of education systems is therefore the promotion of students' well-being, which is closely related to academic performance. As many countries enter difficult economic times, efforts should be made to continue and boost social programming such as free school meals and emotional counselling, prioritising the well-being of all students (OECD, 2020[13]). Besides the need to provide vulnerable students with extra services, this crisis can also be an opportunity to establish a well-being culture in schools. Changes in the curriculum to put a stronger focus on health and self-care, workshops, focus groups to foster socialisation and exchanges, and ongoing communication with children can be exploited to make sure that students understand the situation and feel that they have the necessary tools to take care of themselves and their surroundings.

Special focus on socio-emotional well-being

The COVID-19 crisis has highlighted that schools are not only crucial as education provider, but also as a place to respond to socio-emotional needs and support the well-being of vulnerable students. Schools can ideally be a safe space for vulnerable students, providing psychological support, responding to their socialisation needs and creating a sense of community.[137] To this end, ongoing and clear communication with students (and their families) remains an important priority during school re-opening.

- For example, UNICEF has published a set of recommendations for parents and teachers to discuss with their students the COVID-19 situation in an age-appropriate fashion, and a list of "dos and don'ts" to avoid bullying, discrimination and stigmatisation that might be very useful for when schools re-open;[138]
- In France, the Ministry of Education created a page with resources and advice for teachers to best support students during school re-openings. These resources include guidelines for students with SEN as a priority and several resources to inform the youngest on the virus and on how to protect their health and that of their families.[139]

A focus on the well-being of students goes beyond socio-emotional needs. It is also important to consider what other provisions and extra services schools can offer to vulnerable students who might have been abused physically and psychologically, have not eaten and slept well, and might have experienced grief. Mitigating the impact of the pandemic on the mental health of students and their families might be a crucial component of policy responses. For example, a study conducted by the Chilean NGO *América Solidaría* among partner organisations across Latin America found that 80% of respondents considered deteriorating mental health as one of the main effects of the pandemic. Exclusion from education, increasing domestic violence and food insecurity were also among the main negative consequences mentioned by respondents.[140] As such, strengthening psychological support and counselling services during school re-

136 https://www.lemonde.fr/societe/article/2020/07/11/a-la-rentree-la-reduction-des-ecarts-entre-eleves-sera-la-priorite_6045947_3224.html.

137 https://www.thelancet.com/action/showPdf?pii=S2468-2667%2820%2930124-9.

138 https://www.unicef.org/pacificislands/stories/coronavirus-disease-covid-19-what-parents-should-know.

139 https://eduscol.education.fr/cid151499/reouverture-des-ecoles.html.

140 https://www.elmorrocotudo.cl/noticia/educacion/salud-mental-violencia-y-exclusion-escolar-las-urgencias-de-la-ninez-en-pandemia.

opening is a key component to ensure the well-being and inclusion of vulnerable students. While the return to school might be welcomed by many students, others may be feeling anxious or frightened. Educational systems too have to focus on their students' psychological health to ensure a safe transition back to school, or provide support in case of further lockdowns.

- UNICEF has developed some suggestions for parents to help their children manage some difficult or complicated feelings, such as health scares or anxiety induced by having to wear masks and keep social distancing;[141]
- In Canada, to support students' mental health during school closures and re-openings, material aimed at promoting positive mental health was produced and translated into the country's 14 most commonly spoken languages, including Indigenous languages and American sign language;[142]
- Schools in England are focusing on mental health while reopening schools, as teachers are instructed to use "well-being guides" to help children understand what's going on and talk about their feelings.[143]

Providing equitable and inclusive access to extra services for vulnerable students

A broad approach to well-being must consider the socio-economic impact of the pandemic on families and the wider community as well as its effect on education. For example, school dropouts or transfers increase during crises as families lose income or resort to negative coping mechanisms such as child labour; inequalities are exacerbated due to lack of social services, health, nutrition and protection; female vulnerability is exacerbated, gender-based violence (GBV), including sexual and domestic violence rises, together with incidences of early marriage and pregnancy (UNESCO, 2020[14]). As such, financial support to vulnerable children and families already provided in many countries during school closures should be continued and adapted during school reopening.

- Canada will provide an additional CAD 75.2 million to support First Nations, Inuit and Métis Nation post-secondary students impacted by COVID-19.[144] The Prime Minister also announced an additional CAD 112 million in funding for First Nations to support community measures to ensure a safe return to school on reserves. The government will continue to work with First Nation partners to help protect the health and safety of students and staff this school year;[145]
- Still in Canada, up to CAD 2 billion is being unlocked in support for provinces and territories through the Safe Return to Class Fund. This will provide the complementary funding they need, as they work alongside local school boards to ensure the safety of students and staff members throughout the school year. For example, the Fund will help provinces and territories by supporting adapted learning spaces, improved air ventilation, increased hand sanitation and hygiene, and purchases of personal protective equipment and cleaning supplies.[146]

In addition, cash transfers and parenting programmes can be highly efficient, mainly to promote early childhood education and care that is likely to be significantly impacted by the crisis. In the past, cash transfer programmes, coupled with information and behaviour change efforts to help parents support their

141 https://www.unicef.org/coronavirus/supporting-your-childs-mental-health-during-covid-19-school-return

142 OECD Strength through Diversity Webinar, 5 October 2020.

143 https://www.businessinsider.fr/us/english-schools-focusing-mental-health-while-reopening-during-covid-19-2020-6.

144 https://www.sac-isc.gc.ca/eng/1100100033679/1531406248822.

145 https://www.canada.ca/en/services/benefits/education/student-aid/notice-covid-19.html.

146 https://pm.gc.ca/en/news/news-releases/2020/08/26/prime-minister-announces-support-safe-return-school.

children's development, have generated positive impacts in various countries, including improved cognitive outcomes in Colombia and Mexico.[147]

Free school meal distribution remains key to support the well-being of students. School meal distribution programmes conducted by various governments in partnership with the World Food Programmes (WFO) have proven to have a significant positive impact on vulnerable students' educational outcomes.[148] These programmes requiring strong partnership between different stakeholders tend to increase motivation, enrolment and attainment and have a strong positive impact on girls. In this area, partnerships are fundamental. Countries should therefore start to or keep distributing free school meals to vulnerable students both in and out of school. This is essential to ensure that their well-being needs are being met and they are in a good physical and mental condition when schools re-open.

During school re-opening, an overarching priority is therefore the overall health and well-being of students, but also of the school population (students, teachers, and other personnel). This should include approaches to deal with post-traumatic stress caused by COVID-19, and the resulting social isolation and confinement (UNESCO, 2020[14]) as well as foster ongoing communication and ensure basic economic nutritious needs for vulnerable students and families. Some initiatives and guidelines are already developed around the world by countries, grass-root associations and international organisations that work closely with governments.

- Initiatives include continuous distribution of hygiene kits, daily meals, conversation with children and their families and workshops with educational staff and staff in Ministries on how to deal with children and teachers' socio-emotional well-being during school re-opening. For example, UNICEF conducted such activities in Venezuela;[149]
- In Mexico, the government has announced that well-being as well as sensitivity to diverse contexts will be a priority in its school re-opening strategy.[150]

Ensuring support by and to teachers and school leaders

The switch to distance learning during school closures, though entailing advantages for both teachers and students such as continuity and flexibility, also caused some difficulties for teachers. They might face difficulties in adjusting to online teaching on a very short notice and ensuring that all students, especially the disadvantaged ones, stay engaged and take part in online classes. A survey administered to teachers in the European Union showed that increases in workload and stress were perceived as one of the main challenges by teachers during school closures.[151] Teachers' physical, psychological and socio-emotional well-being should be prioritised, which requires providing them with guidelines on expectations for teaching, learning and assessments. Teachers also need training on how to recognise and support students at risk, and to deal with traumatised students. Their role in identifying learning gaps and in organising instructional strategies will be key, in particular to support disadvantaged learners. Educational systems should support teachers to reorganise classroom work to deliver more individualised instruction and provide accelerated learning and remedial responses when necessary.[152]

147 https://www.worldbank.org/en/country/russia/brief/covid-19-response-learning-gaps-inequalities-russia.

148 https://docs.wfp.org/api/documents/WFP-0000102338/download/?_ga=2.218150425.1879704144.1594979139-1688459968.1592387731.

149 https://en.unesco.org/events/joint-unesco-unicef-world-bank-webinar-series-reopening-schools.

150 https://unesdoc.unesco.org/ark:/48223/pf0000373318.

151 https://www.schooleducationgateway.eu/en/pub/viewpoints/surveys/survey-on-online-teaching.htm.

152 https://teachertaskforce.org/sites/default/files/2020-05/Guidelines%20Note%20FINAL.pdf.

The same survey also found that the teachers interviewed considered support in the following areas as particularly needed: (1) more free resources from education technology companies (45% of respondents); (2) clear guidance from the Ministry of Education (41%); and (3) professional development initiatives such as quick courses on online teaching (37.4%). This suggests the need for stronger support from education authorities, more accessible resources and capacity building. Though costly, these elements, with a focus on supporting marginalised students, could be an important part of school re-opening strategies.

The re-opening raises many questions also for school leaders, who need to ensure safety for both students and teachers and ensure that everyone has the tools to resume working. A survey on school leaders' response to COVID-19 conducted in 12 countries found that a large majority of school leaders consider the well-being of students to be a top priority.[153] The survey identified that most school leaders supported teachers' initiatives during school closures and considered it crucial to be in continuous contact with families and communities. School leaders moreover have a central role in creating strong links within the school community. It is crucial for authorities across countries to engage in an ongoing communication with school leaders in order to identify the main challenges they face and provide them with the necessary resources to support all learners, especially the most vulnerable groups who need extra support.

- The joint UNESCO/Teacher Task Force/ILO policy guidance found in the document "Supporting teachers in back-to-school efforts" provides guidance specifically for school leaders so that they can support their staff in the re-opening efforts. Through a set of guiding questions, tips and resources, this Toolkit aims to help school leaders identify actions to be taken in a series of key dimensions, such as teachers' psychological and socio-emotional well-being and teachers' preparation and learning, to better support and protect teachers and other education personnel in back-to-school efforts;[154]
- In order to raise the awareness on the central role of teachers in the post-COVID-19 education system, the European Training Foundation together with the Joint Research Centre (JRC) of the European Commission have created a set of "Teacher booster" videos, corresponding to a series of awareness-raising films on how teachers from all over the world are tackling the challenges of distance learning and how they are incorporating key competences into it;[155]
- Various countries, such as the United Kingdom,[156] have shared extensive guidelines and advice for teachers and school leaders on how to re-open schools safely, often with some attention to disadvantaged and vulnerable children. They might include information on preventions, classroom organisation and students' well-being;
- In Norway, the health authorities published similar guidelines for early childhood education and care (ECEC) and primary schools. The guidelines are continuously updated in co-operation with ECEC and school authorities;[157]
- At the end of August 2020, following the experience of school closures, some Slovenian education institutes such as the National Education Institute (ZRSŠ) and the Institute for Vocational Education and Training (CPI) implemented various trainings to support educational staff to make distance learning work more efficiently. Regarding vulnerable students, the training of SEN

153https://static1.squarespace.com/static/58af429103596eb1eb5acace/t/5e9f5c1a8e038953d9d502b9/1587502111355/GSL+COVID+Response+0421.pdf.

154 https://teachertaskforce.org/fr/node/753.

155 https://www.etf.europa.eu/en/news-and-events/news/boosting-teachers-promote-key-competences.

156 https://www.gov.uk/government/publications/actions-for-schools-during-the-coronavirus-outbreak/guidance-for-full-opening-schools.

157 https://www.udir.no/kvalitet-og-kompetanse/sikkerhet-og-beredskap/informasjon-om-koronaviruset/smittevernveileder/in-english/.

teachers and school counselling specialists has focused on formative assessment and the planning of distance instruction, as well as on how to maintain contacts with students, cross-curricular teaching and learning and interactive instruction;[158]

- New Zealand unlocked a NZD 66 million emergency fund to support well-being in education during school re-opening, among which NZD 16 million is exclusively directed at initiatives to improve the well-being of the education workforce.[159]

Prioritising equity and inclusion in re-opening strategies with hybrid models and intermittent school closures

One of the challenges to effective planning is that scientific knowledge about COVID-19 is constantly evolving and much is still unknown about the virus. Gaps in our knowledge mean that decisions taken at one point in time may need to be revised as knowledge about the virus evolves (OECD, 2020[13]). Various countries have chosen to intermittently close schools to contain new phases of contamination by the virus. Some countries such as Korea[160] already decided to first open and then to close again a number of schools to contain a resurgence of the virus. In the United States, for example, hybrid models of school re-opening seem to be a popular option in various states among both policy makers[161] and teachers.[162] Moreover, some parents may choose not to send their children back to school before the virus disappears or a vaccine is made available. In this case, schools will have to provide distance learning options that are adapted to all learners.

Improving the access to and the quality of remote learning, with special attention to vulnerable groups of students, will be particularly important. Evidence shows that in nearly all countries' remote learning strategy responses to the COVID-19 crisis, insufficient attention has been paid to inclusion for all learners and that most vulnerable groups of students have been left aside (UNESCO, 2020[15]). It is crucial for countries opting for hybrid models of school re-opening to work on strategies incorporating the needs of these student populations as one of the main priorities. This might ensure that all students have distance learning offers adapted to their needs and limit the emergence of further educational gaps.

- The specialised organisation Education Week,[163] while recognising the cost and logistical challenges of hybrid models, suggests that overall (1) students could attend only school for selected core subjects; (2) vulnerable student groups such as those with special education needs or immigrants learning the country's language could be prioritised for live school attendance; and (3) remote and in-class teaching could be combined using best practices and takeaways from distance learning experiences during school closures. While several hybrid schedule options are possible, these should be flexible so that they can be adapted at the school level according to the resources available and the composition of the student population that may greatly vary across schools;
- The Portuguese Ministry of Education implemented a set of educational support measures for students who, according to the guidelines of the health authority, should be considered at risk

158 https://www.zrss.si/objava/posnetki-krajsih-usposabljanj-e-urice-za-strokovne-delavce; https://www.zrss.si/objava/podpora-uciteljem-za-izobrazevanje-na-daljavo

159 https://www.education.govt.nz/news/66-million-for-learner-and-educator-wellbeing/.

160 https://edition.cnn.com/2020/05/29/asia/south-korea-coronavirus-shuts-down-again-intl/index.html.

161 https://www.nbcnews.com/news/us-news/person-classes-online-learning-or-mix-reopening-schools-will-bring-n1231891.

162 https://thenotebook.org/articles/2020/06/29/teachers-prefer-hybrid-reopening-model-to-to-full-time-online-or-in-school/.

163 https://www.edweek.org/ew/articles/2020/06/25/hybrid-school-schedules-more-flexibility-big-logistical.html

and who are unable to attend classroom teaching and training activities in a group or class context.[164]

Encouraging monitoring and evaluation

Monitoring and evaluation initiatives need to be conducted at different levels and will be key to support vulnerable students in returning to and staying at school. First, at the school level, it will be important for educational staff to identify the most vulnerable students and understand the challenges they face. This implies training, mainly for teachers, on how to monitor students most in needs and, as mentioned above, implement more individualised approach to help them catch up based on their individual situation. Second, it seems fundamental to collect data on education throughout the crisis, using gender and when relevant/possible ethnic-disaggregated data, to identify vulnerable groups and those most at risk of dropout. This could allow for targeted policy initiatives aimed at reducing educational gaps that might have been exacerbated by the crisis as well as ensure compliance with the provisions of compulsory education.

Furthermore, monitoring and evaluation could help capitalise on the momentum of using ICT to assist learning and keep up with technology after the crisis. Seeing the impact of different policies across OECD countries may help identify successful and unsuccessful practices in order to avoid potential inequities that may result from alternative these education delivery approaches that might be used in the future. Some examples of ongoing evaluation and monitoring initiatives are the following:

- In Norway, reports and research exploring consequences and management of COVID-19 from kindergartners to universities are currently being prepared;[165]
- Sweden has been conducting a mapping of the situation in numerous schools in order to continuously identify specific needs. For example, the situation of “vulnerable students” has been assessed through direct dialogues (by phone) with school leaders all around Sweden. This initiative was initiated in March 2020 and is still ongoing. Staff from the Swedish National Agency for Education perform and record the dialogues;[166]
- Slovenia monitored distance learning in schools across the country, looking at the channels that were used and the scope of their use. Among other elements, the study conducted by the National Education Institute (“Distance education in COVID-19 epidemic times in Slovenia”) found that 86% of teachers deal with one or more student(s) from a vulnerable group who needed an adapted approach. The study also shows that less than 2% of teachers reported that no adaptation for students with SEN was done, while a majority has used methods such as including teachers specialised on SEN and adapting learning materials.[167] Similarly, the Slovenian Educational Research Institute[168] carried out a research on “The Role of Emotional Competencies in Psychological Responding to COVID-19 Pandemic”, which investigated the role of emotional competencies (mindfulness and emotional self-efficacy) for psychological responding during the COVID-19 pandemic. They also examined whether practising mindfulness with inner (meditation-based) and body (yoga-based) exercises supports emotional competencies. They found that (1) such competencies are a viable source of support for psychological responses to COVID-19, and (2) practicing mindfulness fosters

164 https://dre.pt/application/conteudo/142124837.

165 OECD Strength through Diversity Webinar, 5 October 2020.

166 OECD Strength through Diversity Webinar, 5 October 2020.

167 https://www.zrss.si/strokovne-resitve/digitalna-bralnica/podrobno?publikacija=274.

168 https://www.pei.si/.

several aspects of emotional competencies. These studies allow both to give an overview on the responsiveness of the education system and to identify efficient practices and initiatives to support students' learning and well-being;

- In New Brunswick, Canada, to support the sense of belonging for vulnerable students further, education authorities and schools are designing an indicator to measure quarterly students' sense of belonging. While the initiative is still to be implemented, educational authorities are thinking about how to assess the impact of COVID-19 on students' sense of belonging to school.[169]

Policy options to support vulnerable students during school re-opening

- Adopting a holistic approach to education:
  - Implementing initiatives to **improve learning, social and emotional need** of students with a **focus on vulnerable groups**;
  - Considering **all relevant stakeholders (formal and non-formal) for inclusion** in policy design and implementation;
  - Ensuring **compliance with anti-discrimination and human rights policies and laws**. At the school-level, encouraging **anti-bullying campaigns** and addressing issues related to the stigmatisation of marginalised groups.
- Facilitating partnerships between different stakeholders to respond to vulnerable students' needs, which implies ensuring:
  - **Co-operation between relevant authorities and agencies**: Designing re-opening strategies jointly for a comprehensive approach, involving inter-ministerial delegations who can be an efficient intermediary between authorities and actors in the field;
  - **Co-operation between authorities and education trade unions**: Involving unions in discussion on school re-opening strategies, listening to unions' guidelines and views on inclusive education;
  - **Co-operation between authorities and civil society**: Recognising NGOs and grass-root associations as essential partners to reach vulnerable groups, supporting them financially during crises;
  - A **whole-school and whole-community approach**: Facilitating communication and strong partnerships between schools and communities (e.g. through guidelines), involving families and communities in the design and implementation of initiatives.
- Encouraging return to school:
  - **Limit absenteeism by introducing a system of incentives** to promote attendance, in particular for more vulnerable student (e.g. school meals subsidies, free and safe transportation).
- Addressing learning gaps: Supporting schools in helping students catch up on missed learning, especially those from vulnerable backgrounds through:
  - **Catch-up strategies**: summer schools, accelerated programmes and other practices with a focus on vulnerable student groups. Ensuring good **communication as well as the accessibility and quality** of these programmes;
  - **Universal design to curricula** that fulfil each learner's potential;

169 OECD Strength through Diversity Webinar, 5 October 2020.

  - Supporting **non-formal learning activities**;
  - At the school-level, encouraging **after-school tutoring and peer-to-peer coaching** initiatives as well as **special after-school study classes**.
- Ensuring that the well-being of students remains a priority:
  - Paying **special attention to socio-emotional well-being**: Providing teachers with guidelines and resources to support vulnerable students' well-being;
  - Supporting the **mental health of students**: Developing guidelines for parents, supporting schools in increasing their share of non-educational staff (e.g. psychologists);
  - Providing **equitable and inclusive access to extra services** for vulnerable students: Distributing free school meals and hygiene kits, offering extra grants and financial support to vulnerable students, considering student loans waivers and designing cash transfers programmes.
- Ensuring support by and to teachers and school leaders:
  - Facilitating **ongoing communication with teachers and school leaders** to better identify vulnerable students' challenges and needs;
  - Prioritising the **well-being of educational staff.**
- Prioritising equity and inclusion in re-opening strategies with hybrid models and intermittent school closures
  - **Further improving the access to and quality of distance learning** for all in case of intermittent school closures;
  - Placing **vulnerable students as a priority in hybrid model strategies** (e.g. by giving them priority for in-person school attendance while other students only attend core subjects).
- Encouraging monitoring and evaluation:
  - Monitoring and evaluating the impact of initiatives implemented during the crisis, identifying gaps and collecting **disaggregated data**.

Summary of policy responses to ensure equity and inclusion during school closures and school re-openings

School closures caused by the COVID-19 pandemic triggered significant challenges for education systems to respond to the needs vulnerable student groups whose learning and well-being tend to be the most impacted. Although substantial gaps remain, policy initiatives have been taken across OECD countries to support the educational, social and emotional needs of these students and their families. Most common practices to foster equity and inclusion have been the distribution of electronic devices with an internet connection in poor or remote areas, the distribution of free meals for eligible students, financial (emergency or in continuity with existing aid schemes) support for students and their families, and to a lesser extent, the availability of multi-language educational resources. Several countries also allowed some schools and other educational facilities to remain open for students with particular needs, such as students with SEN and students in VET. Regarding the emotional well-being of students, international organisations and NGOs have been dynamic actors, publishing guidelines, videos and organising webinars. Most often, countries shared these resources on official websites and created hotlines for counselling and psychological support. Finally, school leaders and teachers have been very active in supporting vulnerable students, often physically distributing material to families, creating online resources and organising WhatsApp groups to reach all families.

However, data show that a significant percentage of students have been "lost" in the process of school closures and that learning losses might be severe. Specifically, educational gaps between vulnerable

groups and others are likely to be exacerbated, generating higher dropouts and absenteeism. Furthermore, the long-term social and emotional impacts on students may be the most lasting legacy of the COVID-19 crisis. As such, countries' strategies to support these groups need to be clarified and strengthened during school re-openings in order to avoid lasting negative effects likely to generate both social exclusion and economic loss.

A holistic approach to inclusive education based on strong co-operation between different stakeholders and that address students' learning as well as their well-being needs is crucial. Considerable joint efforts by school leaders, teachers, parents, students, educational and health care professionals, and communities is needed to (re-)create schools as safe, supportive and inclusive places for all students.

Re-opening schools after months of closures and while the virus is still circulating represents a significant challenge for countries. Educational authorities across OECD need to design and implement strategies that would allow students both to catch up and begin a new school year in a safe environment, while ensuring that no one is left behind. This is particularly challenging considering that the rapid switch to distance learning seems to have paid insufficient attention to the inclusion of most vulnerable groups of students and might have exacerbated some existing educational gaps. Moreover, ministries of education in various countries may face substantial budget cuts.

Nonetheless, there are policy responses that countries can adopt to ensure equity and inclusion for all during school re-opening. Even if complex, the COVID-19 crisis can be taken as an opportunity for education systems to place a stronger focus on vulnerable student groups. Several countries have already started implementing initiatives to address learning losses, such as summer schools and accelerated curricula. Some have also developed guidelines on how to support vulnerable students and unlocked funds to support disadvantaged ones. The well-being of students is set as a priority by several governments. A mix of mainstream policies to support all learners and targeted initiatives to respond to the special needs of vulnerable group is needed in school re-opening strategies in order to ensure that all students have the same access to quality learning opportunities and feel that they belong to the school. In the case of hybrid models of school re-opening and intermittent school closures, improving the access and the quality of remote learning as well as prioritising marginalised groups are two important components.

A stronger focus should be put on (1) the well-being of teachers and (2) the co-operation between authorities and other stakeholders such as education trade unions and grass-root associations. This might ensure more transparency and efficiency in the implementation of initiatives to support vulnerable learners. Monitoring and evaluation with, when possible, the collection of disaggregated data, is also an area that requires stronger attention. It might allow education systems to identify the groups that have been hit the hardest by the crisis and the initiatives that were the most efficient in responding to their needs.

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