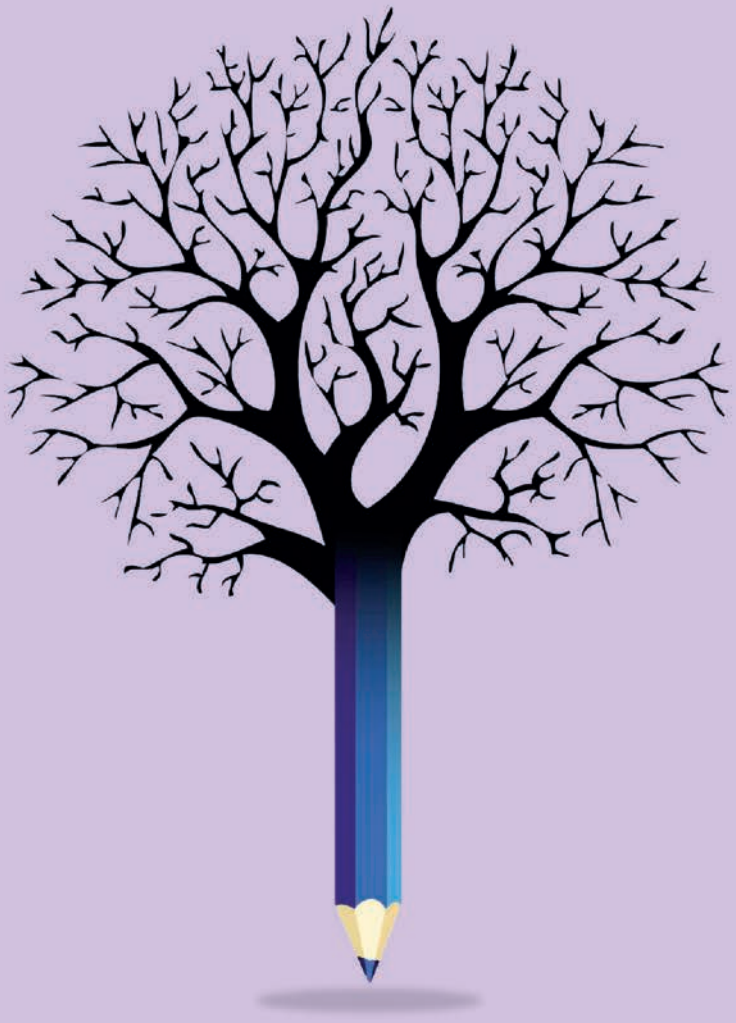
Education Policy Outlook 2021

SHAPING RESPONSIVE AND RESILIENT EDUCATION IN A CHANGING WORLD



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Foreword

If there is one thing the pandemic has taught us, it is that the future will always surprise us, and that it requires resilience to cope in a world that is in constant disequilibrium.

Education is key to strengthen cognitive, social and emotional resilience among learners, helping them understand that living in the world means trying, failing, adapting, learning and evolving. But our educational institutions and education systems, too, need to become more resilient to succeed amid unforeseeable disruptions.

Resilience provides individuals, institutions and communities with the flexibility, intelligence and responsiveness they need to thrive in social and economic change.

That calls on public policy to become far more imaginative. It is no longer possible to prepare educators, educational institutions and education systems for a single future. Policy needs to become better at imagining multiple futures for education, and anticipate the consequences of these different futures for the goals and functions of education, for the organisation and structures, and for the education workforce, and ultimately, think harder about the future they want for education.

Resilience builds capacity to navigate between modernising and disruption, to reconcile new goals with old structures, to foster innovation while recognising the inherently conservative nature of the education systems, to leverage potential with existing capacity, and to reconfigure the spaces, the people, the time and the technologies to educate learners for their future, not our past.

This is all easy to say, but hard to do. To make it easier, the *Framework for Responsiveness and Resilience* presented in this edition of OECD's *Education Policy Outlook* makes the concept of individual, institutional and systemic resilience actionable in policy terms, bringing together evidence and expertise from over 40 education systems.

Taking a view for the short and mid-term, the framework provides both a window and a mirror of education policy for education systems on practices that promote responsiveness and resilience in their education systems and beyond. The framework also serves as springboard to reflect on how education policy can more radically bring about profound, purposeful, and positive change to education systems.

What if learners could become empowered to learn in their own time and by their rules, rather than in adults' time and by adults' rules? What if governments could translate an increased awareness of teachers as valued professionals into boldly reimagined structures and processes that empower them as trusted professionals, transforming rules into guidelines and good practice, and ultimately, good practice into culture? What if education systems could shift from a culture of compliance and standardisation to one built on innovation and rigorous and reflective evaluative thinking to support the system to set and achieve new goals? These are some of the questions that the framework poses.

Andreas Schleicher

Special Advisor on Education Policy to the Secretary-General

Director for Education and Skills OECD

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This report was prepared by members of the Education Policy Outlook Team (Diana Toledo Figueroa [Project Leader], Jonathan James [as part of the OECD Secretariat, and then as external consultant during the finalisation of the report], Christa Rawkins, Clément Dumont and Thaiane Pereira). Nicholas Biddle contributed with comments during the initial stages of the report, as part of his Thomas J. Alexander fellowship with the Education Policy Outlook Team during 2020. This report was prepared under the responsibility of Paulo Santiago, Head of the Policy Advice and Implementation Division, and Andreas Schleicher, Special Advisor on Education Policy to the OECD Secretary-General, and Director for Education and Skills. Stephen Flynn provided editorial support and Cassandra Davis, Rachel Linden, Jason Fallow, Henri Pearson, Sophie Limoges and Anne-Victoire Suteau provided communications support.

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The OECD Secretariat is immensely grateful to the many contributors who helped shape the objectives of the work of the OECD Education Policy Outlook during 2020 and 2021. From March 2020, in the context of the global pandemic, the Education Policy Outlook started integrating the topic of resilience into its ongoing research into how education systems can become more dynamic and responsive. It combined desk-based research and policy dialogue to develop the report *Lessons for Education from COVID-19: A Policy Maker's Handbook for More Resilient Systems*, which was published in December 2020. The Handbook provided a valuable springboard towards the development of this report.

In 2021, the Education Policy Outlook National Co-ordinators provided further guidance and comments throughout the development of this Framework for Responsiveness and Resilience in Education Policy, including exchanges with over 30 education systems through focus group meetings. These exchanges aimed to help the OECD Secretariat gain deeper understanding of how the framework could be made most relevant and useful for the changing realities of education policy makers across social, economic and political contexts. In April 2021, this framework was also presented for discussion and guidance at the 29th session of the Education Policy Committee Meeting. Revision processes of the report also took place with over 40 education systems, as well as the European Commission and the social partners, Business at the OECD (BIAC) and the Trade Union Advisory Committee (TUAC).

This report was launched at the Education Policy Reform Dialogues 2021: Thriving through Change, co-hosted with the Flemish Community of Belgium in the city of Ghent on 22-23 November 2021. The Education Policy Reform Dialogues, organised annually since 2018, are the leading OECD forum on education policy. Outcomes of the discussions inform the future work of the OECD's Directorate for Education and Skills, including the Education Policy Outlook.

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Abbreviations and acronyms

AITSL	Australian Institute for Teaching and School Leadership (Australia)
ARNES	National Research and Education Network (Akademska in raziskovalna mreža, Slovenia)
CfE	Curriculum for Excellence (Scotland, United Kingdom)
CIPAVE	Internal Commissions for the Prevention of Accidents and School Violence (Comissão Interna de Prevenção à Acidentes e Violência Escolar, Rio Grande do Sol, Brazil)
CNA	National Accreditation Commission (Comisión Nacional de Acreditación, Chile)
CNESCO	National Centre for the Evaluation of the School System (Centre national d'étude des systèmes scolaires, France)
DEIS	Delivering Equality of Opportunity in Schools (Ireland)
DEPP	Directorate of Evaluation, Forecasting and Performance (direction de l'évaluation, de la prospective et de la performance, France)
DES	Department of Education and Skills (Ireland)
DfE	Department for Education (United Kingdom)
DIA	Comprehensive Assessment of Learning (*Diagnóstico Integral de Aprendizajes*, Chile)
DOH	Department of Health (Ireland)
DPMK	Digital Pedagogical Methodology Centrer (Digitális Pedagógiai Módszertani Központ, Hungary)
EBA	Education Information Network (Eğitim Bilişim Aği, Turkey)
ECEC	Early Childhood Education and Care
EEF	Education Endowment Foundation (England, United Kingdom)
EHIS	Estonian Education Information System (Eesti Hariduse Infosüsteem, Estonia)
FET	Further Education and Training (Ireland)
FINEEC	Finnish Education Evaluation Centre (Kansallinen koulutuksen arviointikeskus, Finland)
GDP	Gross Domestic Product
GSVS	Guidelines for the Support of Vulnerable Students (Intervenção educativa para crianças e jovens em situação de vulnerabilidade, Portugal)
HEIs	Higher education institutions
HEPPP	Higher Education Participation and Partnerships Programme (Australia)
HMIE	Her Majesty's Inspectorate of Education (Scotland, United Kingdom)

ICILS	International Computer and Information Literacy Study
ICT	Information and communication technology
IRLSAF	Indigenous, Regional and Low Socio-Economic Status Attainment Fund (Australia)
JUNAEB	National Board of School Aid and Scholarships (Junta Nacional de Auxilio Escolar y Becas, Chile)
MEP	Ministry of Public Education (Ministerio de Educación Pública, Costa Rica)
MOOC	Massive Open Online Course
NGOs	Non-governmental organisations
NÚCEM	National Institute for Certified Educational Measurements (Národný ústav certifikovaných meraní vzdelávania, Slovak Republic)
NZQA	New Zealand Qualifications Authority (New Zealand)
PIAAC	International Survey of Adult Skills
PISA	Programme for International Student Assessment
PROA	Programme for orientation, advancement and educational enrichment (Programa para la orientación, avance y enriquecimiento educativo, Spain)
RMC	Regional Registration and Co-ordination Centre (Regionaal Meld- en Coördinatiepunt, Netherlands)
SEN	Special Educational Needs
SSLP	Supports for Student Learning Program (Canada)
STEM	Science, technology, engineering, and mathematics
TALIS	Teaching and Learning International Survey
TEIP	Education Territories of Priority Intervention Programme (Territórios Educativos de Intervenção Prioritária, Portugal)
TEOs	Tertiary Education Organisations (New Zealand)
UNHCR	United Nationals High Commissioner for Refugees
UNICEF	United Nations Children's Fund
VET	Vocational Education and Training
ZRSS	National Education Institute (Zarod Republike Slovenije za šolstvo, Slovenia)

Executive summary

Education systems operate in a world that is constantly evolving towards new equilibria, yet short-term crises may disrupt, accelerate or divert longer-term evolutions. Balancing the important and the urgent thus emerges as the key everyday task of today's education systems. To do so, successful education systems must harness the kinetic energy of the ever-changing world they inhabit, becoming more dynamic and agile to meet the needs of an increasingly diverse set of learners.

The Framework for Responsiveness and Resilience in Education Policy has been developed in the context of the COVID-19 pandemic. It aims to support policy makers to balance the *urgent* challenge of building building eco-systems that adapt in the face of disruption and change (resilience), and the *important* challenge of navigating the ongoing evolution from industrial to post-industrial societies and economies (responsiveness). Building on international evidence and analysis, this framework endeavours to establish tangible, transferable and actionable definitions of resilient learners, resilient learning environments and resilient education systems. These definitions, which are the goals of the framework (*Why?*), are underpinned by policy components of responsiveness (*What?*), which define priority areas for education policy makers. Policy pointers for resilience (*How?*) then illustrate how policy makers can apply these components in ways that promote resilience at the learner, broader learning environment and system levels of the policy ecosystem. Finally, a transversal component looks into the people and the processes undertaken in order to reach a given purpose (*Who?*).

At learner level

- **Why nurture resilient learners?** Resilient learners can adapt to various tasks and environments, taking advantage of opportunities to reach their individual potential. Such learners have the capacity and agency to identify and capitalise on opportunities given to them by the system and to create their own. They are also able to move between learning tasks and environments, engaging pro-actively in efforts to enhance them. All resilient learners can eventually reach their potential regardless of background, interests or needs.
- **What policy components of responsiveness can nurture resilient learners?** Policy makers can promote resilience at this level through promoting policy components of responsiveness that empower learners to confidently navigate their worlds while providing them with combined adaptive pedagogies for all, and sustained supports for the most vulnerable students.
- **How to apply these components so they translate into resilience?** To be most effective in promoting resilience, these components need to favour policy approaches that foster learners' agency and co-agency, encourage learners' engagement and voice, and nurture positive climates and interactions for learning. Furthermore, it is important to apply these components in a way that makes personalised and flexible learning available to all learners while connecting and strengthening targeted supports for vulnerable learners, also for the longer term. This may be through multidimensional support that is open to different types of disadvantage, and that follows a longer-term vision of state transcending government administrations.

At broader learning environment level

- **Why nurture resilient broader learning environments?** Resilient broader learning environments transcend education institutions to shape a dynamic and collaborative local education network. While institutions remain at the heart of education systems, these broader learning environments promote richer and more meaningful learning for all. In so doing, they prioritise people and processes over classrooms and devices, establishing and achieving collaborations that are holistic, deep and durable. Driving this is a strong sense of leadership, through which institutional actors are empowered to implement policies in their environments in ways that respond to local contexts.
- **What policy components of responsiveness can nurture resilient broader learning environments?** Policy makers can promote resilience at this level by prioritising policy components of responsiveness that position the education institution at the heart of a strategic network of actors and services, and empower teachers and other education staff to lead richer learning processes across environments.
- **How to apply these components so they translate into resilience?** To translate into resilience, these components then need to be applied in a manner that convenes a wider range of actors to advance the work of institutions and strengthen links between services to address learners' needs more holistically. In the same way, they need to enable and encourage staff in education institutions to adapt policies and practices to their contexts. Furthermore, they can promote the resilience of education staff by supporting their professional learning, collaboration, well-being and leadership.

At system level

- **Why nurture resilient systems?** Resilience at system level enables societies to achieve a strategic vision of social and economic prosperity. It makes this possible through information infrastructure and pathways. Firstly, a smart information infrastructure enables actors across the system to collect, disseminate and use information in ways that provide them with a sense of priorities, as well as an ability to identify either stagnation or progress. Secondly, clearly defined but malleable learning pathways connect learners' potential and aspirations with education, training and evolving labour markets.
- **What components of policy responsiveness can nurture resilience at system level?** Policy makers can promote resilience at this level by prioritising policy components of responsiveness that draw attention to collecting, disseminating and improving the use of student information, as well as fostering dynamic educational pathways that evolve with the learner and the times.
- **How to apply these components so they translate into resilience?** To translate into resilience, these components need to be applied through revisiting the collection of information about students and their learning, as well as purposeful dissemination of information on student progress and the practices that enhance it, and engagement of actors to better use information about students, their learning and related practices. They also need to be applied within a context that seeks smooth transitions within education systems by aligning structures, people and processes. Furthermore, they should be employed with the aim of ensuring the relevance of the educational offer through differentiated approaches for the short and longer term, and supporting students to develop ambitious and realistic career expectations.

Transversal components

Carefully visualising **who is the main actor of a policy** is essential for resilience to be possible at any of these levels. However, **people** do not act in a vacuum; for them to be effectively part of a resilient ecosystem, they need to mobilise towards a specific **purpose** and be supported to act through a given **process**.

1 Overview

About this chapter: The Framework for Responsiveness and Resilience in Education Policy supports education policy makers to bring together the important and the urgent as a synergistic endeavour for the medium to longer term. This chapter presents the background for this framework, and provides an overview of its structure, as well as how it is laid out in this report. As countries and economies focus on recovering from a profound global crisis and building a better normal, the moment is ripe to imagine a responsive and resilient future for education more fully, and to dare to make it a reality.

Why develop this framework?

Balancing the urgent and the important: a synergistic endeavour for education policy makers

Education systems operate in a world that is constantly evolving towards new equilibria, yet short-term crises may disrupt, accelerate or divert longer-term evolutions. Balancing the important and the urgent thus emerges as the key everyday task of today's education systems. To do so, successful education systems must harness the kinetic energy of the ever-changing world they inhabit, becoming more dynamic and agile to meet the needs of an increasingly diverse set of learners.

The *important* challenge of navigating the evolution from industrial to post-industrial societies and economies demands greater **responsiveness** from education systems to provide more individualised learning pathways. With more and more diverse populations and changing labour markets, the breadth of skills and knowledge that individuals require in order to be able to contribute fully to society also gains importance. In this context, education systems must strive to deliver educational experiences based on students' hopes, needs, passions and capabilities (Schleicher, 2019[1]).

The *urgent* challenge posed by sudden changes in education systems' capacity to deliver quality learning requires **resilience**—the ability to plan and prepare for, absorb, withstand, recover from and adapt to adverse events and disruptions. Resilience involves capitalising on available opportunities in a context of crisis for longer-term improvement (Hynes, Linkov and Trump, 2020[2]).

For education systems, bringing together the urgent and the important as a synergistic endeavour means adapting flexibly to constant change while progressing towards current and future priorities. It also means working to thrive *through* adversity rather than survive *despite* adversity by learning how to identify and capitalise upon any opportunities that crises, disruptions and longer-term evolutions may offer. These are the responsive and resilient mindsets that actors across the education system - learners, teachers, policy makers and other education partners - must now develop.

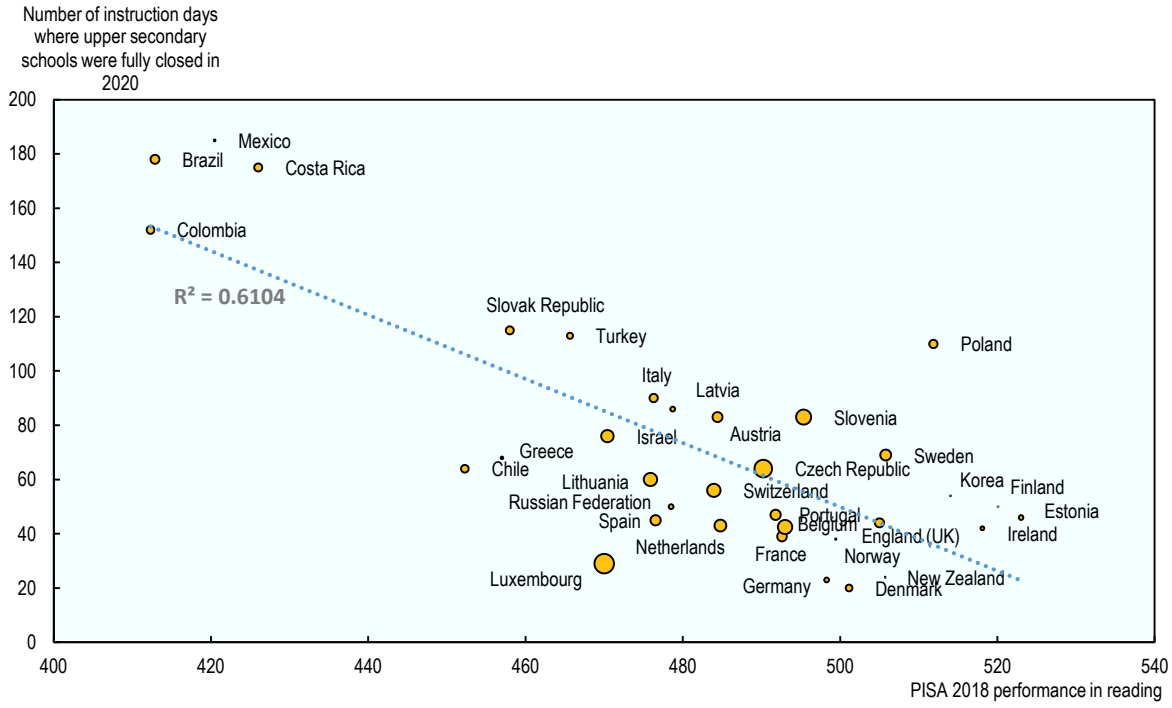
Indeed, following the outbreak of the COVID-19 pandemic in 2020, now more than ever, people across the world are becoming aware that disruptions do not wait, regardless of whether societies and education systems are ready for them. At the same time, this crisis was just the latest in a history of national and international shocks – natural disasters, economic downturns, wars – and it will not be the last. Diversity, complexity and uncertainty constantly interconnect in the contexts and moments in which societies exist. These interconnections bring about changing scenarios and new opportunities for the people who live them, sometimes exacerbating or curtailing previous social, economic or political trends .

In policy fields, some literature has classified these high-impact, changing scenarios and potentialities as "black swans" (when unanticipated, such as the COVID-19 pandemic), "black jellyfish" (when incremental, such as increased life expectancy or human migration), "grey rhinos" (when highly anticipated, such as changes introduced by technology), or "black elephants" (when not seen or chosen to be ignored, such as climate change) (Tõnurist and Hanson, 2020[3]). This illustrates that change happens in a variety of forms and brings diverse impacts: policy makers' actions to anticipate, prepare and adapt to such change thus need to become a more conscious, strategic endeavour.

In education, the need for policy makers to invest efforts in strengthening responsiveness and resilience among learners, learning environments and systems therefore becomes critical, both for present and future readiness. Only resilient education systems that plan for disruption, and withstand and recover from adverse events, will be able to fulfil the fundamental human right to education, whatever the circumstances, and foster the level of human capital required by successful economies in the short and longer term. At the same time, resilient education systems develop resilient individuals who adjust to everyday challenges, play an active role in their communities, and respond to an increasingly volatile, uncertain and ambiguous global landscape (Schleicher, 2018[4]).

Recent evidence collected by the OECD in collaboration with other international organisations further stresses this point. Although the pandemic meant disruptions in education delivery across all education systems, those that typically perform the highest in international tests such as the OECD's Programme for International Student Assessment (PISA) were also the least affected by school closures in 2020. At the same time, school closures and the number of COVID-19 cases per million inhabitants appeared less related (Figure 1.1).

Figure 1.1. PISA 2018 performance in reading and number of instructional days upper-secondary schools were fully closed in 2020



Note: The size of the bubbles indicates the number of COVID-19 cases per million people in 2020.
Source: OECD (2021[5]) "The State of Global Education: 18 Months into the Pandemic", OECD, https://doi.org/10.1787/1a23bb23-en.

StatLink https://stat.link/o58lyf

This suggests how critical it is for policy makers to be able to address the urgent and the important not as a tension, but as a synergistic effort. Policy makers' efforts to build a responsive system that successfully meets the needs of all learners in times of "normality" can help them to become more resilient in times of crisis. In the same way, efforts to address emerging crises could be steps to develop more responsive systems in the longer term (OECD, 2021[5]).

Post-pandemic global economic scenarios urge education systems to become more responsive and resilient

On 11 March 2020, the World Health Organisation declared the COVID-19 outbreak a global pandemic. Thus ensued a global and ubiquitous shock: the International Monetary Fund recognised the Great Lockdown in 2020 as the worst economic downturn since the Great Depression (Gopinath, 2020[6]). Education systems across the world also felt the force of the crisis as confinement measures triggered widespread closures, followed by some gradual re-opening and even re-closing of education institutions.

At almost two years into the pandemic, global economic prospects have improved compared to previous forecasts made in December 2020, with global gross domestic product (GDP) projected to grow by 5.7% in 2021 and then by 4.5% in 2022. According to the OECD, global GDP surpassed pre-pandemic levels by September 2021. Strong policy support, the deployment of effective vaccines, and the resumption of many economic activities in several countries and economies are some key factors identified for this positive development. At the same time, the pace of vaccination across them has varied, with new virus mutations posing a risk to recovery. Recovery also remains uneven across countries and economies, and with significant uncertainty for their people depending on the sector or demographic group (OECD, 2021[7]). At the beginning of the pandemic, almost 10 million more people had become unemployed, with growing inactivity rates and falling employment rates (OECD, 2021[8]). As months pass, although economic output has returned to pre-pandemic levels in some countries and economies, such as the United States, employment remains lower than before the pandemic. Other countries and economies, particularly in Europe, have managed to largely preserve employment, but output and total hours worked have not yet recovered fully (OECD, 2021[7]).

These macroeconomic data pointing to slow employment recovery echo many people's perceived risk of social precariousness earlier on in the pandemic. In the 2020 OECD Risk that Matters Survey, conducted in 25 countries and economies, 70% of respondents reported being concerned about their economic and social well-being in the next couple of years (OECD, 2021[9]). Moreover, 37% of people said that their household had experienced at least one job-related disruption, such as a job loss, a job lay-off, a job retention scheme, reduced work hours, and/or a pay cut. Job disruptions were more pronounced among youths and parents with children at home. In addition, over 60% of people whose household lost a job since the start of the crisis expressed concerns about having the right skills and knowledge to work in a secure and well-paid job a decade from now. Among those who reported no household job loss, this share was only about 10 percentage points lower (OECD, 2021[10]), highlighting that skill readiness is a widespread concern. New scenarios unfolding from the pandemic bring very tangible challenges that governments, societies and individuals have started experiencing now and will potentially experience in the years to come.

However, this global pandemic has also brought about change and lessons that are worth deeper thought. Technology became a lifeline from the initial emergency period and beyond, helping societies navigate the pandemic and permeating people's lives for work, family, or other community engagement more than ever before. Moreover, technology has very rapidly gained a more rightful place – although sometimes following a steep learning curve – as a support to educators and learners, contrary to some previous misgivings that it threatened to replace human processes.

Society has also come to better understand the broader value of education institutions and relationships. With institutional closures, education institutions are rapidly and clearly emerging as more than a space of simple transaction. They emerge as a rich environment of complex community relationships helping people of all ages, including education professionals, reach their potential as individuals and members of society. Likewise, in many countries and economies, the context of emergency has strengthened the social tissue underpinning communities and societies, as local and national actors are coming together to build bridges where existing structures could not function.

Education has therefore also been fertile land for transformation and new awareness during the pandemic. Reform in education may have happened less, but change has been happening more—in timelines, actions and mindsets. Looking towards 2022, as countries and economies focus on recovering from a profound global crisis and building a better normal, the moment is ripe to imagine a responsive and resilient future for education more fully, and to dare to make it a reality.

To achieve this, education policy makers must first maintain and extend the momentum of collective action seen in 2020 and 2021.They need not only a vision of what is possible, but also smart strategies that help translate that vision into action.

A coherent and actionable framework supporting policy makers in the journey towards greater responsiveness and resilience

Change is like throwing a rock into a pond. The rock will eventually settle into the foundations, but not without making waves. With this in mind, developing a broader understanding of resilience among governments, societies and individuals becomes necessary. Resilience is not only about thriving despite undesired change, but thriving through intended, unintended, positive or negative change. Yet resilience in education can only be achieved if education systems are truly responsive to learners, institutions and system needs, and consistently able to meet them in times of both stability and change.

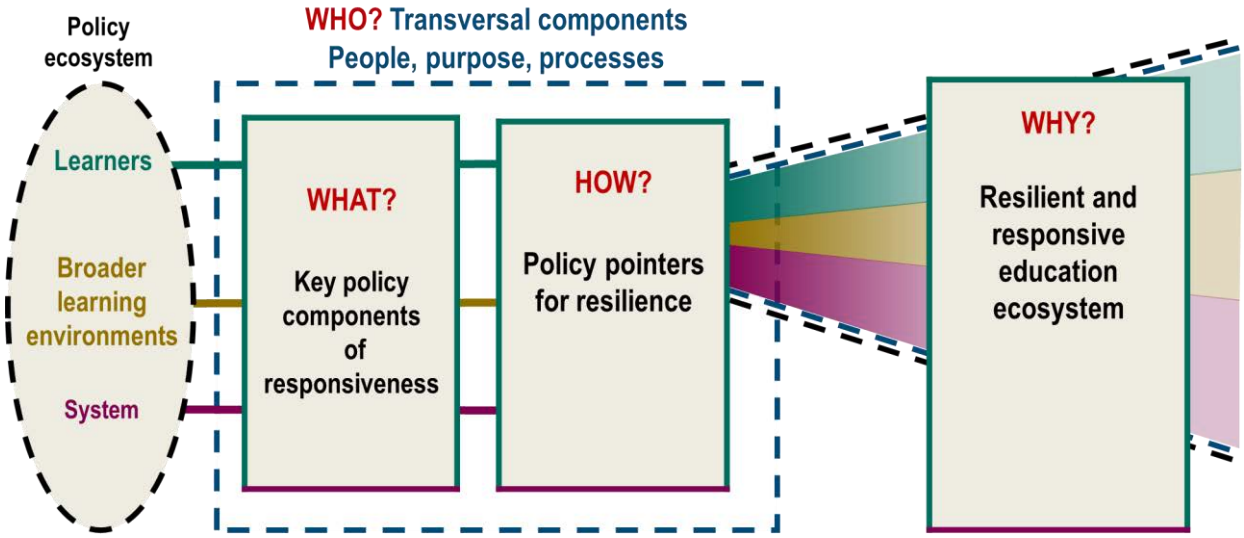
Strengthening the responsiveness and resilience of learners, broader learning environments (i.e. in education institutions and beyond, such as home, community or digital environments for learning) and education systems must therefore be a mutually reinforcing endeavour. An individual's ability to adapt positively to adverse circumstances depends not only on personal characteristics, but also on factors in their social and physical environment, notably the availability (and responsiveness) of the services they need in order to sustain their well-being (Ungar, 2011[11]; OECD, 2018[12]). In this sense, the individual learners' resilience depends on the resilience of the communities they live in, the schools they attend, and the education system as a whole. Education systems need to develop responsive policy eco-systems that promote resilience at different levels.

The Framework for Responsiveness and Resilience in Education Policy aims to support policy makers to do just that, balancing the important challenge of navigating the ongoing evolution from industrial to post-industrial societies and economies, and the urgent challenge of building greater resilience at learner, institutional and system levels in the face of ongoing disruption and change. It breaks down concepts of responsiveness and resilience across policy levels and into actionable components. It also aims to be a practical tool for policy makers, applicable to whatever type of changing scenario occurs, and whether facing *black swans*, *black jellyfish*, *grey rhinos* or *black elephants*.

The framework was developed through analysis of international evidence, including the broad knowledge base of the Education Policy Outlook, as well as an iterative and collaborative process with over 40 participating education systems and other relevant education actors to ensure relevance across education systems. One of the key outcomes from these exchanges is that, although responsiveness and resilience are part of ongoing conversations among education actors across many education systems, the framework can help to operationalise these concepts and how they interact, both in the current context and for the longer term. Furthermore, it can bring together elements that may differ in priority across education systems, supporting policy makers to maintain a wider view of potential areas of neglect or change needed.

To this end, building on international evidence and analysis, the framework endeavours to establish tangible and transferable definitions of resilient learners, resilient learning environments and resilient education systems. These definitions, which are the goals of the framework (*Why?*), are underpinned by policy components of responsiveness (*What?*), which define priority areas for education policy makers. Policy pointers for resilience (*How?*) then illustrate how policy makers can apply these components in ways that promote resilience at the learner, broader learning environment and system levels of the policy ecosystem. Finally, a transversal component looks into the people and the processes undertaken in order to reach a given purpose (*Who?*) (Figure 1.2).

Figure 1.2. The OECD Framework for Responsiveness and Resilience in Education Policy in brief



At learner level

As countries and economies strive to move beyond the COVID-19 pandemic at the moment of writing this report, it is hard to think of a time when the need for resilient learners has been any greater. In 2021, even an optimistic outlook for the next five years envisages great change ahead for today's learners as, heeding the lessons of the pandemic, education systems work to capitalise on the full spectrum of modes of educational delivery, valuing people and processes over classrooms and devices (OECD, 2020[41]). In a less positive reading of the next few years, emerging crises and economic uncertainty endure, risking ongoing day-to-day disruption in students' learning. Less hopeful still, a future that sees major economic crisis and further iterations of other more localised crises could also witness a strict prioritisation and stripping back of resources for education, meaning a decline in available supports to learners. Whatever the outlook, change is on the horizon for learners**.**

- **Why nurture resilient learners?** Resilient learners can adapt to various tasks and environments, taking advantage of opportunities to reach their individual potential. Such learners have the capacity and agency to identify and capitalise on opportunities given to them by the system and to create their own. They are also able to move between learning tasks and environments, engaging pro-actively in efforts to enhance them. All resilient learners can eventually reach their potential regardless of background, interests or needs.
- **What policy components of responsiveness can nurture resilient learners?** Policy makers can promote resilience at this level through promoting policy components of responsiveness that empower learners to confidently navigate their worlds while providing them with combined adaptive pedagogies for all, and sustained supports for the most vulnerable students.
- **How to apply these components so they translate into resilience?** To be most effective in promoting resilience, these components need to favour policy approaches that foster learners' agency and co-agency, encourage learners' engagement and voice, and nurture positive climates and interactions for learning. Furthermore, it is important to apply these components in a way that makes personalised and flexible learning available to all learners while connecting and strengthening targeted supports for vulnerable learners, also for the longer term. This may be through multidimensional support that is open to different types of disadvantage, and that follows a longer-term vision of state transcending government administrations.

At broader learning environment level

In a positive forecast for the next five years, with the virus and its variants under control and the pandemic officially overcome, educational processes accelerated by the crisis, such as educational innovation, collaboration with a wider range of stakeholders, and hybrid and digital learning approaches will become embedded across all learning environments. In less positive forecasts, stability is further off and institutions must continue to navigate uncertainty and past closures as longer-term educational scars – drop-out, student disengagement, educator attrition and lower participation – take hold. In the worst case, crises multiply and interact, leaving educational institutions prioritising only strictly necessary services. For better or worse, the next years will be eventful for educational institutions and other learning environments beyond them.

- **Why nurture resilient broader learning environments?** Resilient broader learning environments transcend education institutions to shape a dynamic and collaborative local education network. While institutions remain at the heart of education systems, these broader learning environments promote richer and more meaningful learning for all. In so doing, they prioritise people and processes over classrooms and devices, establishing and achieving collaborations that are holistic, deep and durable. Driving this is a strong sense of leadership, through which institutional actors are empowered to implement policies in their environments in ways that respond to local contexts.
- **What policy components of responsiveness can nurture resilient broader learning environments?** Policy makers can promote resilience at this level by prioritising policy components of responsiveness that position the education institution at the heart of a strategic network of actors and services, and empower teachers and other education staff to lead richer learning processes across environments.
- **How to apply these components so they translate into resilience?** To translate into resilience, these components then need to be applied in a manner that convenes a wider range of actors to advance the work of institutions and strengthen links between services to address learners' needs more holistically. In the same way, they need to enable and encourage staff in education institutions to adapt policies and practices to their contexts. Furthermore, they can promote the resilience of education staff by supporting their professional learning, collaboration, well-being and leadership.

At system level

In 2021, building system resilience has also become a matter of urgency. Even the most optimistic outlook for the next five years will see the world experiencing intense change as system-level actors try to learn and embed the lessons of the pandemic and maintain the momentum of innovation and collective action. Less optimistically, continued instability and erratic behaviour in the health and economic sectors, as well as other existing and emerging crises, would lead to a default survival mode, with education systems forced to absorb ongoing disruption. Under a more pessimistic reading of the next five years, non-resilient education systems risk reaching a state of inertia where strain on public resources, a decline in political capital, and fatigue or burnout among implementation actors would inhibit any efforts to actively shape change. Education systems cannot afford to postpone the resilience agenda at this level either.

- **Why nurture resilient systems?** Resilience at system level enables societies to achieve a strategic vision of social and economic prosperity. It makes this possible through information infrastructure and pathways. Firstly, a smart information infrastructure enables actors across the system to collect, disseminate and use information in ways that provide them with a sense of priorities, as well as an ability to identify either stagnation or progress. Secondly, clearly defined but malleable learning pathways connect learners' potential and aspirations with education, training and evolving labour markets.

- **What components of policy responsiveness can nurture resilience at system level?** Policy makers can promote resilience at this level by prioritising policy components of responsiveness that draw attention to collecting, disseminating and improving the use of student information, as well as fostering dynamic educational pathways that evolve with the learner and the times.
- **How to apply these components so they translate into resilience?** To translate into resilience, these components need to be applied through revisiting the collection of information about students and their learning, as well as purposeful dissemination of information on student progress and the practices that enhance it, and engagement of actors to better use information about students, their learning and related practices. They also need to be applied within a context that seeks smooth transitions within education systems by aligning structures, people and processes. Furthermore, they should be employed with the aim of ensuring the relevance of the educational offer through differentiated approaches for the short and longer term, and supporting students to develop ambitious and realistic career expectations.

Transversal components

Carefully visualising **who is the main actor of a policy** is essential for resilience to be possible at any of these levels. Although helping all learners to reach their potential should be the final objective of every education policy, they often need to address a range of complex social needs in order to meet this objective. Responsive and resilient education systems need to be supported by their people and their interactions in order to help institutions better respond to change and disruption. However, **people** do not act in a vacuum; for them to be effectively part of a resilient ecosystem, they need to mobilise towards a specific **purpose** and be supported to act through a given **process**. Therefore, in a responsive and resilient ecosystem:

- **People are at the heart of policy making.** To better respond to situations when everyday processes break down, as in a crisis or shock situation, people must have the agency to act alone and the empathy to create impact together. They need to be able to develop meaningful collaborations, including for multi-directional peer learning (horizontal, top-down and bottom-up), that allow them to be effective co-creators. At the same time, OECD evidence points to a need to understand the different profiles and interests of people inhabiting education eco-systems, which coexist in contexts of rapidly declining institutional and interpersonal trust and resource constraints (Viennet and Pont, 2017[13]; OECD, 2019[14]). Adopting a resilience approach therefore requires not only acknowledging how these people and their views, interests, capacities and specific resource needs meet at the centre of policy processes, but doing so in a way which helps restore trust and consolidate relationships. This also requires gaining greater insight into aspects that may influence their actions, such as their capacity to decide, their perception of value, or their relation with others (Biddle, 2021[15]).
- **Purpose connects people's present and future needs as a society.** Purpose is shaped by a national/subnational view of common good and the system's capacity for foresight and strategic planning; through it, the people in an education system identify, implement or sustain coherent and cost-effective policy approaches as needed. They also identify how their individual priorities can relate to common priorities. Yet, at any level of the system, and on any given day, people must tackle any number of issues. These multiply rapidly in a context of disruption and change, forcing people to prioritise and explore trade-offs. As pointed out by previous OECD evidence, purpose is defined at two levels: a long-term national or subnational shared vision for the system, and medium- or short-term policy-specific goals or objectives. Crucially, the two should be coherently aligned: short-term decisions, particularly those taken quickly in emergency contexts, must not constrain long-term options (OECD, 2013[16]). They should also act as reference standards against which resource distribution and use can be planned and effectiveness and efficiency assessed.

Crafting and articulating such purpose therefore requires time and capacity for complex analysis, foresight activities and strategic planning, as well as participatory processes of engagement with citizens and stakeholders (OECD, 2019[14]). It also requires enough flexibility to adapt to rapidly changing contexts, yet sufficient rigidity in order to be upheld across government administrations.

- **Processes empower people to achieve the purpose.** Finally, the processes within an ecosystem of responsiveness and resilience refer to the capacity of a policy to trigger actual change and impact in people's education contexts through a balance of innovation and preservation. To this end, as part of the processes, potential enablers such as globalisation or digitalisation can lead to greater inclusiveness and empowerment, as opposed to isolation and precariousness. It also means committing to continuous evaluative thinking, including regarding resource use, to identify what is working. Where possible and appropriate, this should take into account cost-effectiveness and associated trade-offs. It should also be matched with transparent reporting that can help people across the system remain evidence-informed and address information gaps as and when uncertainty emerges.

About this report

This report outlines the framework through three main chapters: **Chapter 2**: Strengthening resilience at learner level through empowered learners, adaptive pedagogies and sustained supports; **Chapter 3**: Strengthening resilience in the broader learning environment through strategic networks and empowered education staff; and **Chapter 4**: Strengthening resilience at system level through a smart information infrastructure and flexible pathways. These chapters look further into the components of policy responsiveness to explain why these matter for education systems, and then provide analysis and specific examples of how countries and economies have been applying them in ways that promote resilience in the pre-pandemic and pandemic periods. The tables in each section list further examples for education systems' consideration. In the case of more recent policy developments included in this report, it should be acknowledged that in some education systems, the pandemic emergency did not allow the implementation of education policies that could be relevant to this framework, hence they will be considered for potential inclusion and monitoring in future analyses based on this framework. Further explanation of the policy pointers for resilience, based on lessons learnt from international policy efforts, illustrates how policy makers can apply these components in ways that promote resilience at different levels. The Resilience in action sections at the beginning of each chapter provide a description of resilience at each level, as well as a succinct overview of policy components for responsiveness and pointers for resilience.

Finally, **Chapter 5** presents country snapshots covering around 30 education systems. For each country, these include a selection of indicators across the three levels of the framework indicating readiness before the pandemic, as well as examples of relevant selected policies implemented before and during the pandemic.

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2 Strengthening **resilience at learner level** through empowered learners, adaptive pedagogies and sustained supports

About this level of resilience: Resilient learners can adapt to various tasks and environments, taking advantage of opportunities to reach their individual potential. Such learners have the capacity and agency to identify and capitalise on opportunities given to them by the system and to create their own. They are also able to move between learning tasks and environments, engaging pro-actively in efforts to enhance them. All resilient learners can eventually reach their potential regardless of background, interests or needs. This chapter supports policy makers to promote resilience at this level through responsive policy approaches.

Resilience in action

Scenario 1: Learners

Lucas and Sofia are both young, but live completely different lives in different countries. There are ten years between them and they have never met. They have very different families, homes, interests and talents, yet they have one crucial thing in common: they are both resilient learners.

Lucas and Sofia **both live in an unbalanced world**. They have lived through a global pandemic, Sofia's parents divorced when she was younger and Lucas's home was flooded, forcing him to move out for six months. They have both seen the videos of forest fires and floods destroying thousands of homes and schools over the last year. Lucas is now in the full swing of adolescence; Sofia's still got that to come. Yet those are just the crises they can see. They may or may not also know that other bigger ones taking place make their futures uncertain: climate change, the fourth industrial revolution, declining trust, economic instability.

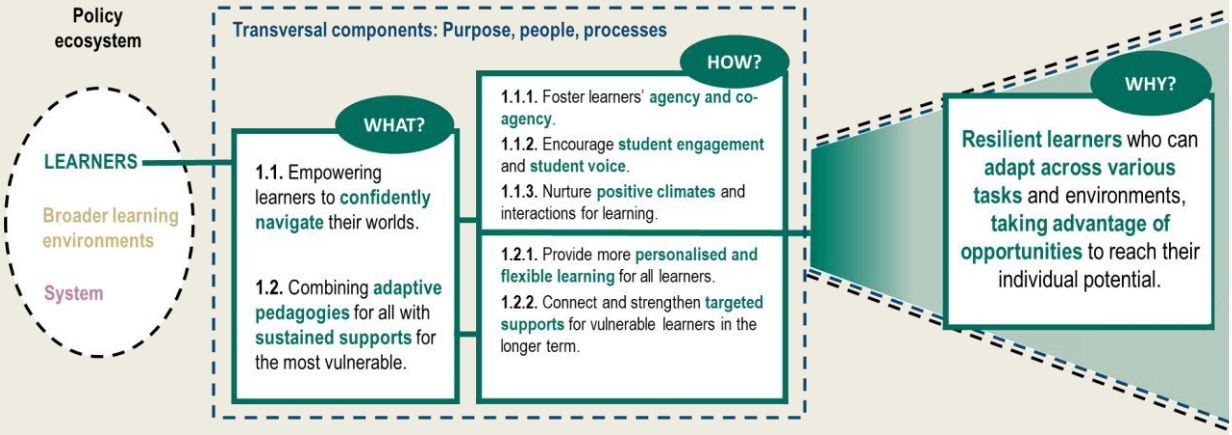
Despite this, and thanks to a system that supports their resilience, Lucas and Sofia are thriving. **They have the knowledge, skills and attitudes required to adapt to the different worlds they inhabit**: internal and external; online and offline; home and school; local, national and international. They can connect experiences from these different worlds to create new opportunities for learning and are happy doing this either alone or with their peers. They articulate their experiences and views well, according to their age, and feel heard and valued when they do so. In this sense, they are becoming better at driving their own learning and are, in turn, learning to have a positive impact on the environment around them.

It is not as though Lucas and Sofia do not face obstacles, but they are both on track to reach their potential regardless of the challenges. Lucas fell behind in his learning at the start of the pandemic—learning online surrounded by younger siblings and stressed parents was not easy. Sofia missed a lot of school two years ago because of illness. But **the adults around them know that every learner is different and that everyone can learn, and so they supported them to overcome their challenges quickly**. Lucas' teachers adapted the pace of their teaching for him in class and the school gave him some one-to-one tuition to help him better organise his studying at home. Sofia had similar support from her teachers but also received help from the school counsellor when she came back to school—she still sees him when she needs to. Supports are available to their friends too, whatever the different challenges they face, and they are constantly being adjusted and improved as needs change.

Of course, Lucas and Sofia will experience other changes in the future, positive and negative, that will require them to adapt to new circumstances. While they may feel concerned about this, they do not despair. **Lucas and Sofia see change as an opportunity for learning and growth**, and so look for ways to thrive in new or difficult circumstances. This is something they will keep getting better at over time as their resilience is nurtured by the responsive and resilient learning environments they attend and the responsive and resilient education systems that serve them. But more of that in Chapters 3 and 4.

Supporting resilience at learner level

Infographic 2.1. How policy components of responsiveness can also drive resilience at this level



Empower learners to confidently navigate their worlds by:

- ***Fostering learners' agency and co-agency***. To help learners manage change and disruption, policy makers must keep lessons learnt about the importance of learners' holistic development high on the policy agenda. Supporting the development of learners' social and emotional skills, transformative competencies, well-being and mental health will help them become the motors of their own learning, both in their everyday processes and as they make decisions for their future. To facilitate this, policy makers can build, share and use evidence on practices and initiatives supporting these aspects of learners' internal growth.
- ***Encouraging learner engagement and voice***. While some mechanisms for student voice exist in participating education systems, policy makers need to support student voice so it becomes more systematic, regular and impactful. To this end, they can gather the views of learners throughout the different stages of policy processes to support successful implementation, with consideration given to how students' voice should be most effectively included according to their age and education level.
- ***Nurturing positive climates and interactions for learning***. Policy makers should prioritise pro-active, holistic and tangible approaches to promote positive interactions between learners, and prevent harmful activities such as bullying and cyberbullying. They could also develop mechanisms to monitor the impact of such measures on improving the learning climate.

Combine adaptive pedagogies for all with sustained supports for the most vulnerable by:

- ***Providing more personalised and flexible learning for all learners***. Policy makers can develop inclusive approaches to learning that build on adaptive pedagogies considering the needs of individual learners. Such adaptations include constant balancing between student-led and teacher-led approaches, individual and collective, or personalised and standardised. This balancing act requires policy makers to work to support teachers' greater freedom of practice, which can only be effective when combined with adequate capacity, tools and time for constant exposure, practice and reflection.
- ***Connecting and strengthening targeted supports for vulnerable learners in the longer term***. The challenges facing disadvantaged learners tend to be multidimensional and complex. Therefore, policy makers aiming to redress inequities need to develop coherent, complementary actions. As part of these efforts, policy makers need to keep an open mind on the different types of supports that could be most helpful to students. In the same way, both the complexity of inequities and their sensitivity to changing contexts call for a longer-term vision of state that transcends government administrations. This vision should ensure that supports targeting disadvantaged students are sustained, monitored and enhanced coherently over longer time spans.

Why resilience at learner level matters

Children and young people like Lucas and Sofia have always been among the most vulnerable in society. As explained in the Overview, events of global and local scale currently facing societies make it seem that today's learners are experiencing more change than ever before, with many possible futures now unfolding. Some changes may be intentional, as part of efforts to improve the responsiveness of education systems towards their learners, while others may derive from external events, foreseeable or not.

In either case, these changes have potential consequences for learners that can be grouped into four main categories:

- **Disruption to relationships with themselves—**e.g. shifts in physical and emotional well-being, including self-esteem, identity construction;
- **Disruption to relationships with others—**e.g. change in social and interpersonal dynamics in family, peer, and learning or community networks;
- **Disruption to access to learning resources—**e.g. change in learning delivery mode, change in availability and capability of technology, change in availability of professional support networks or financial resources;
- **Disruption to education and employment pathways—**e.g. new barriers erected, new pathways developed, old pathways removed, change in associated costs and benefits of different pathways (see also Chapter 4).

Education systems can help nurture resilient learners that tackle these disruptions by being more responsive to their varied needs in different situations. Through analysis of international evidence, this framework identifies two core policy areas for responsiveness and resilience of education systems at learner level: 1) Empowering learners to confidently navigate their worlds, and; 2) Combining adaptive pedagogies for all with sustained supports for the most vulnerable. Policy efforts in these areas can provide the system with greater capacity to react to changes and disruptions while supporting learners to adjust positively to everyday challenges and external shocks.

Drawing from these two core areas, and from a perspective of short to medium-term in a context of change and disruption, this chapter therefore lays out practical approaches that policy makers can adopt to help promote learner resilience. That said, as education systems become able to better function again, governments need to seize the opportunity to reflect on lessons learned about strengthening resilience at learner level for the longer term. Building on this framework, reflections for the future are set out at the end of the chapter to support policy makers reflect on them.

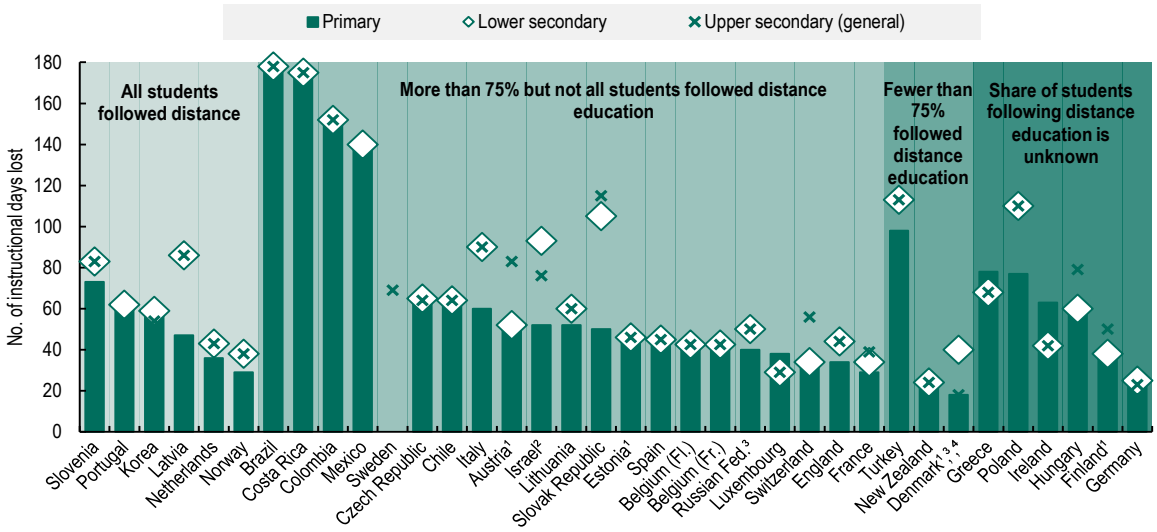
Empowering learners to confidently navigate their worlds

To become resilient, learners first of all need to be able to build and maintain a positive relationship with themselves—this is an immediate priority. Their social and emotional well-being, and their capacity for agency and co-agency, determine how they experience education, but also family life, employment, or social relationships and responsibilities. At the same time, learners' experiences of the different worlds in which they live and learn permeate the attitudes and mindsets they hold, as well as the skills and knowledge they master. To empower students to confidently navigate these different worlds, education policy makers need to ensure that they equip learners with complex skills and competencies to process personal experiences into success, a voice to help them communicate their needs and ambitions, and an environment that conveys a sense of safety while nurturing effective learning.

During the COVID-19 pandemic, students' usual mode of learning changed, generally for an extended period of time. A number of education systems in the Special Survey carried out by the OECD/UNESCO-UIS/UNICEF/World Bank in 2021 indicated that schools were closed for at least five school weeks in 2020,

with some closed for well over half the school year. On average, older students were shut out of schools for longer than younger students. During these periods of school closure, the vast majority of students in most education systems were following distance education (see Figure 2.1). Efforts then tended to focus on ensuring access and participation along with the provision of learning materials, mainly through online platforms, but also take-home packages, television, mobile phones, radio or other means.

Figure 2.1. Length of school closures in 2020 and share of students following distance education



Note: No. of instructional days lost refers to the total, or most typical, number of school days for which schools were closed in 2020. The share of students following distance education refers to an approximate percentage for all closure periods combined. The data in this figure reflects general estimates. Systems adopted various approaches to closures and reopenings not captured in this figure, including phased returns, closures for certain grade levels only, closures for certain schools/regions only. For further information see the *Special Survey on COVID Database.* [1] For upper secondary general education, all students followed distance education; [2] For lower and upper secondary general education, Israel responded "do not know" for the share of students following distance education; [3] Refers to the minimum number of instructional days lost for the first period of closure; [4] Refers to the first period of closures only.
Source: OECD/UIS/UNESCO/UNICEF/WB (2021[1]), *Special Survey on COVID Database*, https://www.oecd.org/education/Preliminary-Findings-COVID-Survey-OECD-database.xlsx (accessed on 29 September 2021).

StatLink https://stat.link/8hl4qo

However, while important, barriers to learning may have been much less tangible than a poor Internet connection or limited access to a device. Data collected prior to the COVID-19 pandemic indicate that many students across the OECD lacked the skills and mindset required to thrive during periods of more autonomous learning. In the OECD's Programme for International Student Assessment (PISA) 2018, 71.4% of 15-year-olds agreed that their self-belief gets them through hard times and 62.6% exhibited a growth mindset, disagreeing that intelligence is fixed. Yet these averages masked important variations. In some countries and economies, little over half of students reported having the self-belief to carry them through hard times, while in others, more than 85% did. Among disadvantaged students specifically, 56.2% exhibited a growth mindset, compared to 68.4% of advantaged students.

Moreover, a lower share of teachers in the OECD's Teaching and Learning International Survey (TALIS) 2018 had indicated a didactic style of teaching—more required during distance education. On average across the OECD, less than half (44.5%) of lower secondary teachers reported frequently asking students to decide on their own procedures for solving complex tasks, while less than one-third (28.6%) regularly gave students projects requiring at least one week to complete. Therefore, there is much to strengthen in

terms of the support provided to learners by education systems in non-crisis contexts that can better prepare them for when disruption and change arise.

Fostering learners' agency and co-agency

Why it matters

Governments and societies have grown increasingly aware of the importance of strengthening learners' social and emotional skills as well as their transformative competencies and their well-being. In the same way, research indicates a growing number of mental health problems and psychiatric disorders in children and adolescents in the 21st century, likely resulting from the intensification of macro-level changes and idiosyncratic stresses (Choi, 2018[2]). The COVID-19 experience appears to have expanded the implications of this hypothesis. By working to foster learners' agency and co-agency, education systems can begin to address such challenges simultaneously.

Social and emotional skills are increasingly important in the 21st century. As internal protective factors, motivation, self-regulation, autonomy and co-operativeness, self-efficacy or self-worth can strengthen children's emotional well-being (OECD, 2015[3]) and are particularly crucial in times of stress (Jiao et al., 2020[4]; Reyes, 2013[5]). The early development of socio-emotional skills also has a strong medium- to long-term predictive power of positive outcomes for children later in their lives (OECD, 2020[6]). More recently, there has been an increasing focus on the role of social and emotional skills in influencing how well people adjust to their environment and how much they achieve in their lives in an increasingly fast-changing and diverse world (Chernyshenko, Kankaraš and Drasgow, 2018[7]). Carefully designed interventions can support young people's development of these skills: recent research indicates that schools' impact on social and emotional development have a larger positive effect on educational and behavioural outcomes than their impact on academic development (Jackson et al., 2020[8]).

As well as the social and emotional skills that support them to absorb and adjust to change, learners must develop the skills to play an active role in their communities, and respond to global challenges. In this way, ***transformative competencies***, including critical thinking, growth mindset, creativity, open-mindedness and responsibility, help young people respond positively to uncertainty across a lifetime (Chernyshenko, Kankaraš and Drasgow, 2018[7]; OECD, 2019[9]; Felder et al., 2017[10]). For example, when faced with risk, people often make systematic judgement errors due to biases such as loss aversion and present bias with those in positions of socio-economic stress particularly susceptible (Biddle, 2021[11]). Therefore thinking critically, approaching decisions with an open mind and recognising one's own biases, for example, are valuable skills for all learners, and particularly disadvantaged ones.

In 2020, the need to maintain learning during the COVID-19 pandemic further alerted societies to the value of equipping learners with a wider range of non-cognitive and compound skills. As many learners switched to online learning, regardless of having adequate equipment, digital connection, learning space or digital skills, the quality of students' learning relied heavily on their metacognitive capacities. Metacognition (i.e. the awareness and understanding of one's inner processes and subjective experiences) not only regulates actions but also helps strengthen motivation, effort and persistence, and alleviates obstacles (Chernyshenko, Kankaraš and Drasgow, 2018[7]). As institutions closed in 2020, and with varying guidance from teachers and parents, most students were more likely to have to navigate online pedagogical resources independently, work to longer deadlines in more project-based and self-directed learning, and to self-assess progress. As such, self-regulation, goal-setting and reflection were critical, as well as self-efficacy, critical thinking and integrity.

However, socio-emotional skills and transformative competencies must also be supported by student well-being and mental health, to which they also contribute. ***Emotional well-being during childhood and adolescence*** is crucial, as youths with a positive sense of it have higher odds of becoming happy, confident adults with healthy lifestyles, and who contribute positively themselves to collective well-being

(Choi, 2018[2]). At the same time, research highlights the need to differentiate between student well-being, which relates to all learners, and the ***mental health*** issues experienced by some learners (Barkham et al., 2019[12]). Policy makers need to keep in mind that learners experiencing mental health issues require targeted interventions that go beyond the support provided to all learners. These include specialist support, but also raising specific awareness among education staff in order to better support learners.

Therefore, in contexts of change and disruption, learners experienced uncertainty needs to be met with support that helps learners make sense of this new environment, in order to adapt to present and future similar challenges. Resources aimed at strengthening learner resilience therefore require a strategic approach that builds learners' capacity to cope with disruption, rather than merely (and possibly irrealistically) strive to guard the learner from the consequences of change.

What we can learn from relevant policy approaches

► See Table 2.1 for a list of policies considered in this analysis; [] see Chapter 5 for further information.

Socio-emotional skills and transformative competencies

Results from the OECD Policy Questionnaire on Curriculum Redesign reveal that countries and economies are more likely to emphasise transformative competencies – such as critical thinking and problem solving – than social-emotional skills in their curricula. Countries and economies such as Portugal, Scotland (United Kingdom), and Canada have developed student profiles that set out the skills and attitudes learners should acquire throughout their education. While these largely address skills for learning, the workplace, and participation in society, they also include social and emotional skills. Student profiles can support effective curriculum implementation when they are effectively embedded into a curriculum and communicated to students, parents, and teachers (OECD, 2020[13]).

Moreover, analysis from the Education Policy Outlook suggests that policy efforts to reinforce social-emotional skills often feature more prominently in early childhood education and care (ECEC), where there has been a long-standing concern for the social and emotional development of young children. For example, social and emotional learning has been an important feature of **Sweden**'s ECEC curriculum since its introduction in 1998, with more recent additions about physical and personal integrity. Iceland's ECEC curriculum also addresses social and emotional aspects of learning.

Countries and economies are increasingly introducing social and emotional learning programmes or objectives for older students, covering aspects such as physical and emotional well-being, sustainable living, and active citizenship. In **Norway**, in 2020, health and life skills became one of three interdisciplinary topics of its core curriculum for primary and secondary education. This change aims to help students gain the competencies they need to make responsible life choices, to deal with success and failure, and to achieve physical and mental well-being. In the same way, revisions to **Japan**'s National Curriculum Standard for Upper Secondary Education, introduced in 2009, include objectives relating to self-discipline, empathy, and co-operation with others. The curriculum aims to nurture students' 'competencies for living' by balancing three core elements: solid academic ability, richness in mind, and a healthy body. **Mexico** considers social-emotional learning through a dedicated curriculum in ECEC, primary and secondary education, as well as embedding it across traditional curricular subjects. This approach aligns with international evidence on good practices (OECD, 2019[14]).

For the curriculum to be able to live in the hearts and minds of learners, however, teachers need to own it. This may be especially true in the case of social-emotional learning programmes, which often require teachers to engage with unfamiliar and sensitive subject content. Analysis of curricular implementation in Mexico highlighted teachers' need for time and agency to better understand which activities they could use to develop non-cognitive skills (OECD, 2019[14]). Similarly, the evaluation of Norway's curriculum reform

highlights the importance of teachers' agency in implementing the guidance on interdisciplinary learning (Karseth, Kvamme and Ottesen, 2020[15]).

Student well-being

Australia's Evidence for Learning (see Box 2.1) conducted a systemic review on the impact of student well-being interventions on academic and well-being outcomes, which highlights four factors for successful implementation (Ho and Dix, 2020[16]). These include implementing shorter programmes to allow schools to manage competing priorities, delivering programmes over a number of regular sessions to build student capacity incrementally, and taking a whole-school community approach to raise awareness among school leaders, teachers, students and their families. Programmes taught by classroom teachers trained by external experts were found to be marginally more effective than those delivered by the experts themselves. The authors also recommended combining a universal approach to fostering school belonging and social-emotional skills among all learners, with targeted interventions for the most vulnerable (Ho and Dix, 2020[16]; Dix et al., 2020[17]).

Student well-being became a stronger priority for several education systems during institutional closures in 2020, and was a continued focus when institutions began to reopen. When schools were closed, countries and economies such as **Ireland**, **Latvia**, **Norway**, and **Turkey** offered psychological or social support to learners through online platforms or telephone hotlines. **Greece**'s Centre for Educational Psychology published reports aimed at parents and teachers with guidance on supporting children and fostering emotional resilience during the pandemic. The **Czech Republic**, **Portugal**, and **Turkey** took similar approaches, collaborating with experts to produce well-being resources and guidance for students, teachers, and families. In Portugal, this included topics such as helping children cope with stress, supporting families to navigate isolation and self-care recommendations for educators (OECD, 2020[18]). **Denmark** and **Ireland** were among the countries and economies that offered counselling to students in tertiary education. Ireland also offered remote counselling to adult learners.

In the context of institutional closures in 2020, two main approaches stand out among the countries and economies whose guidelines for school re-opening dealt explicitly with student well-being: promoting the provision of specialist professional support for students and encouraging educators to plan teaching and learning with well-being in mind. For example, guidelines in **Ireland** advised schools to plan for more collaborative learning to support student interaction and engagement, and to make use of outdoor environments to engage young people in physical activity. **Chile** produced diagnostic assessments that included an assessment of students' social and emotional skills. Furthermore, the **French Community of Belgium**, **Japan** and **Portugal** allocated additional resources for psychological and social support, based on an assessment of local needs (OECD, 2020[19]).

Box 2.1. Example of practice – Curating student well-being resources for school staff (Australia)

Schools can access a range of resources to design and implement evidence-informed student well-being interventions through an initiative led by Australia's Evidence for Learning initiative. These resources include, for example, an impact map and an infographic that school staff can use to compare the estimated months of learning gain of different international interventions on outcomes such as literacy, numeracy, and social-emotional well-being. The infographic summarises the key messages and highlights factors for successful implementation. Furthermore, school staff can also access a review of over 200 existing well-being and mental health programmes included in an Australian national directory that rates the interventions based on the available evidence of their impact.

Who?: This approach can potentially help **school staff (*people*)** to reinforce **student well-being (*purpose*)** in a way which aims to be attentive to their needs. **Research evidence is curated (*process*)** to provide practical and accessible messages that can save teachers and school leaders time. This can empower them to make evidence-informed resource decisions that help translate their time and energy invested into improved student outcomes.

Source: Evidence for Learning (2020[20]), *Student Health and Well-being*, https://www.evidenceforlearning.org.au/research-and-evaluation/evidence-reviews/health-and-well-being-systematic-review/#outcomes-overview-model (accessed on 23 July 2021).

Mental health

Evidence suggests that mental health should be measured differently from well-being, also at different education stages in order to facilitate transitions, and that it often requires different kinds of interventions (Barkham et al., 2019[12]). In **Chile,** the Abilities for Life Programme, which is part of the National Board of School Aid and Scholarships (JUNAEB) (see Chapter 3), offers psychosocial support to children at risk of poor mental health and learning outcomes. This support is allocated based on a screening process that takes place at key transition points. It relies on networks of support within the school and the wider community and includes interventions to support teachers and parents (Junta Nacional de Auxilio Escolar y Becas, n.d.[21]). An evaluation from 2015 found that students' participation on the Abilities for Life workshops had a significant impact on outcomes such as end-of-year promotion and school attendance. The second phase of the programme has been designed to gather experimental data on its impact on students, as well as the impact of teacher and parent interventions (Guzmán et al., 2015[22]).

At higher education level, in the **United Kingdom**, Universities UK developed its Stepchange mental health framework, which draws on evidence from school and workplace initiatives. The initial framework was published in 2017 and piloted by a group of universities to identify gaps in provision (Universities UK, 2020[23]). On the basis of results from the pilot phase, and additional focus groups on leadership and staff mental health, Universities UK published a revised framework in 2020. Likewise, inspired by experiences from the United Kingdom or Canada, and based on consultations with students, universities and the mental health sector, **Australia**'s University Mental Health Framework (2020) provides an extensive list of areas of focus for data collection. These include collecting longitudinal data on student well-being and mental health, involving students in monitoring the implementation of the framework, and identifying data from different sources to provide a more comprehensive picture of student needs (Orygen, 2020[24]).

Some policy pointers for resilience

- ***Empower learners now and in their futures by keeping their holistic development high on the policy agenda.*** Social and emotional skills, transformative competencies, well-being and mental health can all help learners become the motors of their own learning, both in their everyday processes and as they make decisions for their future. The COVID-19 pandemic appears to have increased awareness of the importance of empowering learners more holistically beyond cognitive aspects. Policy makers and education professionals should continue to prioritise this as they tackle lost learning during the recovery phase. At the same time, fewer policy efforts analysed for this report

involve a long-term or more transversal commitment to embedding these skills in the curriculum and providing ongoing support. In many cases, the task of providing learners with this type of support falls to external collaborators rather than professionals based in educational institutions. Moving forward, teachers and school psychologists must therefore be supported to participate actively in the process, since they often have the most regular contact with learners. In the short term, teachers, in particular, may need support in managing new and often sensitive topics.

- ***Support learners' social and emotional skills, transformative competencies, well-being and mental health,*** while recognising them as distinct. Although these aspects are related, there is a need to develop distinct measures for the range of different issues that affect learners. Generating evidence on them, the practices that support them, and how they come together, will be critical as education systems and institutions seek to assess the impact of the pandemic on learners and implement strategies to mitigate it. There is also a need to collect these data for individual students over time, giving due attention to data protection issues (see Chapter 4).

Table 2.1. Selected education policies and practices on well-being and social-emotional skills in the curriculum

Australia – University Mental Health Framework (2020)[14]; Evidence for Learning – Systematic review of well-being interventions (2020)[1] **Chile** – Abilities for Life (2008)[19] **Greece** – 21st Century Skills Labs module (2020)[3] **Iceland** – National guidelines for pre-primary, compulsory, and upper secondary education (2012)[18] **Ireland** – Well-being curriculum (2017)[8] **Japan** – National Curriculum Standards (2017-2019)[18] **Norway** – Core curriculum subject renewal (2020)[10] **Mexico** – Educational Model for Compulsory Education (2017)[16]	**Sweden** – ECEC curriculum revisions (2010, 2018)[17] **United Kingdom** – Stepchange (2020)[15] **Developed in COVID-19 context** **French Community of Belgium** – Circulaire 7705[2] **Chile** – Diagnostic assessment of social-emotional skills (2020)[13] **Czech Republic** – Corona is not a Friend (2020): Coronavirus comic book for learners (2020)[5] **Denmark** – Remote counselling for students in higher education (2020)[6] **Greece** – Centre for Educational Psychology reports (2020)7	**Ireland** – Well-being support for students and families (2020)8; Remote counselling for students in tertiary education and adult learners (2020)[8] **Japan** – Education in Japan Beyond the crisis of COVID-19: Leave No One Behind (2020)[4] **Latvia** – Telephone hotline and online chatbot to support children (2020)[9] **Norway** – Telephone hotline for students (2020)[10] **Portugal –** Well-being guidelines for school psychologists, teachers, parents and students (2020)[11]; #SerAtivoEmCasa campaign (2020)[11] **Turkey** – Guidebooks for students and parents (2020)[12]

Note: [ ]: See Chapter 5 for more information about this policy.

Sources: [1] Evidence for Learning (2020[20]), *Student Health and Well-being*, https://www.evidenceforlearning.org.au/research-and-evaluation/evidence-reviews/health-and-wellbeing-systematic-review/#outcomes; [2] Fédération Wallonie-Bruxelles (2020[25]), *Circulaire 7705*, http://www.enseignement.be/index.php?page=26823&do_id=7960 (accessed on 1 February 2021); [3] Ministry of Education and Religious Affairs of Greece (2020[26]), *Implementation of pilot "Skills Workshops" in Primary and Secondary Education*, https://www.minedu.gov.gr/publications/docs2020/document.pdf (accessed on 1 April 2021); [4] Ministry of Education, Culture, Sports, Science and Technology of Japan (2020[27]), *Education in Japan beyond the Crisis of COVID-19: Leave No One Behind*, https://www.mext.go.jp/en/content/20200904_mxt_kouhou01-000008961_1.pdf (accessed on 1 April 2021); [5] OECD (2020[28]), *Education Policy Outlook: Czech Republic*, http://www.oecd.org/education/policy-outlook/country-profile-Czech-Republic-2020.pdf (accessed on 28 October 2021); [6] OECD (2020[29]), *Education Policy Outlook: Denmark*, http://www.oecd.org/education/policy-outlook/country-profile-Denmark-2020.pdf (accessed on 28 October 2021); [7] OECD (2020[30]), *Education Policy Outlook: Greece*, https://www.oecd.org/education/policy-outlook/country-profile-Greece-2020.pdf (accessed on 28 October 2021); [8] OECD (2020[31]), *Education Policy Outlook: Ireland*, https://www.oecd.org/education/policy-outlook/country-profile-Ireland-2020.pdf (accessed on 28 October 2021); [9] OECD (2020[32]), *Education Policy Outlook: Latvia*, http://www.oecd.org/education/policy-outlook/country-profile-Latvia-2020.pdf (accessed on 28 October 2021); [10] OECD (2020[33]), *Education Policy Outlook: Norway*, http://www.oecd.org/education/policy-outlook/country-profile-Norway-2020.pdf (accessed on 28 October 2021); [11] OECD (2020[18]), *Education Policy Outlook: Portugal*, http://www.oecd.org/education/policy-outlook/country-profile-Portugal-2020.pdf (accessed on 28 October 2021); [12] OECD (2020[34]), *Education Policy Outlook: Turkey*, http://www.oecd.org/education/policy-outlook/country-profile-Turkey-2020.pdf (accessed on 28 October 2021); [13] OECD (2020[19]), *Lessons for Education from COVID-19: A Policy Maker's Handbook for More Resilient Systems*, https://doi.org/10.1787/0a530888-en; [14] Orygen (2020[24]), *Australian University Mental Health Framework*, https://www.orygen.org.au/Policy/University-Mental-Health-Framework/Framework/University-Mental-Health-Framework-full-report.aspx; [15] Universities UK (2020[23]), *Stepchange: Mentally Healthy Universities*, https://www.universitiesuk.ac.uk/policy-and-

analysis/reports/Documents/2020/uuk-stepchange-mhu.pdf#page=12; [16] OECD (2019[35]), *Education Policy Outlook 2019: Working Together to Help Students Achieve their Potential*, https://dx.doi.org/10.1787/2b8ad56e-en; [17] Swedish National Agency for Education (2019[36]), *Curriculum for the Preschool, Lpfö 18*, https://www.skolverket.se/publikationsserier/styrdokument/2019/curriculum-for-the-preschool-lpfo-18 (accessed on 1 April 2021); [18] OECD (2018[37]), *Education Policy Outlook 2018: Putting Student Learning at the Centre*, https://dx.doi.org/10.1787/9789264301528-en; [19] OECD (2017[38]), *Education in Chile*, Reviews of National Policies for Education, https://doi.org/10.1787/9789264284425-en.

Encouraging student engagement and student voice

Why it matters

Education policy needs to take into account the different environments in which students live and learn (e.g. school or university, home, or the community) to achieve a more comprehensive vision of students' needs, interests and expectations. In the short term, student engagement and student voice will help provide a first-hand view of how these different environments intersect to shape learning experiences. Responsive and resilient education systems develop processes through which students can express their needs and ambitions in this way, and establish relevant practices through which other actors in the system respond appropriately.

Student voice activities strengthen learner resilience by supporting the development of cognitive and non-cognitive skills. The ability to voice one's opinions confidently, and assertively stating one's needs and feelings, are critical elements in healthy engagement with others (Chernyshenko, Kankaraš and Drasgow, 2018[7]). Furthermore, PISA data reveal a positive relationship between student voice and learning outcomes: students in schools that seek feedback from students performed better in reading than students in schools that do not, on average across OECD countries and economies and even after accounting for schools' socio-economic background (OECD, 2020[39]). Moreover, learner engagement with the environments they inhabit enhances students' ability and willingness to take action for collective well-being and sustainable development, and promotes the role of young people as active members of society (OECD, 2020[40]).

Behavioural economics research also indicates that policy is likely to be far more effective if it is based on how people actually make decisions, not the assumptions drawn from our models of human behaviour, where a person's rationale and the information that is available may differ (Biddle, 2021[11]). To achieve this, education policy makers need first-hand insight into learners' decision-making processes. Increasing student voice and engagement can therefore help plan, develop and evaluate policies that better strengthen learner resilience, as learners have a unique perspective on their needs and experiences (OECD, 2018[37]; OECD, 2020[13]). In this process, listening to the voice of the most vulnerable learners is particularly important, since they are likely to have more complex needs during a crisis (Winthrop, n.d.[41]). Furthermore, involving learners in the strategic improvement of the learning environment, and the education system as a whole, helps ensure that learning and well-being are at the centre of policy development (OECD, 2018[37]; Cook-Sather, 2020[42]).

The ongoing erosion of young people's trust in public institutions in many of today's societies also creates an imperative to engage with and listen to students. In just over a decade, today's youth (15-29 year-olds) have been hit by two major global crises while also experiencing rapid social and economic transformations. These have had a strong impact on their trust in public institutions and their own sense of influence and representation. In more than half of OECD countries and economies, youth's trust in government, compared to the total population, has decreased since 2006. Ongoing COVID-induced economic and social uncertainty may further erode this.

At the same time, young people appear increasingly attracted to non-institutionalised political engagement, such as social movements and digital activism through social media, blogs and online petitions (OECD, 2020[43]; OECD, 2018[44]). This crisis in trust and the withdrawal from traditional participatory channels

signals young people's frustration with the political system, potentially affecting the legitimacy of liberal democratic institutions and driving populist movements (OECD, 2018[44]). Strengthening ties between young people and public governance is therefore crucial for the future effectiveness, resilience and legitimacy of public institutions.

What we can learn from relevant policy approaches

► See Table 2.2 for a list of policies considered in this analysis; [] see Chapter 5 for further information.

While previous analyses from the Education Policy Outlook suggest that engaging different stakeholders in decision making was a priority across many education systems, fewer examples of recent education reforms for formal student voice mechanisms have been collected (OECD, 2019[35]). This may suggest that many education systems already had these mechanisms in place at the time of our analysis, but further OECD comparative evidence points to the need to ensure that these have an impact on the student experience (OECD, 2020[43]). In PISA 2018, some 68% of students across OECD countries and economies on average were in schools that reported collecting written feedback from students about their lessons, teachers, or resources. However, on average, 56% of students were in schools that would do this on their own initiative, and only 12% were in schools where this was mandatory (OECD, 2020[39]).

Youth engagement requires government investment in adequate financial and human resources, open information, good co-ordination and appropriate incentives for public officials to implement the feedback they receive. Additional measures may be needed to facilitate the participation of under-represented or hard-to-reach groups in learner voice activities (e.g. reimbursing expenses, providing childcare and holding consultations in different geographical areas), although digital tools may help reduce some of these transaction costs (OECD, 2020[43]). Governments may wish to develop strategies for youth engagement prioritising different levels of the system, depending on the specific policy agendas that are under development. Efforts can be undertaken to increase student voice across the system, but more institutional-level initiatives may support meaningful improvement too.

Canada's Youth Policy is an example of a youth engagement mechanism developed through youth engagement itself. Canada developed it with an initial national **conversation** in which over 5 000 young Canadians identified the six youth priority areas that form the basis of the policy. The policy therefore now requires the Government to regularly consult with young people on developments in these areas (Government of Canada, 2020[45]). Between 2020 and 2021, consultations with nearly 1 000 youth in these areas led to the publication of the first State of Youth Report. The State of Youth Report identifies specific actions to be taken in response to the report's recommendations, with some actions already in place (Government of Canada, 2021[46]). **Iceland** has also implemented several initiatives to reflect the voices of young people in different policy processes. Youth Work Iceland (Samfés) – one of Iceland's leading youth organisations – plays a key role in these efforts. Samfés has one youth council for 13-16 year-olds, with 27 members elected annually from across the country, and a further council for 16-25 year-olds. The councils work towards ensuring active participation of children and young people in decision making in all matters concerning them, to protect their interests and rights, and to create a basis for young people to come together in an annual National Youth Congress. The councils play a key role in Samfés' activities: two representatives attend board meetings with equal voting rights (Samfés Youth Council, n.d.[47]; Samfés Youth Council, n.d.[48]).

At the system level, large-scale surveys allow systems to capture the views of a broader student population. **Estonia** and **Denmark** (see Table 2.2) have introduced policies of this type in recent years. In Estonia, data from student satisfaction surveys are used both for school improvement and for system-level evaluation. This approach aims to give students a sense of agency and empowerment, and ensure that teachers and other decision makers are better informed (Cook-Sather, 2020[42]).

As part of efforts to integrate student feedback across the system and within institutions, **Costa Rica** also introduced reforms to make its student government programme more inclusive and more representative in 2009, following recommendations from a nationwide consultation exercise. A dedicated Department of Student Participation is responsible for ensuring that students develop the skills they need to contribute to school improvement and collects data on aspects relating to inclusion. In 2019, Costa Rica held its first national student dialogues, during which student representatives from across the country met with representatives from the Ministry of Public Education to discuss issues such as student well-being, national testing, and dual education.

Students have also been providing feedback to help reforms succeed. Countries and economies such as **Finland**, **Korea** and **Portugal** have gathered feedback from students ahead of recent curriculum reforms (OECD, 2020[13]). In **Portugal**, students have played a key role in the development of the Student Profile of the End of Compulsory Schooling, as part of Portugal's participation in the OECD Future of Education 2030 project and a national Student Voice initiative. In 2016, for example, students took part in a national conference in which they voiced their perspectives on schooling and developed a proposal for improvement. This approach has since been replicated across the country through a national network involving students, the Ministry of Education, and other stakeholders (Directorate-General of Education of Portugal, 2016[49]). Gathering student feedback when designing curriculum reforms can help to ensure lessons, content, and activities fit their needs and interests. As such, the personalisation of learning becomes less at the discretion of individual teachers (OECD, 2020[13]).

In **Portugal**, since 2017, students in public secondary schools can formulate and vote on proposals for the use of specific funding received for school improvement initiatives. This process aims to give students both autonomy and financial resources to initiate change, and promote entrepreneurialism and democratic participation. Examples of proposals include the purchase of new sports equipment or the replacement of existing lightbulbs in classrooms with LEDs to improve energy efficiency.

Mechanisms for student representation are often particularly well-developed in higher education, where learners are more mature, and where student unions and other representative bodies play a key role in institutional and system-level decision making in many countries and economies. At this education level, countries and economies such as **Chile**, **Denmark, Iceland** and **Slovenia** have introduced measures to reflect students' views in quality assurance procedures. Denmark implemented a student questionnaire as part of its 2017 higher education funding reform, thus integrating students' perceptions of the learning environment and their learning experiences into the funding mechanism. In Iceland, students are represented at all levels of Iceland's quality assurance system. In Slovenia, the student union appoints two members of the Council of Slovenia's National Agency for Quality Assurance in Higher Education (NAKVIS, n.d.[50]). Similarly, in Chile, higher education students must be represented by law in the National Accreditation Commission (CNA) and student voice is part of the evaluation process of higher education institutions and programmes (Ministry of Education of Chile, 2006[51]).

In the early stages of the pandemic, concerns were raised about a lack of student representation in the planning for emergency education, both at the institutional and national level (OECD, 2020[13]). However, some countries and economies found ways of capturing student experiences during institutional closures and used student feedback to plan for the re-opening of institutions and further emergency measures. **Norway**'s Prime Minister held two press conferences for children during school closures, while **Finland**'s Prime Minister took part in a virtual question and answer session for young people. **Latvia**'s Ministry of Education and Science conducted regular surveys with stakeholders, including students, to gather feedback on distance learning and other emergency measures. Among non-European countries and economies, during the second edition of **Costa Rica**'s national student dialogues, the Minister of Education presented the country's school re-opening strategy to student representatives from across the country and gathered their feedback.

For older students, Norway's Minister of Research and Higher Education continued to hold weekly meetings with student organisations throughout 2020/21. Student associations in Finland also conducted a survey on the impact of lockdowns on students in vocational education and training (VET). Student organisations were also represented in the feedback exercise carried out by **Ireland**'s National Forum for the Enhancement of Teaching and Learning in Higher Education. This fed into a report that summarised key lessons and identified key practices to maintain in 2020/21.

Box 2.2. Example of Practice – Harnessing graduate voice to enhance decision making (Italy)

In Italy, annual surveys of university graduates at one, three and five years after graduation provide policy makers, universities, and students and graduates themselves with insights into student experiences in different institutions, the quality of courses, and their relevance for the labour market. The analysis focuses on graduates' satisfaction with the alignment of their course with the needs of the labour market, as well as the skills they use in the workplace. This information is intended to support universities in improving their course offer and help prospective students make informed study choices, also giving them an idea of labour market and employability prospects. Policy makers have also used the surveys to capture students' experiences of national-level reforms, such as the compulsory work-based pathways for upper-secondary school students introduced in 2015. The 2020 round of the survey provided insights on the impact of the COVID-19 pandemic on students' study experiences. These surveys are conducted by AlmaLaurea, the largest Inter-University Consortium in Italy, which aggregates around 76 Italian Universities to collect information and provide analysis on around 91% of Italian graduates.

Who?: This approach aims to support **students (*people*)** to **make more informed decisions (*purpose*)** about their own futures. **Graduate's views are gathered and analysed (*process*)** to facilitate comparison across time, institutions and sectors. The practice also highlights the versatility of student voice efforts: the analysis can also support evidence-informed decision making at institution and system level and provide rapid feedback loops when needed, as in 2020.

Sources: Consorzio Interuniversitario AlmaLaurea (2021[52]), Rapporto 2021 sul profilo e sulla condizione occupazionale dei laureati [Report 2021 about the profile and occupations status from graduates], http://www.almalaurea.it/sites/almalaurea.it/files/convegni/Bergamo2021/04_sintesi_rapportoalmalaurea2021.pdf (accessed on 19 July 2021); Consorzio Interuniversitario AlmaLaurea (2021[53]), Statistic studies and reports, https://www.almalaurea.it/en/universita/indagini/laureati (accessed on 19 July 2021); Cammelli, A. et al. (2010[54]), AlmaLaurea Inter-University Consortium; https://www.almalaurea.it/sites/almalaurea.it/files/docs/universita/biblio/pdf/2010/cammelli_antonelli_et_al_2010b.pdf (accessed on 23 July 2021).

Some policy pointers for resilience

- ***Make student voice more systematic, regular and impactful.*** Moving forward beyond the pandemic, governments need to make the transition to seeing students as actors of different worlds (e.g. home, education institution, community) that constantly intersect in different ways, rather than only receivers of instruction. Seeking information on their experiences, which can be highly diverse, can help create policies that respond more realistically to students' needs. Student engagement and student voice mechanisms are likely to be more effective where they are systematic, regular, and where student views translate into concrete action (Cook-Sather, 2020[42]). They also vary according to the needs and capacities of learners at different levels of the system. Furthermore, sharing with students how their views are being taken into account increases their trust in, and commitment to, student voice mechanisms.

- ***Listen to student voice throughout the different stages of policy processes.*** There is value in integrating student voice throughout the different stages of a policy process (e.g. from implementation, ongoing monitoring and evaluation processes). However, previous analysis from the Education Policy Outlook has found that policy evaluations in particular tend to focus on practitioners, paying less attention to students and parents. Developing awareness of the need to cover the full range of possible perspectives is an important step in putting students and their learning at the centre of policy development (OECD, 2018[37]). In the early stage of the pandemic, several countries and economies made use of digital platforms to gather feedback from students and other stakeholders. Such efforts can strengthen policy processes by providing rapid feedback loops to both schools and governments (OECD, 2020[19]). Governments should now work to develop and systematise these mechanisms to make policy reform more student-centred, while finding ways of including students at risk of digital exclusion.

Table 2.2. Selected education policies and practices on student voice mechanisms

French Community of Belgium – Agency for Quality Assurance (2002)[9] **Canada** – Youth Policy (2019)[2] **Chile** – Amendments to quality assurance system for higher education (2019)[11] **Costa Rica** – Student Government Programme (2009, 2015)[13]; Student Dialogues (2019, 2020)[12] **Denmark** – Measurement and improvement of student well-being (2014)9; Learning Barometer (2017)9	**Estonia** – Satisfaction with education surveys (2018)[3] **Iceland** – Samfés Youth Council (2006)[15]; Quality Board for Icelandic Higher Education (2010)[9] **Italy** – AlmaLaurea (2008)[1] **Korea** – Revised National Curriculum (2015)[9] **Portugal** – Schools Participatory Budget (2016)[7]; Student Voice intiative (2016)[10] **Slovenia** – National Agency of the Republic of Slovenia for Quality Assurance in Higher Education (2009)[14]	**Sweden** – School Commission (2015)[9] **Developed in COVID-19 context** **Finland** – VET student survey on the impact of lockdowns (2020)[4]; Student question and answer session with Prime Minister (2020)[4] **Ireland** – Feedback exercise on emergency education in higher education (2020)[8] **Latvia** – Stakeholder surveys on emergency education (2020)[5] **Norway** – Student press conference with Prime Minister (2020)[6]

Note: [ ]: See Chapter 5 for more information about this policy.

Sources: [1] Consorzio Interuniversitario AlmaLaurea (2021[52]), *Rapporto 2021 sul profilo e sulla condizione occupazionale dei laureati [Report 2021 about the profile and occupations status from graduates]*, http://www.almalaurea.it/sites/almalaurea.it/files/convegni/Bergamo2021/04_sintesi_rapportoalmalaurea2021.pdf (accessed on 19 July 2021); [2] Government of Canada (2020[45]), *Canada's Youth Policy*, https://www.canada.ca/en/youth/programs/policy.html (accessed on 8 October 2021); [3] OECD (2020[55]), *Education Policy Outlook: Estonia*, http://www.oecd.org/education/policy-outlook/country-profile-Estonia-2020.pdf (accessed on 28 October 2021); [4] OECD (2020[56]), *Education Policy Outlook: Finland*, http://www.oecd.org/education/policy-outlook/country-profile-Finland-2020.pdf (accessed on 28 October 2021); [5] OECD (2020[32]), *Education Policy Outlook: Latvia*, http://www.oecd.org/education/policy-outlook/country-profile-Latvia-2020.pdf (accessed on 28 October 2021); [6] OECD (2020[33]), *Education Policy Outlook: Norway*, http://www.oecd.org/education/policy-outlook/country-profile-Norway-2020.pdf (accessed on 28 October 2021); [7] OECD (2020[18]), *Education Policy Outlook: Portugal*, http://www.oecd.org/education/policy-outlook/country-profile-Portugal-2020.pdf (accessed on 28 October 2021); [8] O'Shea, M. (2020[57]), *Minister Harris Announces €5 million COVID-19 fund for teaching and learning reforms*, https://hea.ie/2020/11/09/minister-harris-announces-e5-million-covid-19-fund-for-teaching-and-learning-reforms/ (accessed on 1 April 2021); [9] OECD (2019[35]), *Education Policy Outlook 2019: Working Together to Help Students Achieve their Potential*, https://dx.doi.org/10.1787/2b8ad56e-en; [10] Directorate-General of Education of Portugal (2016[49]), *Conferência Currículo para o Século XXI: A Voz dos Alunos* [21st Century Curriculum Conference: The Voice of Students], https://www.dge.mec.pt/conferencia-curriculo-para-o-seculo-xxi-voz-dos-alunos (accessed on 8 October 2021); [11] Ministry of Education of Chile (2006[51]), *Ley 20129 estabelece un Sistema Nacional de Aseguramiento de la Calidad de la Educacion Superior [Law 20129: Establishes a national system of assurance of the quality of higher education]*, https://www.bcn.cl/leychile/navegar?idNorma=255323%5C (accessed on 23 July 2021); [12] Ministry of Public Education of Costa Rica (n.d.[58]), *Diálogos Estudiantiles [Students' Dialogues]*, https://www.mep.go.cr/programas-y-proyectos/dialogos-estudiantiles (accessed on 26 July 2021); [13] Ministry of Public Education of Costa Rica (n.d.[59]), *Reglamento para la Organización y Funcionamiento del Gobierno Estudiantil [Student Government Regulations]*, https://www.mep.go.cr/sites/default/files/page/adjuntos/reglamento-gobiernos-estudiantiles.pdf (accessed on 1 April 2021); [14] NAKVIS (n.d.[50]), *Kam Naj Se Vpišem? Kateri Program Naj Izberem? [Quality in Slovenian Higher Education]*, https://www.nakvis.si/?lang=en (accessed on 19 July 2021); [15] Samfés Youth Council (n.d.[48]), *Samfés Youth Council*, https://www.samfes.is/ungmennarad2/ungmennarad-samfes (accessed on 23 July 2021).

Nurturing positive climates and interactions for learning

Why it matters

By shifting mindsets to value people and processes over classrooms and devices, resilient education systems must now focus on nurturing positive climates around learners across the full spectrum of spaces in which they learn. This includes physical spaces, such as traditional education institutions, the home, the work environment and dedicated community spaces, but also non-physical spaces, such as the digital sphere and the interpersonal sphere.

At the same time, an education institution is not just a place; it is a community of people and processes. Indeed, many of the key components of school belonging and positive institutional climates – a stable body of teachers, strategic leadership, positive disciplinary approaches, teacher and parent support, extra-curricular engagement, positive relationships with peers (Agasisti et al., 2018[60]; OECD, 2019[61]) – relate much more to the people that inhabit the institution and interactions that take place than to the physical infrastructure and resources. This is a key insight for resilient education systems operating in a world where disruption to institution-based learning may be increasingly common (see Overview).

Widespread closures in 2020 during the COVID-19 pandemic emphasised that educational settings provide manifold services not easily replicated through digital or other remote solutions. Moreover, distance-learning solutions have traditionally been associated with attendance challenges and higher absenteeism (OECD, 2020[62]). Finding ways of replicating the aspects of institutional climates that strengthen student engagement and connectedness in the digital sphere can help enhance the quality of learning that takes place there. For example, it is important to ensure that, even in remote learning environments, students continue to interact with their teachers, and that those teachers have the skills to manage behaviour positively in a digital space and engage with parents outside normal school channels.

In fact, while institutional closures make physical interaction difficult, digital platforms, if used correctly, can give learners the opportunity to interact and collaborate. Such approaches to distance learning can also improve academic outcomes (Education Endowment Foundation, 2020[63]). Nevertheless, while digital technologies could facilitate student communication, they also expose them to new risks such as excessive screen-time, cyberbullying or sexual exploitation (OECD, 2020[64]). Teachers, parents and carers must therefore support young people in becoming responsible digital citizens, developing their awareness of the opportunities and risks offered by digital technologies (Burns and Gottschalk, 2019[65]; OECD, 2020[64])

These efforts are particularly relevant given that research associates a high sense of belonging at school with an array of academic and social and emotional outcomes linked to greater resilience. A greater sense of belonging in students is significantly and substantially associated with a perceived value in schooling and the expectation of having a high-status occupation more resilient to labour market transformations (Biddle, 2021[11]).

Additionally, student belonging has been associated with higher academic motivation, self-esteem and achievement, in certain circumstances, as well as a lower chance of engaging in risky and antisocial behaviours, skipping or dropping out of school, and being unsatisfied with life (OECD, 2019[61]). Although, in general, disadvantaged students tend to express a lower sense of belonging at school than their advantaged peers, evidence indicates that the academic resilience of socio-economically disadvantaged students is associated with positive institutional climates (Agasisti et al., 2018[60]).

What we can learn from relevant policy approaches

► See Table 2.3 for a list of policies considered in this analysis; [] see Chapter 5 for further information.

Governments in several OECD countries and economies had implemented measures to improve the learning climate and students' sense of belonging in the years before the pandemic. Moving forward beyond the pandemic, such measures will be all the more vital as education systems seek to mitigate the effect of lockdowns on learners of all ages.

Some education systems have started collecting information on students' perceptions of the school climate, including information on harmful activities such as bullying. **Denmark**'s national well-being survey for students in primary and lower secondary schools from Grades 4-9 (see Table 2.2) contains items relating to these themes. These items aim to measure students' levels of well-being at school, experiences of bullying, the disciplinary climate of classrooms and other related topics. Municipalities, schools, and teachers use the results to improve the learning environment. Denmark has undertaken a validation study of the survey and convened an advisory group of international experts to make recommendations for improvement (OECD, 2020[13]). **Ireland**'s Survey on Life Skills in Primary and Post-Primary Schools also gathers information on school policies and practices relating to nutrition, exercise, health, bullying or other aspects of the social, personal and health education programme (OECD, 2019[35]).

Policy efforts to address bullying specifically also remain important. Learners need to grow in respectful environments where they can thrive, in the same ways as they need to interiorise processes that will help them better function as part of future societies throughout their adult lives.

In recent years, **France** has taken a number of measures to monitor and improve the school climate, and specifically to target bullying, violence and cyberbullying. Awareness campaigns on issues such as bullying and cyber-harassment have complemented measures to monitor student perceptions of the school climate. Furthermore, **Portugal**'s School without Bullying, School without Violence plan (2019) emphasises a whole-of-community approach to combatting bullying, cyberbullying, and school violence, with actions aimed at teachers, parents, students, and other stakeholders. Based on a needs diagnosis, schools define an action plan involving strategies and activities that raise awareness around harmful behaviours and promote early identification. Schools can apply to have their practices in this area certified by submitting a report of their annual activities to the Ministry of Education; this allows the Ministry to monitor and disseminate best practices. The plan was launched during 2019/20, with 52 schools certified in 2020 (Directorate-General of Education of Portugal, n.d.[66]) .

Other examples of relevant policy efforts include the Internal Commissions for the Prevention of Accidents and School Violence (2012) in **Rio Grande do Sul (Brazil)** and the Digital Citizenship Education in Saskatchewan Schools (2015) in **Saskatchewan (Canada)**. **Finland**'s Education Evaluation Centre (FINEEC) is evaluating methods used to prevent bullying in early childhood and basic education, in order to highlight best practices within the system (Finnish Evaluation Centre of Education, n.d.[67]), with the results planned for publication in 2022 (Finnish Evaluation Centre of Education, 2018[68]).

A review of the evidence on promoting safe online behaviour among children carried out by the **United Kingdom**'s Council for Child Internet Safety emphasises the importance of developing young people's online resilience by giving them the tools they need to stay safe online rather than seeking to eliminate all risks. This involves developing children's ability to recognise online risks and giving them the technical and emotional competencies to deal with them. Policy makers and schools can embed these skills in the curriculum and other school activities, as well as providing education and support to parents, who often prefer to receive information on online safety from schools rather than from other sources. Guidance from schools is particularly important for students whose parents lack confidence or expertise in digital media. Evidence from the United Kingdom suggests that awareness campaigns such as the worldwide Safer Internet Day have brought about changes in young people's attitudes and practices (Livingstone et al., 2017[69]).

Likewise, promoting engagement between students in the context of distance learning has become a policy priority for many countries and economies since the outbreak of the COVID-19 pandemic. **Turkey** developed an online learning programme (see Table 3.5 in Chapter 3) to strengthen teachers' capacity to promote three kinds of interaction in distance education: student-student interaction, student-teacher interaction, and student-material interaction (Ministry of National Education of Turkey, 2020[70]). In a similar vein, **Slovenia**'s National Education Institute has organised online training on themes such as collaboration via distance learning and developing quality student-teacher relations (Institute of the Republic of Slovenia for Education, 2020[71]). These aim to help ensure that schools and other places of learning maintain a sense of community in the event of further disruptions to learning.

Box 2.3. Example of practice – Translating survey data into policy action (Ireland)

Ireland's Department of Education and Skills (DES) uses data from the Well-being and Life skills survey (see above) to monitor and develop policies that improve learners' school experiences. The data also supports the **Government's Healthy Ireland initiatives** and the **DES's collaboration with the Department of Health (DOH)**. Based on the findings from the 2015 survey, for example, DES and DOH identified a need to streamline the broad range of well-being resources available to schools to help teachers and leaders find suitable tools for their contexts. For this, they undertook an audit of existing resources and developed a joint plan for creating and maintaining a bank of resources for schools. Since some school leaders reported that the perceived administrative burden of Ireland's Health Promoting Schools initiative made them reluctant to participate, DES also worked with the Health Service Executive to develop a more user-friendly model for health promotion. In addition, the DES has worked with schools to encourage the involvement of student councils in decisions affecting the learning climate. Based on the findings from the 2015 survey, the DES streamlined the 2018 round of the survey to reduce the burden on schools while still ensuring comparability with the data from previous rounds.

Who?: **Policy makers (*people*)** in Ireland are undertaking policy efforts **to improve learning environments (*purpose*)** through **translating survey information into concrete actions (*process*)**. Central to this is the policy makers' willingness and the survey's capacity to put the focus on the real issues driving student well-being so that a truly relevant knowledge base can be created and enriched through its data results and feedback from school-based actors.

Source: Department of Education and Skills of Ireland (2017[72]), *Lifeskills Survey 2015 - Report on Survey Findings*, https://assets.gov.ie/24979/1a97aa08e3a04845b4e6c10bbfc17356.pdf (accessed on 23 July 2021).

Some policy pointers for resilience

- ***Prioritise pro-active, holistic and tangible approaches that promote positive interactions between learners.*** Learners need to develop and maintain positive interactions with each other, regardless of where learning takes place. Supporting these interactions becomes particularly challenging in the context of distance learning. Whether they are working in a physical, digital or hybrid environment, educators and learners need guidance on the expectations and tools that promote positive interactions and prevent harmful activities (e.g. bullying, cyberbullying, negative peer pressure or truancy). Autonomy matters. Younger learners in particular will need to develop, for example, the technical and emotional skills that will help them stay safe online and respond appropriately to online risks. These actions help nurture shared understandings of the pro-active positive behaviours to be encouraged, instead of only taking action when negative behaviours occur.
- ***Monitor the impact of measures to improve the learning climate.*** Measuring the impact of initiatives to improve learning environments remains a challenge for policy makers around the world. Research on anti-bullying interventions highlights some of the challenges in defining and measuring bullying, and therefore in comparing findings from different studies (Volk, Veenstra and Espelage, 2017[73]). The OECD has found that although several countries and economies have identified bullying and cyberbullying as policy priorities, few collect data on the effectiveness of specific measures (Burns and Gottschalk, 2019[65]). Similarly, few of the numerous online safety initiatives

implemented by different stakeholders have been independently evaluated, pointing to a need for more evidence in this area (Livingstone et al., 2017[69]). Well-designed student surveys can provide teachers and schools with vital information on how students experience the learning environment. However, this is only a first step. Teaching professionals also need knowledge and skills to make the necessary improvements to learning environments based on evidence.

Table 2.3. Selected education policies and practices on nurturing positive climates and interactions

Austria – Autonomy of Schools Package (2017)3 ✿ **Rio Grande do Sul (Brazil)** – Internal Commissions for the Prevention of Accidents and School Violence (2012)1 **Saskatchewan (Canada)** – Digital Citizenship Education in Saskatchewan Schools (2015)3	**Finland** – Curriculum Reform (2014-2019)3 **France** – Strengthening school climate (2013)3 **Ireland** – Well-being and Life Skills Survey (2018)3 **Portugal** – Schools without Bullying, Schools without Violence (2019)4	**Developed in COVID-19 context** **Slovenia** – Supporting teaching professionals in implementing distance learning (2020)2 ✿

Note: [✿]: See Chapter 5 for more information about this policy.
Source: [1] OECD (2021[74]), *Education Policy Outlook: Brazil*, https://www.oecd.org/education/policy-outlook/country-profile-Brazil-2021-EN.pdf (accessed on 28 October 2021); [2] National Education Institute of the Republic of Slovenia (2020[75]), *ZRSŠ support in the implementation of distance learning*, https://www.zrss.si/novice/podpora-zrss-pri-izvajanju-pouka-na-daljavo/ (accessed on 1 April 2021); [3] OECD (2019[35]), *Education Policy Outlook 2019: Working Together to Help Students Achieve their Potential*, https://dx.doi.org/10.1787/2b8ad56e-en; [4] Directorate-General for Education of Portugal (n.d.[66]), *Escola Sem Bullying, Escola Sem Violência [Schools without Bullying, Schools without Violence]*, https://www.sembullyingsemviolencia.edu.gov.pt/?page_id=25026 (accessed on 8 October 2021).

Combining adaptive pedagogies for all with sustained supports for the most vulnerable

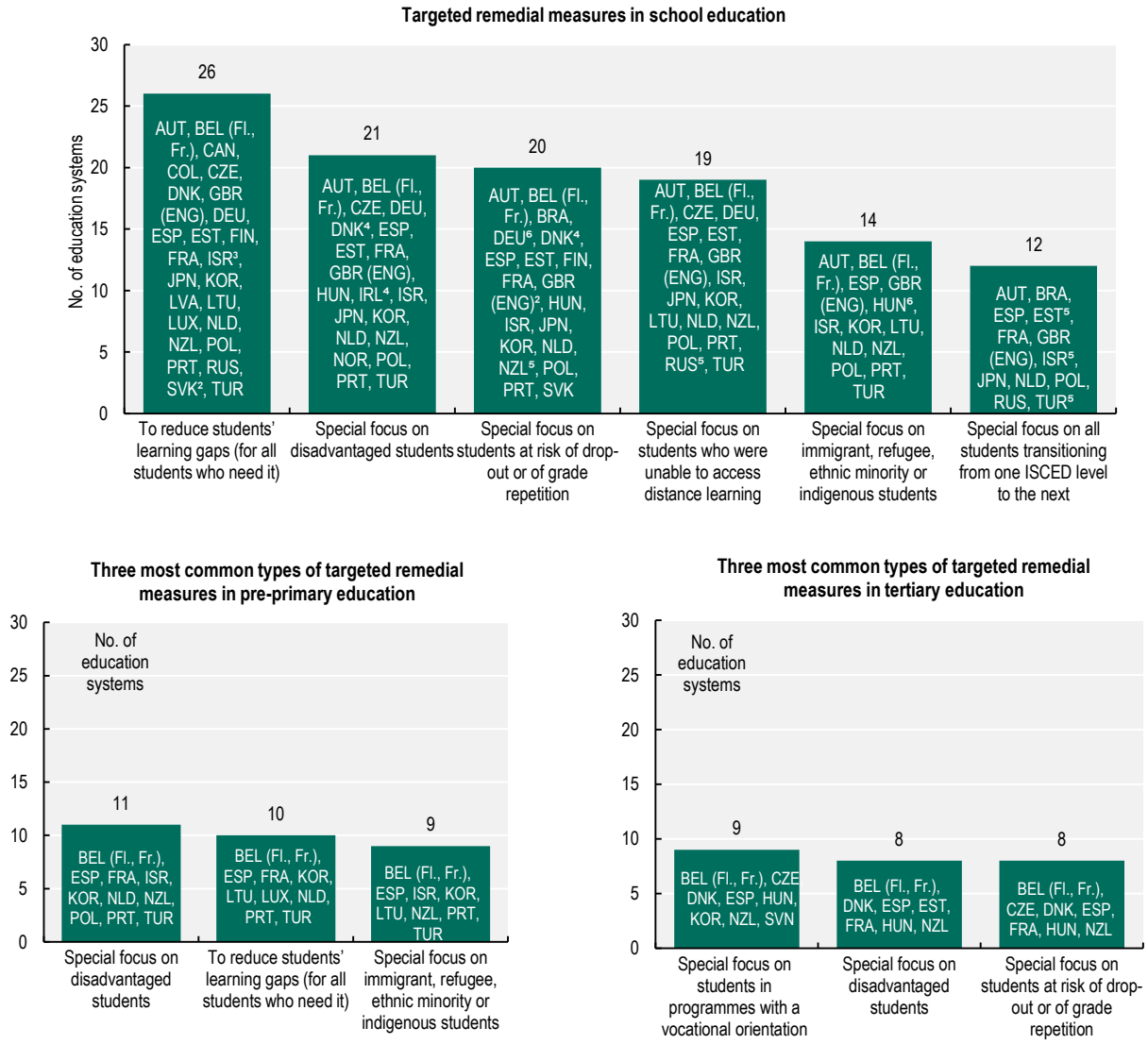
Efforts to address learning gaps and support vulnerable students were extensive during 2020, and education systems targeted support at a wide range of student groups, with different emphases depending on the education level. Survey data from 2021 offer further insight (see Figure 2.2).

For instance, while supporting immigrant, refugee, ethnic minority or Indigenous students was a focus on pre-primary level, it was less often the aim among older students. Conversely, efforts to support students transitioning to another stage or at risk of drop-out were particularly prevalent in upper secondary and tertiary education (OECD/UIS/UNESCO/UNICEF/WB, 2021[1]).

By the end of 2020, an analysis conducted across 43 education systems shows that measures were being introduced to encourage curricular prioritisation and flexibility and individualised learning plans. However, there was less evidence regarding how teachers were being supported or held accountable to implement such efforts. Furthermore, while targeted efforts emphasised diagnosing learning needs, promoting formative assessment and, in some cases, student well-being, coherent strategies bringing these efforts together were less clear, as were targeted measures in vocational and tertiary education (OECD, 2020[19]).

Responsive and resilient education systems have sufficient flexibility to respond to changes of context, but also to changes in needs from one learner to another, within a shared vision of the education system's aims (OECD, 2020[19]). Resilience also lies in education systems' capacity to care for their most vulnerable members, targeting resources at learners who need them most (Ungar, 2011[76]), and empowering them to become the main drivers of their own learning. As shown by the COVID-19 pandemic, when education systems are not resilient in these ways, disruptions disproportionately affect the most vulnerable, with potentially dramatic and long-lasting implications for individuals and societies (OECD, 2020[19]).

Figure 2.2. Targeted supports to address learning gaps widely implemented following the first closures in 2020



Note: School education covers responses for primary, lower secondary and upper-secondary education. [1] Primary education only; [2] Primary and lower secondary education only; [3] Primary and Upper-secondary education only; [4] Upper-secondary education only; [5] Lower and Upper-secondary education only; [6] Lower secondary education only. Only those education systems responding "Yes" are included; certain education systems reported that institutions had autonomy in these types of decisions and that although national authorities issued recommendations and guidelines to schools on the approaches and measures to follow, representative evaluations of what has been done at institutional level were still ongoing at the time of the survey. Many education systems also reported assessing gaps in student learning that may have accumulated during school closures as part of remedial efforts; as this was not necessarily targeted to specific student groups it is not included here.

Source: OECD/UIS/UNESCO/UNICEF/WB (2021[1]), *Special Survey on COVID Database*, https://www.oecd.org/education/Preliminary-Findings-COVID-Survey-OECD-database.xlsx (accessed on 29 September 2021).

StatLink https://stat.link/0i5lzx

Providing more personalised and flexible learning for all learners

Why it matters

Education system's capacity to deliver more personalised and flexible learning for all learners become particularly important in contexts of change and disruption, where learner needs may greatly diverge given

their changing environments. Moving towards the medium-term, this capacity will support education systems to better bridge learning gaps and empower learners according to their different potentials, aims and passions.

Broadly speaking, personalised learning involves adapting the educational experience to the interests, abilities, aspirations, and social, cultural and linguistic backgrounds of each learner. On the one hand, this involves empowering teachers and education institutions to adapt the pace and content of learning based on their knowledge of their students. On the other hand, personalised learning involves giving learners choice and flexibility over when, where, what and how they learn (OECD, 2006[77]; Istance and Dumont, 2010[78]; Huang et al., 2020[79]). However, providing more personalised experiences for learners should not mean that teachers or education systems need to design individual pathways or lessons for each student. Practices in this area range from differentiated instruction within a common curriculum to those that give learners greater control over curriculum content.

In terms of learner resilience, personalised approaches help strengthen student engagement in learning. PISA data indicate that adaptive instruction (i.e. teachers adapting to students' needs or providing individual support) is positively related to students' enjoyment of reading (OECD, 2019[61]). Furthermore, giving learners greater control over their learning, within a shared vision, leaves them better placed to cope with disruptions to the normal routines of education. This type of student agency also has a positive relationship with learning: when students play an active role in deciding what and how they will learn, they tend to show greater motivation and are more likely to define objectives for their learning. This can help them overcome adversity (Talreja, 2017[80]). Personalisation can also support students' eudaimonic well-being, their sense of striving towards something with greater personal meaning. By moving away from the standardised and hierarchised approaches of the 20th century, personalised approaches are better placed to support students in pursuit of this type of self-actualisation.

At the institutional levele, personalisation and flexibility may help education systems tackle a key challenge present before the COVID-19 pandemic but made all the more urgent because of it: educational equity. Education systems around the world face the challenge of providing an equitable educational experience for all learners while also catering to the specific needs of each of them. Personalised learning promises to help resolve this tension by overcoming the inadequacies of one-size-fits-all approaches and supporting staff to take contextual conditions into account (OECD, 2006[77]; OECD, 2013[81]).

Crucially, by framing learners outside the generalisations of group identities, personalisation can support educators to overcome potential implicit prejudices, even when explicit prejudices have been dismantled (Biddle, 2021[11]). The assumptions educators make about learners and the resulting expectations they have of them are powerful moderators of learner and teacher success. Research suggests that low expectations are often held at group or class level, implying that understanding and articulating progress at individual level can help overcome bias (Hattie, 2009[82]). Low expectations can also be a self-limiting factor if learners identify with certain social groups subject to stereotyping (Biddle, 2021[11]).

More personalised and flexible approaches may also help foster innovation, itself a feature of resilient systems. Personalised learning – combined with high expectations for all learners – has been a recurring component of OECD research on educational innovation over the last 15 years. It has been a key concept in work on innovative learning environments, innovative pedagogies and, more recently, digital innovation. Indeed, digital technologies open up a range of possibilities for flexible and personalised learning. As well as potentially allowing learners to learn anywhere, and to choose between different activities, intelligent online tools can adapt content, pace, and assessment methods to the specific profile of the learner (OECD, 2020[83]; Gordon, 2014[84]; Huang et al., 2020[79]). Personalisation and flexibility as conceptualised here enable the teacher and student to build a stronger relationship, with a deeper understanding of individual complexities. Technology acts as an enabler of this, not a replacement.

What we can learn from relevant policy approaches

► See Table 2.4 for a list of policies considered in this analysis; [] see Chapter 5 for further information.

Most of the pre-crisis policy examples collected by the Education Policy Outlook for this report involve providing learners with flexible learning opportunities or giving them greater control over the pace of learning. These types of efforts seem to be more common in higher education in recent years, where governments have sought to broaden access to online courses. **Ireland**'s innovation and transformation fund rewards higher education institutions that develop flexible learning opportunities and attract new students. **France**'s FUN-MOOC platform brings together some 547 massive open online courses (MOOCs) designed by higher education professionals and institutions. The platform has recorded over 6 million registrations since its launch in 2015. However, data collected by the European Commission indicate that most users were university graduates. In the context of a global recession, it will be important to target flexible learning opportunities at low-skilled workers who will be particularly vulnerable to changes in the labour market (European Commission, 2015[85]).

Developing differentiated pedagogy and individualised support has also been an important dimension of **France**'s lower-secondary school reforms (2016), although previous experiences in this area highlight some of the challenges education systems face in implementing personalised learning. The reforms allow schools to allocate up to three hours per week to different forms of personalised support. This support can be offered to all students regardless of their previous performance. Government guidance places a particular emphasis on developing students' autonomous learning and metacognitive skills (Eduscol, 2020[86]). According to France's National Centre for the Evaluation of the School System (CNESCO), the measures in place to support teachers in implementing differentiated pedagogy will be key to the reform's success (Cnesco, n.d.[87]). A report from 2016 found that previous attempts to promote personalised learning and support in France have had little impact on teachers' pedagogical practices (Toullec-Théry, 2016[88]). The 2016 reforms are more promising in this regard, although the CNESCO highlights the importance of evaluating the impact of these measures carefully (Cnesco, n.d.[87]; Toullec-Théry, 2016[88]).

Indeed, many of the initiatives analysed have focused on structural changes (e.g. in terms of courses offered or platforms used), but changes in pedagogy appear less obvious. Previous research from the Education Policy Outlook in the period following institutional closures in 2020 revealed that more personalised flexible approaches to learning was a key area in which education systems were aiming to shift practices to adjust to the new normal. For example, by September 2020, most education systems analysed were promoting multiple delivery methods, predominantly in-person or online. To encourage greater flexibility, others started adjusting regulatory structures such as curriculum hours or academic calendars, or adapting curriculum planning at system, institution or teacher level. The **Slovak Republic** began piloting a new curriculum framework that gives primary schools greater control over the time allocation for individual subjects and allows them to address curriculum objectives over multi-year cycles, rather than grade levels. This allowed schools to adapt the pace of learning to tackle learning gaps, but also addressed a long-term goal to reduce curriculum overload.

Analysis from the Education Policy Outlook also reveals that the COVID-19 crisis led many education systems to invest in digital platforms that aim to offer more personalised learning opportunities. Education systems such as **Estonia**, **Korea, Latvia**, **Slovenia** and **Turkey** were able to make use of digital platforms that had been launched in the years before the crisis. **Turkey**'s Education Information Network (EBA), launched in 2012, played a central role in ensuring continuity during institutional closures in 2020. The platform uses artificial intelligence to personalise digital content, among other features. Experience in this context shows that aspects such as the quality of the educational content on the platform and the quality and availability of professional development should remain a priority when implementing these measures (OECD, 2020[34]). **Korea** is also developing an integrated online learning platform that brings together digital learning resources for students and teachers with information management systems for schools. It

uses big data and artificial intelligence to support students' self-directed learning. The platform is due to be completed in 2022 (National information provided to the OECD).

Adapting curriculum and pedagogy to individual learners' needs has become a more urgent priority as education systems seek to recover the learning lost during school closures. In the context of the pandemic, 76% have reported implementing remedial measures to reduce learning gaps, in a report published in September 2021 (OECD, 2021[89]). For example, **Slovenia**'s We Explain platform, established during school closures in 2020, enables students to ask questions relating to aspects of the curriculum and get replies from a volunteer, teacher, or fellow student. Learners can also access additional information and online resources to reinforce learning (Mathematics Club, n.d.[90]).

Box 2.4. Example of practice – Offering teachers resources to enhance differentiation (Australia)

The *Australian Professional Standards for Teachers* offer guidance to help teachers deliver differentiated instructional interventions that meet students' distinct needs. For each of the standards there are short videos and resource packages to illustrate what good practice looks like. One example on the theme of individualising student learning shows how a Head of Languages has guided her colleagues in using information and communication technology (ICT) to target the learning needs of different students. Through the guidelines, teachers are also able to access supporting materials relevant to each of four career stages (graduate, proficient, highly accomplished, and lead), to help them grow as professionals.

Who?: Federal authorities in Australia support **teachers (*people*)** to apply pedagogical practices in their classroom that **strengthen differentiated instruction (*purpose*)** through **providing practical resources illustrating good practice (*process*)**. The focus on pedagogy over structural change recognises teachers not as a fixed commodity but as a valuable resource that must be nurtured for continuous improvement and that can respond more nimbly to learners' changing needs.

Sources: Australian Institute for Teaching and School Leadership (AITSL) (n.d.[91]), *Australian Professional Standards for Teachers*, https://www.aitsl.edu.au/teach/standards (accessed on 19 July 2021); Guerriero, S. (2017[92]), *Pedagogical Knowledge and the Changing Nature of the Teaching Profession*, https://doi.org/10.1787/9789264270695-en.

Alongside additional remedial efforts, differentiated instruction will also be important for education systems to recover learning gaps. It is an important aspect of teachers' professional frameworks in several OECD countries and economies, suggesting this was already a key priority in the pre-pandemic context (Guerriero, 2017[92]).

Some policy pointers for resilience

- ***Develop inclusive approaches to learning that build on adaptive pedagogies to cater for individual learners' needs.*** Overcoming the challenge of providing equitable opportunities for all while meeting the needs of individuals involves striking the balance between student-led and teacher-led approaches, individual and collective, or personalised and comprehensive. Relevant measures can be considered along a spectrum of flexibility, with learners often being given greater autonomy in the later education stages. Digital platforms have more clearly emerged as vehicles through which learners can gain greater control over the content and pace of learning and many countries and economies have taken steps in this direction. Regardless of the device used, however, it is important to keep in mind the role of adults (including teachers and parents) in these processes, particularly for education systems where digital platforms, their content and their use are less mature.
- ***Support teachers' greater freedom of practice beyond structural change.*** Providing learners with more choice does not diminish the role of teachers as engineers of student learning, identifying, adapting and applying solutions in response to students' needs. During the pandemic, many governments have sought to give teachers greater flexibility in their practice. However, there is less evidence of measures that promote more personalised pedagogical practices, or for their application in different modes (including digital environments). Capacity building focused on aspects such as

the development, implementation and monitoring of personalised learning plans, collaborative teaching and learning, and the development of students' capacities for agency and autonomy will be key in this regard. This should combine with broader efforts to strengthen differentiated instruction among teachers, which has been a long-standing priority for education systems (Guerriero, 2017[92]).

Table 2.4. Selected education policies and practices on promoting personalised and flexible learning for all

Australia – Professional Standards for Teachers (2011)[10] **Estonia** – E-Schoolbag (2016)[5] **France** – Digital Strategy for Higher Education (2013)[9]; Lower Secondary School Reform (2016)[8] **Ireland** – Innovation and Transformation Fund (2018)[8]	**Latvia** – e-Klasse (2005)[6]; Uzdevumi.lv (2009)[6]; Skola 2030 (2018)[6] **Turkey** – EBA Platform (2012)[7] **Developed in COVID-19 context** **Costa Rica** – Route to Digital Accessibility (2020)[3] **Korea** – K-Edu Integrated Platform (2020 – 2022)13	**Lithuania** – 4k learning model (2020)[1] **Netherlands** – National Education Programme (2020)[12] **Slovak Republic** – Adjusting the primary school curriculum framework and objectives for greater curricular flexibility (2020)[4] **Slovenia** – We Explain platform (2020)[11], Mahara platform[2]

Note: []: See Chapter 5 for more information about this policy.
Sources: [1] OECD (2021[93]), *OECD Skills Strategy Lithuania: Assessment and Recommendations*, https://dx.doi.org/10.1787/14deb088-en; [2] Ministry of Education, Science, and Sport of Slovenia (2020[94]) , *Mahara: Učni stolpič – didaktična priporočila za uporabo orodj [Mahara: Learning column – Recommendations for using the tool]*, https://didakt.um.si/stolpic/Lists/Orodja/Attachments/334/dp_Mahara_v3.pdf (accessed on 8 October 2021); [3] Ministry of Public Education of Costa Rica (2020[95]), *Tecnológico de Costa Rica, Conapdis y MEP se alían para mejorar accesibilidad digital [Tecnológico de Costa Rica, Conapdis and the MEP join forces to improve digital accesibility]*, https://www.mep.go.cr/noticias/tecnologico-costa-rica-conapdis-mep-se-alian-mejorar-accesibilidad-digital (accessed on 1 April 2021); [4] National Institute for Education of Slovak Republic (2020[96]), *Methodological guidance - Framework curricula by cycle of education*, https://www.statpedu.sk/files/sk/svp/pilotne-overovanie/metodicke-usmernenie/metodicke_usmernenie_bez_dodatku.pdf (accessed on 1 April 2021); [5] OECD (2020[55]), *Education Policy Outlook: Estonia*, http://www.oecd.org/education/policy-outlook/country-profile-Estonia-2020.pdf (accessed on 28 October 2021); [6] OECD (2020[32]), *Education Policy Outlook: Latvia*, http://www.oecd.org/education/policy-outlook/country-profile-Latvia-2020.pdf (accessed on 28 October 2021); [7] OECD (2020[34]), *Education Policy Outlook: Turkey*, http://www.oecd.org/education/policy-outlook/country-profile-Turkey-2020.pdf (accessed on 28 October 2021); [8] OECD (2019[35]), *Education Policy Outlook 2019: Working Together to Help Students Achieve their Potential*, https://dx.doi.org/10.1787/2b8ad56e-en; [9] *Ministry of Higher Education, Research and Innovation of France* (2015[97]), *Stragtégie numérique pour l'enseignement supérieur [Digital Strategy For Higher Education], https://www.enseignementsup-recherche.gouv.fr/cid89439/le-numerique-service-une-universite-performante-innovante-ouverte-sur-monde.html#numerique-outil-renovation-pratiques-pedagogiques* (accessed on 1 April 2021); [10] Australian Institute for Teaching and School Leadership (AITSL) (n.d.[91]), *Australian Professional Standards for Teachers*, https://www.aitsl.edu.au/teach/standards (accessed on 19 July 2021); [11] Mathematics Club (n.d.[90]), *Razlagamo Si Lahko Skupaj [We can explain together]*, https://razlagamo.si/ (accessed on 23 July 2021); [12] Ministry of Education, Culture and Science of Netherlands (n.d.[98]), Nationaal Programma Onderwijs *[National Education Programme]*, https://www.nponderwijs.nl/ (accessed on 26 July 2021); [13] National information provided by Korea.

Connecting and strengthening targeted supports for vulnerable learners in the longer term

Why it matters

While personalised learning can go a long a way to meeting individual learners' needs, some will require additional support to achieve their full potential. This is particularly true in a context of rapid change. Learners with specific educational needs, and those facing economic or social disadvantage, will be more vulnerable to external stressors (Ungar, 2011[76]; OECD, 2018[99]). Furthermore, as systems evolve and adapt, non-linear processes of change can result in inconsistencies and inequalities in delivery. Consequently, resilience practices that fail to address equity through redistributive measures that target support and allocate resources – material, professional and financial – flexibly and according to need risk exacerbating vulnerabilities and power imbalances (Matin, Forrester and Ensor, 2018[100]).

At the learner level, equitable approaches help foster resilience by ensuring that students from different backgrounds are equally likely to earn the core skills and post-secondary education credentials that

facilitate labour-market success and help individuals to realise their goals (OECD, 2018[99]). Too often, individual circumstances, over which students have no control, affect the quality of the schooling provided, the educational path students choose, and even the shape of students' dreams (OECD, 2019[101]) all of which may negatively impact resilience (OECD, 2018[102]).

Getting this right not only helps to ensure the system is socially just, but can also contribute to a more efficient use of public resources. By 2010, austerity measures following the financial crisis of 2008 had imposed cuts on educational expenditure in around one-third of OECD countries and economies (OECD, 2013[103]). One increasingly common response was to implement targeted programmes providing funding to institutions or individuals for specific purposes. From 2008-15, while 47% of all policies collected by the Education Policy Outlook adopted a targeted approach, as opposed to comprehensive or content-based, 81% of those specifically related to funding were targeted (OECD, 2015[104]). Yet there are some emerging challenges associated with these approaches: by 2017, some OECD countries and economies experienced overlaps, excessive bureaucracy and long-term sustainability challenges as targeted programmes multiplied over time (OECD, 2017[105]).

As in other policy areas, the COVID-19 experience brings new urgency to these already important challenges of equity and efficiency. The results of the Special Survey suggest that around two-thirds of participating countries and economies reported increasing their education budgets for primary to tertiary education during 2020. For 2021, this share rose to around three-quarters of countries and economies (OECD, 2021[89]). However, even though economic growth is expected to return in 2021-22, education spending, particularly in high-income countries and economies, is also expected to decline in real terms along with overall government spending (World Bank, 2020[106]).

Experiences from the financial crisis of 2008 – where short-term increases in education spending were followed by a period of austerity – point to a need to ensure the sustainability of measures to support those most affected by the pandemic (OECD, 2021[89]). In addition to this, unemployment and decline in household income will reduce the capacity of many families, particularly disadvantaged ones, to invest in education, or may change the way they value education (Biddle, 2021[11]); this may impact participation in ECEC and tertiary education. The decline in international student mobility adds further pressure at tertiary level for many countries and economies (Estermann et al., 2020[107]). Furthermore, as the first analyses of learning loss are reported, national and international estimates point to an exacerbation of pre-existing learning gaps and inequalities (OECD, 2020[19]).

Evidence-informed continuity and comprehensiveness of policy efforts matter. When it comes to nurturing resilient learners, ensuring that sustained targeted supports are available to the most vulnerable learners is crucial for resilience. In particular, these supports need to be multi-layered, since the challenges facing disadvantaged learners are complex. At the same time, there are no quick fixes to the equity challenge: these supports must be sustained throughout a learners' educational journey and across changing government administrations.

What we can learn from relevant policy approaches

► See Table 2.5 for a list of policies considered in this analysis; [] see Chapter 5 for further information.

Particularly in contexts of disruption and change, successful targeted interventions often require a degree of flexibility in design and implementation, allowing actors at the local or school level to develop bottom-up solutions based on a local diagnosis of learners' needs. Similarly, assessment components often play an important role in diagnosing learning needs and monitoring the impact of interventions on student progress. The information gathered through these mechanisms means that strategies can evolve with the needs of individual students and contexts, and that policy makers can make adjustments to system-level approaches over time. Finally, many of these initiatives focus on strengthening relationships with parents and other stakeholders, seeking to enhance and connect the multiple environments in which students learn (OECD, 2020[19]).

This framework identifies some relevant pre-crisis approaches implemented by participating education systems that could be of value in the emerging international context aiming to move towards social and economic recovery. These approaches tackle early intervention, additional or specialised instruction for students with specific needs, promoting inclusive education and allocating additional resources based on students' needs.

Early intervention strategies

Early intervention strategies aim at identifying students at risk of poor learning outcomes as early as possible and taking preventative action. They require both clarity and flexibility to identify, prioritise and act on possible cases, which can be achieved through different means. For example, a key strength identified for **Portugal**'s comprehensive strategy to prevent grade repetition and school failure is the focus on local-level decision making. Schools develop improvement plans based on their learners' needs, working with key partners such as parents and local authorities. Evaluations have shown that these partnerships can promote innovation and efficiency (OECD, 2020[18]; Guerriero, 2017[92]). The plan also aims to examine students' competencies more broadly, making use of new assessment and monitoring instruments.

Providing additional or specialised instruction for students with specific needs

This is a broad area of action that could involve, for example, additional, specialised or even separate provision for Special Education Needs (SEN) students, or students who do not speak the language of instruction at home. **Latvia** has taken several measures to develop the capacity of mainstream schools to meet the needs of students with SEN, including converting its best-performing SEN schools into centres of excellence for inclusive education. As well as providing support to SEN students, these centres provide practical support and professional development for mainstream schools. Latvia has also developed new assessment tools to provide a more objective assessment of learners' diverse needs (OECD, 2018[37]).

In the same way, the **Flemish Community of Belgium** has adjusted its approach to meeting the needs of SEN students in light of emerging evidence. The Guidance Decree (2019) aims to strengthen the capacity of mainstream schools and teachers to meet the needs of SEN students, while accepting special education for some learners ('special education if needed, inclusive education if possible'). It builds on results from an evaluation of a support model implemented in 2017, in which mainstream schools collaborated with special schools, student guidance centres, and parents to provide tailored support for SEN students and their teachers. It also includes measures to support teachers in identifying gifted students and adapting their teaching to their needs (European Agency for Special Needs and Inclusive Education, 2021[108]).

Promoting inclusive education

In the interest of promoting inclusive education, many countries and economies are moving away from separate provision and are seeking to integrate students with a range of specific needs into mainstream education. In a similar vein, some countries and economies have taken measures to increase the participation of under-represented groups at different levels of the education system. Target groups for these policies include students from low-income families and students from minority ethnic and minority-language backgrounds.

For example, in **Slovenia**, several key measures involved working directly with Roma families and communities to increase the participation and success of Roma students in education. Roma assistants support families in communicating with school and kindergarten staff and work with educational institutions to foster Roma children's' performance and social integration. Multi-purpose centres based in Roma settlements work with children and families to strengthen basic skills, but also provide extra-curricular activities to help them better respond to needs emerging from their environments. As well as making progress on the central aim of improving school attendance among Roma students, the strategy has

improved co-operation between teaching professionals and Roma parents (OECD, 2018[37]). Slovenia updated the strategy in 2020, following recommendations from an evaluation of the first phase and, in 2021, as part of amendments to the Norms and Standards for Kindergartens and Schools, the role of Roma assistants was formalised, enabling learning settings to create regular posts.

Allocating additional resources based on student needs

Another approach to reducing the impact of socio-economic disadvantage involves allocating additional resources based on student needs. This commonly involves directing additional financial or human resources to disadvantaged schools or regions.

In **England (United Kingdom)**, the Pupil Premium Programme allocates additional funding to schools for every student who has received free school meals at any point in the last six years, and for current and previously looked-after children. While this funding mechanism enables schools to implement initiatives that fit their specific context, a number of measures are in place to support schools in using the pupil premium effectively. Schools can commission a pupil premium review led by a school leader with experience of improving learning outcomes for disadvantaged students, and the Education Endowment Foundation (EEF) produces evidence on effective interventions, examples of best practices, and resources for schools. This evidence shows that the most successful interventions focus on improving the quality of teaching through teacher professional development. Schools are held accountable for their spending through school inspections, performance tables, and an online statement that explains how they are using the funding (Guerriero, 2017[92]).

In the context of school closures during the COVID-19 pandemic in 2020, several countries and economies were able to adapt existing support mechanisms or put in place additional measures for students in need of special support. **Finland** provided earmarked grants for education providers to implement remedial measures targeted at disadvantaged students, migrant students, students with SEN or those at risk of drop-out. In **Portugal**, upon re-opening, schools together with the respective National Commission for the Promotion of the Rights and Protection of Children and Young People organised students' welcoming and schoolwork processes, through the Multidisciplinary Support Team for Inclusive Education, in order to provide students at risk with greater training, education, well-being and integral development.

Some countries and economies implemented programmes to bridge learning gaps, including during the annual holiday season. **France** strengthened its Devoir Faits initiative, in which students receive homework support during dedicated time at school. Furthermore, some 1 million French school students took part in a 'learning holidays' programme during the summer of 2020. The programme gave students who had fallen behind during lockdown, particularly disadvantaged students, a chance to catch up on learning and to enjoy cultural and sporting activities. **Denmark**'s government established a DKK 200 million grant for local municipalities to implement remedial programmes during the summer holidays in 2020.

Box 2.5. Example of practice – Focusing school staff on disadvantaged learners (Portugal)

School leaders and teachers participating in the Education Territories of Priority Intervention Programme (*Territórios Educativos de Intervenção Prioritária* - TEIP 3, 2012) design and implement multi-year improvement plans based on their specific contexts (i.e. higher-than-average shares of socially disadvantaged populations). The plans focus on three areas: school culture and pedagogical leadership; curriculum management; and partnerships and community. In each of these areas school staff should design specific measures to enhance co-operation among teachers, foster interdisciplinary work to integrate the curriculum and improve the engagement of parents and the community. Teachers and TEIP co-ordinators are responsible for monitoring and evaluating the plans and the central government produces annual reports to evaluate implementation and promote reflection. Thanks to frequent monitoring, successful interventions have been shared among schools and indicators such as school drop-out and student absence have decreased in almost all school levels, according to the last report on the biennium 2019-20. The TEIP is in its third edition and now covers about 16% of Portuguese schools.

Who?: In Portugal, authorities have aimed to support **school staff (*people*)** to focus on **raising outcomes for disadvantaged learners (*purpose*)** through structured and systematic **school improvement planning (*process*)**. The practice highlights that targeting supports towards the most vulnerable does not always require increased financial support but can focus on other resources, such as professional or institutional capacity. The sustained nature of the programme may enable these capacity-building efforts to be re-utilised in the future to build capacity among other professionals through examples of best practice.

Sources: OECD (2020[18]), *Education Policy Outlook: Portugal*, http://www.oecd.org/education/policy-outlook/country-profile-Portugal-2020.pdf (accessed on 28 October 2021); General Direction of Education of Portugal (2019[109]), *Relatório Anual Territórios Educativos de Intervenção Prioritária [Annual Report Education Territories of Priority Intervention]*, https://www.dge.mec.pt/sites/default/files/EPIPSE/relatorio_teip_2019_2020.pdf (accessed on 19 July 2021).

Spain has implemented a wide-ranging education recovery plan, with a particular focus on disadvantaged schools, and vulnerable groups such as SEN students and students from an immigrant background. As part of these measures, teaching assistants and mentors have provided personalised support to students with specific educational needs both inside and outside of school hours. Spain plans these actions with a view to extending or adapting measures beyond 2020/21 (Ministry of Education and Professional Training of Spain, 2021[110]). **Slovenia** has also collected evidence on emergency education and recovery measures at several stages since the outbreak of the pandemic and is using this to inform remedial measures.

Some policy pointers for resilience

- ***Consider the complexity and multidimensionality of challenges facing disadvantaged learners.*** Inequities in education are often deeply entrenched, meaning that policy makers must develop coherent, complementary actions to redress them. As part of these efforts, policy makers need to keep an open perspective on the variety of supports that could be most helpful to students. For example, evidence collected for this framework shows the importance of facilitating additional time to help education staff undertake new actions; many effective strategies involve collaboration within and beyond the education sector and sharing best practices. Local actors also need capacity to develop tailored strategies based on their assessment of student needs (see Chapter 3).
- ***Ensure the continuity of support for disadvantaged students.*** As local and global contexts continuously change, governments are often tempted to change approaches to support disadvantaged learners in tandem. However, evidence of successful policies of this nature shows the importance of policy continuity. Many of the successful strategies collected for this report have been in place for several years and maintained by different government administrations, with goals, inputs and outputs evolving based on emerging evidence. In the same way, the knowledge, structures, and relationships developed in several education systems through these strategies laid the foundation for a pandemic response targeted at those most in need. Moving forward, more recent efforts to support the learners who have been most affected by the pandemic will need to be

considered in terms of how they can be sustained, monitored and enhanced coherently over longer time spans (OECD, 2020[19]). Since financial resources may be scarce in the years to come, it will be even more important to ensure that any new investment or the discontinuation of existing approaches is informed by evidence.

Table 2.5. Selected education policies and practices on supporting students with specific needs

Early intervention		
Colombia – From Zero to Forever (2011)[19] **Greece** – ZEP reception classes for primary and secondary education (2019)[10] **Israel** – Early Childhood Council (2019)[24]	**Portugal** – National Programme to Promote Educational Success (2016)[22] **Slovenia** – CroCooS (2014-17)[22]	**Spain** – The Programme to Reduce Early Drop-out in Education and Training (2014-20)[22] **New Zealand** – Achievement Retention Transitions programme (2013-2017)[22]
Additional or specialised pedagogical support for students with specific needs		
Flemish Community of Belgium – Guidance Decree (2019) (replacing M-decree on Inclusive Education (2014-17)[22] **Latvia** - Tackling early school leaving project (2017-2022)[18] **New Zealand** – Māori-medium education (1980s)[22]	**Developed in COVID-19 context** **Estonia** – Remote support for SEN students (2020)[9] **France** – Extension of 'Devoirs Faits' homework support programme (2020)[16]; Learning Holidays (2020)[16] **Greece** – Remote support for SEN students (2020)[10]	**Lithuania** – Additional help for students with identified learning difficulties: "I will help to teach" (2021)[2] **Spain** – PROA+ (2020)[25] **Turkey** – Mobile application to provide targeted content for SEN students, their families and teachers (2020)[15] **England (United Kingdom)** – National Tutoring Programme (2020)[16]
Promoting inclusive education		
Australia – National Partnership (NP) Agreements on Universal Access to Early Childhood Education (2008-2019)[22]; Higher Education Participation and Partnerships Program (2010)[20]; National Disability Co-ordination Officer Program (2010)[22] **Czech Republic** – Amendment of Education Act (inclusion, 2016)[7] **Estonia** – Integrating Estonia 2020 (2014-2020)[9] **Finland** – National Core Curriculum for Instruction Preparing for Basic Education (2015)[22] **Greece** – Providing refugee and migrant children with access to education (2016)[10]	**Germany** – Building Bridges for Early Education (2017)[22] **Ireland** – Delivering Equality of Opportunity in Schools (DEIS, 2017)[11] **Latvia** – Special needs education development centres (2014-2020)[22]; Revised school funding for SEN students (2016)[22]; Amendment to the Education Law (2018)[12] **Portugal** – National Strategy for the Integration of Roma Communities (2013 – 2020)[22] **Slovenia** – Together for Knowledge – Measures to support the acquisition of knowledge for members of the Roma community (2016-2021)[28]; Placement of Children with Special Needs Act (2013, 2019, 2021)[22]	**Developed in COVID-19 context** **Colombia** – Extension of the programme Learning at home to Learning at Home Knocks on Your Door, to provide Internet access for vulnerable populations (2020)17 **Iceland** – Draft strategy for the education of young people with an immigrant background (2020)6 **Portugal** – Support from Multidisicplinary Support Teams for Inculsive Education (2020)5 **Slovak Republic** – National Project Assisting Professions in the Education of Children (2020)26
Additional material resources for education institutions		
Flemish Community of Belgium – Parliamentary Act for Primary and Secondary Education (2008)[22] **French Community of Belgium** – Instrument for Differentiated Support (2017)[22] **Chile** – Preferential School Subsidy (2008)[22] **France** – Priority Education Plan (2014)[20]; School of Confidence (2017)[22] **Greece** – Education Priority Zones (2010)[10] **Slovak Republic** – Changes to funding allocation for disadvantaged students (2015)[23] **Slovenia** – Allocation of additional funds for professional assistance to immigrant students (2019)[21]	**England (United Kingdom)** – Pupil Premium (2011)[22] **Lithuania** – 'Class basket' funding model to suport equity (2018)[3] **Portugal** – Education Territories of Priority Intervention Programme (2012)[14] **Developed in COVID-19 context** **Czech Republic** – Additional school funding to support SEN students (2020)[7] **Denmark** – Additional funding for summer holiday remedial programmes (2020)[4] **Finland** – Additional funding for remedial measures (2020)[4]	**Japan** – Funding from Human Resources Bank to support school staff with lesson preparation, parental communications and health management according to infection rates in the regions (2020)[16] **Norway** – Funding for voluntary organisations to support immigrant students (2020)[13] Slovak Republic – Summer School (2020)[27] **Wales (United Kingdom)** – Recruitment of additional teachers and teaching assistants to support students who are disadvantaged and vulnerable learners of all ages (2020)[16]

Note: [🌀]: See Chapter 5 for more information about this policy.

Sources: [1] Department of Education, Skills and Employment of Australia (2021[111]), *Higher Education Participation and Partnerships Program (HEPPP)*, https://www.dese.gov.au/heppp (accessed on 1 February 2021); [2] Ministry of Education, Science and Sport of Lithuania (2021[112]), *Sunkumų patiriantiems mokiniams į pagalbą ateis ir savanoriai [Volunteers will also come to the aid of students in difficulty]*, https://www.smm.lt/web/lt/pranesimai_spaudai/naujienos_1/sunkumu-patiriantiems-mokiniams-i-pagalba-ateis-ir-savanoriai (accessed on 28 July 2021); [3] OECD (2021[93]), *OECD Skills Strategy Lithuania: Assessment and Recommendations*, https://dx.doi.org/10.1787/14deb088-en; [4] OECD (OECD, 2021[89]), *The State of School Education: One Year into the COVID Pandemic*, https://doi.org/10.1787/201dde84-en; [5] Directorate-General of School Establishments of Portugal (2020[113]), *Orientações Ano letivo 2020/2021 [Guidelines for the 2020/2021 academic year]*, https://www.dgeste.mec.pt/wp-content/uploads/2020/07/Orientacoes-DGESTE_DGE_DGS-20_21.pdf (accessed on 8 October 2021); [6] Ministry of Education, Science and Culture of Iceland (2020[114]), *Policy Draft: Comprehensive policy on the education of students with a mother tongue other than Icelandic*, https://www.stjornarradid.is/efst-a-baugi/frettir/stok-frett/2020/05/27/Drog-kynnt-ad-heildstaedri-stefnu-um-menntun-nemenda-med-annad-modurmal-en-islensku/ (accessed on 1 March 2021); [7] OECD (2020[28]), *Education Policy Outlook: Czech Republic*, http://www.oecd.org/education/policy-outlook/country-profile-Czech-Republic-2020.pdf (accessed on 28 October 2021); [8] OECD (2020[29]), *Education Policy Outlook: Denmark*, http://www.oecd.org/education/policy-outlook/country-profile-Denmark-2020.pdf (accessed on 28 October 2021); [9] OECD (2020[55]), *Education Policy Outlook: Estonia*, http://www.oecd.org/education/policy-outlook/country-profile-Estonia-2020.pdf (accessed on 28 October 2021); [10] OECD (2020[30]), *Education Policy Outlook: Greece*, http://www.oecd.org/education/policy-outlook/country-profile-Greece-2020.pdf (accessed on 28 October 2021); [11] OECD (2020[31]), *Education Policy Outlook: Ireland,* https://www.oecd.org/education/policy-outlook/country-profile-Ireland-2020.pdf (accessed on 28 October 2021); [12] OECD (2020[32]), *Education Policy Outlook: Latvia*, http://www.oecd.org/education/policy-outlook/country-profile-Latvia-2020.pdf (accessed on 28 October 2021); [13] OECD (2020[33]), *Education Policy Outlook: Norway*, http://www.oecd.org/education/policy-outlook/country-profile-Norway-2020.pdf (accessed on 28 October 2021); [14] OECD (2020[18]), *Education Policy Outlook: Portugal*, http://www.oecd.org/education/policy-outlook/country-profile-Portugal-2020.pdf (accessed on 28 October 2021); [15] OECD (2020[34]), *Education Policy Outlook: Turkey*, http://www.oecd.org/education/policy-outlook/country-profile-Turkey-2020.pdf (accessed on 8 October 2021); [16] OECD (2020[19]), *Lessons for Education from COVID-19: A Policy Maker's Handbook for More Resilient Systems*, https://doi.org/10.1787/0a530888-en; [17] Sanz de Santamaria, M. and F. Reimers (2020[115]), *Colombia: Aprende en Casa (Learning at home)*, Education continuity stories series, https://oecdedutoday.com/wp-content/uploads/2020/06/Colombia-Bogota-Aprende-en-Casa.pdf; [18] Dynamic University (2019[116]), *Evaluation of the European Social Fund Project No 8.3.4.0/16/I/001 "Support for Reducing Early School Leaving"*, http://www.pumpurs.lv/sites/default/files/2020-06/IKVD_Pumpurs_Petijums_GALA_ZINOJUMS_29_06_2020.pdf (accessed on 1 April 2021); [19] Government of Colombia (2019[117]), *From Zero to Forever [De Cero a Siempre]*, http://www.deceroasiempre.gov.co/QuienesSomos/Paginas/QuienesSomos.aspx (accessed on 1 April 2021); [20] OECD (2019[35]), *Education Policy Outlook 2019: Working Together to Help Students Achieve their Potential*, https://dx.doi.org/10.1787/2b8ad56e-en; [21] Ministry of Education, Science and Sport of Slovenia (2018[118]), Program SIMS *[Proposal of programme of work with migrant children in preschool, elementary, and secondary education]*, http://www.medkulturnost.si/program/ (accessed on 8 October 2021); [22] OECD (2018[37]), *Education Policy Outlook 2018: Putting Student Learning at the Centre*, https://dx.doi.org/10.1787/9789264301528-en; [23] Santiago, P. et al. (2016[119]), *OECD Reviews of School Resources: Slovak Republic 2015*, OECD Reviews of School Resources, https://dx.doi.org/10.1787/9789264247567-en; [24] Ministry of Education of Israel (n.d.[120]), *The Early Childhood Council*, https://edu.gov.il/owlHeb/AboutUs/LawsAndPolicy/Pages/early-childhood-council.aspx (accessed on 1 April 2021); [25] Ministry of Education and Professional Training of Spain (n.d.[121]), *PROA+ (20-21)*, https://www.educacionyfp.gob.es/eu/mc/sgctie/cooperacion-territorial/programas-cooperacion/proa/objetivos.html (accessed on 19 July 2021); [26] Ministry of Education, Science and Sport of the Slovak Republic (n.d.[122]), *2 022 pedagogických asistentov/asistentov učiteľa a členov inkluzívnych tímov pomáha deťom a žiakom lepšie zvládnuť pandemickú situáciu [2 022 teachers and members of inclusive teams help children and pupils to better manage the pandemic]*, https://archiv.mpc-edu.sk/sk/2-022-pedagogickych-asistentov-asistentov-ucitela-a-clenov-inkluzivnych-timov-pomaha-detom-a-ziakom (accessed on 23 July 2021); [27] Ministry of Education, Science and Sport of the Slovak Republic (n.d.[123]), *Letná škola 2020 [Summer School 2020]*, https://www.minedu.sk/letna-skola-2020/ (accessed on 23 July 2021); [28] Together for knowledge (n.d.[124]), *Welcome*, http://www.skupajzaznanje.si/ (accessed on 23 July 2021).

Points for the future

Contexts of imbalance mean that environments change, hindering to different extents learners' opportunities to continue their education. This chapter has presented practical and actionable pointers that can help policy makers support learner resilience in the short and medium term. It has elaborated on how policy makers can provide learners with tools that will help them to better cope with these changing contexts, where uncertainty requires a whole new calibration of resources available to help them manage change. These resources need however to adopt a strategic approach, and be envisaged as building blocks that can empower learners to respond to future episodes of change and disruption. These building blocks include, for example, a strengthened sense of autonomy, growth mindset, or critical thinking.

Similarly, the specific supports that education systems will be able to provide today will also underpin these future processes.

The evidence presented in this chapter points to two priority areas that can support this. Firstly, education systems urgently need to develop a whole child approach, with an understanding of how learners" multiple worlds interconnect, but also of how learning processes go beyond cognitive aspects, as they shape societies' future citizens. Secondly, ensuring equity in learning opportunities is an undelayable priority, as learning gaps tend to grow exponentially in contexts of change and disruption.

However, also in more manageable and stable contexts, education systems need to retain lessons that can help education systems develop strength and resilience for the longer term. Education systems can explore alternatives to expose learners to controlled situations of risk and failure as opportunities for learning – rather than obstacles – in combination with these tools.

In the same way, policy makers can take the following questions emerging from the framework for reflection on future and radical steering of their education systems:

- **What if** learners became empowered to learn in their own time and by their rules, rather than in adults' time and by adults' rules?
- **What if** learners became valued and regular co-creators of policies and practices across education systems?
- **What if** developing non-cognitive development became accepted as important as developing cognitive capacities, looking into aspects such as well-being or positive interactions between learners as individuals, as parameters of learning success?
- **What if** students became "learning nomads", expertly navigating virtual or physical settings and developing meaningful connections with a range of educators and other learners, as they take the centre stage in their learning processes?
- **What if** the needs of disadvantaged learners were prioritised over the needs of advantaged learners as a shared educational imperative for future social prosperity?

Such reflection is the first step in building a bridge between the short- and medium-term action explored through this framework, and the larger-scale reimagining required to ensure that, in the long-term, resilient learners become the new status quo.

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3 Strengthening **resilience at the broader learning environment level** through strategic networks and empowered education staff

About this level of resilience: Resilient broader learning environments transcend education institutions to shape a dynamic and collaborative local education network. While institutions remain at the heart of education systems, broader learning environments promote richer and more meaningful learning for all. In so doing, they prioritise people and processes over classrooms and devices, establishing and achieving collaborations that are holistic, deep and long-term. Driving this is a strong sense of leadership, through which institutional actors are empowered to implement policies in their environments in ways that respond to local contexts. This chapter supports policy makers to promote resilience at this level through responsive policy approaches.

Resilience in action

Scenario 2: Broader learning environments

Lucas and Sofia attend seemingly very different educational settings. Sofia goes to a small village primary school with multi-grade classes and old-fashioned desks; Lucas just entered university and spends his time in huge, modern buildings in the middle of a big city. At first glance, the two institutions could not look more different, but look more closely and you will see they have a lot in common: they are both resilient learning environments.

It has not all been plain sailing. Lucas' university is under considerable financial pressure as student numbers are changing. The teachers in Sofia's primary school have had an intense three years implementing major national curriculum changes. Both institutions had to close for an extended period of time last year and move to full-time distance learning.

Yet both institutions are finding ways to learn from these experiences, adapting and improving regardless. They have positioned themselves **at the heart of a dynamic and collaborative local education network,** creating a broad learning environment for their students which goes beyond the institution walls. On any given day, Lucas and Sofia have access to a range of services – quality instruction, healthy food, welfare services, careers advice, extra-curricular clubs, work experience – either on-site or through close links with other organisations and services in the community. The staff know students and their families well, collaborating with them and a range of non-teaching professionals, to provide a co-ordinated approach to Lucas and Sofia's learning.

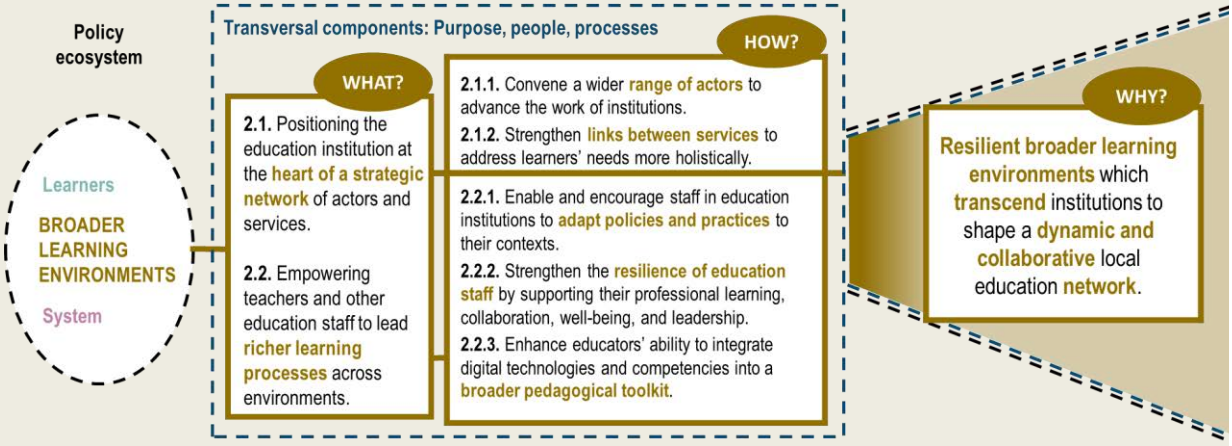
Asked to describe the institutional culture, the staff would say it is one that **values people and processes over classrooms and devices**. Lucas' university has interactive whiteboards, fully-equipped science laboratories and a media centre; Sofia's doesn't even have reliable wi-fi. But disruptions that may impact the physical environment or resources do not divert focus from her school's principal mission: delivering quality learning. Moreover, staff working in both institutions are constantly looking to build or strengthen partnerships with colleagues in other settings or with the private and non-profit sectors to make the most of their expertise, share best practice, enhance provision and improve the resources available to learners.

If you asked the educators in these institutions what they like about their jobs, they would say they get to make a difference, every day. All **staff are empowered to lead rich learning processes** united around a shared vision of ongoing improvement. They are collaborative professionals with the confidence, support and space to innovate and benefit from quality learning opportunities responsive to their professional needs. Their employers value their well-being.

Everyone within the institutions, and those involved in partnerships within the wider network, is focused on translating national systemic vision into reality for the learner and the community. As a result, and by actively reflecting on and sharing their experiences, these institutions have become hotbeds of innovation, drivers of systemic change. But it takes a resilient and responsive system to truly take advantage of that. Find out how in Chapter 4.

Supporting resilience at the broader learning environment level

Infographic 3.1. How policy components of responsiveness can also drive resilience at this level



Position the education institution at the heart of a strategic network of actors and services by:

- ***Convening a wider range of actors to advance the work of institutions***. Policy makers should support education institutions to nurture more holistic, deeper and longer-term partnerships with parents, the community, and employers, among others. In this way, such partnerships can grow from being isolated initiatives to becoming mainstream practices. To protect new partnerships established during the pandemic, policy makers may need to enhance efforts to map ongoing collaboration between education institutions and other relevant local education actors. Developing the capacity of diverse education actors to engage effectively in constructive education processes also matters.
- ***Strengthening links between services to address learners' needs more holistically***. Policy makers should keep in mind the broader role of education institutions as social equalisers, facilitating the access of students and families to extended services (e.g. health, transportation or social and psychological support). Stronger links between these services can help provide learners with the greater stability that will enable them to benefit more fully from education processes at their institution. Policy makers should also seek to clarify roles for accountability purposes and nurture quality relationships for more efficient and enduring collaborations between public services.

Empower teachers and other education staff to lead richer learning processes across environments by:

- ***Enabling and encouraging staff in education institutions to adapt policies and practices to their contexts***. Policy makers should work to ensure that teachers, leaders, support staff, and governance bodies in education institutions retain a sometimes newly gained capacity to adapt practices to their realities. To enable them to benefit from this, policy makers can facilitate the sharing of information on good local practices and their impact on learning. In this way, they can support staff in education institutions to overcome the learning curve, and build evidence to inform future policy processes.
- ***Strengthening the resilience of education staff by supporting their professional learning, collaboration, well-being, and leadership***. Education systems would benefit from policy making that supports education staff to balance change and innovation in teaching with time available and workloads. At the same time, policy makers can nurture instructional leadership as a catalyst of change in order to drive institutional improvement.
- ***Enhancing the educator's ability to integrate digital technologies and competencies into a broader pedagogical toolkit***. Beyond ensuring access to digital devices, policy makers have an important role to play in identifying the different levels of digital ability and application among education staff. Following this, policy makers can work to develop such competencies in ways that progressively enrich the pedagogical practices of educational professionals, in line with national and institutional goals.

Why resilience at the broader learning environment level matters

An individual's resilience can be nurtured by strengthening protective environmental factors, and the social environments they inhabit undoubtedly influence their health and development (OECD, 2021[1]). As environments in which children and young people, such as Sofia and Lucas, spend a substantial share of their time, education settings are therefore optimal contexts for fostering learner resilience (OECD, 2021[1]; Caleon and King, 2020[2]).

But at the same time, education institutions themselves are vulnerable to a variety of shocks and stresses which threaten their capacity to deliver quality education and to which they need to make themselves more resilient. These potential shocks vary but can be organised into four main categories:

- **Disruption to their relationships with themselves—**e.g. change in institutional leadership, change in demands on teachers' and leaders' time and skills, change in staff well-being;
- **Disruption to relationships with others—**e.g. change in partners in the community, change in local institutional networks; change in quality of relationships with stakeholders;
- **Disruption to access to learning resources—**e.g. change in supply and demand for material and human resources, change in capability of technological resources, institutional closure or damage, change in delivery mode;
- **Disruption to education and employment pathways—**e.g. change in curricula or qualifications, change in local employment opportunities, change in attendance and enrolment.

Education institutions can become more responsive and resilient to these various disruptions by capitalising on their position at the interplay between learner and system level. Through analysis of international evidence, this framework identifies two core policy areas for responsiveness and resilience in education at the level of the broader learning environment: 1) Positioning the education institution at the heart of a strategic network of actors and services, and; 2) Empowering education staff to lead richer learning processes across environments.

Examining these core policy areas further, this chapter offers a range of practical advice drawn from international policy experiences to support policy makers to better equip their education systems to navigate disruption and change in the short and medium term. Of course, the transition towards more responsive and resilient education systems will also require long-term efforts that address challenging questions about the future of education. With this in mind, the chapter closes by proposing some key reflections that build on specific components of the framework to help policy makers begin to bridge the gap between short-, medium- and long-term action.

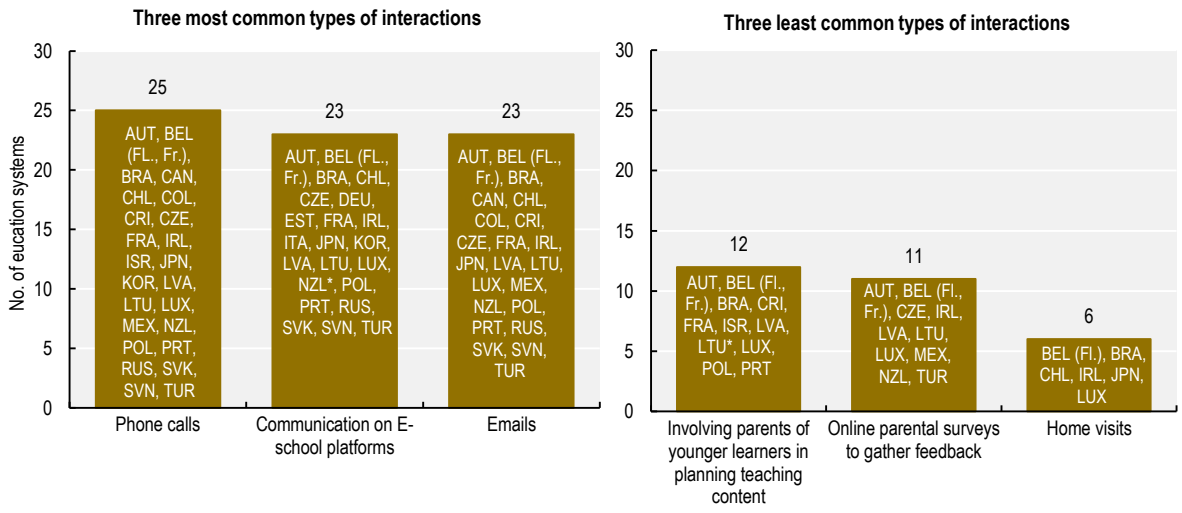
Positioning the education institution at the heart of a strategic network of actors and services

As previously posited by the Education Policy Outlook, at the heart of resilient education systems are people and processes—they are the true protagonists in the journey towards unlocking a learner's full potential (OECD, 2020[3]). Letting them play their role means embracing the relational nature of learning in all its forms, recognising that learners' interactions with their peers, parents, teachers and other professionals matter more in this journey than the tools and spaces through which learning occurs. Indeed, the institutional closures and emergency education measures put in place by governments during the COVID-19 pandemic in 2020 reminded us that learning can occur anywhere and at any time (OECD, 2020[3]) and that the social function of formal schooling must not be neglected.

By the end of 2020, the OECD had identified developing partnerships beyond education institutions as one of four key areas of policy priority in the context of the pandemic in analysis conducted across 43 education

systems. Furthermore, evidence from policies implemented before the pandemic indicates that key characteristics of success in policies to address learning gaps include strong relationships between the different actors involved and a strong connection to the social space of the target student (OECD, 2020[3]). However, although many of the guidelines for school re-opening published by over 30 education systems in 2020 stressed the importance of maintaining clear and regular communication with parents, only some provided specific ideas for facilitating this. Even fewer promoted measures for deeper collaboration (OECD, 2020[3]) and survey data from 2021 corroborates this (see Figure 3.1).

Figure 3.1. Encouraged types of interactions (other than online lessons) in 2020



Note: School education covers responses for primary, lower secondary and upper-secondary (general) education. [*] Countries and economies did not report this type of interaction for upper-secondary (general) education. Only those education systems responding "Yes" are included; certain education systems reported that institutions had autonomy in these types of decisions and that although national authorities issued recommendations and guidelines to schools on the approaches and measures to follow, representative evaluations of what has been done at institutional level were still ongoing at the time of the survey.
Source: OECD/UIS/UNESCO/UNICEF/WB (2021[4]), *Special Survey on COVID Database*, https://www.oecd.org/education/Preliminary-Findings-COVID-Survey-OECD-database.xlsx (accessed on 29 September 2021).

StatLink https://stat.link/m2rl79

Among education systems participating in the Special Survey of 2021, the three most common types of interactions between teachers, students and their parents encouraged by governments during school closures in 2020 focused on maintaining communication. Although phone calls were the most common type of interaction, text-based tools (e.g. E-platforms, emails, messaging services) also dominated, which may foster more information-focused, unidirectional exchanges. Other communication tools encouraging deeper two-way interaction such as video-conferencing and home visits were less common although technological or sanitary restrictions likely inhibited these.

Data from before the pandemic show the pre-existing challenge of nurturing deeper collaboration with external actors or services. In the OECD's Teaching and Learning International Survey (TALIS) 2018, over two-thirds (71.6%) of school principals on average across the OECD considered that their school co-operates "quite a bit" or "a lot" with the community. At the same time, only around half of principals on average in TALIS reported involving parents or guardians "quite a bit" or "a lot" (47.9%). In the OECD's Programme for International Student Assessment (PISA) 2018, around half of 15-year-olds across the

OECD were in schools whose principals reported being in regular consultation with one or more experts (47.1%), or collaborating with local libraries (49.4%).

Convening a wider range of actors to advance the work of institutions

Why it matters

In the years before the pandemic, too often classrooms were referred to as "black boxes", with the perception that little of what happened inside classrooms permeated through their walls. In recent years, trends in education policy have aimed to "open" this box; first, through accountability measures (e.g. implementation of student examinations, measures for teacher appraisal, or school evaluations), and then through efforts to increase trust and collaboration, or to strengthen formative evaluation processes (OECD, 2019[5]). Going even further, education systems need to continue unwrapping the black box by looking beyond a binary delivery of education – home or education institution, online or in-person – to embrace the much wider spectrum of formal, informal and non-formal teaching and learning (OECD, 2020[3]). Strengthening mechanisms for the co-creation of education policies and processes is also necessary in order to meet the needs, passions and hopes of all students more fully.

At the more systemic level, previous evidence collected provides examples of successful partnerships between governments and social partners in policy reform. In the survey "Success in Hard Times", conducted with by the Trade Union Advisory Committee for the Education Policy Outlook 2019, the largest areas of successful collaboration between unions and governments that were reported by union representatives were payment/compensation (52%), and improving teachers' working conditions (48%), but also curriculum (41%) (OECD, 2019[5]). More recent evidence collected by the OECD and Education International in the context of the pandemic shows how important collaboration with social partners has been for the continuity and recovery of education delivery, such as in Denmark, Ireland or Japan (OECD-Education International, 2021[6]).

At the more local level, a wealth of evidence points to the positive impact of parental involvement at preschool or school level on a range of academic, social, and well-being outcomes, particularly for disadvantaged and immigrant students (Epstein et al., 2002[7]; OECD, 2018[8]; OECD, 2014[9]; OECD, 2018[10]). Efforts undertaken during the pandemic may have further helped education systems to move in this direction, with ***parents***, particularly those of younger children, playing a key supporting role during school closures. While this unprecedented situation undoubtedly involved challenges for parents, teachers and education institutions, it was also an opportunity to strengthen the home-school relationship and to build the capacity of parents to support learning at home over the longer term (Winthrop, n.d.[11]).

Through developing learning partnerships with ***local community bodies***, education institutions can also extend the educational offer and the resources available for learning (OECD, 2017[12]). The benefits are multi-directional: schools and other places of learning can act as hubs that connect individuals and families with resources in the local community and beyond. Parent and community volunteers can make a vital contribution to learning and extra-curricular activities (OECD, 2018[8]; OECD, 2014[9]). Institutional and governmental efforts to engage with partners beyond the public sector can also be of great benefit to students. Strategic collaborations ranging from outreach programmes with community groups to opening campus facilities to public and outside users can help develop learner, institution and community resilience. Such collaborative partnerships within, between and beyond educational institutions also foster greater opportunity for continuity of services during moments of disruption and innovation (Burns and Gottschalk, 2019[13]; Williams, 2017[14]; Guerriero, 2020[15]).

No less importantly, connections between educational institutions and ***employers*** can create opportunities for work-based learning, career talks and other activities that support students' transitions to the workplace (Musset and Mytna Kurekova, 2018[16]; Inter-Agency Working Group on Work-Based Learning, 2019[17]). They can also help better engage students in their education. Strategies to prevent school failure and

grade repetition and to address learning gaps can be more successful when adopting a holistic approach through collaboration between different levels of the education system, different services supporting students at risk and also, importantly, local employers (OECD, 2014[9]; OECD, 2018[18]; OECD, 2020[3]).

What we can learn from relevant policy approaches

► See Table 3.1 for a list of policies considered in this analysis; [] see Chapter 5 for further information.

In the short term, resilient and responsive learning environments can be fostered by pro-actively calling upon the support of stakeholders – parents, community actors and employers – to help facilitate learning in different contexts, including in times of crisis. Over the medium term, policy makers can establish the conditions for more effective collaboration among these different actors by working to remove barriers to participation in the life of education institutions, and to equip teachers and education institutions with the skills and tools they need to engage and work effectively with a range of partners. This section identifies specific policy efforts in terms of engagement with parents, communities and employers.

Parental engagement

As outlined above, while many education systems focused on promoting communication between educators and parents during school closures, deeper engagement efforts were less common. Yet strong collaborative relationships with parents are critical in building resilient and responsive learning environments around students. In the future, education systems seeking to strengthen resilience could learn from existing international initiatives that offer more formalised approaches to parental engagement or that actively involve parents in planning and provision in crisis or non-crisis contexts.

As part of these efforts, governments should not underestimate the importance of strengthening the capacities of teachers, parents and other actors to help them develop this bridge between home and school. For example, **Australia** has established a national parental engagement network, appointed and supported local parental engagement champions, and examined evidence of policy and programme effectiveness to develop common approaches to practice, measurement and evaluation. Based on this research, a report from the Australian Parent Engagement Network highlights the importance of building capacity at the local level and recommends incorporating parental engagement as a component in initial teacher training and continuing professional development. It also recommends building on existing approaches to benchmarking and evaluating practice within nationally consistent frameworks in order to embed a culture of evidence-based practice (The Australian Research Alliance for Children and Youth, 2017[19]). To help parents, **Ireland**'s strategy to combat educational disadvantage includes family literacy initiatives and a home-school-community liaison scheme which aims to improve the outcomes of young people by empowering an adult in their lives (OECD, 2018[20]) (see also Table 2.5 in Chapter 2).

When education institutions closed in 2020, many education systems built on existing practices to support parents and carers in providing education in their homes. **Estonia** gathered feedback from parents and other stakeholders to inform future emergency education measures. **Colombia** also sought to strengthen the home-school relationship in the wake of the pandemic by providing schools with guidelines and resources and by launching a series of online conferences for education professionals and families. In the same way, the **Brazilian state of Maranhão** collaborated with a non-profit organisation to distribute video, photo and audio content with simple suggestions on how to turn household tasks into learning opportunities, without the need for extra resources. The strategy achieved wide coverage among hard-to-reach families by using existing school WhatsApp groups, and enlisting the support of municipal social assistance departments. In **Slovenia**, guidelines produced by the National Education Institute for the start of the 2020/21 recommended that schools organise remote consultations with parents to keep them informed of their child's progress (Ministry of Education, Science and Sport of Slovenia, 2020[21]).

Community engagement

Community engagement is another building block of resilience for education institutions. Well before the COVID-19 pandemic, education institutions often already collaborated with partners in the private or voluntary sectors to provide different types of services. For example, collaboration within and between local networks has been identified as key to the success of an initiative in **Germany**, which offers extra-curricular and cultural activities to students from disadvantaged backgrounds between the ages of 3 and 18. As well as providing activities that support the resilience of disadvantaged students, the initiative supports the development of new partnerships at the local level. An evaluation from 2019 found that these networks benefited from the expertise of a broad range of actors, including schools, youth clubs, and cultural institutions, and contributed to the goal of building permanent networks of support for disadvantaged children (Federal Ministry of Education and Research of Germany, 2019[22]). Furthermore, a scheme in **Japan** brings local residents into schools to deliver extra-curricular activities. This has allowed teachers to focus on pedagogical activities while maintaining Japan's established tradition of holistic education.

In the context of the pandemic, community engagement often became a lifeline for ensuring education continuity and providing essential services for learners and their families. For example, in the **Czech Republic**, locally recruited volunteers, such as higher education students, offered support to families of children with particularly challenging needs in aspects related to public health or tutoring. The government also collaborated with the O2 Foundation to launch an online learning portal for schools (OECD, 2020[23]).

Indeed, to a greater extent than before, these collaborations included partnerships with telecommunications and other private sector companies to improve access to remote learning, collaboration with other national public services such as the postal network and engagement with the EdTech sector to collect feedback on student, parent and teacher experiences of remote learning (OECD, 2020[24]). Some 60% of the education systems involved in the Special Survey established agreements with mobile communications operators or Internet firms to remove accessibility barriers to participation in distance learning (OECD/UIS/UNESCO/UNICEF/WB, 2021[4]). In countries and economies, such as **Chile**, **Greece**, **Slovenia** or **Turkey**, Internet providers and telecommunications companies worked with governments to provide learners with free data or access to online learning materials.

Looking towards the post-COVID recovery period, and foster resilience in the short term, education institutions and other places of learning could mobilise partnerships with community actors to reinforce mechanisms for learner and institutional resilience, such as to address learning gaps (e.g. homework assistance and peer-to-peer tutoring). Such efforts could also help strengthen resilience at learner level (see Chapter 2) (OECD, 2020[25]).

Longer-term employer engagement

There is much evidence pointing to the central importance of employer engagement. To be truly effective, employer engagement should be promoted as part of longer-term, holistic partnerships. Indeed, the capacity of partnerships to provide more holistic support has been found as key for the success of some initiatives, even when focusing on specific objectives. In the Youth Guarantee scheme (2013), the European Union's initiative to enhance youth transitions to the labour market in the wake of the financial crisis in 2008, broad local partnerships have enabled holistic approaches that effectively support students. Their stability over time has helped establish the level of trust required for knowledge sharing and smooth transitions of students from education to training. By their nature, these approaches are only possible through the alignment and co-ordination of education institutions, employers, and public employment services, among others (OECD, 2014[26]).

While it is relatively common for countries and economies to involve employers in the design and implementation of vocational education and training (VET) programmes at the system level, some

countries and economies have gone even further, seeking to develop the relationship between employers and individual institutions. VET reforms in the **Czech Republic** place a formal requirement on schools to co-operate with employers in curriculum design, practical training, final assessment and teacher development. As part of the implementation of its upper-secondary school reform, states across **Brazil** have developed plans identifying potential partners for the delivery of vocational and general education programmes, such as regional employers. This kind of mapping exercise can help identify partnerships and other resources at the local or regional level.

In the same way, recent VET reforms in the **Slovak Republic** have focused on strengthening the capacity of teachers, instructors, and other VET staff to collaborate with employers. For example, to incentivise and strengthen collaboration between VET schools and employers as part of its dual vocational training model, measures taken include, in 2018, reducing some of the financial disincentives and administrative burdens placed on schools and companies. The Slovak Republic has also unified its curricula for dual and non-dual training, giving employers greater influence over the content of vocational training (national information provided to the Education Policy Outlook).

Also related to VET, one of the key strengths found in **Spain**'s dual vocational training model, introduced in 2012, has been that it promotes the exchange of knowledge between employers and educational institutions (JP Morgan Chase & Co., 2016[27]). Employers and entrepreneurs work collaboratively with VET providers to design and implement the curriculum. For the companies involved, this collaboration has the benefit of delivering training better suited to their needs. At the same time, an evaluation from 2016 highlights the challenges VET providers face in establishing partnerships with small and medium enterprises, which may not have the capacity to support dual training. It recommends working through the supply chain of large companies to reach smaller ones, or working with trade associations or intermediary organisations (JP Morgan Chase & Co., 2016[27]).

Box 3.1. Example of Practice – Incentivising VET teacher-employer collaboration (Slovak Republic)

The Slovak Republic has introduced several measures to facilitate school-company collaboration in VET. Since 2018, teachers working as educational counsellors in dual education have been given dedicated time to collaborate with employers. The government also created the position of 'head instructor', based in companies, to improve instructors' performance and support their collaboration with schools. Some of these positions have been filled by staff recruiting directly from schools themselves. Training for instructors is informed by recommendations from employer organisations and draws on successful practices in countries and economies with long-established dual education programmes, such as Austria, Germany, and Switzerland. Finally, cuts to funding for VET schools made after companies took over some of the training costs were reversed in 2018 as it was recognised that collaboration with companies incurred new resource costs (both temporal and financial) to schools. Several of these efforts were inspired by partnerships developed on the initiative of teachers and instructors in the automotive industry.

Who?: **VET teachers and trainers (*people*)** are incentivised to **collaborate with employers (*purpose*)** through the **provision of extra resources (*process*)**. These resources have been financial, temporal and human and have helped develop greater capacity for collaboration. However, the example also illustrates the challenge and importance of accurately estimating the resource costs of collaboration – many of which may be hidden – to the actors involved. This example also shows that promising innovations by local actors, when identified, can inspire top-down reforms at scale.

Sources: Vantuch, J. and D. Jelinkova (2019[28]), *Vocational Education and Training in Europe: Slovakia*, http://libserver.cedefop.europa.eu/vetelib/2019/Vocational_Education_Training_Europe_Slovakia_2018_Cedefop_ReferNet.pdf (accessed on 27 July 2021); Ministry of Education of the Slovak Republic (2017[29]), *Duálne vzdelávanie sa opäť posúva o krok vpred [Dual education is once again taking a step forward]*, https://www.minedu.sk/dualne-vzdelavanie-sa-opat-posuva-o-krok-vpred/ (accessed on 20 July 2021).

Some policy pointers for resilience

- ***Nurture more holistic, longer-term and deeper collaborations between education actors.*** A wide array of education actors – parents, the community or employers – can support education institutions and students. In the medium term, policy makers need to tap into this potential for collaboration. Evidence shows that these relationships will be most fruitful when they are more holistic and nurtured among a wider range of actors over time. In this way, partners can develop greater trust and identify new, more meaningful, opportunities for collaboration that can eventually grow from isolated initiatives into mainstream practices.
- ***Map ongoing collaboration between education institutions and other relevant local actors to protect newly established partnerships.*** In many education systems, the pandemic has triggered significant changes in the way education institutions interact with parents, the local community, employers, and other local partners. In the short-term, mapping all of the local resources and partnerships that education institutions can draw on, taking stock of the capacities and dispositions available and required is an essential component of preparing for future disruptions and can contribute to further strategic improvement (Pigozzi, 1999[30]). This initial step allows education systems to take stock of emerging practices that may be worth protecting and encouraging. Later on, and combined with monitoring efforts, it can also help to ensure that initial measures put in place in the context of the pandemic evolve to meet the changing needs of families and communities.
- ***Develop the capacity of different actors to engage effectively in productive education processes.*** Education actors need the skills, tools, and space to make the most of these partnerships. Over the medium term, this involves ensuring that teaching professionals are adequately prepared and supported to collaborate, and that they make use of practices that have been shown to be effective. Similarly, developing the capacity of parents to support their child's learning at home will be more important in contexts of student disadvantage (Pigozzi, 1999[30]).

Table 3.1. Selected education policies and practices on promoting schools' engagement with different actors

Australia – Policies to promote parental engagement (2014-2019)[12] **Brazil** – Upper-Secondary School Reform (2017-2022)[2] **Colombia** – From Zero to Forever (2011)[15] **Czech Republic** – VET Reforms (2016-2019)[6] **Estonia** – Stakeholder satisfaction surveys (2018)[7] **Germany** – Culture is Strength - Education Alliances (2013)[17] **Iceland** – Education Policy 2030[10]	**Japan** – Project for Promoting Community Co-operation Activities for Learning and Education (2013)[14], Third Basic Plan for the Promotion of Education (2018-2022)[13] **Spain** – Dual Vocational Training Model (2012)[14] **Slovak Republic** – VET reforms (2015, 2018)[16] **Developed in COVID-19 context** **Brazil** – Electronic Equipment Reconditioning Program (2020)[2]; Learning Inside and Outside of School (2020)[11] **Chile** – Agreement wih Associaion of Mobile Telephony Companies (2020)[1]	**Colombia** – The Family-School Alliance (2020)[18] **Czech Republic** – Local volunteer scheme, Prague (2020)[6]; MUNI Helps (2020) [19], Online portal for schools (2020)[6] **Estonia** – Stakeholder feedback on emergency education measures (2020)[7] **Greece** – Private sector partnerships (2020)[8] **Mexico** – Learning at Home (2020)[3] **Slovenia** – Education in Slovenia in the Context of Covid-19[5] **Turkey** – Agreements with Internet providers (2020)[9]

Note: [] See Chapter 5 for more information about this policy.
Sources: [1] Ministry of Education of Chile (2021[31]), *"Aprendo en Línea" del Mineduc mantendrá su acceso gratuito desde dispositivos móviles ["Learning online" from Mineduc will maintain free access via mobile devices]*, https://www.mineduc.cl/aprendo-en-linea-mantendra-acceso-gratuito-desde-dispositivos-moviles/ (accessed on 20 July 2021); [1] OECD (2021[32]), *Education Policy Outlook: Brazil,* https://www.oecd.org/education/policy-outlook/country-profile-Brazil-2021-EN.pdf (accessed on 28 October 2021); [3] Florencia Ripani, M. and A. Zucchetti (2020[33]), *Mexico: Aprende en Casa (Learning at home)*, https://oecdedutoday.com/wp-content/uploads/2020/07/Mexico-Aprende-en-casa.pdf (accessed on 28 October 2021); [4] Government of Spain (2020[34]), *Convenio para la ejecución del programa 'Educa en Digital' [Resolution on the implementation of the Digital Education Programme],* https://www.boe.es/diario_boe/txt.php?id=BOE-A-2020-7682 (accessed on 1 April 2021); [5] Ministry of Education, Science and Sport of Slovenia (2020[21]), *Vzgoja in izobraževanje v Republiki Sloveniji v razmerah,*

povezanih s covid-19 [Education in the Republic of Slovenia in the context of Covid-19], https://www.zrss.si/digitalnaknjiznica/Covid_19/ (accessed on 20 July 2021); [6] OECD (2020[23]), *Education Policy Outlook: Czech Republic*, http://www.oecd.org/education/policy-outlook/country-profile-Czech-Republic-2020.pdf (accessed on 28 October 2021); [7] OECD (2020[35]), *Education Policy Outlook: Estonia*, http://www.oecd.org/education/policy-outlook/country-profile-Estonia-2020.pdf (accessed on 28 October 2021); [8] OECD (2020[36]), *Education Policy Outlook: Greece*, https://www.oecd.org/education/policy-outlook/country-profile-Greece-2020.pdf (accessed on 28 October 2021); [9] OECD (2020[37]), *Education Policy Outlook: Turkey*, http://www.oecd.org/education/policy-outlook/country-profile-Turkey-2020.pdf (accessed on 28 October 2021); [10] OECD (2021[38]) "Iceland Education Policy 2030 and its implementation", https://doi.org/10.1787/6e9d2811-en; [11] Paulet Piedra, N. and F. Reimers (2020[39]), *Brazil: Educação Infantil no Maranhão [Early Learning in Maranhão]*, https://oecdedutoday.com/wp-content/uploads/2020/05/Brazil-Educacao-Infantil-no-Maranhao.pdf (accessed on 1 April 2021); [12] OECD (2019[5]), *Education Policy Outlook 2019: Working Together to Help Students Achieve their Potential*, https://dx.doi.org/10.1787/2b8ad56e-en; [13] Ministry of Education, Culture, Sports, Science and Technology of Japan (2018[40]), *The Third Basic Plan for the Promotion of Education,* https://www.mext.go.jp/en/policy/education/lawandplan/title01/detail01/1373799.html (accessed on 1 April 2021); [14] OECD (2018[20]), *Education Policy Outlook 2018: Putting Student Learning at the Centre*, https://dx.doi.org/10.1787/9789264301528-en; [15] OECD (2016[41]), *Education in Colombia*, Reviews of National Policies for Education, https://dx.doi.org/10.1787/9789264250604-en; [16] OECD (2015[42]), *Education Policy Outlook: Slovak Republic*, https://www.oecd.org/education/Slovak-republic-Country-Profile.pdf (accessed on 28 October 2021); [17] Federal Ministry for Education and Research of Germany (n.d.[43]), *"Kultur Macht Stark" Trotzt Corona ["Culture is Strength" defies Corona]*, https://www.buendnisse-fuer-bildung.de/index.html (accessed on 1 April 2021); [18] Ministry of National Education of Colombia (n.d.[44]), *Orientaciones técnicas: Alianza Familia - Escuela por el desarrollo integral de niñas, niños y adolescentes [Technical guidelines: Family - School Alliance - for the integral development of children and adolescents]*, http://aprende.colombiaaprende.edu.co/ckfinder/userfiles/files/Orientaciones%20T%C3%A9cnicas%20Alianza%20Familia-%20Escuela%20por%20el%20desarrollo%20integral%20de%20ni%C3%B1as%2C%20ni%C3%B1os%20y%20adolescencia.pdf (accessed on 1 April 2021); [19] MUNI helps (n.d.[45]) *MUNI helps*, https://munipomaha.cz/en (accessed on 26 July 2021).

Strengthening links between services to address learners' needs more holistically

Why it matters

In times of change and crisis, the resilience of individuals and communities depends on their capacity to continue accessing the services that sustain their well-being (Ungar, 2011[46]). The interaction, collaboration and self-synchronisation between individuals and entities that needs to take place to make this possible are key components of resilience thinking (Linkov, Trump and Hynes, 2019[47]). Such approaches have previously been at the heart of crisis responses in education.

Establishing communication between different youth and public services, and locating different services in one access point, plays an important role in helping individuals and communities adjust to adverse circumstances (Ungar, 2011[46]). In this sense, building these extended services around schools and other places of learning also leaves these institutions better placed to adapt to the needs of students, families, and communities during situations of change. Particularly in difficult environments, this more centralised service delivery can mitigate social exclusion by reducing the costs to students and families of accessing these services (OECD, 2021[38]).

Education research and policy evaluations highlight the importance of professional collaboration in strengthening links between different services. While co-ordination often refers to the institutional links between different public services and agencies, the success of these links often depends on the quality of the relationships between the different professionals that support learners and families (Kochhar-Bryant and Heishman, 2012[48]). Since bringing together different services will often involve establishing new working relationships, it is important to allow time for these relationships to develop (Kochhar-Bryant and Heishman, 2012[48]; Collective Wisdom Decisions, 2012[49]). This evidence also points to the need for a degree of shared responsibility for outcomes, but also a clear division of responsibility for different actions.

What we can learn from relevant policy approaches

► See Table 3.2 for a list of policies considered in this analysis; [] see Chapter 5 for further information.

In recent years, many countries and economies have taken measures to promote different forms of inter-agency collaboration and to co-ordinate the provision of services in a single access point. This report identifies two main approaches followed by countries and economies. The first approach operates through institutional arrangements and governance structures that bring together actors from the education sector with actors from other key youth sectors to work on common goals or strategies. This approach forms the basis of early childhood strategies in countries and economies such as Brazil, Israel, and Ireland. The second approach operates more at the institutional level, bringing specialists or services from outside the education system into schools and other places of learning as in the Canadian province of Nova Scotia, Chile and Finland. Both these approaches take a holistic view of the complex needs of learners and communities and aim to meet these needs more comprehensively. As such, their success depends on local knowledge as well as national co-ordination.

For the *first approach*, Brazil and Israel have some interesting examples at early childhood education level. **Brazil** has introduced a legal framework for designing and implementing early childhood policies through inter-sectoral collaboration, involving public and civil society actors in the provision of services. The framework identifies priority areas for early childhood policy and introduces mechanisms to articulate actions within these sectors. The federal government, and several state and municipal governments, have since implemented inter-sectoral initiatives for early childhood, some of which integrate up to 15 sectors. This had led to greater synergy, efficiency, and comprehensiveness of care for children aged 0-6. At the same time, integrated approaches to data collection and management have been less prevalent in these initiatives, and Brazil has yet to fully realise the potential of integrated funding mechanisms (OECD, 2021[32]). In a similar vein, **Israel** established an Early Childhood Council with the aim of promoting co-ordination and collaboration between the different bodies that provide early childhood services, and identifying gaps in provision. The Council is chaired by the Minister of Education and includes representatives from health, finance, justice, and welfare and social services, as well as experts and practitioners from the early childhood sector.

For the *second approach*, Chile, Israel, Canada or Finland offer other useful approaches for bringing together different services within an education institution. **Chile**'s National Board of School Aid and Scholarships (JUNAEB) offers a wide range of scholarships and programmes that support disadvantaged students to participate and succeed in education, in collaboration with outside agencies. Many of these services are accessed through schools. JUNAEB also runs school holiday programmes and health education for students in disadvantaged schools and offers free meals and food subsidies for learners in early childhood education and care (ECEC) through to adult and higher education. The OECD has found that the various programmes have contributed to an increase in student enrolment and attendance over the last two decades (OECD, 2017[50]).

As well as providing interventions for students, a dedicated unit within **Israel**'s Ministry of Education supports education teams in schools and tertiary institutions. The focus is on developing the capacity of local actors to respond to crises and their consequences through training and support. As part of its activities, the unit trains staff in education institutions in the Masha model, an evidence-informed framework for providing emotional first aid. The model is based around four key activities: a 'commitment' on the part of the educator to support the student in need; a 'doing' phase where the educator encourages the student to carry out specific tasks related to the crisis; cognitive questioning to help the student move from an overwhelming emotional state to a functional state, and a phase where the student constructs a story of the event with support from the educator. As part of the training from the emergency team, the educator learns the principles of the model and tests ways of implementing in a crisis. Among the key strengths of

the MASHA model are its simplicity – making it accessible to all members of the institution – and the speed at which support is delivered in the event of a crisis (National information provided to the OECD).

Another initiative already with some trajectory is **Nova Scotia (Canada)**'s SchoolsPlus model, which places the school at the centre of a range of integrated services that support the well-being of young people, families, and communities. SchoolsPlus facilitators and community outreach workers act as a link between schools and communities, help families navigate the services available in the local area, and highlight gaps in provision. Evaluations have found that the strategy has increased collaboration between government departments and improved the co-ordination of public services such as justice, education, community services, and health. Service providers reported that it has given them better access to schools and young people, and that the co-ordination of services has benefited children and families with complex needs that were not previously being met (Collective Wisdom Decisions, 2012[49]). However, evaluations also highlight some of the challenges of ensuring accountability in co-ordinated or collaborative service provision. If accountability is shared too widely, there is a danger that no single agency or professional feels responsible for outcomes, yet placing responsibility on one sole entity could be an obstacle to collaboration (Collective Wisdom Decisions, 2012[49]). This points to the need to establish clear roles for all parties. More recent developments to the model in 2020 include the establishment of a provincial-level leadership team and new positions at the regional level to liaise with health, justice and community services. Through this collaboration, Nova Scotia aims to develop governance structures and policies for integrated services in education.

Box 3.2. Example of Practice – Making local authorities responsible for convening different actors (Japan)

Local authorities can receive support to create a community where every child grows up healthy through Japan's Healthy Parents and Children 21 (2001) plan, which is a sub-programme of the Health Japan 21 (1999) national plan. Using a framework for action focused on key national goals and concrete targets, local authorities develop their own health promotion plans to be implemented in the community and customised according to local needs. Following evaluations of phase one, the second phase (2015-24) has made "creating a community that watches over and nurtures the healthy growth of children" a priority for action among local authorities. This requires them to ensure efforts are not limited to public sector actors but that they co-operate with relevant non-governmental and private organisations in their local area as well. Initiatives vary, but one common practice has been the establishment of one-stop support centres, often run by local volunteers, connecting the various providers of children's health within one space. Similar aims are articulated in the second phase (2013-22) of Health Japan 21 for which progress indicators include the number of corporations, civilian organisations and prefectures that have put in place health-promoting measures, and volunteer participation in health promotion. High-quality practices are rewarded and shared via a national website. The OECD has noted that the inclusion of measurable outcomes is important to evaluate the strategy, both locally and nationally, but that local authorities would be well-served by a prioritisation of outcomes and that those local authorities with lower capacity or resources should receive more targeted support.

Who?: **Local authorities (*people*)** are held accountable for **bringing together various actors engaged in children's health (*purpose*)** through a **combination of national frameworks, measurable goals and local planning (*process*)**. These efforts provide an example of the role of local authorities as conveners of a wide spectrum of community actors, holding them accountable to communities while also incentivising good practice.

Sources: Ministry of Health, Labour and Welfare of Japan (n.d.[51]), *Healthy Parents and Children 21*, https://sukoyaka21.jp/healthy-parents-and-children-21 (accessed on 20 July 2021). OECD (2019[52]), *OECD Reviews of Public Health: Japan: A Healthier Tomorrow*, OECD Reviews of Public Health, https://dx.doi.org/10.1787/9789264311602-en; Osawa et al. (2019[53]) *National campaign to Promote Maternal and Child Health in 21st Century Japan: Healthy Parents and Children 21*, National Institute of Public Health, Vol.68, No.1, https://www.niph.go.jp/journal/data/68-1/201968010002.pdf.

Collegial support matters as well for the success of this type of initiative, as can be testified by **Finland**'s Student Welfare Act. This initiative seeks to guarantee all students access to well-being services such as psychologists, social workers, and healthcare. It also seeks to shift the focus from responding to the well-being problems of individual students to promoting the well-being of all students, emphasising collaboration between professionals, and with students' families. Finland has experienced challenges in ensuring the availability of psychologists and other well-being services in different parts of the country (Skantz, 2018[54]). Interviews in an evaluation study suggest that psychologists may be reluctant to apply for posts where there is only one job advertised, due to concerns about collegial support. This is an important reminder that support specialists, like teachers, benefit from the exchange of ideas in communities of practice relevant to their field. Confidentiality procedures were another challenge identified, which must strike a delicate balance between protecting sensitive information and providing access to information that facilitates collaboration. High staff turnover can also be a barrier to effective information sharing (Summanen, Rumpu and Huhtanen, 2018[55]).

Some policy pointers for resilience

- ***Remain aware of the key broader role that education institutions play as social equalisers, facilitating the access of students and families to different public resources.*** Education institutions will continue to be stretched by multiple demands in the post-pandemic context. The period of economic recovery will bring about new challenges for learners, families, and communities. Over the medium term, governments can support them by breaking down silos between the different public services that support their well-being and by identifying and bridging gaps in provision. Local actors in education institutions could also more easily identify these synergies, based on their unique perspective on the needs of the learners and communities they serve. Since the provision of extended services or the management of partnerships that make them possible can have implications for the staffing, funding, and infrastructure of education institutions, resources to support these activities, particularly in challenging times, need consideration.
- ***Clarify roles and nurture quality relationships for a more efficient extended collaboration of public services.*** As people are at the heart of these processes, quality relationships among professionals matter to achieve better outcomes. Implementation plans need to take account of the time it takes for these collaborative relationships to develop, and to provide spaces, incentives and opportunities for this. The professionals that support individual learners or families may move on to other roles or locations. Strategies should hence be designed to ensure that key information stays within the institution, and reaches the right actors (see Chapter 4). Similarly, accountability systems that both facilitate and encourage collaboration between professionals and services must be part of the process. Shared responsibility, but also clarity of roles and overarching objectives, as well as opportunities for collegial support, can bring more benefits to all parties involved in the longer term.

Table 3.2. Selected education policies and practices on extended provision and collaboration between public services

Brazil – Legal Framework for Early Childhood (2016)[1] **Nova Scotia (Canada)** – SchoolsPlus Programme (2008)[5] **Chile** – JUNAEB, Skills for Life (2008)[6] **Finland** – Student Welfare Act (2013)[3]	**Ireland** – First 5, the Whole-of-Government Strategy for Babies, Young Children and their Families (2018) [5] **Israel** – Early Childhood Council (2019)[7]; Unit for coping with crisis, emergency and suicide situations (2003)[2]	**Japan** – Parents and Children 21 (2015-2024)[2] **Developed in COVID-19 context** **Colombia** – Family-School Alliance Strategy (2020)[8]

Note: [] See Chapter 5 for more information about this policy.
Sources: [1] OECD (2021[32]), *Education Policy Outlook: Brazil,* https://www.oecd.org/education/policy-outlook/country-profile-Brazil-2021-EN.pdf (accessed on 28 October 2021); [2] Burns, T. and F. Gottschalk (eds.) (2020[56]), *Education in the Digital Age: Healthy and Happy Children*, Educational Research and Innovation, https://dx.doi.org/10.1787/1209166a-en; [3] OECD (2020[57]), *Education Policy Outlook: Finland*, http://www.oecd.org/education/policy-outlook/country-profile-Finland-2020.pdf (accessed on 28 October 2021); [5] OECD (2019[5]) *Education Policy Outlook 2019: Working Together to Help Students Achieve their Potential*, https://dx.doi.org/10.1787/2b8ad56e-en; [6] OECD (2017[50]), *Education in Chile*, Reviews of National Policies for Education, https://doi.org/10.1787/9789264284425-en; [7] Ministry of Education of Israel (n.d.[58]), *The Early Childhood Council*, https://edu.gov.il/owlHeb/AboutUs/LawsAndPolicy/Pages/early-childhood-council.aspx (accessed on 1 April 2021); [8] Ministry of National Education of Colombia (n.d.[44]), *Orientaciones técnicas: Alianza Familia - Escuela por el desarrollo integral de niñas, niños y adolescentes [Technical guidelines: Family - School Alliance - for the integral development of children and adolescents]*, http://aprende.colombiaaprende.edu.co/ckfinder/userfiles/files/Orientaciones%20T%C3%A9cnicas%20Alianza%20Familia-%20Escuela%20por%20el%20desarrollo%20integral%20de%20ni%C3%B1as%2C%20ni%C3%B1os%20y%20adolescencia.pdf (accessed on 1 April 2021); [9] National information provided to the OECD (2021).

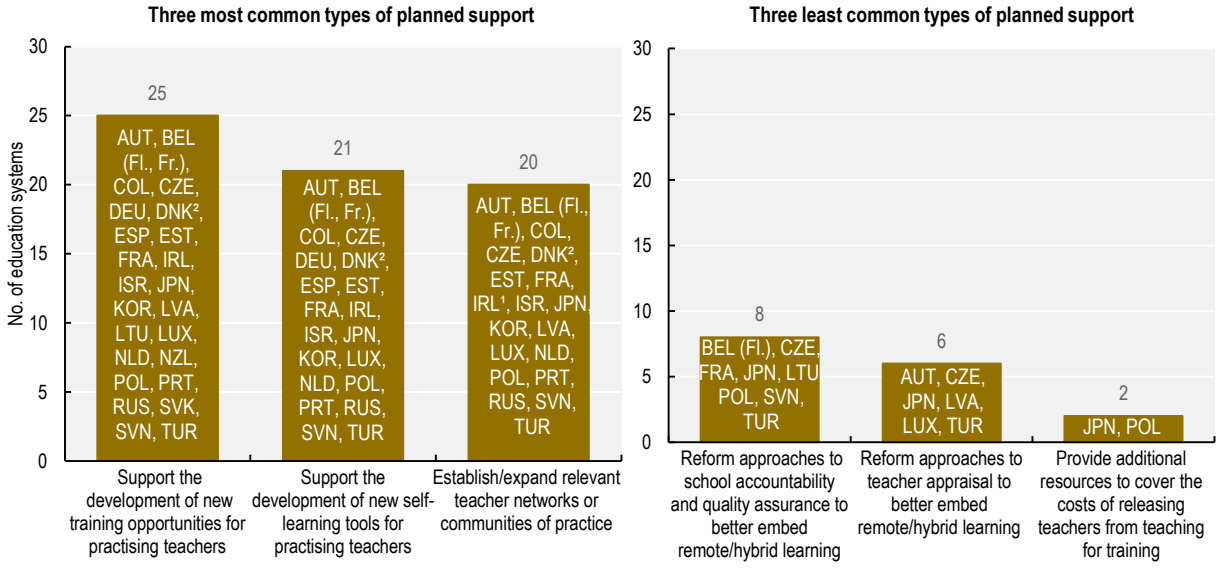
Empowering education staff to lead richer learning processes across environments

Education institutions are the unifying force within learning eco-systems, convening different modes of learning, spaces, resources and actors around a more coherent educational experience tailored to each learner. Educators must be supported to embrace such diversity, owning and shaping learning processes, rather than retransmitting them. This can stimulate greater innovation and responsiveness to learners' needs (Hannon et al., 2019[59]; Istance and Paniagua, 2019[60]).

Throughout the COVID-19 pandemic, the need to support educators to adapt to new modes of teaching and learning has been a key priority for governments. By the end of 2020, many education systems were moving beyond simply digitising and collating educational resources for educators, as was common in the emergency phase, to promoting the use of more sophisticated technology and peer collaboration. However, operational elements of new modes of learning were emphasised over pedagogy, and there was less attention paid to educator well-being (OECD, 2020[3]). More recent survey data suggest similar patterns in planned measures for 2021 but with some promising developments (see Figure 3.2).

Figure 3.2. Teachers' professional learning during the COVID-19 pandemic

Types of support planned by governments for 2021 to help teachers in school education prepare for more effective use of ICT tools and remote or hybrid teaching



Note: School education covers responses for primary, lower secondary and upper secondary (general) education. The information in the figures only represents initiatives introduced specifically in response to the pandemic; some countries reported relying on measures already introduced prior to the pandemic. Only those education systems responding "Yes" are included; certain education systems reported that institutions had autonomy in these types of decisions and that although national authorities issued recommendations and guidelines to schools on the approaches and measures to follow, representative evaluations of what has been done at institutional level were still ongoing at the time of the survey. [1] Countries reported this type of support for primary education only. [2] Countries reported this type of report for upper secondary (general) education only.

Source: OECD/UIS/UNESCO/UNICEF/WB (2021[4]), *Special Survey on COVID Database*, https://www.oecd.org/education/Preliminary-Findings-COVID-Survey-OECD-database.xlsx (accessed on 29 September 2021).

StatLink https://stat.link/t19ghp

Among education systems participating in the Special Survey, the three most common types of support for school teachers that governments reported planning to offer in 2021 focused on providing and promoting professional learning, including through peer collaboration. Yet several education systems were also planning to implement measures to facilitate participation. This includes incentivisation (e.g. by covering costs or teaching duties) or adapting accountability measures such as teacher appraisal or school evaluation (OECD/UIS/UNESCO/UNICEF/WB, 2021[4]). This is important as, according to TALIS 2018, prior to the COVID-19 pandemic, on average across participating OECD countries and economies, nearly half (47.6%) of lower-secondary teachers reported receiving no incentives for participating in professional development. Furthermore, well over half (20 out of 37) of the education systems participating in the Special Survey reported that, during the crisis period in 2020, schools or school boards/committees could decide how teachers should adapt their teaching practices, and, in around half of these systems (11 out of 20), these decisions were taken in full autonomy (OECD, 2021[61]). This may have afforded such schools more flexibility to be responsive to teachers' needs.

Enabling and encouraging staff in education institutions to adapt policies and practices to their contexts

Why it matters

In the COVID-19 pandemic, an almost immediate reaction of many education systems was to provide educators with opportunities for professional learning. This shows clear appreciation for the centrality of the role of educators within formal learning. Nevertheless, in the future, efforts to support educators to adapt to new and changing circumstances will also need to consider how this can be balanced with complementary measures related to collaboration, well-being, leadership and decision-making capacity.

Across the globe, local actors – education staff, civil society bodies and local education authorities – were the driving force behind education continuity strategies in the early stages of the COVID-19 pandemic. In the more immediate term, their capacity to act will be just as important in the years to come, as they seek to address learning gaps that opened up during closures, and to help learners adjust to changed economic circumstances. In the medium term, as they cater to an increasingly diverse set of learners and socio-economic contexts, individual institutions also need to develop tailored strategies that respond to the needs of their learners and the local economy.

Empowering actors with the autonomy, tools and capacity to initiate change at the local level – or to adapt national policies to their specific context – can strengthen the responsiveness and resilience of education institutions to the needs of the communities they serve. Furthermore, it can also support innovation. TALIS 2018 shows that teachers who feel a higher sense of control over their target class are more likely to report working in an innovative environment. Importantly, however, the process of adapting the curriculum and education practices to the local context need not involve decentralisation, and some countries and economies are seeking to build capacity for local innovation within a centralised system. In addition, while autonomy allows local actors to adapt their practice to the needs of learners, well-designed accountability measures are important to ensure that education professionals take responsibility for learning outcomes (Guerriero, 2020[15]).

What we can learn from relevant policy approaches

► See Table 3.3 for a list of policies considered in this analysis; [] see Chapter 5 for further information.

Analysis carried out by the Education Policy Outlook in 2019 revealed that several countries and economies had sought to transfer administrative and pedagogical responsibilities from the central government to local institutional actors based in schools, higher education institutions (HEIs) and municipalities. In 2017, half of decisions relating to the organisation of learning across OECD countries and economies were taken by schools, compared to 15% of decisions taken by central government, on average (OECD, 2018[62]). Results from the Special Survey suggest that in the early stages of the COVID-19 pandemic, decisions relating to teaching arrangements and pedagogical practices were mostly taken at the school level. Alongside a preference for local decision making in matters regarding teaching practices (see above), decisions on the resources available during school closures were generally taken locally, in collaboration or consultation with other levels. Only in 8 countries and economies were these decisions taken in full autonomy: by the central level (4 countries and economies), state level (2 countries and economies) or provincial level (2 countries and economies) (OECD, 2021[61]). Several of the education recovery strategies analysed for this report also involve local-level decision making.

In the years before the pandemic, some countries and economies with decentralised systems established new agencies or other mechanisms to consolidate professional capacities and financial resources (OECD, 2019[5]). More recently, there has been a greater policy trend towards devolving decision-making capacity to local actors while working to empower them to exercise it effectively. For example, **Norway** has been

implementing a competence development model for schools that fits its decentralised education system. The model was designed to ensure that funding for professional development activities is based on an analysis of local needs and that all local authorities have the capacity and expertise for quality development. An OECD study of the implementation of the model highlights the need to establish clear roles and responsibilities for different actors to ensure accountability, improving the collection of data to monitor the impact of the model, and ensuring that local data are fed back to the national level so that this can inform practices across the system (OECD, 2019[63]).

Portugal's Project for Autonomy and Curricular Flexibility provides an instructive example of an initiative that promotes school-level autonomy and capacity building for innovation within a more centralised system. The project grants schools autonomy over 0-25% of their total curriculum time to design innovative initiatives based on a set of guiding principles. It also includes mechanisms to support teachers to implement this initiative and to ensure quality and consistency across the country. Evidence about this project found that it had legitimised innovative pedagogies and strengthened collaboration between different stakeholders, although there was significant variation in implementation approaches and teacher buy-in (OECD, 2018[64]; Cosme, 2018[65]). In particular, many teachers felt they lacked the time and space for collaboration. This underlines the importance of balancing autonomy and innovation with mechanisms to ensure consistency and promote knowledge sharing across the system (OECD, 2018[64]).

In the same way, some education systems have given schools greater control over the content and organisation of learning. **New Zealand**'s curriculum allows schools flexibility to adapt the curriculum for local needs by developing their own courses, for example. This autonomy enables teachers to respond quickly to emerging local issues or global challenges, without having to wait for national-level curriculum design (OECD, 2020[66]).

Governments in the **French Community of Belgium** and **Chile** sought to give schools greater flexibility to address learning gaps in the period following school closures in 2020. The **French Community of Belgium** allocated extra teaching periods to disadvantaged schools to be used for differentiated learning, remediation, or social and psychological support. Within these constraints, schools had the autonomy to devise a remediation strategy that fit their context. The schools' inspectorate was charged with evaluating the implementation of the strategy to inform future practice in personalised learning and support. **Chile**'s Curricular Prioritisation package enabled schools to prioritise curriculum objectives over a two-year period to recover lost learning, and to respond to the social and emotional needs of students, based on a comprehensive assessment of their needs (see Table 4.3 in Chapter 4). Chile also adjusted its school supervision arrangements to support schools in implementing the adapted curriculum.

Box 3.3. Example of Practice – Mobilising school inspectors to support curricular reform (Scotland)

Her Majesty's Inspectorate of Education (HMIE) in Scotland plays a vital role in sharing knowledge among school staff across the country's education system and supporting the implementation of the Curriculum for Excellence (CfE). Its innovative and responsive approach to school inspection has inspired a number of other school systems. For example, it developed a set of tools and action plans to focus inspections on quality and equity in schools' implementation of the CfE and identification of good practices. As part of these efforts, schools can access visual descriptions of best practices which inspectors have observed in schools across the country. These 'sketchnotes' cover themes relating to CfE implementation as well as more topical related priorities, such as recovering lost learning after school closures. At the system level, HMIE uses evidence from inspections to provide advice to ministers, and to produce reports on selected themes. A recent OECD report recommends that HMIE could play an even greater role in the implementation of CfE by building on its current peer and self-evaluation for schools and by supporting research intelligence to inform further reforms to the curriculum.

Who?: **School inspectors (*people*)** play a key role in **enhancing the implementation of curricular reform (*purpose*)** through **identifying and mobilising aspects of good practice (*process*)**. Empowering inspectors with this task can mobilise a pre-existing resource within the system, well-placed to foster both horizontal and vertical learning and with pre-existing capacity to identify impactful practices, thus reducing the possible financial costs of such efforts.

Source: OECD (2021[67]), *Scotland's Curriculum for Excellence: Into the Future*, Implementing Education Policies, https://dx.doi.org/10.1787/bf624417-en.

Some policy pointers for resilience

- ***Share information about effective local practices, while preparing the ground elsewhere so these can flourish.*** In the immediate aftermath of the COVID-19 pandemic, policy makers should work to ensure that teachers, leaders, support staff, and governance bodies in education institutions retain a sometimes newly gained capacity to adapt practices to their realities. The sharing of local best practices is also essential, as it can help ensure that these can reach other contexts, and that practices can be aligned across different levels of the system. This evidence also plays a crucial role in supporting the decision making of teachers, school leaders, and other local actors, and helping them overcome the learning curve. However, sharing is not enough. Over the medium term, education institutions need the support, time and space to consider which practices may be most relevant to them, to apply these strategies to their specific context and to discard or absorb them depending on their impact.
- ***Monitor and evaluate local initiatives to inform future policy processes.*** Even policies that are successful, but to a lesser extent, can carry resource or opportunity costs for education institutions. Collecting data about practices adopted across the system and their impact therefore supports national-level decision making and co-ordination, while informing future policy processes (OECD, 2019[63]). This involves sharing data from the institutional level to support vertical and horizontal learning among institutions. In addition, countries and economies that have given schools greater flexibility to address learning gaps need to monitor how they have used this flexibility, and assess the impact of different interventions on student learning. Although establishing reliable evidence about the impact of policies and initiatives can require more time, in the short term, collecting information about the implementation of these measures can also provide valuable learning opportunities.

Table 3.3. Selected education policies and practices on adapting policies and practices to the local context

Austria – Autonomy of Schools Package (2017)[9]	**Scotland** – Curriculum for Excellence (2010)[1]	**Japan** – Education in Japan Beyond the Crisis of COVID-19 – Leave No One Behind – (2020)[5]
New Zealand – New Zealand Curriculum (2010)[8]	**Developed in COVID-19 context**	**Slovak Republic** – Adjusting the primary school curriculum framework and objectives for greater curricular flexibility (2020)[3]
Norway – Competence Development Model for Schools (2017)[6]	**French Community of Belgium** – Circular 7705 (2020)[2]	
Portugal – Students' Profile at the End of Compulsory Schooling (2017)[7]; Project for Autonomy and Curricular Flexibility (2017)[7]	**Chile** – Adapting monitoring and support for schools in the context of the COVID-19 pandemic (2020)[4]	

Note: [] See Chapter 5 for more information about this policy.
Sources: [1] OECD (2021[67]), *Scotland's Curriculum for Excellence: Into the Future*, Implementing Education Policies, https://dx.doi.org/10.1787/bf624417-en; [2] Fédération Wallonie-Bruxelles (2020[68]), *Circulaire 7705*, http://www.enseignement.be/index.php?page=26823&do_id=7960 (accessed on 1 February 2021); [3] National Institute for Education of the Slovak Republic (2020[69]), *Methodological guidance - Framework curricula by cycles of education*, https://www.statpedu.sk/files/sk/svp/pilotne-overovanie/metodicke-usmernenie/metodicke_usmernenie_bez_dodatku.pdf (accessed on 1 April 2021); [4] Ministry of Education of Chile (2020[70]), *El rol de la Supervisión Ministerial en contexto de emergencia [The role of Ministerial Oversight in an emergency context]*, https://www.mineduc.cl/sistema-nacional-de-la-supervision-ministerial/ (accessed on 1 April 2021); [5] Ministry of Education, Culture, Sports, Science and Technology of Japan (2020[71]), *Education in Japan beyond the Crisis of COVID-19: Leave No One Behind*, https://www.mext.go.jp/en/content/20200904_mxt_kouhou01-000008961_1.pdf (accessed on 1 April 2021); [6] OECD (2020[72]), *Education Policy Outlook: Norway*, http://www.oecd.org/education/policy-outlook/country-profile-Norway-2020.pdf (accessed on 28 October 2021); [7] OECD (2020[73]), *Education Policy Outlook: Portugal*, http://www.oecd.org/education/policy-outlook/country-profile-Portugal-2020.pdf (accessed on 28 October 2021); [8] OECD (2020[66]), *What Students Learn Matters: Towards a 21st Century Curriculum*, https://dx.doi.org/10.1787/d86d4d9a-en; [9] OECD (2019[5]), *Education Policy Outlook 2019: Working Together to Help Students Achieve their Potential*, https://dx.doi.org/10.1787/2b8ad56e-en.

Strengthening the resilience of education staff by supporting their professional learning, collaboration, well-being, and leadership

Why it matters

The demands placed on teachers during institutional closures in 2020 and 2021, and the need to prepare for different possible futures, underline the importance of teacher professionalism and collaboration. While institutional closures will have required teachers and trainers to adapt their practices, some will have experienced particular challenges using digital technologies, possibly for the first time.

Strengthening the resilience of teaching professionals is a short and long term endeavor. It begins with promptly providing them with capacity building opportunities tailored to their needs. In this regard, empowering teachers to build communities of learning where they learn with their students and peers, and confidently adapt to changing circumstances is useful. As well as having a greater impact on teaching practices and student learning, school-embedded forms of professional development, such as peer and self-observation, networking, and coaching, also tend to be more cost-effective, and can be better adapted to the specific context of the institution.

In the medium term, teacher collaboration can foster resilience by promoting the exchange of knowledge and effective practices, and providing a form of social support for those working in challenging circumstances. Evidence from TALIS 2018 shows that, at school level, teachers who take part in deeper forms of professional collaboration, such as team teaching and joint activities across different classes and age groups, are more likely to make use of effective teaching practices (Guerriero, 2020[15]; Viac and Fraser, 2020[74]). In terms of policy aspects that may promote collaboration, evidence from TALIS 2018 also reveals that teachers who feel a greater sense of control over their teaching are more likely to collaborate with other colleagues, and have greater self-efficacy and job satisfaction. Well-designed

accountability measures also play an important role in ensuring that teaching professionals take responsibility for students' learning, and that schools are accountable to the families and communities they serve (Guerriero, 2020[15]; Viac and Fraser, 2020[74]).

Responding to the evolving needs of students in an increasingly complex world implies a change in the role of teachers and school leaders, and may require them to take on new tasks in both the immediate and medium term. Policy makers must therefore ensure that increasing the demands placed on teachers does not have a negative impact on their motivation, commitment, or self-efficacy. This in turn could lead to poor teacher performance, high turnover, and burnout, incurring costs for individual institutions and education systems as a whole. Policy makers and school leaders can also take action to reduce teachers' workloads, particularly their involvement in non-teaching tasks (Guerriero, 2020[15]; Viac and Fraser, 2020[74]). Teachers' occupational well-being also depends on system-level factors such as salaries, career progression and job security (Viac and Fraser, 2020[74]).

Both fostering collaboration for professional growth and supporting well-being can be nurtured by strong instructional leadership (Guerriero, 2020[15]). During the COVID-19 pandemic, it was clear that, while national-level guidance was important, local and institutional responsiveness were key, and so institutional leaders were generally encouraged to adapt regulations, recommendations and guidelines to suit their own contexts (OECD, 2020[3]). Many also had responsibility for decisions on distance-learning arrangements (OECD, 2021[1]). Promoting and strengthening instructional leadership is therefore a key element of building resilience in the learning environment over the medium term. This refers to efforts targeting institutional leaders themselves and their leadership teams, but also encompasses an institutional culture of instructional leadership in which teachers are positioned as instructional leaders too.

These short and medium term measures to strengthen the resilience of educators will need to be accompanied by longer term efforts to tackle some of the more restrictive organisational structures of the profession and their working lives. The final section of this chapter offers some related questions for reflection.

What we can learn from relevant policy approaches

► See Table 3.4 for a list of policies considered in this analysis; [] see Chapter 5 for further information.

Prior to the COVID-19 pandemic, a large share of lower-secondary teachers across the OECD reported engaging in impactful professional learning in TALIS 2018, but there was an opportunity to strengthen certain aspects of well-being, collaboration and leadership (OECD, 2020[3]). In recent years, many education systems have implemented policies to address these challenges and strengthen the impact of teachers' professional learning even further. Previous policy analysis indicates that such efforts can be mutually beneficial: policies that embrace the key components of impactful professional learning – content focus, active learning and collaboration, a school-embedded approach and a sustained duration – can also have a positive impact on well-being, collaboration and leadership capacity (OECD, 2020[3]). This section identifies specific policy efforts in terms of each of these three areas that have, in turn, supported the d teachers' capacity development.

Professional collaboration

Ireland has taken measures to strengthen professional collaboration at different levels of the education system. The National Forum for the Enhancement of Teaching and Learning in Higher Education, established in 2012, has played a vital role in strengthening pre-existing teaching and learning networks, promoting collaboration between institutions and across disciplines. It is also supporting HEIs and practitioners in embedding successful practices that emerged in the early stages of the pandemic. Going even further, a review of the National Forum published in 2017 points to a need to reach out beyond

existing communities of teaching and learning enthusiasts, especially those who may be reluctant to engage in professional learning (Henard, 2017[75]). **France** (see Table 2.5 in Chapter 2), the **French Community of Belgium** and **Ireland** (see Table 4.1 in Chapter 4) have included space for collaborative planning in teachers' timetable allocation as part of policy measures in recognition of the extra workload reform imposes on implementation actors.

This kind of peer support was a vital resource for teachers early on in the COVID-19 pandemic. Evidence from the Special Survey suggests that the switch to distance learning, and the emergence of teacher-led initiatives, have accelerated the creation or improvement of teacher networks and communities of practice. Close to half of education systems surveyed reported that, for teachers working in general school education, they established or expanded such networks or communities, with a particular focus on remote or hybrid teaching and related Information and Communications Technology (ICT) skills, in 2020. More than half planned to do so in 2021 (OECD/UIS/UNESCO/UNICEF/WB, 2021[4]). Many countries and economies have since sought to build on these collaborative practices to address longer-term term strategic priorities.

For example, during school closures in 2020, educators from regional teams of **Portugal**'s Autonomy and Curricular Flexibility Project (2017—see Table 3.4) supported other teachers in adapting their teaching and disseminated examples of good practice. **Portugal** also launched a massive open online course (MOOC) on Learning and School Communities, which used a project-based methodology to support teachers and school psychologists in creating and/or deepening communities of practice (Directorate-General of Education of Portugal, n.d.[76]). In response to requests from teachers, the **Australian** Institute for Teaching and School Leadership (AITSL) launched a platform that offers guidance and support for responding to shocks such as the COVID-19 pandemic and the bush fires of 2019-20. This platform includes a hub of evidence-informed resources for teachers and spotlights on themes such as distance learning and the role of leadership in challenging times.

Teacher well-being

Prior to the pandemic, some governments had taken measures to boost teacher morale and reduce stress. **Korea** offers sabbatical leave to teachers who have been in the classroom for at least 10 years and express their willingness to engage in further studies or research for self-improvement. Korea has also established teacher support centres at provincial offices of education to offer mental health or legal counselling to those whose teaching activities have been infringed upon.

Furthermore, to support teachers in managing their professional workload, in **England (United Kingdom)**, the Department for Education (DfE) launched a large-scale biennial survey of teacher and school leader workload, and established workload review groups covering both teaching and administrative tasks. Based on this work, the review groups published a targeted set of recommendations for different actors in the education system. These encourage schools to focus on the quality, rather than the quantity, of student feedback, and to consider oral feedback as an alternative to detailed written feedback. They also recommend that schools identify blocks of time to allow for proper collaborative planning and professional discussion focused on student learning outcomes. To reduce the time spent on data collection, schools can identify sources of data that can be used for multiple audiences, rather than duplicating data (Department for Education of the United Kingdom, 2020[77]). The DfE has also published a Workload Reduction Toolkit for schools (See Box 2.4). Similarly, the **Slovak Republic** established a working group to target excessive administrative workload, which resulted in many administrative processes being eliminated, simplified, or automated.

Leadership

At school level, in 2019, the Education Policy Outlook identified school leadership as an area receiving less attention as a policy priority, compared to others analysed (OECD, 2019[5]). However, some initiatives emerge that could be useful for other education systems' consideration.

One of the key strengths of **Slovenia**'s middle leadership programme, which is managed by the National School for Leadership in Education, is that it promotes the sharing of good practice by bringing together participants from different types of schools and kindergartens. Participants take part in structured school visits followed by reflections, as well as experimental and practical training, such as roleplaying and coaching. A key challenge identified in programme evaluations was the need to develop incentives for participation and performance in these activities (OECD, 2019[5]). Slovenia also runs a two-year programme where teachers and leaders from networks of schools work together on common areas of improvement. Recent evidence from the programme's implementation highlights the key role school leaders play as drivers of these networks.

Focus areas for school leader support in 2021/22 reflect priorities highlighted in the early stages of the COVID-19 pandemic, such as communication with parents, and holistic approaches to well-being. In the summer of 2020, **Turkey** launched an online learning programme that aims to give school leaders the administrative, technical, and communication skills they will need to lead learning in the context of uncertainty. This is supported by efforts to reduce the administrative workload of school leaders to allow them to focus on educational activities.

Box 3.4. Example of Practice – Empowering teachers to reduce their own workloads (England)

In 2019, the Department for Education provided funding for the Teaching Schools Council to promote the Workload Reduction Toolkit for schools and commissioned the Education Development Trust to support schools in assessing the impact of workload reduction strategies. Supports included a mixture of face-to-face training events and remote supports, as well as a website and a teacher blog with examples from findings about strategies put in place by schools to reduce workload, along with their impact, and other examples of best practice. One example offers a case study of a group of schools who brought together teams of teachers to plan lessons for the same subject areas and appointed planning 'experts' in cross-curricular themes. Teachers reported that the project saved planning time, improved the quality of planning, and encouraged departmental teamwork. However, the schools also reported a need to achieve shared understandings among the teaching body around the aims of collaborative planning and to invest time in the early stages of this work. In general, the research into the impact of workload reduction initiatives found that teacher-designed interventions significantly reduced teacher time conducting the targeted task and enhanced teacher well-being, where measured.

Who?: **Teachers (*people*)** can be empowered to play an active role in **reducing teacher workload (*purpose*)** through **participating in opportunities for practical application (*process*)**. England's experience indicates that providing the tools is not enough: creating the conditions **for teachers to experiment with applying the tools in collaborative and structured ways is equally, if not more, important.**

Sources: Department for Education of the United Kingdom (2020[77]), *Reducing school workload*, https://www.gov.uk/government/collections/reducing-school-workload (accessed on 20 July 2021); IFF Research (2019[78]), *The School Snapshot Survey: Winter 2018 - Research Report*, Department for Education, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/907005/The_School_Snapshot_Survey-Winter-2018.pdf (accessed on 27 July 2021); Churches, R. (2020[79]), *Supporting teachers through the school Workload Reduction Toolkit*, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/899756/Supporting_teachers_through_the_school_workload_reduction_toolkit_March_2020.pdf (accessed on 20 July 2021).

Some policy pointers for resilience

- ***Balance change and innovation in teaching with time and workloads.*** Adjusting positively to the shock of the COVID-19 pandemic and strengthening the resilience of learners and education systems will require teaching professionals to take on new roles and develop new knowledge and skills. As the experience of different OECD countries and economies suggests, bringing about change and innovation in education has implications for teachers' time and workloads. While they undoubtedly benefit from participating in group decision making and other collaborative practices, these activities also involve costs for busy teachers. Over the short and medium term, governments can explore different ways to resolve this apparent tension, such as reducing the time teachers spend in the classroom and giving them protected time to work collaboratively (Guerriero, 2019[80]), providing incentives for participation in peer learning activities, allocating additional human or financial resources, or reducing demands in other areas, such as administrative workload or high-stakes accountability procedures.
- ***Support leaders as catalysts of change in education institutions.*** Institutional leadership plays a central role in fostering resilient responses to change, crises or shocks. At school level, school leaders and their teams are the first implementers of national policies. They make sense of changing priorities, are responsible for operationalising these in the context of their institution, and communicate with staff and families to help develop a new shared understanding of behaviours or goals. Typically, they are also the key liaison with the broader network of public services supporting education institutions and are responsible for monitoring and accountability processes taking place at the more systemic level. Previous analyses carried out by the Education Policy Outlook point to a need to strengthen instructional leadership, which has received less attention in the past, in addition to administrative leadership. At the same time, the role of education leaders as implementers of policy needs to be acknowledged, encouraged, and supported, since they play a key role in managing change within education institutions.

Table 3.4. Selected education policies and practices on educators' professional learning, well-being, and leadership

Chile – Teacher Professional Development System (2016)[6] **French Community of Belgium** – Decree on Teachers' Working Time (2019)[5] **Greece** – New Beginning at EPAL (General Lyceum and vocational programmes in Vocational Education and Training schools) Project (2017-21)[5]	**Ireland** – National Forum for the Enhancement of Teaching and Learning in Higher Education (2012)[4] **Korea** – Leave of Absence for Self-training System (2016)[5] **Slovenia** – Middle leadership programme (2014)[5], Networks of Leaning Schools and Kindergartens (2011)[8] **England (United Kingdom)** – Measures to reduce teacher workload (2016)[5]	**Wales (United Kingdom)** – Schools as Learning Organisations (2016)[5]; Pioneer Schools Network (2015)[5] **Developed in COVID-19 context** **Australia** – Australian Teacher Response Campaign (2020)[7] **Portugal** – Learning and School Communities MOOC (2021)[1] **Turkey** – Distance learning training for teachers and school leaders (2020) [2,3]

Note: [] See Chapter 5 for more information about this policy.

Sources: [1] Directorate-General for Education of Portugal (n.d.[76]), *Cursos de formação - MOOCs [Training Pathways - MOOCs]*, https://www.dge.mec.pt/formacao-3; [2] Ministry of National Education of Turkey (2020[81]), *"Distance Education and Technology Leadership" Program for School Administrators*, http://www.meb.gov.tr/distance-education-and-technology-leadership-program-for-school-administrators/haber/21838/en (accessed on 1 April 2021); [3] Ministry of National Education of Turkey (2020[82]), *"We are carrying out the largest teachers' training program of the Turkish education history"*, http://www.meb.gov.tr/we-are-carrying-out-the-largest-teachers-training-program-of-the-turkish-education-history/haber/21795/en (accessed on 1 April 2021); [4] OECD (2020[83]), *Education Policy Outlook: Ireland*, https://www.oecd.org/education/policy-outlook/country-profile-Ireland-2020.pdf (accessed on 28 October 2021); [5] OECD (2019[5]), *Education Policy Outlook 2019: Working Together to Help Students Achieve their Potential*, https://dx.doi.org/10.1787/2b8ad56e-en; [6] OECD (2017[84]),

"School education in Chile", in *OECD Reviews of School Resources: Chile 2017*, https://dx.doi.org/10.1787/9789264285637-5-en; [7] Australian Institute for Teaching and School Leadership (n.d.[85]), *Australian Teacher Response - Support during changing times*, https://www.aitsl.edu.au/secondary/comms/australianteacherresponse (accessed on 1 February 2021); [8] National School for Leadership in Education of Slovenia (n.d.[86]), *Mreže učečih se šol in vrtcev* [*Networks of learning schools and kindergartens*], http://solazaravnatelje.si/index.php/dejavnosti/mreze-ucecih-se-sol-in-vrtcev (accessed on 8 October 2021).

Enhancing the educator's ability to integrate digital technologies and competencies into a broader pedagogical toolkit

Why now?

As discussed in other sections of this report, the switch to distance learning during the institutional closures of 2020 has tested the capacity of educational institutions to provide digital learning. Building on the digital innovations that took place during the lockdown involves reinforcing digital resources and developing the digital skills of learners and educators (OECD, 2020[87]).

The recent crisis has drawn attention to the digital divides that existed before the pandemic. The first of these relates to inequalities in access to digital technologies (Burns and Gottschalk, 2019[13]). According to data from PISA 2018, students in advantaged schools are 15% more likely to have access to a computer they can use for schoolwork than students in disadvantaged schools (OECD, 2020[88]). Advantaged schools are also 12% more likely to have sufficient Internet bandwidth than advantaged schools. While these inequalities often relate to socio-economic disadvantage, there are also inequalities in digital infrastructure between urban and rural areas (Burns and Gottschalk, 2019[13]).

However, beyond bridging gaps in access, education systems also need to work hard on developing education actors' digital ability and application of digital tools in everyday teaching contexts. Teaching professionals need the knowledge and skills to use these technologies effectively (Education Endowment Foundation, 2020[89]; Burns and Gottschalk, 2019[13]; Hargittai, 2002[90]; Dijk, 2017[91]). TALIS 2018 shows that many teachers felt unprepared for using ICT in their teaching before the pandemic; at that time, only 53% of teachers across OECD countries and economies reported having received training in this area as part of their formal training, and only 43% felt well-prepared upon completing such training (OECD, 2019[92]). Building digital capacity among teachers will gain importance as digital learning becomes the new normal.

Over the medium term, efforts to strengthen digital ability and the application of digital tools need to facilitate broader, richer and more holistic education processes; the digital dimension is only a means and the learners and learning processes should remain at the centre, along with the teachers.

What we can learn from relevant policy approaches

► See Table 3.5 for a list of policies considered in this analysis; [@] see Chapter 5 for further information.

Some countries and economies have implemented broad strategies aimed at developing a wide range of skills in students. Others have developed more targeted strategies that focus on specific digital competences, or particular sections of the population (European Commission, 2016[93]; Burns and Gottschalk, 2019[13]). Data from the European Commission suggest that while developments in digital and online learning have brought about change in the curriculum and the use of educational materials, there is still progress to be made in embedding ICT in teacher professional development (European Commission, 2016[93]). Once again, school-based and collaborative forms of professional development play an important role in ensuring teachers integrate digital technologies in ways that support subject-specific pedagogical goals at the same time as meeting the individual needs of students (European Commission, 2016[93]; OECD, 2020[25]).

Several countries and economies had taken measures to build capacity for digital learning in the years before the pandemic, leaving them better placed for the transition to distance learning in 2020. For example, **Finland**'s tutor teacher network (2016) provides training, guidance, and peer support in digital pedagogy, and seeks to promote pedagogical innovation. Previously, education providers had identified the regional training events organised for tutor teachers as an important success factor for these networks, since they promoted regional networking between the tutor teachers (Finnish National Agency for Education, 2020[94]). **Estonia** has also developed tools to measure the digital competences of teachers and students, and the digital readiness of schools. Its Digital Mirror (2018) enables schools to assess their digital maturity and develop an improvement plan. Furthermore, **Turkey** has developed online training modules to support teachers in designing and managing distance learning. This policy effort follows previous evidence on the need to support teachers in enhancing their teaching practice using digital technologies, rather than simply digitising their practices (Coruk and Tutkun, 2018[95]).

As part of its digital strategy for higher education (2013), **France** launched two digital platforms that offer distance-learning opportunities and digital resources to higher education professionals, as well as students and the wider public. The France Université Numérique platform brings together some 547 MOOCs designed by educators and HEIs. Sup-numérique contains over 30 000 digital learning resources aimed at those who teach and learn online. Since the outbreak of the pandemic, France has announced funding for 35 HEI-led projects to develop digital learning resources and invested in additional training and support for educators (see Table 2.4 in Chapter 2; see also Chapter 5).

Many countries and economies have implemented new digital education strategies, or revised existing strategies in light of lessons learnt in the early stages of the COVID-19 pandemic. Countries and economies such as **Germany** and **Spain** have sought to address the digital inequalities revealed by the pandemic by providing disadvantaged students with digital devices. Another key priority for several countries and economies is to strengthen or institutionalise digital learning resources that were developed during institutional closures. **Austria** is in the process of aligning the resources on its Eduthek learning platform with the school curriculum. To help bridge gaps in digital ability and application, **Spain** is developing digital learning tools that use adaptive technologies to deliver personalised content and assessment tasks to students, and that allow teachers to monitor student progress. Through the National Institute of Education and Training Technologies, Spain published a National Framework of Digital Competence for Teachers in 2020 and is promoting specific training courses in which teachers can exchange with peers from their country and abroad, creating an important network for their professional development (National Institute of Education and Training Technologies, n.d.[96]).

Balancing central guidance and teacher agency to help teachers navigate the resources available online and establish sustainable online communities is crucial. Hybrid and blended learning environments can be more beneficial for teachers than fully virtual ones since they can draw on impactful practices such as coaching and mentoring (OECD, 2021[1]). Skilled moderators for online communities and interventions to increase course completion rates can make virtual professional learning activities more effective (OECD, 2021[1])).

Korea has implemented several of these measures since the outbreak of the pandemic. During school closures in 2020, Korea established online teacher communities such as the Knowledge Spring (*Jisik Saemteo*). Through the Knowledge Spring, teachers can voluntarily upload open training courses or take the courses uploaded by colleagues to strengthen their digital capabilities. The flexibility provided by the platform provides teachers with the opportunity to drive their own development without being restricted by time and space. In 2020, Korea also established 10 Future Education Centres in teacher training institutions to embed the skills pre-service teachers will need to provide digital and remote education. Korea plans to expand the number of Future Education Centres to 28 by the end of 2021.

Box 3.5. Policy in focus – Positioning teachers as the drivers of their own development (Korea)

One of the identified strengths of Korea's recently created "Knowledge Spring" digital platform is that it enables non-face-to-face training based on shorter video lectures (the Knowledge Spring's micro-courses generally last no more than five hours). This initiative has supported teachers' training needs during the pandemic and can remain a valuable tool beyond it, as it provides flexibility for receiving teacher training in terms of time and space. Another strength is that teachers can become instructors and voluntarily organise training courses in aspects deemed of particular relevance to the teacher body, or take lectures on courses proposed by other teachers. Teachers can improve their competence through the process of creating training courses and completing courses offered by other teachers. At the same time, as part of a broader effort for professional development undertaken by Korea, teachers can also benefit from in-person support from the 1 827 newly trained pioneering teachers and 300 instructors who provide school-based mentoring to support teachers in developing online learning materials. This network has now been developed into a formal teacher training body to increase efficiency in funding and support.

Who?: **Teachers (*people*)** are supported to **enhance capacity to apply digital pedagogies (*purpose*)** through **accessing online and in-person tailored professional development (*process*)**. Korea allows teachers to drive their own development through this measure but also provides multiple channels for that development to take place. This could help mitigate potential self-selection bias as teachers who prefer to access in-person support over online support can, and vice versa.

Source: Ministry of Education of Korea (2020[97]), *2020 Education in Korea*, http://www.koreaneducentreinuk.org/wp-content/uploads/2021/04/2020EducationinKorea.pdf (accessed on 20 July 2021).

Similarly, a group of teachers and education experts in **England (United Kingdom)** established Oak National Academy in April 2020, with funding support from the DfE. Oak is an online classroom with over 10 000 free video lessons and resources for students and teachers in ECEC to secondary education. The content was produced by teachers and curriculum partners across the country, and was available to teachers and parents throughout the pandemic to support remote education and education recovery (Oak Academy, n.d.[98]; Department for Education of the United Kingdom, 2021[99]). **Costa Rica** has focused on ensuring digital resources are accessible to teachers and learners with disabilities. This was based on an evaluation of the resources launched in the early stages of the pandemic, which highlighted accessibility as a key concern. Costa Rica has since launched a series of professional development activities for teachers, including training for visually impaired teachers on the use of video and audio-conferencing tools.

Some policy pointers for resilience

- ***Identify the different levels of digital ability and application of digital skills among education staff, and develop them strategically, according to national and institutional goals***. Although many teachers will have gained more experience with teaching in digital settings in the context of the pandemic, levels of ability and application remain unequal. To complement immediate professional development efforts, over the medium term, this requires a strategic approach to developing educators' digital competences, allowing teachers to drive their own development based on their previous experience and needs. The four key policy components of effective professional learning previously identified in this report provide a useful basis for developing these competencies. In particular, approaches that allow teachers to experiment with different digital tools and approaches, and to collaborate with and learn from their peers, will enable them to integrate digital technologies as a more natural support to their pedagogical practice (European Commission, 2016[93]).

Table 3.5. Selected education policies and practices on building capacity for digital learning

Estonia – The Digital Mirror (2018)[7]; Digital Competency Assessments (2018)[7] **Finland** – Tutor-teachers scheme (2016)[8] **Germany** – The Digital Pact for Schools (2016)[13] **Slovenia** – National Education Institute (2020)[5], SIO[9](2020)	**Spain** – National Institute of Education and Training Technologies (2019)[1] **Developed in COVID-19 context** **Austria** – 8-Point Plan for Digital Learning (2020)[12] **Costa Rica** – The Route to Digital Accessibility[4]	**Korea** – Knowledge Spring (2020)[2]; 10 000 Community (2020)[2]; Future Education Centres (2020)[2] **Spain** – Digital education programme (2020)[1] **Turkey** – Development of Design and Management Skills in Distance Education (2020)[3] **England (United Kingdom)** – Oak Academy (2020)[6]

Note: [] See Chapter 5 for more information about this policy.

Sources: [1] Government of Spain (2020[34]), *Convenio para la ejecución del programa 'Educa en Digital' [Resolution on the implementation of the Digital Education Programme]*, https://www.boe.es/diario_boe/txt.php?id=BOE-A-2020-7682 (accessed on 1 April 2021); [2] Ministry of Education of Korea (2020[97]), 2020 Education in Korea, http://www.koreaneducentreinuk.org/wp-content/uploads/2021/04/2020EducationinKorea.pdf (accessed on 20 July 2021); [3] Ministry of National Education of Turkey (2020[82]), *"We are carrying out the largest teachers' training program of the Turkish education history"*, http://www.meb.gov.tr/we-are-carrying-out-the-largest-teachers-training-program-of-the-turkish-education-history/haber/21795/en (accessed on 1 April 2021); [4] Ministry of Public Education of Costa Rica (2020[100]), *Tecnológico de Costa Rica, Conapdis y MEP se alían para mejorar accesibilidad digital [Tecnológico de Costa Rica, Conapdis and the MEP join forces to improve digital accesibility]*, https://www.mep.go.cr/noticias/tecnologico-costa-rica-conapdis-mep-se-alian-mejorar-accesibilidad-digital (accessed on 1 April 2021); [5] National Education Institute of Slovenia (2020[101]), *Podpora ZRSŠ pri izvajanju pouka na daljavo [ZRSŠ supports in the implementation of distance learning]*, https://www.zrss.si/novice/podpora-zrss-pri-izvajanju-pouka-na-daljavo/ (accessed on 1 April 2021); [6] Oak Academy (n.d.[102]) 'About Oak National Academy', available at: https://www.thenational.academy/about-oak; [7] OECD (2020[35]), *Education Policy Outlook: Estonia*, http://www.oecd.org/education/policy-outlook/country-profile-Estonia-2020.pdf (accessed on 28 October 2021); [8] OECD (2020[57]) *Education Policy Outlook: Finland*, http://www.oecd.org/education/policy-outlook/country-profile-Finland-2020.pdf (accessed on 28 October 2021); [9] Slovenian Educational Network (2020[102]), *Podpora izobraževanju na daljavo [Support for distance education]*, https://sio.si/2020/03/14/podpora-izobrazevanju-na-daljavo/ (accessed on 28 July 2021); [10] OECD (2019[5]), *Education Policy Outlook 2019: Working Together to Help Students Achieve their Potential*, https://dx.doi.org/10.1787/2b8ad56e-en; [11] OECD (2018[20]), *Education Policy Outlook 2018: Putting Student Learning at the Centre*, https://dx.doi.org/10.1787/9789264301528-en; [12] Federal Ministry of Education, Science, and Research of Austria, (n.d.[103]), *8-Point Plan for Digital Learning*, https://www.bmbwf.gv.at/en/Topics/school/krp/8_p_p.html (accessed on 1 February 2021); [13] Federal Ministry of Education and Research of Germany (n.d.[104]), *Digitalpakt schule [Digital Pact for Schools]*, https://www.bmbf.de/de/wissenswertes-zum-digitalpakt-schule-6496.php (accessed on 1 April 2021).

Points for the future

This chapter has presented practical and actionable pointers that can help policy makers build more resilient and responsive broader learning environments in the short and medium term. Looking beyond that, education policy makers will also need to think more strategically – and perhaps more radically – about the long-term measures that can ensure resilient and responsive broader learning environments are a standard feature of future education systems.

The evidence presented in this chapter points to two priority areas that can support this. Firstly, the role of education institutions within a community needs to be reimagined by stakeholders across the system. Isolation in a world of complex learning systems will seriously limit potential (Schleicher, 2018[105]); a responsive and resilient education system has learning environments at the heart of dynamic and collaborative local education networks. Secondly, the teaching profession must be truly recognised as such. Despite a renewed focus on the importance of teacher professionalism from the turn of the 21st century, the extent to which the teaching profession has ownership of a strong and coherent body of professional knowledge and expertise that is widely recognised and trusted varies considerably across countries (Schleicher, 2018[105]).

With these priorities and the pointers for resilience covered in this chapter in mind, education policy makers thinking about the longer term should engage in imaginative and constructive reflection around the following questions:

- **What if** quality and equitable education delivery became the mutual endeavour and shared venture of educators, parents, community actors and employers?
- **What if** education institutions were supported to facilitate symbiotic processes among public services for learners, as a foundation for social prosperity in every local community?
- **What if** educational improvement and innovation became truly bottom-up, with local vision effectively nurtured and supported by autonomy, capacity and accountability?
- **What if** governments could translate an increased awareness of teachers as *valued* professionals into boldly reimagined structures and processes that empower them as *trusted* professionals, transform rules into guidelines and good practice, and ultimately, good practice into culture?
- **What if** every teacher became as naturally adept at teaching and developing best practices for the digital classroom as for the traditional classroom?

Such reflection is the first step in building a bridge between the short- and medium-term action explored through this framework, and the larger-scale reimagining required to ensure that, in the long-term, resilient broader learning environments become the new status quo.

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4 Strengthening **resilience at system level** through a smart information infrastructure and dynamic pathways

About this level of resilience: Resilient systems enable societies to achieve a strategic vision of social and economic prosperity. They make this possible through information infrastructure and flexible pathways. Firstly, a smart information infrastructure enables actors across the system to collect, disseminate and use information in ways that provide them with a sense of priorities, stagnation or progress. Secondly, clearly defined but dynamic learning pathways connect learners' potential and aspirations with education, training and evolving labour markets. This chapter analyses how these components, which promote responsiveness at system level, can also be applied to strengthen resilience.

Resilience in action

Scenario 3: System

Lucas and Sofia learn at the heart of resilient education systems. While the systems themselves can absorb and adapt to change, they also create the right conditions for Lucas and Sofia and their fellow learners to learn, whatever the conditions.

This is not to say that their systems do not run into challenges that need to be tackled. A data breach in Sofia's education system last year damaged public trust in education while changing demographics and an economic downturn mean ongoing fluctuations in resources and student numbers. For Lucas, a new administration will take over in a few months, but many policy efforts from the last few years have not yet had sufficient time to become embedded. The future seems increasingly unpredictable.

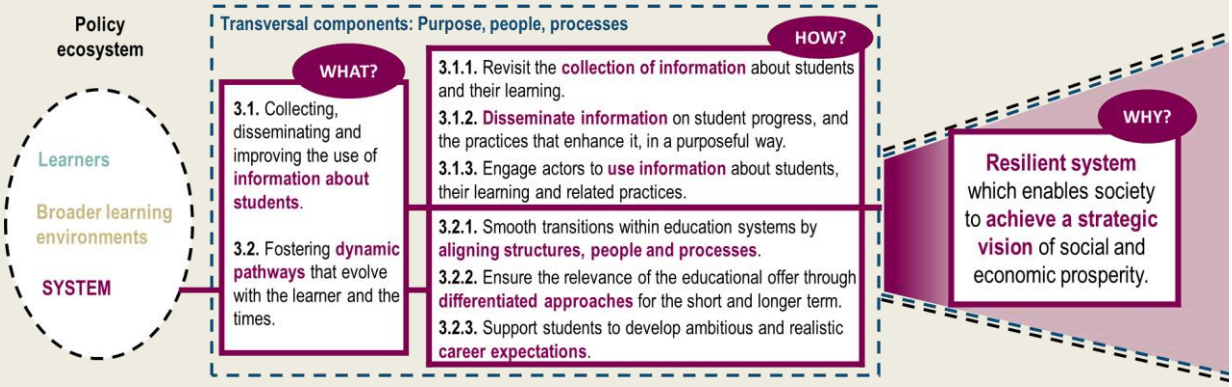
Yet both Lucas and Sofia benefit from **an education system that is adept at collecting, disseminating and using quality information** to support their learning process. The system is able to construct a coherent picture of where it stands now and the progress it makes (or not), and can do the same for all its learners. It does this by collecting a broad, but strategic, range of information about learners, their learning environments and the system itself. It then curates this information to make it accessible, digestible and actionable for those who should have access to it, and ensures that everyone in the system – students, educators, parents, communities, policy makers – have the data literacy skills required to benefit from it. In this way, the system is proud to see itself not as an education system but as a learning system in all senses, able to change behaviour and define strategies for the future in line with the information it generates.

The system also prides itself on providing a range of **dynamic learning pathways that evolve with the learner and the times**. Multiple entry and exit points allow students like Lucas and Sofia to enter or leave the system based on their evolving needs, while strong alignment between structures, people and processes mean their transitions within and beyond the system are smooth. The system uses multiple tools and approaches to ensure the pathway offer stays well-aligned to evolving labour markets. These take into account short-term changes and longer-term evolutions. Finally, the system supports students of all ages to develop ambitious and realistic career expectations, pro-actively engaging hard-to-reach learners, or providing more targeted supports when necessary.

Overall, a resilient and responsive system takes bold action, looking beyond the low-hanging fruit when implementing or consolidating policy efforts and instead towards the most powerful drivers of change. In this way, a resilient education system enables society to more fully achieve its strategic vision of social and economic prosperity.

Supporting resilience at system level

Infographic 4.1. How policy components of responsiveness can also drive resilience at this level



Collect, disseminate and improve the use of information about students by:

- ***Revisiting the collection of information about students and their learning***. Data collections should be developed and consolidated as effective safety nets for education actors in contexts of disruption. The scope, tools, layers, and timing of data collection act as the four corners of these safety nets. A clear purpose conveyed by the national vision of the education system should underpin them, as well as ongoing efforts to strengthen trust, flexibility and efficiency.
- ***Disseminating information on student progress, and the practices that enhance it, in a purposeful way***. Policy makers can better curate the data collection safety net so that what matters most reaches those who need it most, and when they need it most. However, purposeful dissemination is not only a top-down process, but also bottom-up and lateral. It is a means to signal priorities to people and institutions, but also to scale up innovative, cost-effective and impactful local education initiatives or explore solutions to common problems. As such, policy makers should seek to ensure that dissemination takes place through the lens of a growth mindset, which should be nurtured across the education system.
- ***Engaging actors to use information about students, their learning and related practices***. Nurturing contexts where information is used to improve student learning starts with ensuring that actors across the system see the value in the information they receive and are able to unpack it and translate it into action for maximum impact. Policy makers should keep in mind students among these actors, empowering them to assess their own progress and take meaningful action.

Foster dynamic pathways that evolve with the learner and the times by:

- ***Smoothing transitions within education systems by aligning structures, people and processes***. Beyond structural change, ensuring smooth transitions also involves building bridges between the people and processes located across the different pathways and levels. To this end, policy makers could create a sense of shared ownership among staff at different education levels. They could also enhance the clarity and quality of exchanges of information among staff, students and parents. To align education practices, people's capacity and will to collaborate also matter.
- ***Ensuring the relevance of the educational offer through differentiated approaches for the short and longer term***. As countries navigate beyond the pandemic, policy makers must take stock of labour market change and lessons learnt from the 2008 economic crisis. In the short term, they can support work-based learning in high-demand sectors, including collaboration between employers and education actors. In the mid-to-long term, taking a whole-of-government perspective, forecasting and data on labour-market outcomes can help align qualifications and curriculum with future needs. Pursuing relevance in this way is good for the system, students and parents, signalling the value of formal qualifications.
- ***Supporting students to develop ambitious and realistic career expectations***. Quality education or career information, and the professional capacity of those who share it, are the first building blocks of effective student guidance. Building on this, and in a context of strained resources and exacerbated inequities, policy makers could commit to actively targeting career information and financial support to those who need it most. It is also important to support the transformation of student behaviours, attitudes and self-perceptions in order to help them better navigate their educational pathways.

Why resilience at system level matters

In today's ever-changing environments, education systems such as those in which Sofia and Lucas live must learn how to evolve in synchrony with societies' future needs. These education systems must shift practices and processes in anticipation of and response to change, yet the far-reaching nature of the life-wide and lifelong learning required for 21st century success means that education systems are among the most vast and complex systems in national public policy. As such, system-level actors in today's education systems must consciously and pro-actively build system resilience, the capacity to 'bounce forward' rather than simply 'bounce back' (Hynes, Trump, and Love, 2020[1]).

The potential changes facing today's systems may be somewhat foreseeable or may seem completely improbable; they may hit suddenly or may form part of longer-term evolutions (see Overview). Whatever the change, the possible consequences for education systems themselves can be organised into four main categories, according to analysis conducted for this report:

- **Disruption to relationships with themselves—**e.g. change in national development vision or national priorities for education;
- **Disruption to relationships with others—**e.g. change in international competition and co-operation;
- **Disruption to resources they can access—**e.g. change in staff populations, change in availability of public and international funds, and household resources, change in delivery mode, reconfiguration of institutional network, large-scale change in attendance pattern;
- **Disruption to education and employment pathways—**e.g. changes in labour-market skills supply and demand, large-scale change in participation patterns.

In the face of such disruptions, resilient systems withstand change, adapt practices and use experiences to drive transition. With this in mind, and through analysis of international evidence, this framework identifies two core policy areas for responsiveness and resilience in education at the system level: 1) Collecting, disseminating and improving the use of information about students, and; 2) Fostering dynamic educational pathways that evolve with the learner and the times. This chapter explores these policy areas in more detail, building on international evidence and policy analysis.

As in previous chapters, it offers practical and actionable measures that policy makers can take in the short and medium term. The chapter concludes by turning policy makers' attention to the longer term, asking questions about how broader structural and organisational changes could foster responsive and resilient broader learning environments for the future.

Collecting, disseminating, and improving the use of information about students

Building system resilience begins with strengthening the education system's knowledge base, with a specific focus on student-related information, on which the system can make evidence-informed decisions about how best to act. Education systems must therefore *collect* a range of information about students through a variety of systematised approaches to capture a rich picture of system performance and progress. Resilient systems also need to ensure that information is *disseminated* among system actors and that these actors have the capacity (e.g. in terms of skills, tools or encouraging environments, for example) to *make use of* and *benefit from* these insights.

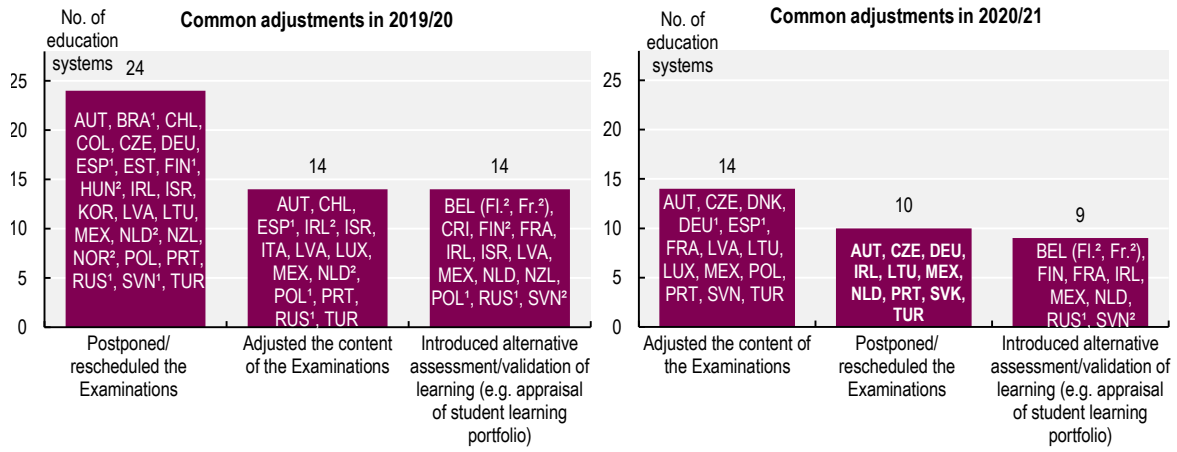
The processes that feed into and out of the knowledge base must be comprehensive enough to provide sufficient information about learner and system progress towards long-term goals, as well as being flexible enough to withstand moments of crisis and adapt to fast-changing environments. They also need to be

cost-effective and strategic to help education actors better use what they need as they move towards long-term objectives using the systems' available resources.

Experiences during the COVID-19 pandemic illustrate these tensions. The extent to which countries and economies adjusted related plans to administer national examinations and assessments during institutional closures depended both on the health context and the level of focus traditionally placed on these tests within the education system (OECD, 2021[2]). The majority of adjustments were made to national examinations at upper-secondary level. In both 2020 and 2021, rescheduling and modifying the content of the examinations at this level were the most common types of adjustments employed by education systems (see Figure 4.1).

This is indicative of the fact that national examinations at this level often serve important functions. Education systems relying heavily on these examinations for certifying the completion of compulsory education or facilitating entry into higher education may have been less disposed to cancelling the examinations and employing other assessment methods, such as teacher-based assessment or final grades based on continuous assessment. Other motivations for not cancelling examinations reported by countries and economies in the Special Survey include the need to compare results to those of previous academic years for system monitoring and to provide teachers with diagnostic information about students (OECD, 2021[2]).

Figure 4.1. Adjustments made to national examinations in upper-secondary general and vocational programmes due to the COVID-19 pandemic



Note: For education systems whose academic year follows the calendar year, reference dates are 2020 and 2021. [1] Upper secondary general education only; [2] Upper secondary vocational education only.
Source: OECD/UIS/UNESCO/UNICEF/WB (2021[3]), *Special Survey on COVID Database*, https://www.oecd.org/education/Preliminary-Findings-COVID-Survey-OECD-database.xlsx (accessed on 29 September 2021).

StatLink https://stat.link/3t07ja

Collecting, disseminating and improving the use of information within a responsive and resilient education system therefore requires a careful balancing act. While high-stakes examinations at key moments in education pathways have a valuable role to play, they must be accompanied by supporting assessment efforts that are regular and formative. Evidence from the pre-pandemic context shows that these areas could be strengthened in many OECD countries and economies. In the OECD's Teaching and Learning International Survey (TALIS) 2018, while 80.3% of lower-secondary teachers across the OECD reported that they use a variety of assessment strategies in their teaching, 57.5% reported regularly providing written feedback as well as a numerical mark, and 41.0% frequently encouraged student self-assessment. From

the students' perspective, in the OECD's Programme for International Student Assessment (PISA) 2018, only 44.6% of 15-year-olds across the OECD reported that their teacher frequently tells them how to improve their performance.

Revisiting the collection of information about students and their learning

Why it matters

Robust assessment and data collection practices support teachers and policy makers to strengthen education institutions' and systems' responsiveness and resilience to shocks. As students are increasingly called upon to acquire complex skills beyond knowledge in order to navigate a changing world, education systems must rethink strategies and means to measure their progress (OECD, 2019[4]). Furthermore, responsive and resilient education systems, which, by their nature, aim to educate the "whole-child", bringing learners' different worlds together to enhance learning, must reflect those aims in the knowledge base, developing assessment and other data collection tools to create a balanced view of performance.

These education systems employ a variety of methods to collect information about student learning in its broader sense. This includes information about traditional academic development, but also wider personal and interpersonal development. Effective assessment frameworks also encourage a variety of assessment types, including teacher observation, written classroom tests, and standardised instruments (Maghnouj et al., 2020[5]). Similarly, they collect information at different times in a students' learning journey, balancing the use of summative and formative assessments, as well as diagnostic assessments. Finally, collection should occur across different governance levels – institutional, local, regional, national and international – to help target resources effectively and offer comparative insights.

Education systems also need to strategically reflect on which instruments will allow them to monitor their own progress and better plan for the future. System evaluation of this nature benefits from employing a variety of collection tools such as indicator frameworks, qualitative reviews focusing on particular areas, and policy and programme evaluation, alongside the tools to monitor student outcomes as described above (OECD, 2013[6]; Golden, 2020[7]).

Indeed, as resilience tackles cutting-edge emerging threats, traditional quantitative information sources may not always be available or useful; qualitative research can therefore bridge initial gaps in understanding risk (Hynes, 2019[8]). Technology has a role to play too, thanks to the increasing availability of policy-relevant big data and open data (Golden, 2020[7]). Integrated digital data platforms can also help system-level actors complement education system data with other kinds of administrative data at national and local levels to reveal previously unseen correlations and causations (Subosa and West, 2018[9]).

The COVID-19 experience alerted education systems to possible weaknesses in approaches to collecting information that should be considered in the short and medium term as they move forward into an increasingly uncertain future. Many OECD education systems rely on high-stakes, external standardised examinations to determine, at least in part, key moments in learners' pathways, whether that be transition to the next stage or as part of qualification and certification processes. While several systems made adjustments to examination arrangements in 2020 and 2021 (see Figure 4.1) such moves often added stress for learners and their families, were a greater burden on teachers, or implied the loss of a crucial source of longitudinal data during a year in which such information would have been particularly valuable. These experiences may serve as a warning for systems that are overly reliant on one source of student progress data. Such imbalance creates unnecessary rigidity, impeding resilience.

What we can learn from relevant policy approaches

► See Table 4.1 for a list of policies considered in this analysis; [] see Chapter 5 for further information.

Prior to the COVID-19 pandemic, assessment reforms in many countries and economies already reflected a broader shift towards measuring complex competencies and other skills that support learners' transitions to the labour market. These might include digital competencies, social and emotional skills, or higher-order thinking skills (OECD, 2019[4]; Burns and Gottschalk, 2019[10]; OECD, 2013[6]). In addition, growing concern for the social and emotional development of students has led some countries and economies to undertake efforts to monitor and assessing student well-being.

However, assessing these complex or non-cognitive competencies can be challenging. In **Norway**, researchers have developed new instruments to measure whether curricular reforms in primary and secondary education are enhancing students' capacity for in-depth learning, learning to learn, and interdisciplinary themes such as health and life skills (see Chapter 2). A student questionnaire measures acquisition of relevant concepts while a teacher questionnaire gathers data on practices, training needs, and perceptions of the school environment. The project will carry out four annual surveys from 2021-25 as part of a multi-stage evaluation. A report on the first round concluded that the developed measurements had good psychometric properties (Brandmo et al., 2021[11]).

Digital technology can also support the assessment of a wider range of competencies (OECD, 2020[12]) while providing education systems with greater flexibility to adapt to changing contexts. Prior to the pandemic, **Turkey** updated its Education Information Network (EBA) digital learning platform (see Table 2.5 in Chapter 2) to enable students, parents, and teachers to monitor student progress (OECD, 2020[13]). Moreover, **Finland** has progressively digitalised its matriculation examination for upper-secondary graduates, becoming fully digital from 2019. The examinations now incorporate digital and visual tools, allowing students to complete computation, editing, and graphic presentation tasks. Finland also launched an online platform to familiarise students with the examination and support them with administrative aspects; this also helped the Matriculation Examination Board to monitor the development of the test system. In March 2020, Finland condensed the examination period into a single week ahead of school closures. The Matriculation Examination Board worked with schools to anticipate and resolve technical issues arising from the increase in the number of students taking the test on the same day and collected feedback from candidates and school staff. Examinations in autumn 2020 (Q4) and spring 2021 (Q2) were organised in smaller sessions over a longer period (OECD, 2020[12]).

The shift to distance learning in the early stages of the COVID-19 pandemic has led many countries and economies to strengthen digital assessment. **Portugal** produced a detailed set of guidelines for teachers on the assessment of distance learning. These provide specific examples of online and offline activities to assess different competence areas of the Student Profile for the End of Compulsory Schooling, with suggestions on how to give quality feedback and appropriate digital tools for each activity. The guiding principles encourage teachers to use a variety of assessment strategies to ensure reliability and to give students with different needs the chance to demonstrate learning (Directorate-General of Education of Portugal, n.d.[14]). In countries and economies such as **Slovenia** and **Spain**, assessment in the context of distance learning was a key focus of teacher professional development during 2020/21. This focus on building teachers' capacity is promising (see Table 3.5 in Chapter 3; see also Chapter 5—Country Snapshots).

In the immediate term, assessing the impact of school closures on students' learning has also been a key priority for several countries and economies as schools reopened. Of 28 education systems reporting having already taken steps to assess learning losses by September 2021, 24 reported that this took the form of formative assessment carried out by teachers. Some 18 reported that students were assessed in a standardised way, including Estonia and France (OECD/UIS/UNESCO/UNICEF/WB, 2021[3]).

In the same way, shifting the focus from high-stakes assessment towards *continuous assessment* may leave education systems better placed to adapt to disruptions and can also reduce student stress. For many systems, however, this requires a shift in teaching practices and successful implementation involves empowering educators to make changes (OECD, 2013[6]). In **Ireland**, the move towards a greater focus on classroom-based assessment as part of the Junior Cycle reform had significant implications for teachers' workload, leading to some resistance among teaching unions. Ireland therefore developed a comprehensive professional development offer and gave teachers protected time for collaboration. Implementation plans were revised regularly to ensure support for teachers matched the scope of changes introduced. Ireland also continued to gather teacher feedback on the reform (OECD, 2020[15]).

Also to support teachers, and to facilitate the collection of information on student learning, teachers in the **Slovak Republic** have access to a bank of assessments designed by other teachers, which can be used to assess individual units or topics. The teachers who designed the tests participated in a series of training events on diagnostic assessment and the specifics of creating tasks for individual subjects.

Over the medium term, policy makers also face the challenge of building trust among the different actors involved in data collection. In some education systems, students and parents have expressed concerns about institutions collecting data on students' special educational needs (SEN) or mental health. These sensitivities, along with concerns about stigmatising students, may prevent countries and economies from collecting or publishing certain data (OECD, 2018[16]). Similarly, teachers in some countries and economies have resisted attempts to collect student progress data, fearing an incorrect use of this information. This points to a need to develop robust mechanisms to ensure data protection, reflecting on which data are shared with which audiences, and ensuring transparency for different actors about its use.

Box 4.1. Example of practice – Making student assessment practices more responsive (France)

Reforms introduced in France provide a recent example of how the scope, tools, layers, and timing of assessment can provide a safety net for education systems in the event of shocks such as the COVID-19 pandemic. Firstly, at the school level, primary teachers used the results from assessments that took place in September 2020 and January 2021 to identify students whose learning gaps required immediate action and students who required further monitoring. At the system level, the Directorate of Evaluation, Forecasting and Performance (DEPP) compared the results of these assessments to those from 2019 to estimate the impact of school closures on student progress, paying attention to factors such as gender, socio-economic status, and geographical location. These assessments have been in place since 2018/19 but, in 2020, DEPP increased the scope of the assessment, with additional questionnaires to capture the experiences of school leaders and students during the pandemic. This approach has supported other measures to assess the short- and long-term impact of the pandemic, including longitudinal cohort studies and parent questionnaires. In addition, the introduction of continuous assessment as part of reforms to upper-secondary education meant that these grades could be used to certify students when written examinations were cancelled in 2020 and then removed from some subjects in 2021. In June 2021, the government announced further reforms to simplify and strengthen continuous assessment based on lessons learnt during the pandemic. In particular, these efforts aim to remove the common national continuous assessments in favour of more flexible, teacher-led continuous assessment that can respond to learning and progress in the classroom.

Who?: **Students, teachers and policy makers (*people*)** can benefit from greater **flexibility in student assessment practices (*purpose*)**. This is sought through **adjusting the scope and tools of assessment (*process*)** in response to changing contextual needs. These adjustments may be long-term, as in the case of reforms at upper-secondary level, or punctual, as for those at primary level, but both demonstrate a desire to ensure the information collected is of maximum value.

Source: Ministry of National Education, Youth and Sport of France (n.d.[17]), *La DEPP et l'impact de la crise sanitaire [The DEPP and the impact of the health crisis]*, https://www.education.gouv.fr/la-depp-et-l-impact-de-la-crise-sanitaire-305177 (accessed on 20 July 2021).

Some policy pointers for resilience

- ***Develop and consolidate data collections so that these act as safety nets for education actors in contexts of change and disruption.*** Over the medium term, policy makers need to consider how the **scope** (i.e. aspects of learning covered), **tools** (i.e. format of assessment and other means of collecting data), **layers** (i.e. levels of the system where data is collected), and **timing** (i.e. continuous assessment, terminal examinations, real-time data and longitudinal data) of data collection converge to provide a safety net for education systems in the event of shocks. These reflections should be guided by the overarching goals of the education system and an ongoing endeavour to strengthen trust, flexibility, and efficiency in assessment and data collection procedures. Fewer examples of policies collected for this report aim to address the balance between continuous and summative assessment, suggesting this may require more attention in the short term.

Table 4.1. Selected education policies and practices on improving assessment strategies and the collection of student data

Finland – Changes to matriculation exam (2013)[3] **France** – Reform of upper secondary and the Baccalaureate (2019)[8] **Ireland** – Junior Cycle Reform (2015)[4] **Norway** – Instruments to measure the progress of curriculum reforms (2021)[1]	**Slovak Republic** – Increasing the quality of primary and secondary education through the use of electronic testing (2013)[7] **Developed in COVID-19 context** **Portugal** – Guiding Principles for Pedagogical Assessment in Distance Learning (2020)[6]	**Estonia** – Guidance for student assessment during closures and feedback collection (2020)[2] **France** – National benchmarking assessments and additional resources (2020)[5]

Note: [] See Chapter 5 for more information about this policy.

Sources: [1] Brandmo et al (2021[11]), *Læring, motivasjon, trivsel og tverrfaglige tema i fagfornyelsen [Learning, motivation, well-being and interdisciplinary themes in the subject renewal]*, https://www.uv.uio.no/forskning/prosjekter/fagfornyelsen-evaluering/aktuelle-saker/rapport-3-eva2020--prosjekt-3.2---30-06-2021.pdf (accessed 7 October 2021); [2] OECD (2020[18]), *Education Policy Outlook: Estonia*, www.oecd.org/education/policy-outlook/country-profile-Estonia-2020.pdf (accessed on 28 October 2021); [3] OECD (2020[19]), *Education Policy Outlook: Finland*, http://www.oecd.org/education/policy-outlook/country-profile-Finland-2020.pdf (accessed on 28 October 2021); [4] OECD (2020[15]), *Education Policy Outlook: Ireland*, http://www.oecd.org/education/policy-outlook/country-profile-Ireland-2020.pdf (accessed on 28 October 2021); [5] OECD (2020[20]), *Lessons for Education from COVID-19: A Policy Maker's Handbook for More Resilient Systems*, https://doi.org/10.1787/0a530888-en; [6] Directorate-General of Education of Portugal (n.d.[14]), *Princípios Orientadores para uma Avaliação Pedagógica [Guiding Principles for Pedagogical Assessment in Distance Learning]*, https://www.dge.mec.pt/sites/default/files/roteiro_avaliacao_ensino_a_distancia.pdf (accessed 7 October 2021); [7] NÚCEM (n.d.[21]), *Increasing the quality of primary and secondary education with the use of electronic testing*, http://www.etest.sk/275-en/news/ (accessed on 1 April 2021); [8] Ministry of National Education, Youth and Sport of France (n.d.[17]), *La DEPP et l'impact de la crise sanitaire [The DEPP and the impact of the health crisis]*, https://www.education.gouv.fr/la-depp-et-l-impact-de-la-crise-sanitaire-305177 (accessed on 20 July 2021).

Disseminating information on student progress, and the practices that enhance it, in a purposeful way

Why it matters

As well as collecting the right information, effectively disseminating this information between key education actors is a crucial precursor to putting it to good use. Indeed, information that once collected is hard to find, little publicised, or not deemed useful enough to pass on to other actors in the system has been a waste of resources (Burns and Köster, 2016[22]). A system that lacks the capacity for communication and dissemination of key messages to wide audiences will struggle to use the evidence it collects and generates effectively (Golden, 2020[7]). Resilient education systems must therefore focus on quality dissemination practices around three key aims: clarity, trust and learning.

Effective dissemination is an initial step in allowing education actors to become co-champions of education processes. For example, effective reporting mechanisms and information systems allow teachers, parents and learners to monitor progress themselves, even as students move through education levels (OECD, 2013[6]). On the other hand, decision makers at different levels of the system often use aggregate data for planning and strategic improvement. Effective dissemination may also help mitigate information asymmetries that arise at moments of key decision making such as choice of school, pathway or career, and exacerbate inequities.

At the same time, resilient education systems effectively disseminate information to help establish trusting relationships with people across the system. Providing quality feedback to parents and carers lays the foundations for home-institution partnerships, for example (OECD, 2013[6]). PISA data indicate that education systems that use student assessments to inform parents about their child's progress also tend to be more equitable (OECD, 2020[23]). In a broader example, the dissemination of the evidence base underlying policy diagnosis, policy options and the costs of reform versus inaction is critical to gain public support for implementation. This presents a risk, however, as the system must commit to sharing positive and negative information, acknowledging where information and evidence are still insufficient. Meanwhile, a lack of clear reporting and dissemination runs the risk of enabling non-expert players to take control of key messages (OECD, 2013[6]). Achieving the right balance therefore requires a cultural shift towards accepting failure as a possibility and an opportunity for learning (Golden, 2020[7]). In other words, a responsive and resilient system needs to adopt a growth mindset.

Responsive and resilient education systems also see value in dissemination as a critical tool for scaling up innovative practices. Transforming education systems into learning systems depends on organisations and actors having the capacity both to collect evaluative information on their own work and to learn from other evaluations and evidence (Golden, 2020[7]). Improving the dissemination of results of experimental education research could encourage other actors and institutions to take action (Burns and Köster, 2016[22]). The COVID-19 experience emphasised the need for this type of dissemination or sharing of best practice. During the initial emergency period, in particular, in many education systems, education institutions became the drivers of innovation and change, identifying solutions to their problems quickly and creatively. Without efforts to disseminate these experiences, the system risks becoming atomised, with isolated pockets of good practice going unnoticed (see Chapter 3). As such, the identification and streamlining of best practices through quality dissemination empowers institutions and educators to exercise a bottom-up influence and contribute to the improvement cycle of education systems (Gouëdard, Pont and Viennet, 2020[24]; OECD, 2020[20]).

What we can learn from relevant policy approaches

► See Table 4.2 for a list of policies considered in this analysis; [] see Chapter 5 for further information.

Among OECD education systems, a common approach to improving the dissemination of education data is to develop digital information management platforms and data products for different audiences. Digital technologies can be used to draw together data from different sources and can provide users with tools to analyse the data. During school closures in 2020, **Finland** and **Estonia** used digital platforms to provide feedback to students and their families. Finland's national online parents' evening gave parents the opportunity to discuss their child's learning and provide feedback on home-school collaboration.

However, when pursuing the objective of facilitating access to information, governments also need to keep in mind that, sometimes, less is more. Abundant information does not necessarily mean audiences will be better informed. In **Denmark**, for example, an advisory group established in 2019 made recommendations for simplifying the mandatory individual student plans, which had recently become digital. One of the key challenges the advisory group identified was that the student plans intended to fulfil a wide range of purposes for a wide range of audiences. As a result, the plans contained large amounts of information,

and took teachers a long time to complete. The advisory group recommended replacing the plans with a limited number of focus points for each student's development to be used as a basis for dialogue with students and parents (Ministry of Children and Education of Denmark, 2020[25]). This, among other experiences, points to a need to think carefully about the audience and purpose of data collection and reporting, curating the information according to the audience, and also placing more value on the process of using this information (OECD, 2013[6]; OECD, 2018[26]).

Indeed, as well as ensuring that reporting mechanisms are user-friendly, it is important to take steps to help intended audiences engage with the data. The information generated in an education system is only as good as the use that is made of it. To this end, **New Zealand**'s Ministry of Education has developed a collection of infographics and student profiles to support student learning at the school level and to increase the transparency of education data. The Ministry closely monitors and modifies these data products based on user feedback and demand, with the aim of reaching a wide range of users. The Ministry has also worked with other government agencies to combine different forms of administrative data in an integrated data management system. An increasingly wide range of stakeholders use the data as part of the Communities of Learning initiative (OECD, 2019[4]).

Box 4.2. Example of practice – Tailoring dissemination to users' different needs (Estonia)

Estonia's comprehensive information management system for schools (EHIS) is accessible for different purposes to teachers, school leaders, parents, students, policy makers, researchers and the general public. Teachers and school leaders can use the statistics and indicators from the Education Eye platform for school improvement by comparing their schools' performance with other schools. This tool has some identified advantages from internal information management systems, although it has also been found, as part of possible points of improvement, that the purposes of data collection and analysis could be more transparent for schools (OECD, 2020[27]). Through other features, prospective students and their parents can compare the labour-market outcomes of different study programmes, or access a 'school card' with a school's results in national examinations and student satisfaction surveys. In the past, parents have tended to show more interest in state examination results, highlighting the challenge of educating users in the interpretation of data. Finally, policy makers at the municipal and state level have been using the data to inform decision-making. For example, the database allows policy makers to track individual students over time and to link data on educational outcomes to employment outcomes. At the same time, the OECD has recommended that Estonia invest in research teams to develop new and innovative analysis, therefore exploiting the full potential of these datasets.

Who?: **Students, parents, school staff and policy makers (*people*)** benefit from efforts to **enhance the value of the information they receive (*purpose*)** through **tailoring outputs to different audiences' needs (*process*)**. The example also illustrates that this is an ongoing process; the richness of data collected by modern education systems requires continuous efforts to enhance the quality of analysis and outputs.

Source: OECD (2020[27]), *Strengthening the Governance of Skills Systems: Lessons from Six OECD Countries*, OECD Skills Studies, https://dx.doi.org/10.1787/3a4bb6ea-en.

Some policy pointers for resilience

- ***Curate information for the needs of different education actors***. Governments face the challenge of achieving clear, targeted and tailored dissemination of information that strikes a balance between over-simplification and excessive technical detail. In the short term, policy makers therefore need to more clearly define the roles and aims of different actors and information sources in order to determine who needs what data and when, and how best it can be communicated. Over the medium term, information management systems and other digital tools facilitate a more tailored approach.

- ***Use dissemination to signal priorities and scale up innovative, cost-effective and impactful local initiatives***. Disseminating evaluative information, including evidence from experimental education research, can speed up improvement processes in contexts of disruption and change. This is when local actors may struggle more to set priorities, and identify and apply solutions to emerging challenges. In the immediate post COVID-19 recovery, this will help education systems recover lost learning where pockets of good practice could serve as valuable inspiration. For this reason, disseminating information is not a top-down process, but also bottom-up and lateral.
- ***Develop an education system with a growth mindset***. In a world where contexts rebalance constantly, education systems need to engage in efforts to nurture a growth mindset among policy makers, practitioners, learners and families over the medium term. This involves disseminating evidence that shares both strengths and points to be enhanced, but also clarifying where the evidence is stronger or still frail. This can help develop greater trust among education actors and promote a continuous dialogue with greater clarity on how decisions in one area may affect other areas of policy action.

Table 4.2. Selected education policies on improving the dissemination of data on student progress

Denmark – Individual Mandatory Student Plans (Digital) (2018)[1] **Estonia** – Estonian Education Information System (EHIS) (2004)[4]	**New Zealand** – Public Achievement Information (2011)[5]	**Developed in COVID-19 context** **Estonia** – Virtual student development interview (2020)[2] **Finland** – National Online Parents' Evening (2020)[3]

Sources: [1] OECD (2020[28]), *Education Policy Outlook: Denmark*, http://www.oecd.org/education/policy-outlook/country-profile-Denmark-2020.pdf (accessed on 28 October 2021); [2] OECD (2020[18]), *Education Policy Outlook: Estonia*, http://www.oecd.org/education/policy-outlook/country-profile-Estonia-2020.pdf (accessed on 28 October 2021); [3] OECD (2020[19]), *Education Policy Outlook: Finland*, http://www.oecd.org/education/policy-outlook/country-profile-Finland-2020.pdf (accessed on 28 October 2021); [4] OECD (2020[27]), *Strengthening the Governance of Skills Systems: Lessons from Six OECD Countries*, https://dx.doi.org/10.1787/3a4bb6ea-en; [5] OECD (2019[4]), *Education Policy Outlook 2019: Working Together to Help Students Achieve their Potential*, https://dx.doi.org/10.1787/2b8ad56e-en.

Engaging actors to use information about students, their learning and related practices

Why it matters

For assessment data to have a real impact, actors across the education system must know how to use it. In resilient systems, this requires establishing feedback loops so that pertinent information is channelled back into both pedagogical and policy-making processes, helping to establish an open and continuous cycle of system learning (Maghnouj et al., 2020[5]). These feedback loops, and the capacity to make the most of them, must be readily available to students, educators and policy makers.

Improving the use of student data begins with equipping students with the skills they need to assess their own learning and take meaningful action in response to feedback (OECD, 2013[6]; Hattie, 2019[29]). Students who regularly assess their own progress and can reflect on their learning strategies will be better able to take greater responsibility for their learning. This is particularly important when the normal way of learning is disrupted. Accurate self-assessment and self-evaluation also have a powerful impact on student learning: a synthesis of over 800 meta-analyses of student achievement research found that self-reported grading (i.e. students' own estimations of their ability and progress) had the greatest impact on student achievement of the 138 achievement effects considered (Hattie, 2019[29]).

At the same time, teachers and school leaders need specific knowledge and skills to interpret student data, and to use it to inform decision making. Yet diagnosing the source of student difficulties and developing appropriate remedies for different students is often challenging (OECD, 2013[6]). Educators need to understand how national learning expectations and students' trajectories in reaching them can be

assessed through a variety of tools. At the same time, teachers need to be skilled in providing constructive and precise feedback in order to foster students' future achievement (Maghnouj et al., 2020[5]). This requires concrete actions at system and institutional level to strengthen educators' assessment literacy.

Data and assessment literacy are also critical competencies for actors at system level. In PISA 2018, countries and economies tended to show greater equity in education when they use student assessments to identify aspects of instruction or the curriculum requiring improvement and when they use them to inform parents about their child's progress (OECD, 2020[23]). Such competencies require continuous updating, particularly as the range of data available to policy makers continues to expand. For example, the increasing availability of policy-relevant big data and open data offers opportunities for greater insight into the impact of policies, but the capacity to use such data is still in its infancy (Golden, 2020[7]).

At the same time, education management information systems can help make the administration of educational services more efficient while also generating information that allows education actors to plan responsively for the future, make informed policy decisions, and concretely measure the success of education policies and programmes (Subosa and West, 2018[9]). Investing in internal administrative and analytical capacities within national education, as well as enhancing collaboration with specialist education evaluation agencies, academic researchers, private institutes, or international organisations, can help strengthen the way system actors use information (Golden, 2020[7]). Such collabroations and investments will take time: moving forward in the short term, it is critical to ensure that learners, the education community and the system can monitor learning progress in a timely manner and adapt pedagogical processes accordingly (OECD, 2020[20]).

What we can learn from relevant policy approaches

► See Table 4.3 for a list of policies considered in this analysis; [] see Chapter 5 for further information.

Before the pandemic, several countries and economies had already undertaken efforts to help actors in education systems use information collected about student learning. For example, standardised classroom-based assessments in countries and economies such as **Alberta (Canada)** and **France** take place at the beginning of the school year; the results become available to teachers within a few days of the test. By giving teachers earlier access to assessment results, governments aim to facilitate their use of the results to improve student learning (Alberta Education, 2020[30]; OECD, 2020[12]). Furthermore, one of the key objectives of the reform in France is to support teachers in responding to the needs identified in the assessments. In the same way, **New Zealand**'s Assessment Resource Banks for teachers include some digital assessment tasks that provide students with immediate feedback, while others are designed to promote student-teacher and student-to-student dialogue. The teacher support material contains examples of how teachers have used different tasks as a 'thinking together' exercise. Other tasks include reflective questions to support students in thinking about their learning (Joyce and Fisher, 2014[31]). Indeed, capacity-building efforts are crucial: an important success factor of **Norway**'s assessment for learning programme is seen in the collaborative professional learning networks established by local authorities.

In the context of the pandemic in 2020, as reported in the Special Survey, education systems such as Austria, Estonia, France, Italy, Latvia or Poland reported using results from the national assessments at lower-secondary level carried out in 2020 for formative purposes, notably to provide diagnostic information for teachers and to provide parents with feedback on their child's learning (OECD, 2021[2]). **Chile** developed a Comprehensive Assessment of Learning to support schools in addressing students' learning losses and social and emotional needs following school closures in 2020. The assessments were applied in more than 80% of Chilean schools, from the 2nd grade of primary to upper-secondary levels, and evaluated reading, mathematics and students' socio-emotional status.

Several education systems, including **Denmark** and **Norway**, have also taken steps to share evidence with teaching professionals, policy makers, and other education actors, and to support them in using it to

improve policy processes and learning outcomes. For example, the Danish Clearinghouse for Educational Research produces systematic mappings bringing together education research on a particular policy area. The Norwegian Knowledge Centre for Education conducts similar analyses and publishes summary overviews of its research through its web portal, indicating whether the research is aimed at policy makers, practitioners, or other audiences. In the **United Kingdom**, the Education Endowment Foundation publishes toolkits for schools which show the comparative cost, evidence strength, and measured impact of different policy options and interventions (OECD, 2018[26]). Since the outbreak of the pandemic, it has published evidence on issues relating to distance education and recovering lost learning.

Box 4.3. Example of practice – Facilitating the use of assessment data to recover learning (Chile)

During school closures in 2020, teachers and school leaders in Chile received a Curricular Prioritisation support package (see above). This was underpinned by the Comprehensive Assessment of Learning (*Diagnóstico Integral de Aprendizajes, DIA*), a computer-based assessment which, once administered, provided teachers and school leaders with class- and individual-level written feedback and graphs to show the specific competencies not yet mastered and that should be reviewed. Based on the results reports, teachers were invited to develop an action plan with the main planned interventions and to follow up with their school leaders for pedagogical support. The government provided very detailed step-by-step guidelines and tools to help teachers implement such interventions. Animated videos and tutorials were also made available, as well as webinars where different school actors discussed their experiences. Positive initial results from the implementation of the Comprehensive Assessment of Learning prompted the government to extend the effort into 2021 as an intermediate measurement of lost and recovered learning.

Who?: This approach has supported **school staff (*people*)** to use student assessments to **support post-pandemic learning recovery (*purpose*)** by providing **detailed feedback matched with clear guidance and practical tools (*process*)**. In this way, through making a variety of tools available to them, teachers and school leaders can not only identify learning gaps but can also act on this information through applying it practically to teaching and learning in the classroom.

Sources: Education Quality Agency of Chile (2021[32]), *Comprehensive Assessment of Learning - Guidelines for Implementation [Diagnóstico Integral de Aprendizajes - Manual de uso Guía para su Implementación]*, https://diagnosticointegral.agenciaeducacion.cl/documentos/Manual_de_uso_DIA_junio_2021.pdf (accessed on 20 July 2021). Education Quality Agency of Chile (2021[33]), *Comprehensive Assessment of Learning - analysis and use of data [Diagnóstico Integral de Aprendizajes: análisis y uso de datos]*, http://formacioncontinua.ucsc.cl/wp-content/uploads/sites/124/2021/04/Plantilla_Taller_DIA-Analisis-Integrado-Resultados-1_compressed.pdf (accessed on 20 July 2021).

Some policy pointers for resilience

- ***Support education actors to understand evidence, unpack it as needed and use it for impact***. In the short term, training and support materials for education actors should focus on helping them to identify students' learning needs based on assessment and to implement activities that will help students make further progress (OECD, 2019[34]). Given the important role that formative assessment has played in several countries and economies' efforts to address the learning gaps that opened up in the early stages of the pandemic, it will be all the more important to ensure teachers can interpret assessment data and take action accordingly (OECD, 2021[2]). However, capacity building for these actors needs to remain priority-focused and collaborative as education actors face new challenges. This will help education actors own and manage evidence more easily as they apply it to their specific environments. Similarly, they will be more motivated to use the information they receive if they see that it has value and can be applied to their specific context. Investing in technological and institutional capacity to support change when needed will be important as well.

- ***Empower students to assess their own progress and take meaningful action.*** Analysis from the Education Policy Outlook, as well as pre-pandemic survey data, suggest that there is progress to be made in embedding student self-assessment practices. Over the medium term, policy makers will need to address specific challenges identified, including ensuring that students have regular opportunities to assess their own work and ensuring adequate teacher training to promote formative assessment in the classroom, as well as creating a climate that encourages this use of evidence.

Table 4.3. Selected education policies on strengthening the use of assessment data by learners, teachers, and institutions

Alberta (Canada) – Student Learning Assessments (2013)[3] **Denmark –** Danish Clearinghouse for Education Research (2006)[4] **France** – National assessments (2018/19)[3]	**New Zealand –** Assessment Resource Banks for Teachers (Digital) (2013)[5] **Norway** – Assessment for Learning Programme (2010 – 2018)[4] ; Norwegian Knowledge Centre for Education (2011)[4]	**United Kingdom** – Education Endowment Foundation (2011)[4] **Developed in COVID-19 context** **Chile** – Comprehensive Assessment of Learning (2020/21)[1]

Note: [] See Chapter 5 for more information about this policy.
Sources: [1] Education Quality Agency of Chile (2021[32]), *Comprehensive Assessment of Learning - Guidelines for Implementation [Diagnóstico Integral de Aprendizajes - Manual de uso Guía para su Implementación]*, https://diagnosticointegral.agenciaeducacion.cl/documentos/Manual_de_uso_DIA_junio_2021.pdf (accessed on 20 July 2021); Education Quality Agency of Chile (2021[33]), *Comprehensive Assessment of Learning - analysis and use of data [Diagnóstico Integral de Aprendizajes: análisis y uso de datos]*, http://formacioncontinua.ucsc.cl/wp-content/uploads/sites/124/2021/04/Plantilla_Taller_DIA-Analisis-Integrado-Resultados-1_compressed.pdf (accessed on 20 July 2021); [2] OECD (2020[35]), *Education Policy Outlook: Norway*, https://www.oecd.org/education/policy-outlook/country-profile-Norway-2020.pdf (accessed on 28 October 2021); [3] OECD (2019[4]), *Education Policy Outlook 2019: Working Together to Help Students Achieve their Potential*, https://dx.doi.org/10.1787/2b8ad56e-en; [4] OECD (2018[26]), *Education Policy Outlook 2018: Putting Student Learning at the Centre*, https://dx.doi.org/10.1787/9789264301528-en; [5] NZCER (n.d.[36]), *Assessment Resource Banks for Teachers (ARBs)*, https://www.nzcer.org.nz/research/assessment-resources-classroom-teachers-and-students-arbs (accessed on 20 July 2021).

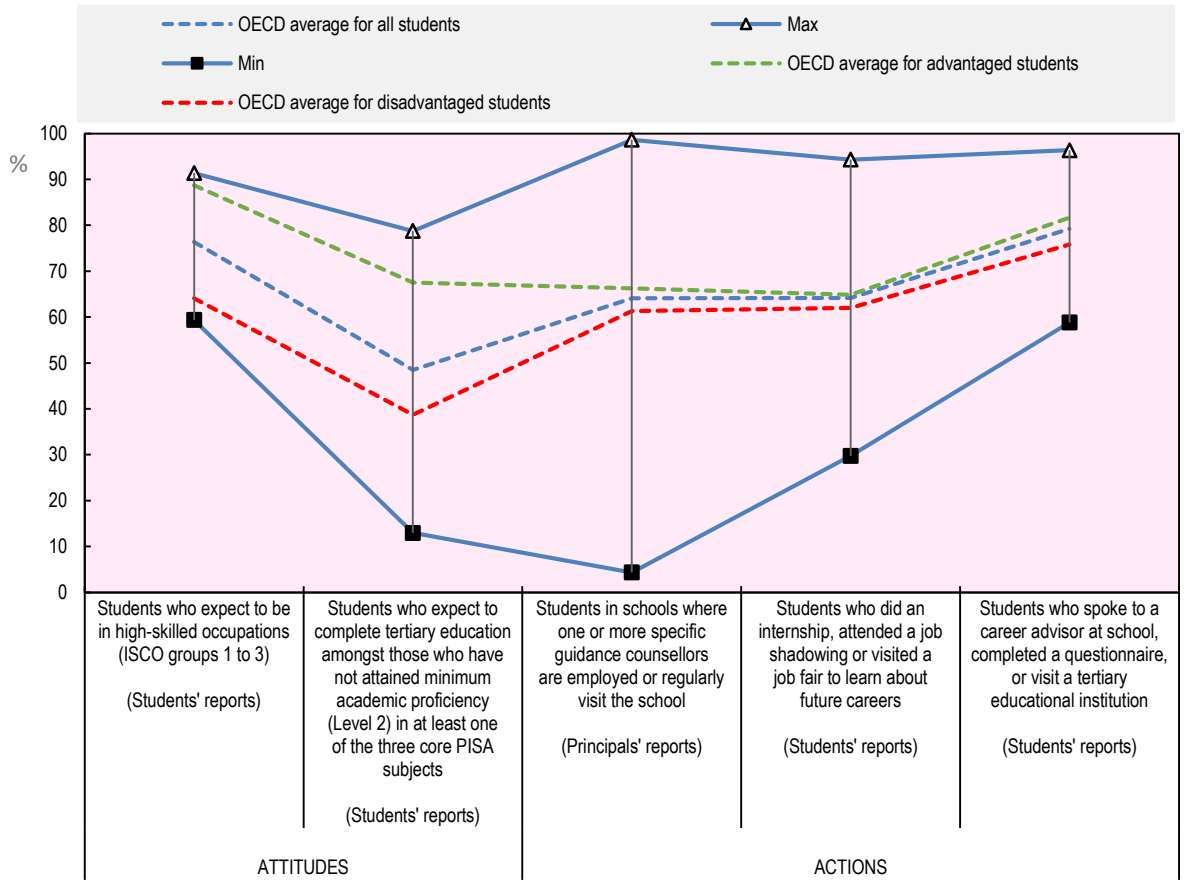
Fostering dynamic pathways that evolve with the learner and the times

Resilient education systems develop a broad, flexible and coherent educational offer that enables learners to find a pathway suited to their needs and interests, even as these change. At the same time, the educational offer should ensure that learners are equipped with the skills and competences they will need in order to contribute fully to society and the labour market. To that end, as skills demands evolve, with evolutions accelerated or diverted by crises and recovery periods, the system of education pathways must be nimble enough to anticipate and adapt to such change.

In addition, education systems must be pro-active in supporting students to access information about career pathways and develop ambitious and realistic career expectations. However, there are large gaps among OECD countries and economies in terms of students' attitudes towards their future and their access to the resources that could potentially provide them with better professional perspectives, such as guidance counsellors, internships, job shadowing or visiting a job fair (see Figure 4.2). For example, while on average across the OECD, nearly two-thirds of students (64%) attended schools that employ or are regularly visited by a guidance counsellor, in some countries and economies the share was less than one-fifth. Interestingly, when comparing students by socio-economic background, inequities between disadvantaged and advantaged students were more prevalent in terms of attitudes – such as expectation to be in a high-skilled occupation or to complete tertiary education – than in access to specific resources, such as career advice or work experience activities. Therefore, beyond providing resources, shifting attitudes matters too.

Figure 4.2. Student attitudes and actions on future careers

Indicators of system resilience that relate to ensuring smooth educational pathways (PISA 2018)



Note: See PISA 2018 for notes about coverage of these indicators.
Source: OECD (2019[37]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, Tables II. B1.6.2, II. B1.6.6, B1.6.9 and B1.6.11, https://doi.org/10.1787/b5fd1b8f-en.

StatLink https://stat.link/btgdyv

Smoothing transitions within education systems by aligning structures, people and processes

Why it matters

A responsive and resilient education system not only ensures that pathways and learning opportunities enabling learners to fulfil their ambitions are available to all, but also that these pathways can evolve along with societies' future needs. This flexibility can be promoted in the short and medium term by looking into transitions between education phases, guaranteeing permeability between different pathways, reducing drop-out or grade repetition and establishing flexible entry and exit points across a learner's lifetime.

Promoting successful transitions through the education system begins with a ***broad but coherent course offer*** suited to learners' changing needs, interests, and abilities. A growing body of research highlights the importance of students' transitions between different stages of the education system, particularly the move from early childhood education and care (ECEC) to primary school, and the move from primary to secondary school (OECD, 2017[38]; OECD, 2013[39]; OECD, 2018[40]). Supporting such transitions helps

systems nurture positive educational contexts and can thus prevent learners from falling behind. To this end, curricular and pedagogical continuity, co-ordination and collaboration between different levels, and parental engagement can be particularly effective. Since disadvantaged students are more likely to find transitions challenging, programmes may benefit these students most (OECD, 2017[38]).

To increase flexibility, education systems should also guarantee ***permeability between educational tracks***. This refers, for example, to ensuring that there are no dead ends and that learners can easily transfer between them if desired. Traditionally, education and training systems have separate and distinct subsystems (e.g. general and vocational) within a hierarchy of levels (i.e. primary, secondary and tertiary) and learners follow predefined routes suited to their goals (European Centre for the Development of Vocational Training, 2012[41]). Although these, and other horizontal and vertical stratification policies, aim to help educators work with groups of similar students, they can have the unintended consequence of imposing sorting mechanisms along socio-economic and academic lines (OECD, 2020[23]).

Promoting successful transitions also means helping learners stay on path by ***minimising the rates of grade repetition and early school leaving***, which both have short- and long-term costs for students, education systems, and societies (OECD, 2018[40]). Research indicates that students who have repeated a grade tend to perform less well in school, hold more negative attitudes towards school and are more likely to drop-out. Furthermore, in PISA 2018, disadvantaged students were more likely than their advantaged peers to have repeated a grade, even when performing similarly in reading, suggesting that non-academic factors can influence such decisions (OECD, 2020[23]).

Finally, resilient education systems must provide ***flexible entry and exit points***. In the context of fast-changing skills demand, creating flexible and shorter types of learning opportunities can help support workers to reskill in a timely manner. Research into applying such approaches in higher education indicates that they strengthen both equity and efficiency (OECD, 2019[34]). For example, online and distance-learning opportunities could allow more higher education students to study while living with parents or family and reduce the concentration of students in expensive university towns. Developing part-time study and short courses can reduce the amount of time that learners need to spend out of work.

Recovering from the COVID-19 pandemic has increased demand for efforts in all four of these areas in the short and medium term. Institutional closures disrupted transition activities already in place, forcing some systems to delay and adapt timelines for admission, induction and integration. At the same, with the habit of attending class now broken, some students became disengaged from their learning and their peers, increasing the risk of non-completion, particularly among disadvantaged students (OECD, 2020[20]). Finally, as the longer-term impact on the labour market is revealed, workers of all ages will need access to upskilling and reskilling opportunities that build on their prior experience, fit with their current circumstances, and support their future aspirations. As a result, the pandemic has highlighted the need for processes which normalise and facilitate flexibility in educational pathways, including training breaks or extensions, short-duration study options, flexible skills assessment and qualification, and recognition of prior learning.

What we can learn from relevant policy approaches

► See Table 4.4 for a list of policies considered in this analysis; [] see Chapter 5 for further information.

Building on the Education Policy Outlook's knowledge base, this framework has selected policy examples of how education systems can promote resilience through approaches that encourage smooth transitions, permeability of tracks, and reduced school failure or grade repetition, as well as providing flexible entry and exit points.

Smooth transitions

Several countries and economies introduced reforms to smooth transitions from one phase of the education system to another in the years before the pandemic. The transition from early childhood to primary education has been a focus, with many countries and economies seeking to align the ECEC and primary curricula and to institutionalise collaboration between teaching professionals at different levels. In some cases, transition policies target specific groups, such as disadvantaged students or minorities.

Data from the Special Survey 2021, however, suggest that, for many countries and economies, the pandemic has shifted the focus in the short term towards transitions later in students' lives. Around one in four of the participating education systems targeted efforts to address learning lost during school closures in 2020 at students in primary education transitioning from one phase of the education system to another. When considering students in lower and upper-secondary education, this increased to one in three, while in upper secondary education, over half of the education systems reported targeting remedial measures at students expecting to sit a national examination to access higher education (OECD/UIS/UNESCO/UNICEF/WB, 2021[3]). Policies from the pre-pandemic period can provide useful lessons for countries and economies in this context. For example, before the pandemic, **Japan** introduced an integrated primary and lower-secondary school. Results from an initial evaluation show that the initiative has improved collaboration between primary and secondary schools and reduced anxiety among students moving from primary to secondary education (OECD, 2019[4]).

Moving beyond the school level, recent initiatives in countries and economies such as Canada and Chile support students' successful transitions beyond secondary education. **Canada**'s Supports for Student Learning Program (SSLP) funds youth-facing national, regional, and local organisations to promote learners' completion of upper secondary and successful transition to further education, the labour market and lifelong learning. For example, SSLP provides funding to the Pathways to Education programme, which has improved upper-secondary graduation rates, post-secondary enrolment, and labour-market outcomes among students from low-income communities through after-school supports such as tutoring, mentoring, and direct financial incentives. An evaluation from 2018 highlights the programme's flexible structure as a key success factor. This has allowed staff to adapt programming to the specific needs of local youth by, for example, incorporating Indigenous teachings and traditions (Employment and Social Development Canada, 2019[42]). In 2021, Canada announced additional funding to expand the SSLP and help ensure that students do not face greater challenges because of the COVID-19 pandemic (Government of Canada, 2021[43]). In the same way, **Chile** has sought to smooth transitions between vocational upper-secondary education and short-cycle tertiary education through a National Articulation Agreement signed by 35 higher education institutions (HEIs). When transferring from a participating school to a participating HEI, students can validate at least three of the vocational modules they have studied at secondary level as part of their tertiary-level qualification. This reduces their course load when they enter higher education (Ministry of Education of Chile, 2021[44]).

Permeability of tracks

To increase the permeability of educational tracks, some education systems have developed qualifications frameworks that allow for comparability between programmes in general education and vocational education and training (VET) while others have focused on reforming VET pathways. In this process, improving the quality and attractiveness of VET is an important first step in facilitating transitions between academic and vocational pathways. Labour-market forecasting and regular collaboration with employers play an important role in ensuring that VET programmes lead to employment, making them more attractive to learners (OECD, 2018[40]).

Denmark has taken several measures in this direction since 2015. Efforts include strengthening admissions to upper-secondary VET to guide learners towards paths where they are likely to succeed, and introducing a VET preparation programme for lower-secondary students who lack necessary skills. An interim evaluation showed an increase in the number of teachers reporting that the majority of students have the skills they need to complete their programmes successfully. The number of students achieving a passing grade has also increased (OECD, 2019[34]). Through reforms introduced with the Project for Autonomy and Curricular Flexibility (2018), **Portugal** has also expanded its VET offer to include a wider range of high-skill occupations, such as electronics, automation and renewable energies. The OECD found that these reforms have reduced the traditional bias towards general education programmes in Portugal by creating routes to more attractive occupations (OECD, 2017[45]).

Reducing school failure or grade repetition

Education systems have also implemented strategies to reduce school failure or grade repetition. Tackling early school leaving often begins by developing early warning indicators to identify learners at risk (OECD, 2018[40]). Several successful strategies take a holistic and multi-faceted approach to addressing risk factors for drop-out. This has been a key dimension of **Latvia**'s Tackling early school leaving project. At the beginning of the school year, a teacher creates an individual support plan for each student in the programme based on an assessment of various risk factors. Support measures include consultations with specialists or financial support to continue studying. Latvia continued to provide remote counselling and financial support for at-risk students during school closures in 2020 and was one of several countries and economies that implemented targeted remedial measures for students at risk of drop-out when schools reopened.

According to the Special Survey, many education systems (26) introduced targeted measures to promote the return of students from vulnerable groups to education after school closures. Over 75% of these education systems introduced school-based mechanisms to track the return of target populations, some 50% leveraged community engagement activities, and around 25%, including Costa Rica, Estonia, Portugal, Spain and Turkey, provided financial incentives for at least one vulnerable group (OECD/UIS/UNESCO/UNICEF/WB, 2021[3]).

Providing flexible entry and exit points

Other policies aim to provide flexible entry and exit points within the education system. This includes flexible adult learning programmes, opportunities to complete upper-secondary education, and strategies to improve the skills of those who have fallen out of work.

Governments in countries and economies such as **New Zealand** and **Finland** have taken measures to diversify the higher education landscape while ensuring quality. New Zealand has introduced a funding mechanism to encourage high-performing HEIs to develop micro-credentials that complement existing tertiary provision. Applicants must demonstrate that the qualification has excellent learner outcomes, strong employer or community demand, and contributes to government priorities. Finland has also taken measures to strengthen its existing offer of flexible open studies courses as a credible route to higher education. The open studies pathway has provided learners who might not otherwise have attended

university with greater flexibility, and an alternative to the traditional competitive route to higher education. However, this pathway remains limited and is not available in all subject areas, notably in competitive ones such as medicine and teacher training. A recent report recommended that Finland introduce regulations to encourage HEIs to expand the pathway (OECD, 2019[34]).

For some countries and economies, integrating newly arrived migrants into the education system has been a key priority. This often begins with assessing newcomers' skills and validating their qualifications and work experience. Countries and economies also provide guidance, support and specialised courses to support migrants' entry into the education system and the labour market. OECD research suggests that vocationally oriented language courses can be a powerful tool for integration (OECD, 2018[26]). In **Germany**, for example, in addition to a nationwide vocational language-training programme, each *Land* (federal state) offers one- or two-year courses to prepare new arrivals for entry to VET. Computer-assisted tests also assess migrants' skills in different professions and provide them with feedback and advice (OECD, 2020[46]).

Box 4.4. Example of Practice – Smoothing transitions to higher education through cross-level collaboration (Finland)

Recent national-level policies in Finland have encouraged HEIs to collaborate with secondary-level institutions and increase access to higher education through the open studies pathway (see above). Two case studies of positive collaboration within this policy illustrate possible ways forward. Both case HEIs had planned or tested co-operation agreements with secondary schools and organised introductory or orientation courses for secondary school students. In one example, students and teachers from a secondary VET programme came together with those from a tertiary-level dental hygienist programme for practical work in a dental clinic. Faculties at the case university set quotas for the number of students entering courses through the open studies pathway and offered several courses online, making them easier for learners to combine with other commitments. According to a student union representative, the open studies pathway was more accessible for students from disadvantaged backgrounds since it was cheaper than purchasing private preparation for the competitive entrance exam. More broadly, student responses show that the policy has achieved its aims of widening access. Participating HEIs and Finland's Ministry of Education are conducting ongoing research into these measures to assess the role the pathway could play in the future of Finland's higher education system. Results from the case studies, and a national-level study, point to a need to ensure sufficient resources – such as financial incentives – to support collaboration between the two education levels.

Who?: **Students (*people*)** in Finland have benefited from efforts to **ease students' transitions between education levels (*purpose*)** through **encouraging collaboration between institutional staff (*process*)**. The example can help empower institutional staff to create their own approaches to collaboration that work best for their context. However, it also indicates a need for system actors to create the right conditions for this collaboration to flourish, including resource incentives.

Source: Moitus, S., L. Weimer and J. Välimaa (Moitus, Weimer and Välimaa, 2020[47]), *Flexible Learning Pathways in Higher Education: Finland's country case study for the UNESCO International Institute for Educational Planning (IIEP-UNESCO) SDG4 project in 2018–2021*, Finnish Education Evaluation Centre, https://karvi.fi/app/uploads/2020/09/KARVI_1220.pdf.

Some policy pointers for resilience

- ***Build bridges between people at different levels of the education system.*** People are at the heart of transition processes. Many successful strategies to promote learners' transitions within the education system have therefore focused on strengthening collaboration between teachers and other professionals working at different levels of the system. This facilitates the exchange of information on individual learners and supports broader efforts to ensure that the curriculum and pedagogy prepare them for their next step. Evidence on successful transitions highlights the importance of professional continuity between phases. This involves ensuring that teaching professionals are prepared for collaboration and transitions, but also working to align the training, working conditions, status, and recognition of teachers working at different levels of the system (OECD, 2017[38]). At the same time, the responsibility for ensuring smooth transitions must be shared

between education and training actors at different phases, including the world of work. Ensuring successful transitions involves looking back at learners' prior experiences and progress, as well as looking ahead to their next step to ensure they are adequately prepared.

Table 4.4. Selected education policies and practices on smoothing transitions within the education system

Smoothing transitions from one phase of the education system to another		
Austria – School Entry and Primary School Reform package (2016)[15] **Canada** – Supports for Student Learning Program [1] **Saskatchewan (Canada)** – Saskatchewan's Early Years Plan (2016-20)[13] **Chile** – National Articulation Agreement (2019)[2]	**Finland** – Joint admission system (2014)[3]; Developing student admissions (2018-20)[4] **France** – Parcoursup' (2018)[5,13] **Germany** – Higher Education Pact 2020 (2006)[6]; Educational Chains Initiative (2010)[15] **Ireland** – Reform of Leaving Certificate grading scale (2017)[8]	**Japan** – Compulsory Education Schools (2016)[13] **Norway** – Framework Plan for the Content and Tasks of Kindergartens (2017)[15] **Turkey** – Project for Increasing Enrolment Rates Especially for Girls (2011; 2015)[15]
Increasing the permeability of educational tracks		
Flemish Community of Belgium – National Qualifications Framework (2013)[15] **Denmark** – Better and more attractive VET programmes (2014)[3]	**Finland** – National Framework for Qualifications and Other Competence Modules (2017)[4] **Iceland** – National Qualifications Framework (2016)[15]	**Portugal** – Project for Autonomy and Curricular Flexibility (2018)[10] **Turkey** – Reform of upper-secondary school placement (2018)[11]
Reducing school failure and grade repetition		
Australia – National Agreement on Closing the Gap (2017, 2020)[16] **Flemish Community of Belgium** –Together against Early School Leaving (2015)[15]; Measures to reduce grade repetition (2020)[19] **French Community of Belgium** – Take-off Project (2012, 2016)[15]	**Latvia** – Tackling early school leaving(2011 – 2017)[14] **France** – Tous mobilisés pour vaincre le décrochage scolaire (2014)[5] **Norway** – Certificate of Practice Scheme (2018)[9]	**Developed in COVID-19 context** **Turkey** – Updates in the Education Information Network (EBA) (2020)[11] **Portugal** – Guidelines for the Support of Vulnerable Students (GSVS) (2020)[10] **Norway** – Financial support to schools that attend vulnerable populations and students with SEN (2020)[9]
Providing flexible entry and exit points to the education system		
German-speaking Community of Belgium – Decree on Educational and Administrative Innovations in Public Education (2010)[13] **Denmark** – Agreement on More flexible University Education (2018)[3]; Tripartite Agreement (2016)[3] **Finland** – Alternative Path to University (2019)[12] **Germany** – Integrating migrants in formal education (2011-2020)[6]	**Greece** – Integrating migrants and refugees (2016)[7] **Iceland** – Act on Adult Education (2010)[13] **Ireland** – Springboard (2011)[8]; Springboard+ (2014)[8] **New Zealand** – Youth Guarantee (2010)[13]; Recognising and promoting micro-credentials (2018, 2019)[17,18]	**Norway** – Skills Plus Programme (2006)[9]; Qualifications Passport for Refugees (2016)[9] **Portugal** – Youth Guarantee (2016-2020)[10]; National Skills Strategy (2017)[10] **Slovenia** – Model to enhance the integration of refugee children and students (2015)[15]

Note: [] See Chapter 5 for more information about this policy.

Sources: [1] Government of Canada (2021[43]), *About the Supports for Student Learning Program*, https://www.canada.ca/en/employment-social-development/programs/supports-student-learning.html (accessed on 8 October 2021); [2] Ministry of Education of Chile (2021[44]), *Acuerdo de Articulación Mineduc-ESTP 2021 [National Articulation Agreement]*, http://www.tecnicoprofesional.mineduc.cl/acuerdo-de-articulacion-mineduc-estp/ (accessed on 26 July 2021); [3] OECD (2020[28]), *Education Policy Outlook: Denmark*, http://www.oecd.org/education/policy-outlook/country-profile-Denmark-2020.pdf (accessed on 28 October 2021); [4] OECD (2020[19]), *Education Policy Outlook: Finland*, available at http://www.oecd.org/education/policy-outlook/country-profile-Finland-2020.pdf (accessed on 28 October 2021); [5] OECD (2020[48]), *Education Policy Outlook: France*, http://www.oecd.org/education/policy-outlook/country-profile-France-2020.pdf (accessed on 28 October 2021); [6] OECD (2020[46]), *Education Policy Outlook: Germany*, http://www.oecd.org/education/policy-outlook/country-profile-Germany-2020.pdf (accessed on 28 October 2021); [7] OECD (2020[49]), *Education Policy Outlook: Greece*, https://www.oecd.org/education/policy-outlook/country-profile-Greece-2020.pdf (accessed on 28 October 2021); [8] OECD (2020[15]), *Education*

Policy Outlook: Ireland, available at https://www.oecd.org/education/policy-outlook/country-profile-Ireland-2020.pdf (accessed on 28 October 2021); [9] OECD (2020[35]), *Education Policy Outlook: Norway*, http://www.oecd.org/education/policy-outlook/country-profile-Norway-2020.pdf (accessed on 28 October 2021); [10] OECD (2020[50]), *Education Policy Outlook: Portugal,* available at http://www.oecd.org/education/policy-outlook/country-profile-Portugal-2020.pdf (accessed on 28 October 2021); [11] OECD (2020[13]), *Education Policy Outlook: Turkey*, http://www.oecd.org/education/policy-outlook/country-profile-Turkey-2020.pdf (accessed on 28 October 2021); [12] Moitus, S., L. Weimer and J. Välimaa, (Moitus, Weimer and Välimaa, 2020[47]), *Flexible Learning Pathways in Higher Education: Finland's country case study for the UNESCO International Institute for Educational Planning (IIEP-UNESCO) SDG4 project in 2018–2021*, Finnish Education Evaluation Centre, https://karvi.fi/app/uploads/2020/09/KARVI_1220.pdf; [13] OECD (2019[4]), *Education Policy Outlook 2019: Working Together to Help Students Achieve their Potential*, https://dx.doi.org/10.1787/2b8ad56e-en; [14] Dynamic University (2019[51]), *Evaluation of the European Social Fund Project No 8.3.4.0/16/I/001 "Support for Reducing Early School Leaving"*, http://www.pumpurs.lv/sites/default/files/2020-06/IKVD_Pumpurs_Petijums_GALA_ZINOJUMS_29_06_2020.pdf (accessed on 1 April 2021); [15] OECD (2018[26]) *Education Policy Outlook 2018: Putting Student Learning at the Centre*, https://dx.doi.org/10.1787/9789264301528-en; [16] Closing the Gap in Partnership (n.d.[52]), *National Agreement on Closing the Gap*, https://www.closingthegap.gov.au/national-agreement (accessed on 26 July 2021); [17] New Zealand Qualifications Authority (n.d.[53]), *Micro-Credentials*, https://www.nzqa.govt.nz/providers-partners/approval-accreditation-and-registration/micro-credentials/ (accessed on 1 April 2021); [18] Tertiary Education Commission (2019[54]), *Micro-credentials: Funding approval guidelines*, https://www.tec.govt.nz/assets/Forms-templates-and-guides/Micro-credentials-funding-approval-request-guidelines.pdf (accessed on 1 April 2021); [19] National information from the Flemish Community of Belgium provided to the OECD.

Ensuring the relevance of the educational offer through differentiated approaches for the short and longer term

Why it matters

Aligning education pathways with the current and future needs of the labour market is an important task for education systems, which play a crucial role in channelling skills and talent into the labour market. Resilient education systems must ensure that students' skills, interests and aptitudes find a suitable match in the economy (OECD, 2019[55]). However, global megatrends have caused labour markets in OECD countries and economies to undergo considerable structural changes in recent decades, shifting the demand for skills and putting many jobs at risk of automation in the next decades (Vandeweyer and Verhagen, 2020[56]). This adds new urgency to the challenge of alignment; education systems that fail to confront this urgency risk preparing students for a labour market that no longer exists (OECD, 2018[40]). Labour-market forecasting can help governments direct investment to areas where demand for employment is likely to grow.

As well as aligning curriculum and labour-market demand, resilient education systems can ensure that individual learners have the skills to succeed in the labour market by giving them access to quality work-based learning and experience of working environments. Without this, young people risk falling into the experience trap, where employers overlook young people who typically demonstrate higher levels of education and qualifications in favour of those who already possess competences developed in the workplace. Work-based learning can also help learners to strengthen other skills and competences critical to 21st century success – such as creativity, collaboration and problem solving in real-world environments – through practicing them in an applied manner (OECD, 2020[57]).

The likelihood of global recession following the COVID-19 pandemic poses significant risks for young people entering the labour market, as well as those already in work. In the context of reduced demand, many employers will be less willing to take on new staff and are likely to reduce staffing on a last in, first out basis. In this context, many students, employees and job seekers will be looking to reassess their options or change paths. OECD evidence shows that improving the quality and productivity of apprenticeship candidates and building strong relationships with social partners can improve employers' satisfaction and engagement with work-based learning programme (Schoon and Mann, 2020[58])

Experiences from the global recession of 2008 show that high-quality VET programmes, and active labour-market policies in particular, help young people adjust to changed economic circumstances (Schoon and Mann, 2020[58]). HEIs also have an important role to play in supporting upskilling and reskilling by developing a broader and more flexible offer, including online and short-cycle courses (OECD, 2020[59];

OECD, 2020[60]). Governments can promote labour market-relevant practices in higher education using steering mechanisms such as performance-related funding and quality assurance procedures.

What we can learn from relevant policy approaches

► See Table 4.5 for a list of policies considered in this analysis; [] see Chapter 5 for further information.

Countries and economies such as Canada and Estonia have combined efforts to strengthen collaboration with employers with mechanisms to monitor and anticipate changes in the demand for skills. **Canada**'s Labour Market Information Council has aimed to respond to a need for timely, local, and granular labour-market data by prioritising collaboration with labour-market partners and developing several complementary approaches to data collection, such as surveys, linking administrative data, and modelling methods (Hofer, Zhivkovikj and Smyth, 2020[61]). In 2020, the Council produced a synthesis of reports on the impact of the COVID-19 pandemic on Canada's labour market. The Future Skills Council brings together representatives from public, private, labour, Indigenous and not-for-profit organisations to provide advice on emerging skills and workforce trends (Government of Canada, 2021[62]). Similarly, **Estonia**'s labour market monitoring and skills forecasting system draws on labour market data, survey data, and interviews with experts from different sectors. Sectoral experts also provide feedback on existing qualifications. The data is used to inform career guidance and support the design of reskilling, VET, and higher education courses. Estonia has experienced some challenges, however, balancing the need to respond to student preferences in VET with the need to align the course offer to the demand for labour and skills (OECD, 2020[18]). This points to a challenge found in other education systems: improving the quality of labour-market information while taking steps to make high-demand sectors more attractive to learners.

Degree-level apprenticeships that attract high-quality candidates can be particularly attractive to employers (Schoon and Mann, 2020[58])**.** Education systems such as the **French Community of Belgium**, **Estonia**, **Japan** and **Sweden** have taken steps in this direction when implementing work-based learning in higher education. In **Sweden**, employers and VET providers work collaboratively to provide vocational tertiary education, and graduates have high rates of employability. A national agency assesses the quality and outcomes of the programmes and monitors labour-market trends. The number of places in Higher VET has been increasing steadily since 2018, and was increased significantly in 2020 as part of broader measures to strengthen the supply of skills in the wake of the pandemic.

Governments seeking to provide those who have been affected by the economic fallout of the pandemic with routes back into the education system could learn lessons from previous strategies aimed at improving labour-market skills among vulnerable populations. Since 2016, for example, **Portugal** has developed the Qualifica Centres, a network of regional adult learning and career guidance to bring these services closer to target populations such as young people not in education, employment or training, and the unemployed. The Centres provide information, guidance, and training plans and develop training in partnership with employers and education providers. The strategy has led to a large increase in the number of adults participating in training and gaining qualifications. At the same time, OECD analysis highlights the need to invest in the recruitment, retention, and training of high-quality adult educators and career guidance professionals when implementing this kind of strategy (OECD, 2020[50]).

With the outbreak of the pandemic, many other education systems developed programmes to help vulnerable workers and learners develop skills in areas that meet the needs of the economy and society. Strategies in countries and economies such as **Estonia**, **Ireland**, **Norway** and **Sweden** allow workers to retrain in key sectors such as health, social care and digital technologies.

Box 4.5. Example of Practice – Addressing the cost-benefit balance of apprenticeships for employers (Austria)

Austria's integrative apprenticeships are designed to balance the costs and benefits of employers' participation in apprenticeships. To reduce the cost for employers, apprentices are paid on a special wage scale defined through collective agreements. While participating companies also receive targeted subsidies, measures are in place to ensure that only students from the target groups enrol in the scheme. These kinds of targeted subsidies have been shown to be more effective than universal subsidies. The programme also offers extensive support to apprentices in the form of training assistants, most of whom have experience working with disadvantaged young people and leaners with SEN. Training assistants define the nature of the training contract between the employer and the apprentice, prepare the workplace for the apprentices' arrival, and provide academic support throughout the training programme. This support improves the cost-benefit balance for employers by helping apprentices develop the skills they will need to be productive in the workplace and helping to ensure they complete their training.

Who?: **Apprentices and employers (*people*)** in Austria benefit from efforts to better **balance the costs and benefits of apprenticeship schemes (*purpose*)**. These include the assignment of **targeted resources and supports (*process*)** that can serve the dual aim of helping more vulnerable or disadvantaged apprentices to complete their training and in sectors of relevance to labour-market needs. These shorter-term costs should be weighed up against the likely larger, longer-term costs of learners dropping out of the system without a qualification or gaining a qualification that has low value for the labour market.

Source: Kis, V. (2016[63]), "Work-based Learning for Youth at Risk: Getting Employers on Board", https://doi.org/10.1787/5e122a91-en.

Young people in **Slovenia** can apply for scholarships to complete vocational programmes in fields with a shortage of skilled labour, such as carpentry, masonry, baking, and several bilingual vocational programmes (Ministry of Education, Science and Sport of Slovenia, 2021[64]). The scheme aims to address a long-standing mismatch between educational attainment and labour demand. Labour-market forecasting and collaboration with employers will play an important role in ensuring that such schemes continue to meet the demand for skills. As part of broader measures to protect young people from the economic fallout of the pandemic, **France** has also developed individual training and support pathways for 16-18 year-olds who have fallen out of the education system. The programmes combine training and work-based learning with social support and leisure activities, based on an individual assessment of the young person's needs. The **Canadian province of British Columbia** provided funding for unemployed young people to participate in projects that help their communities build back from the COVID-19 pandemic. Since many of these schemes require extensive funding, it is essential to introduce mechanisms to monitor the quality of the programmes and participants' labour-market outcomes.

Some policy pointers for resilience

- ***Keep an eye on long-term goals to resist the appeal of more costly short-term measures.*** Early in the pandemic, many countries and economies sought to ensure the continuity of existing work-based learning programmes, and to promote work-based learning. While incentives such as employer subsidies might overcome employers' reluctance to take on apprentices in the short term, they may also direct young people towards pathways with poor long-term prospects. With the initial shock now passed, governments must review these measures in light of longer-term strategic priorities, drawing on lessons from the previous global recession, and making use of emerging data on the demand for labour and skills. One of these lessons is that interventions to promote employer participation in work-based learning are more impactful when they focus on improving the quality of apprenticeships and the productivity of apprentices. The duration of the placement or the pay and support apprentices receive are some important aspects in this regard (Schoon and Mann, 2020[58]). Governments also need employer engagement strategies that align with national and regional development goals, and allow collaboration with new social partners (OECD, 2017[65]).

Table 4.5. Selected education policies and practices on ensuring relevance of the educational offer for the labour market

Austria – Integrative apprenticeships (2003)[22] **Flemish Community of Belgium** – New model of dual vocational learning (2015-2016)[18] **French Community of Belgium** – Dual vocational education in HE (2016)[21] **Canada** – Labour Market Information Council (2017)[5]; Future Skills (2018)[1] **Estonia** – Amendments to the Professions Act (OSKA, 2015)[10]; Labour Market and Education Co-operation Programme (2015)[10]; Higher Education Apprenticeships (2018)[10] **Israel** – Starter Apprenticeship Programme (2016)[20] **Italy** – Good School Reform (La Buona Scuola) 2015[21]	**Japan** – Amendment to the School Education Act (2017)[21] **Portugal** – Qualifica (2016)[11] **Spain** – Dual Vocational Training Model (2012)[21] **Sweden** – National Agency for Higher Vocational Education (2009)[19] **Developed in COVID-19 context** **British Columbia (Canada)** – Community Workforce Response Grant (2020)[3] **Czech Republic** – Strategic Plan for Higher Education (2020)[9] **Denmark** –Tripartite agreement on extraordinary support for apprentices and employers (2020)[6] **Estonia** – Funding for VET programmes for at-risk youth (2020)[7]	**France** – 1 Youth, 1 Solution (2020)[8] **Ireland** – Future FET (2020)[4] **Kazakhstan** – Digital Education Project (2020)[13] **Latvia** – Education Development Guidelines (2021-2027)[12] **New Zealand** – Targeted Training and Apprenticeship Fund (2020)[16] **Norway** – Reinforcing the skills strategy to support economic recovery (2020)[14] **Slovenia –** Scholarships for deficit professions (2021)[2] **Sweden** – Strengthening the supply of skills in the context of COVID-19 (2020)[15] **Wales (United Kingdom)** – Personal Learning Accounts (2020)[17]

Note: [] See Chapter 5 for more information about this policy.

Sources: [1] Government of Canada (2021[62]), *Future Skills*, https://www.canada.ca/en/employment-social-development/programs/future-skills.html (accessed on 8 October 2021); [2] Public Scholarship, Development, Disability and Maintenance Fund of the Republic of Slovenia (2021[66]), *Javni razpis za dodelitev štipendij za deficitarne poklice za šolsko leto 2021/2022 [Public tender for the award of scholarships for deficit professions for the school year 2021/2022]*, https://www.srips-rs.si/vsi-razpisi/razpis/javni-razpis-za-dodelitev-stipendij-za-deficitarne-poklice-za-solsko-leto-20212022-308-jr (accessed on 27 July 2021); [3] Work BC (2021[67]), *Covid Response: Workforce Shortages Stream*, https://www.workbc.ca/Employment-Services/Community-Workforce-Response-Grant/Workforce-Shortages.aspx (accessed on 1 April 2020); [4] Department of Further and Higher Education, Research, Innovation and Science of Ireland (2020[68]), *Future FET: Transforming Learning*, https://www.solas.ie/f/70398/x/64d0718c9e/solas_fet_strategy_web.pdf (accessed on 1 April 2021); [5] Hofer, Zhivkovikj and Smyth (2020[61]), "The role of labour-market information in guiding educational and occupational choices", *OECD Education Working Papers*, No. 229, OECD Publishing, Paris, https://doi.org/10.1787/59bbac06-en; [6] Ministry of Children and Education of Denmark (2020[69]), *Over five billion DKK to hold the hand of apprentices, students and companies (Over fem mia. kr. skal holde hånden under lærlinge, elever og virksomheder)*, https://www.uvm.dk/aktuelt/nyheder/uvm/2020/maj/200528-over-fem-milliarder-kroner-skal-holde-haanden-under-laerlinge--elever-og-virksomheder (accessed on 1 April 2021); [7] Ministry of Education and Research of Estonia (2020[70]), *1.7 million EUR to support vocational insitutions*, https://www.hm.ee/et/uudised/kutseoppeasutusi-toetatakse-17-miljoni-euroga (accessed on 1 April 2021); [8] Ministry of Labour, Employment and Integration of France (2020[71]), *#1JEUNE1SOLUTION [#1YOUTH1SOLUTION]*, https://travail-emploi.gouv.fr/IMG/pdf/dp_plan_jeunes.pdf (accessed on 1 April 2021); [9] Ministry of Education, Youth and Sport of Czech Republic (2020[72]), *A New Strategy for Higher Education*, https://www.msmt.cz/nova-strategie-pro-vysoke-skolstvi (accessed on 1 April 2021); [10] OECD (2020[18]), *Education Policy Outlook: Estonia*, http://www.oecd.org/education/policy-outlook/country-profile-Estonia-2020.pdf (accessed on 28 October 2021); [11] OECD (2020[50]), *Education Policy Outlook: Portugal*, http://www.oecd.org/education/policy-outlook/country-profile-Portugal-2020.pdf (accessed on 28 October 2021); [12] OECD (2020[73]), *OECD Skills Strategy Implementation Guidance for Latvia: Developing Latvia's Education Development Guidelines 2021-2027*, https://dx.doi.org/10.1787/ebc98a53-en; [13] Office of the Prime Minister of Kazakhstan (2020[74]), *By 2030, educational institutions of Kazakhstan will train over 3 million specialists of new formation — Ministry of Education and Science Source:* https://primeminister.kz/en/news/k-2030-godu-uchebnye-zavedeniya-kazahstana-budut-gotovit-bolee-3-mln-specialistov-novoy-formacii-mon-rk-305310 (accessed on 1 April 2021); [14] Skills Norway (2020[75]), *Kompetansepolitikken sentral i statsbudsjettet for 2021 [The skills policy is central to the state budget for 2021]*, https://www.kompetansenorge.no/nyheter/statsbudsjettet-for-2021/ (accessed on 1 April 2021); [15] Ministry of Education of Sweden (2020[76]), *Stärkt kompetensförsörjning och utbildning som leder till jobb [Strengthened skills supply and education leading to jobs]*, https://www.regeringen.se/artiklar/2020/09/starkt-kompetensforsorjning-och-utbildning-som-leder-till-jobb/ (accessed on 1 April 2021); [16] Tertiary Education Commission (2020[77]), *Targeted Training and Apprenticeship Fund (free trades training)*, https://www.tec.govt.nz/funding/funding-and-performance/funding/fund-finder/targeted-training-and-apprenticeship-fund/ (accessed on 1 April 2021); [17] Working Wales (2020[78]), *Rewrite your career with a Personal Learning Account*, https://workingwales.gov.wales/personal-learning-account (accessed on 1 April 2021); [18] Flanders Department of Work and Social Economy (2019[79]), *Proefproject duaal leren: Schoolbank op de Werkplek – Evolutie in cijfers [Pilot project dual learning: School desk at the workplace - Evolution in numbers]*, https://odin.syntravlaanderen.be/cijfers-uitgelegd/proefproject-duaal-leren-schoolbank-op-de-werkplek-evolutie-cijfers (accessed on 25 February 2021); [19] OECD (2019[4]), *Education Policy Outlook 2019: Working Together to Help Students Achieve their Potential*, https://dx.doi.org/10.1787/2b8ad56e-en; [20] Kuczera, M., T. 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Supporting students to develop ambitious and realistic career expectations

Why it matters

Young people suffer disproportionately in any recession, and that initiated by the COVID-19 pandemic is no exception. Evidence shows that in contexts of crisis, such as economic distress, students may take very different decisions that could disproportionately affect their future careers—particularly in the case of students from disadvantaged backgrounds (Biddle, 2021[81]). By supporting students to develop ambitious and realistic aspirations, resilient education systems can push learners to reflect on who they are and who they want to become, and to think critically about how their educational choices translate into their future economic life (OECD, 2020[82]).

Education systems can ensure learners are well-informed about the career, education or training pathways available to them through curriculum design, as well as complementary activities that bring them into contact with careers advice. Failing to ensure learners have information about employment prospects in different jobs risks inhibiting their future insertion into the labour market. Moreover, those who have a realistic and clear career ambition are more likely to be engaged in their learning than those who see no purpose (OECD, 2019[37]). Unfortunately, evidence from PISA 2018 shows that there is often a mismatch between young people's career aspirations and the 21st century job market; young people's expectations are often influenced by their social-economic background, gender, or immigrant status (see Figure 4.2).

Career guidance is most effective when it is responsive to individual needs, and when it reaches individuals through different channels. According to European survey data, less than one in three adults have ever accessed career guidance. Adults with low qualification levels are less likely to access career guidance, although they often stand to benefit the most from this information. Schools and training centres can facilitate access to career information by embedding career guidance in the curriculum and organising activities with employers and career guidance professionals. Volunteers working in different sectors can enhance career guidance by providing career talks, mentoring, CV workshops and mock interviews. Career talks can be a particularly effective way of challenging stereotypes about different occupations.

Alongside guidance services, providing targeted financial support to disadvantaged or vulnerable students and their families can widen access to post-compulsory education and improve completion rates. Evidence shows that means-tested grants are particularly effective in promoting equitable access to higher education. Disadvantaged students and some minority groups may be debt-averse and tend to respond better to grants than loans when making decisions about further study (OECD, 2020[83]; OECD, 2008[84]). Means-tested support is also more efficient, since it directs investment towards students who may not have otherwise continued their studies (OECD, 2020[83]).

What we can learn from relevant policy approaches

► See Table 4.6 for a list of policies considered in this analysis; [@] see Chapter 5 for further information.

Prior to the COVID-19 pandemic, education systems had implemented a range of measures to support young people's transitions to work. Following the 2008 financial crisis, several countries and economies across the European Union sought to strengthen career guidance for young people who had fallen out of work as part of the Youth Guarantee. In 2021 and beyond, such support mechanisms will gain relevance as larger numbers of young people experience challenges entering the labour market. A successful aspect of **Finland**'s Youth Guarantee was a network of co-ordinated guidance centres for under-25s. The centres were a joint venture between three government ministries and different education providers, and help young people navigate a fragmented system of benefits and services (OECD, 2020[19]). Although the Youth Guarantee has many successes, the European Commission has highlighted a need for more personalised

guidance and complementary actions for young people with complex needs (European Commission, 2020[85]).

In addition, several countries and economies have experienced challenges in reaching out to target populations, particularly young people not registered with employment services. One solution is to embed career guidance into earlier phases of schooling. For example, **Slovenia** has sought to provide career guidance from primary education level onwards (OECD, 2018[26]). **Finland** introduced a career guidance development programme for students in primary and secondary education in 2020. The programme targets groups that often have poor access to careers information, such as students in VET, students with SEN, and students from an immigrant background. Also, **Hungary**'s online Career Orientation Measurement and Support Tool is in place in primary and secondary schools to assess students' competencies in science, technology, engineering, and mathematics (STEM) subjects and match them with career paths that suit their interests.

The **United Kingdom** has also sought to improve the quality of information available to prospective higher education students through an ongoing process of research, evidence collection and evaluation. Evaluations of the Unistats platform, which enabled users to compare undergraduate courses, revealed that students outside the school or college environment were less likely to use the platform. The new Discover Uni platform (2019), therefore aims to provide additional advice and guidance to support prospective students throughout the decision-making process, and includes information on study options such as distance learning and apprenticeships (Office for Students, 2021[86]). Moreover, the Graduate Employment and Skills Guide (2021) supports recent tertiary graduates to identify public, private and voluntary sector opportunities in order to help them build employability skills, gain work experience, and enter the labour market. The **Slovak Republic** has also recently developed an online platform that gives prospective students access to data on the labour market outcomes of upper-secondary and tertiary graduates and allows them to compare different institutions and fields of study.

Providing targeted financial support to vulnerable learners can have long-term benefits for the economy as well as for individuals. **Canada**'s Skills Boost Initiative provides an example of a targeted financial assistance scheme that supports those who may not otherwise have continued their studies. This includes a grant for students from low- and middle-income families who have been out of upper-secondary education for more than ten years, and who wish to return to education (OECD, 2019[4]). Canada has also changed the name of its financial assistance programme for post-secondary education from Canada Student Loans to Canada Student Financial Assistance. By shifting the focus from the loan component of federal aid to the non-repayable component, Canada aims to make the scheme more appealing to debt-averse groups such as low-income groups and Indigenous peoples. In addition, some Canadian jurisdictions now give aid applicants the option to receive only the grant component of their funding; others are also considering this move (Government of Canada, 2021[87]).

Box 4.6. Example of Practice – Reaching out to re-engage disadvantaged students (Netherlands)

The Netherlands combines targeted local-level outreach strategies to tackle youth unemployment (see above) with strong data-sharing mechanisms to identify hard-to-reach youth. As part of this combined approach, municipalities recruit and train young people as mentors for other job seekers, and also to represent the youth interest in discussions with municipal representatives and other stakeholders. Local municipalities play a key role in engaging with hard-to-reach young people through broader social work activities as well. Many have achieved success in this area by deploying youth workers to disadvantaged areas to meet with young people in their homes and other informal settings. The Regional Registration and Co-ordination Centre (RMC) uses early school leaving data from schools, and Public Employment Service data on young people who already have a job or are receiving benefits, to reach out to young people outside the system. A mapping tool also supports local partnerships by enabling municipalities to identify informal organisations in their area that have a good reach with young people in the target group, such as gyms, community organisations, or key community role models.

Who?: **Municipal authorities (*people*)** strive to **re-engage hard-to-reach youths in education, training or employment (*purpose*)** through various **pro-active efforts to bring the supports directly to them (*process*)**. In particular, these efforts make use of the range of people available within a community including municipal authorities but also already engaged youths and relevant community actors. Mobilising actors who may already have ties to these young people can be a more efficient use of resources than trying to develop new relationships.

Sources: Knowledge Platform Integration and Society (KIS) (2018[88]), *Jongeren buiten beeld beter bereiken [Better reaching out to young people]*, https://www.kis.nl/artikel/jongeren-buiten-beeld-beter-bereiken (accessed on 27 July 2021). European Commission (2018[89]), *Employment, Social Affairs & Inclusion*, https://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=8136&furtherPubs=yes (accessed on 27 July 2021).

Some policy pointers for resilience

- ***Target career information and financial support to those who need it most.*** Solely facilitating access to information sometimes may not be enough. Actively reaching out to those most affected by changes in the labour market is key, especially since these groups often have the poorest access to career information. Evidence from policy evaluations suggests that even where career guidance and employment services are in place, target populations do not always use them. Over the medium term, as well as working to increase the visibility of these services, policy makers can bring careers information to disadvantaged learners by embedding careers activities into compulsory education and VET programmes (Musset and Kureková, 2018[90]; Inter-Agency Working Group on Work-based Learning, 2019[91]). At the same time, the stress of the pandemic is likely to make some learners more risk-averse, and therefore less willing to invest financially in education (Biddle, 2021[81]). Although many governments will themselves be facing constrained economic circumstances, they should take steps in the short term to ensure that financial barriers do not deter individuals from pursuing studies that could improve their career prospects. Removing financial barriers to education does not always involve extra spending. Giving learners greater flexibility over where, when, and how long they learn can also widen access to education.

Table 4.6. Selected education policies and practices on supporting students in developing ambitious and realistic career expectations

Canada – Skills Boost Initiative (2018-21)[6], Canada Student Finanical Assistance Programme (2021)[1] **Finland** – Youth Guarantee (2013)[5]; One-Stop Guidance Centres (Ohjaamo, 2015)[5]; Career guidance development programme (2020)[4] **Hungary** – Improving career guidance and promoting careers in STEM (2017, 2020)[3]	**Mexico** – NiñaSTEM Pueden (2017)[12] **Netherlands** – Regional approach to tackling early school leaving (2005)[11] **Slovenia** – Career centres at higher education institutions (2010)[8]; Youth Guarantee (2014, 2016)[7]	**Slovak Republic** – Graduate earnings platform (2019)[10] **United Kingdom** – Unistats/Discover Uni (2012, 2019)[9], Graduate Employment and Skills Guide (2021)[2]

Note: [] See Chapter 5 more information about this policy.

Sources: [1] Government of Canada (2021[87]), *About the Canada Student Financial Assistance Programme*, https://www.canada.ca/en/employment-social-development/programs/canada-student-loans-grants.html (accessed 8 October 2021); [2] Office for Students (2021[86]), *Graduate Employment and Skills Guide*, https://www.officeforstudents.org.uk/employment-and-skills/; [3] Hungarian Education Authority (2020[92]), *A pályaorientációs lehetőségek bővítésén dolgozik az Oktatási Hivatal [The Office of Education is working on expanding career guidance opportunities]*, https://www.oktatas.hu/sajtoszoba/sajtoanyagok/palyaorientacios_lehetosegek_bovitesen_dolgozik_az_oktatasi_hivatal (accessed on 1 April 2021); [4] Ministry of Education and Culture of Finland (2020[93]), *Opinto-ohjauksen kehittämisohjelma [Career guidance development programme]*, https://minedu.fi/hanke?tunnus=OKM033:00/2020 (accessed on 1 April 2021); [5] OECD (2020[19]), *Education Policy Outlook: Finland*, http://www.oecd.org/education/policy-outlook/country-profile-Finland-2020.pdf (accessed on 28 October 2021); [6] OECD (2019[4]), *Education Policy Outlook 2019: Working Together to Help Students Achieve their Potential*, https://dx.doi.org/10.1787/2b8ad56e-en; [7] OECD (2018[26]), *Education Policy Outlook 2018: Putting Student Learning at the Centre*, https://dx.doi.org/10.1787/9789264301528-en; [8] Republic of Slovenia - Department for Development and European Cohesion Policy (2015[94]), *Review of the implementation of strategic goals of high education, based on planned measures from 2014 - 2020*, http://www.eu-skladi.si/sl/dokumenti/studije-in-vrednotenja/stratesko-vrednotenje-vs-koncno-porocilo.pdf (accessed on 27 July 2021); [9] DELNI, HEFCE, HEFCW, and SFC (2015[95]), *UK review of information about higher education: Report on the review of the Key Information Set and Unistats*, https://dera.ioe.ac.uk/24489/1/HEFCE2015_27.pdf (accessed on 1 April 2021); [10] Graduate earnings platform (n.d.[96]), *Zistite, Ako Sa Uplatnujú Absolventi [Graduates: find out how to apply]*, https://uplatnenie.sk/ (accessed on 27 July 2021); [11] Ministry of Education, Culture and Science of Netherlands (n.d.[97]), *Voortijdig schoolverlaten [Early School Leaving]*, https://www.rijksoverheid.nl/onderwerpen/vsv (accessed on 27 July 2021); [12] OECD (n.d.[98]), *Initiative NiñaSTEM Pueden*, https://www.oecd.org/centrodemexico/iniciativa-niastem-pueden.htm (accessed on 27 July 2021).

Points for the future

This chapter has presented practical policy advice for the short and medium term to support policy makers to develop education systems that are better able to navigate disruption and change. Going beyond this time frame, education policy makers will also need to look to the longer term, critically questioning some of the more deeply-entrenched structures and processes that define the operation of today's education systems. In doing so, they can begin to identify ways of inserting responsiveness and resilience at the heart of the educational architecture of their systems.

The evidence presented in this chapter points to two priority areas that can support this. Firstly, the knowledge base on which education systems are built and developed needs to be more strategically imagined in the future. In particular, the collection, dissemination and use of information will need to be flexible enough to respond positively to the constant stream of informational or technological innovation and contextual change that it encounters. Secondly, the linear pathways with standardised start and end points that currently take students through the system will need to be reconsidered. As explored in this chapter, there are short and medium term fixes to promoting greater dynamism and personalisation in educational pathways, but ultimately, more radical changes may be required in the long term to ensure that pathways are consistently nimble enough to anticipate and adapt to change at learner, institution, system and global level.

With these priorities and the various components of the framework covered in this chapter in mind, education policy makers thinking about longer-term resilience at system level should engage in critical and courageous reflection around the following questions:

- **What if** education systems developed a repertoire of equally trusted tools that monitor different types of learning to meet the needs of the system, even in rapidly changing contexts?
- **What if** education systems normalised a purposeful, constructive and honest sharing of success and failure across system actors as an everyday practice to foster everyday improvement?
- **What if** education systems could shift from a culture of compliance and standardisation to one built on innovation and rigorous and reflective evaluative thinking to support the system to set and achieve new goals?
- **What if** education systems could fully abandon the one-size-fits-all approach, to more effectively create space and support in the system for students to pro-actively carve out their own pathways?
- **What if** governments and education stakeholders successfully and consistently bridged decisions made for learners today with the prosperity desired for citizens tomorrow?
- **What if** students' futures were no longer defined by students' backgrounds?

The discussions that such questions can prompt are a first step in looking beyond the short and medium term actions proposed in the Framework for Responsiveness and Resilience in Education Policy, towards a more fundamental transformation of today's education systems in the longer term.

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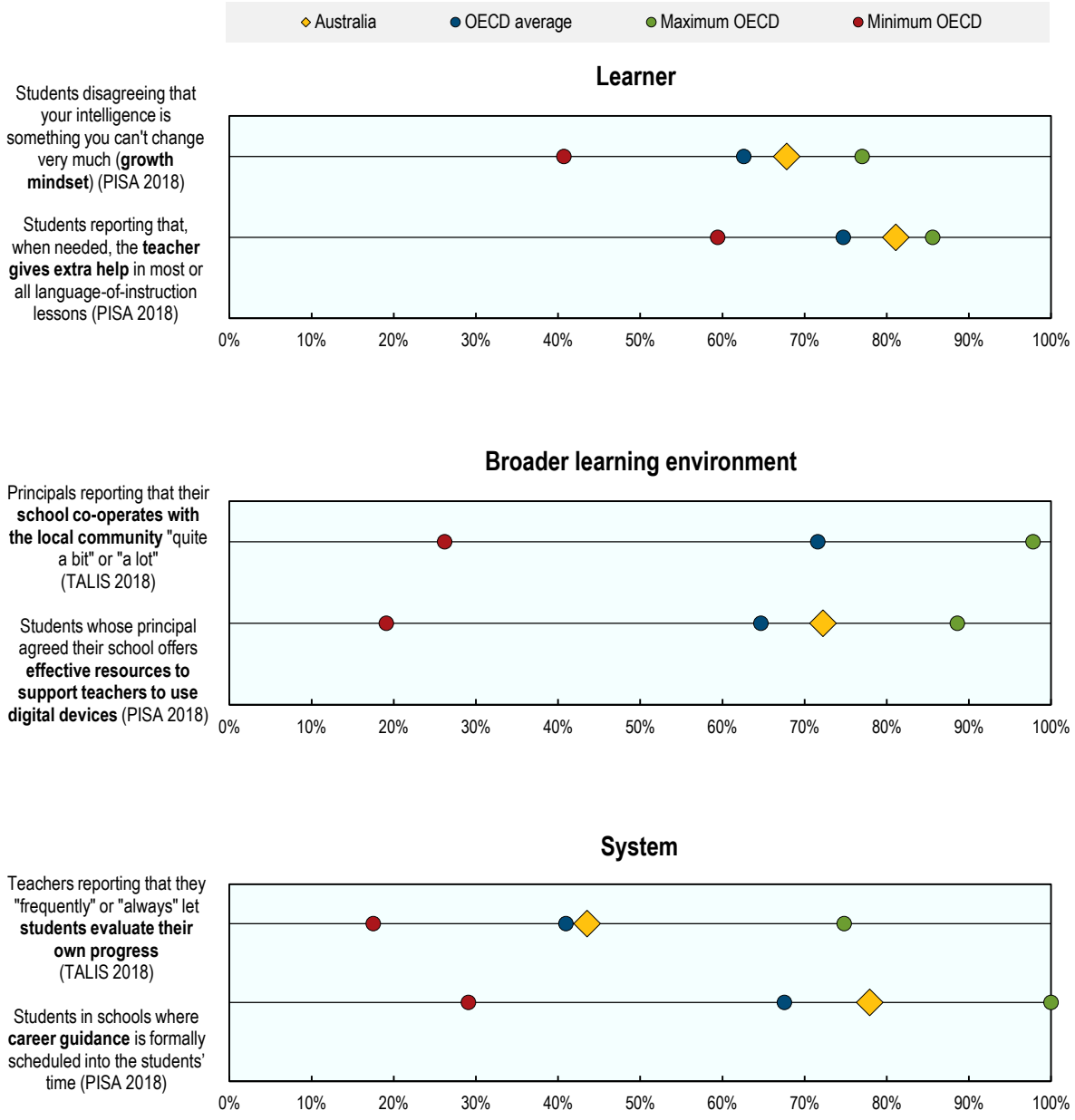
5 Country snapshots

About this chapter: This chapter presents snapshots prepared for 36 of the education systems participating in this report. Taking as reference the Framework for Responsiveness and Resilience in Education Policy, the snapshots present dashboards with a selection of OECD education indicators on system readiness for resilience and responsiveness. They also provide highlights of a selection of policies relevant to the framework implemented before and during the COVID-19 pandemic.

Australia

Figure 5.1. Selected indicators of education resilience in Australia

Self-reports of students, teachers or principals by percentage



Note: The absence of a yellow diamond means that survey participation rate for this indicator was too low to ensure comparability.

Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for Australia

Higher Education Participation and Partnerships Program (2010)

- ***Level of resilience**: Learner*

The Australian Government provides funding to universities via the Indigenous, Regional and Low Socio-Economic Status Attainment Fund (IRLSAF) to support an increase in higher education participation for Indigenous students, students from low socio-economic status backgrounds and students from regional and remote areas. One of the IRLSAF components, the Higher Education Participation and Partnerships Program (HEPPP), assists universities to conduct activities and implement strategies to improve access to undergraduate courses for students from the identified groups and increase their retention and completion rates. Universities receive HEPPP funding via a formula based on the share of students from the three identified cohorts at each university. An evaluation from 2017 found that universities use HEPPP funds to deliver tailored and targeted programmes to current and prospective students across the various stages of the student lifecycle: pre-access (including raising aspirations); access; participation; and attainment and transition out. These appear to have contributed to an increase in the number of disadvantaged students applying for, being offered a place at, and enrolling in, university, as well as an increase in completion rates, for the period 2010-15 (ACIL Allen Consulting, 2017[6]).

Each year, universities provide the Government with an HEPPP Activity Plan, which outlines their proposed annual activities, and a retrospective HEPPP Activity Report. This allows the Government to monitor the implementation of the HEPPP and ensure funds are used according to the programme objectives. The Government has also commissioned a Student Equity in Higher Education Evaluation Framework project to structure and guide the overall evaluation of the HEPPP, and of university HEPPP-funded programmes and activities. It is expected that the Framework will support universities in evaluating the quality and effectiveness of their HEPPP-funded programmes through consistent data collection and reporting. The Evaluation Framework, including a university guidance manual, is planned to be delivered in late 2021.

Further reading: Department of Education, Skills and Employment (2021[7]), *Access and Participation*, https://www.dese.gov.au/access-and-participation (accessed 19 May 2021).

Australian Teacher Response campaign (2020)

- ***Level of resilience**: Broader learning environment*

The Australian Institute for Teaching and School Leadership (AITSL) launched the Australian Teacher Response campaign in response to teachers' requests for support in the early stages of the COVID-19 pandemic. The campaign offers guidance to professionals in the early childhood education and care (ECEC) and school sectors on responding to the pandemic, but also helps them prepare for other shocks, such as the bushfire emergency experienced in 2019-20. An online teacher resource hub brings together resources and expert advice on topics such as differentiation, remote learning, student well-being, professional learning and parental engagement. The resources are evidence-informed, free for all Australian teachers to access, and selected on the basis of their timeliness, usefulness and added value. AITSL also produces spotlights on themes such as distance learning and the role of leadership in challenging times. These highlight best practices from the field and combine findings from international evidence and academic research. In this sense, the platform supports the long-term resilience of teaching professionals by helping them prepare for future shocks while responding to more recent crises.

Further reading: Australian Institute for Teaching and School Leadership (n.d.[8]), *Australian Teacher Response – Support during changing times*, https://www.aitsl.edu.au/secondary/comms/australianteacherresponse (accessed 1 February 2021).

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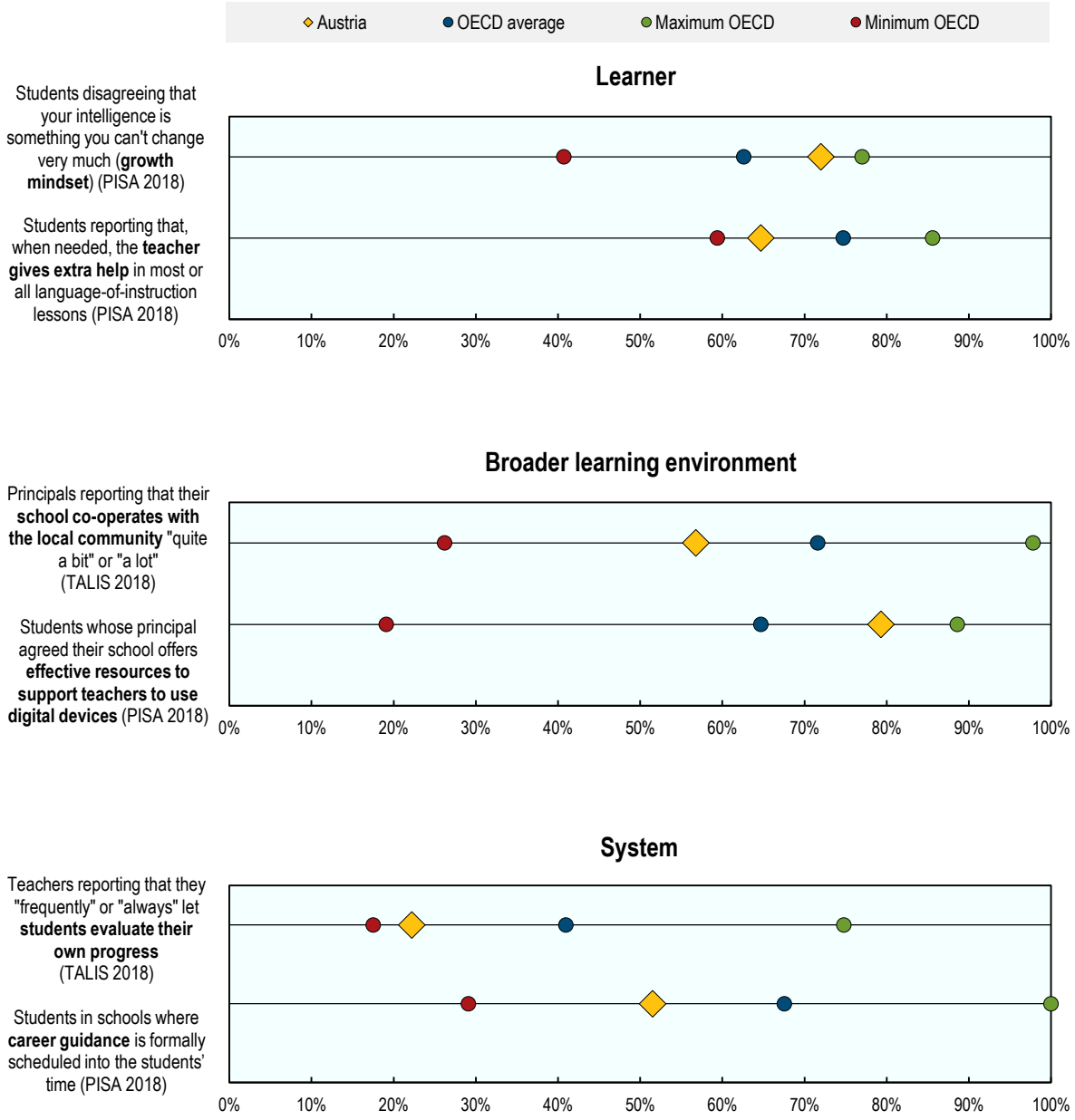
OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

Austria

Figure 5.2. Selected indicators of education resilience in Austria

Self-reports of students, teachers or principals by percentage



Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for Austria

Autonomy of Schools Package (Bildungsreformgesetz, 2017)

► ***Level of resilience**: Broader learning environment*

Austria's Autonomy of Schools Package aims to strengthen schools' and school leaders' decision-making capacity while ensuring quality across the system and strengthening collaboration between schools. Measures give schools greater autonomy over the organisation of school time and learning groups so that these can be better adapted to student needs and the local context. The development of evidence-informed monitoring and quality assurance mechanisms has been a key pillar of the reform. The Federal Ministry of Education, Research, and Science has developed indicators on school quality such as learning outcomes, retention rates, school environment and educational pathways. The Quality of Schools Framework, launched in 2021, has also been important in this regard. Federal states can also bring together clusters of 2–8 schools to promote collaboration, the sharing of resources, and to support the smooth transition of students between schools. As of late 2021, pilot clusters existed in two Austrian provinces.

Austria has combined measures to support school autonomy and innovation with measures to improve the selection and qualification of school leaders. School leaders now have greater autonomy over staffing, recruitment and performance management. An autonomy blog provides school leaders with resources on different aspects of autonomous school management. According to some emerging evidence, in the early stages of the pandemic, successful autonomous schools made use of this flexibility to adapt emergency education measures to the needs of their students (Lehner, 2020[6]).

Further reading: OECD (2019[7]), *Education Policy Outlook 2019: Working Together to Help Students Achieve their Potential*, https://dx.doi.org/10.1787/2b8ad56e-en.

8-Point Plan for Digital Learning (8-Punkte-Plan für den digitalen Unterricht, 2020)

► ***Level of resilience**: Broader learning environment*

Austria's federal government launched the 8-Point Plan for Digital Learning in June 2020. The plan supports the goals of the Master Plan for Digitisation in Education (*Masterplan für die Digitalisierung im Bildungswesen*), a pre-existing strategy that aims to improve the use of digital technologies in teaching and learning, develop digital skills and awareness among young people, and promote interest in technology and technological development. Key measures include aligning the digital resources on the Eduthek platform – developed in the early stages of the pandemic – with the school curriculum. The government also plans to equip 5th and 6th grade students with personal devices from 2021, based on schools' digitalisation plans. Schools that participate in the initiative will also receive devices for teachers. As part of the initiative, the government launched a range of online learning courses for teachers in the summer of 2020, with a particular focus on blended and distance learning.

In this sense, the plan builds on the advances in digital learning made in the early stages of the pandemic and aims to strengthen the capacity of schools to provide digital learning in the future. The government will invest EUR 200 million in the programme by 2022. Given the economic challenges facing governments across the world, it will be important to ensure that this investment has an impact on learning, and that resources are used efficiently. Careful and continuous monitoring and evaluation will therefore be key.

Further reading: Federal Ministry of Education, Science, and Research of Austria (n.d.[8]), *8-Point Plan for Digital Learning*, https://www.bmbwf.gv.at/en/Topics/school/krp/8_p_p.html (accessed 1 February 2021).

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OECD (2019), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/b5fd1b8f-en. [4]

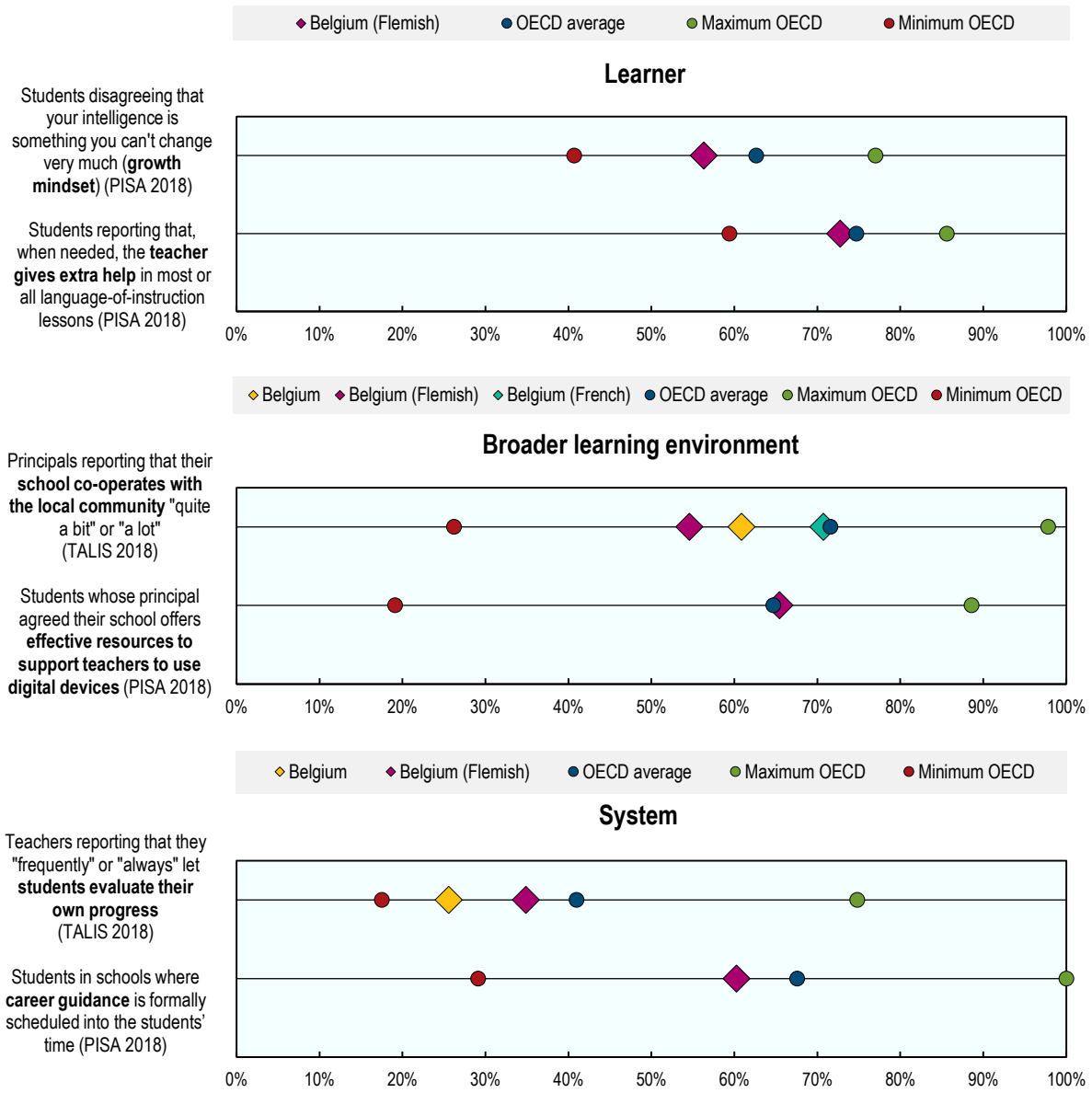
OECD (2019), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/acd78851-en. [5]

OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

Belgium

Figure 5.3. Selected indicators of education resilience in Belgium

Self-reports of students, teachers or principals by percentage



Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

StatLink https://stat.link/k9ncsm

Selected education policies for Belgium

A new dual vocational education model (Duaal leren, 2016)

► ***Level of resilience**: System*

The Flemish Community of Belgium has been implementing dual education to develop greater flexibility in the education system. It piloted a new model of dual vocational education (*Schoolbank op de werkplek*) from 2016-19. Since 2019, all secondary schools in the Flemish Community can offer dual education, subject to an approved programme application. The number of dual courses has been increasing from the start, with well over 100 courses that can now be organised in dual-learning format. The Flemish government supports schools and companies in this, and most participating students spend at least 20 hours per week in the workplace. An evaluation of the pilot highlighted the key role of programme counsellors and mentors in ensuring the quality of training, and found that students' participation improved their connections to the world of work (Flemish Department of Education and Training, n.d.[6]). Subsquent studies have focused on the costs and benefits of dual training for different stakeholders, the reasons learners choose – or may not choose – dual learning, and how to best encourage participation.

Like all strands of vocational education and training (VET), dual education was impacted by the COVID-19 pandemic. During 2020/21 the Flemish Parliament adopted several "Special Decrees on Emergency Measures for Education in response to Covid-19", including specific measures for dual learning, where work-based training modules were replaced by school-based provision. The Flemish Agency for Professional Training developed guidelines to enable training providers to adapt their offer in case of further lockdowns, and launched online tutorials, webinars and a virtual information fair for institutions wishing to provide dual training during 2020/21.

Further reading: Flanders Department of Work and Social Economy (2019[7]), *Proefproject duaal leren: Schoolbank op de Werkplek – Evolutie in cijfers [Pilot project dual learning: School desk at the workplace - Evolution in numbers]*, https://odin.syntravlaanderen.be/cijfers-uitgelegd/proefproject-duaal-leren-schoolbank-op-de-werkplek-evolutie-cijfers (accessed 25 February 2021).

Extra 'teaching periods' to remediate learning gaps (Circulaire 7705, 2020)

► ***Level of resilience**: Learner*

To remediate learning gaps that opened up during the Great Lockdown of 2020, the **French Community of Belgium** granted extra teaching periods to the system's most disadvantaged primary and secondary schools. The strategy also aimed to prevent future interruptions to learning in the event of further lockdowns. By request, schools could receive extra teaching periods based on the number of students enrolled in January 2020 and could use the time to create additional teaching, leadership, and student support roles during 2020/21. Regulations specified that the extra teaching time could only be used for differentiated learning and remediation, giving priority to students experiencing learning difficulties. This could include psychological or social support for students, or support with digital learning. Within these constraints, schools benefited from the autonomy to develop a strategy suited to their context.

The government held schools accountable for their use of extra periods, and a support unit for personalised learning provided support for individual teachers. The schools' inspectorate became charged with evaluating the implementation of the strategy to inform future practice. The approach aims to provide short-term responses to learning gaps while paving the way for long-term strategic improvement.

Further reading: Fédération Wallonie-Bruxelles (2020[8]), *Circulaire 7705*, http://www.enseignement.be/index.php?page=26823&do_id=7960 (accessed 1 February 2021).

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Fédération Wallonie-Bruxelles (2020), Circulaire 7705, http://www.enseignement.be/index.php?page=26823&do_id=7960 (accessed on 1 February 2021).[8]

Flanders Department of Work and Social Economy (2019), Proefproject duaal leren: Schoolbank op de Werkplek – Evolutie in cijfers [Pilot project dual learning: School desk at the workplace - Evolution in numbers], https://odin.syntravlaanderen.be/cijfers-uitgelegd/proefproject-duaal-leren-schoolbank-op-de-werkplek-evolutie-cijfers (accessed on 25 February 2021). [7]

Flemish Department of Education and Training (n.d.), Evaluatie proefprojecten duaal leren [Evaluation of pilot projects for dual learning], https://data-onderwijs.vlaanderen.be/onderwijsonderzoek/?nr=381 (accessed on 1 February 2021). [6]

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OECD (2020), TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/19cf08df-en. [1]

OECD (2019), PISA 2018 Results (Volume II): Where All Students Can Succeed, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/b5fd1b8f-en. [4]

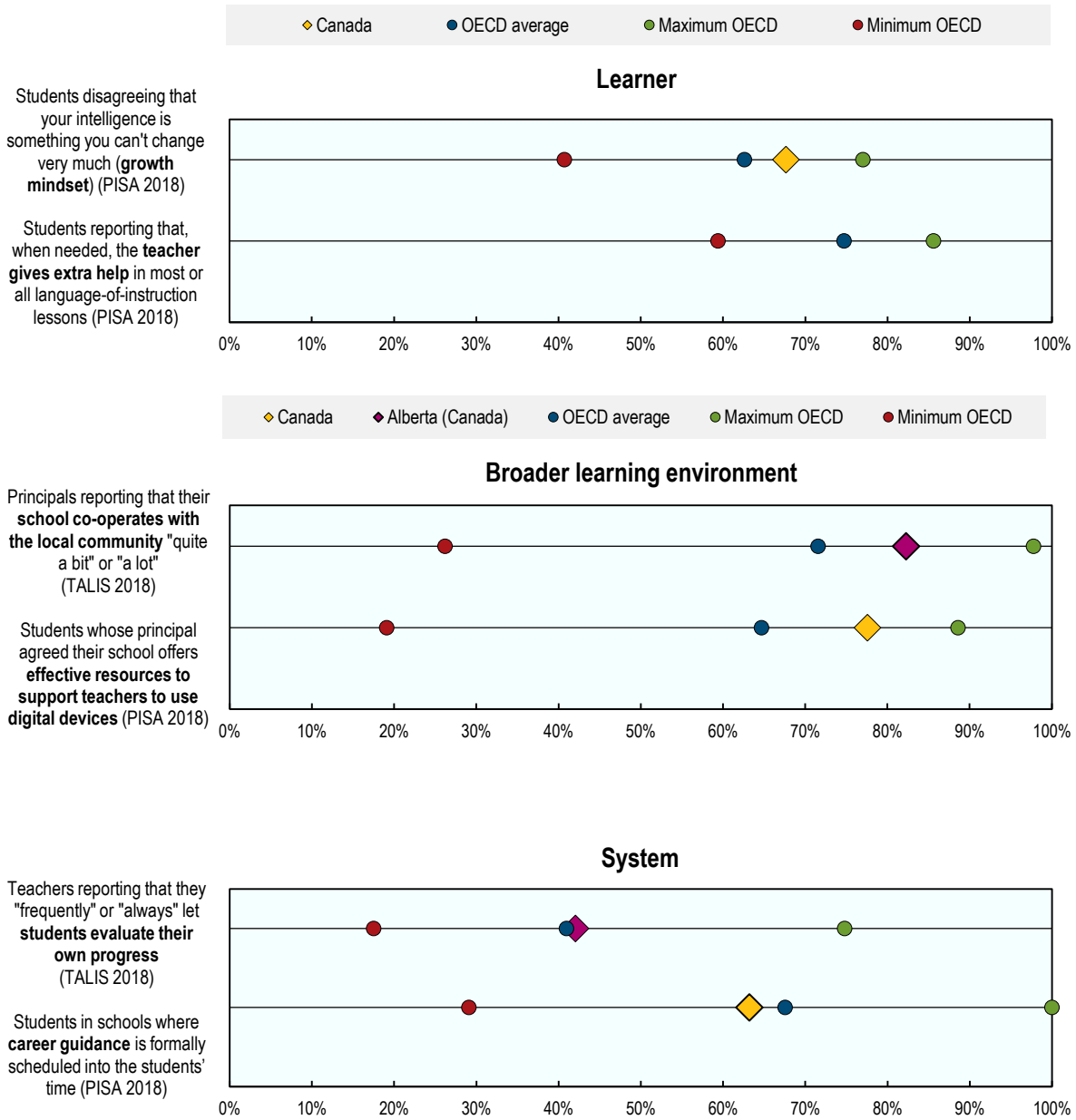
OECD (2019), PISA 2018 Results (Volume III): What School Life Means for Students' Lives, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/acd78851-en. [5]

OECD (2019), TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

Canada

Figure 5.4. Selected indicators of education resilience in Canada

Self-reports of students, teachers or principals by percentage



Note: Sub-regional data for the province of Alberta are included when available.

Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for Canada

Improving the use of labour market and skills information (2017, 2018)

► ***Level of resilience**: System*

Canada's Labour Market Information Council (2017) was established to improve the timeliness, reliability and accessibility of labour-market information to support students, workers and educational institutions. As well as conducting its own research and analyses, the Council produces data dashboards, bringing together information from different sources. In 2020, the OECD found that the Council has responded to a need for timely, local and granular data by prioritising collaboration with partners and stakeholders and identifying complementary approaches to data collection, including surveys, linking administrative data, and modelling methods (Hofer, Zhivkovikj and Smyth, 2020[6]).

These efforts are complemented by the work of the Future Skills Council (2018) and the Future Skills Centre (2018). The former brings together representatives from public, private, labour, Indigenous and not-for-profit organisations to provide advice on emerging skills and workforce trends. The Future Skills Centre works with partner organisations across the country to develop, test and evaluate innovative approaches to delivering skills training and assessment. Through this work, it aims to produce reliable evidence on what works for whom and under what conditions. Some 50% of funding is dedicated to supporting under-represented groups. The Centre has developed a five-step process to evaluate these innovations, making use of techniques such as rapid-cycle evaluation to support continuous improvement, and assessing potential for impact on a pan-Canadian scale. It funded 16 skills development projects in 2020, and published an Annual Evidence Report with key lessons. This will inform the future work of pilot projects, as well as the Future Skills Centre's overall approach to generating evidence. The report points to a need for a diverse toolkit of evidence generation approaches to support projects at different stages of development (Blueprint, 2020[7]).

Further reading: Government of Canada (2021[8]), *Future Skills*, https://www.canada.ca/en/employment-social-development/programs/future-skills.html (accessed on 8 October 2021

Community Workforce Response Grant (2020)

► ***Level of resilience**: System*

In the province of **British Columbia**, the Community Workforce Response Grant provides funding for communities and industries to support training in areas with a high skills demand and to improve the employment prospects of unemployed or underemployed workers. Several funding streams have targeted workers, communities and industries affected by COVID-19. For example, the COVID Response: Workforce Shortages Stream (2021), provides funding to industry, sector and employer associations to support the training and upskilling of workers affected by the pandemic. Priority is given to projects that support workers in sectors that have been most affected and those from vulnerable groups. Applicants can use the funding to provide the following supports: essential, occupational, soft-skills, or apprenticeship training; employment assistance services, such as coaching and Indigenous cultural components; financial supports, including for childcare, accommodation, or personal protective equipment; and supports for people with disabilities. Participants must demonstrate that the training will lead to employment opportunities, for example, by including letters of support from employers or other stakeholders in their application.

Further reading: Work BC (2021[9]), *Covid Response: Workforce Shortages Stream*, https://www.workbc.ca/Employment-Services/Community-Workforce-Response-Grant/Workforce-Shortages.aspx (accessed 16 August 2021).

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Government of Canada (2021), *Future Skills*, https://www.canada.ca/en/employment-social-development/programs/future-skills.html (accessed on 8 October 2021). [8]

Hofer, A., A. Zhivkovikj and R. Smyth (2020), "The role of labour market information in guiding educational and occupational choices", *OECD Education Working Papers*, No. 229, OECD Publishing, Paris, https://dx.doi.org/10.1787/59bbac06-en. [6]

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OECD (2019), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/b5fd1b8f-en. [4]

OECD (2019), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/acd78851-en. [5]

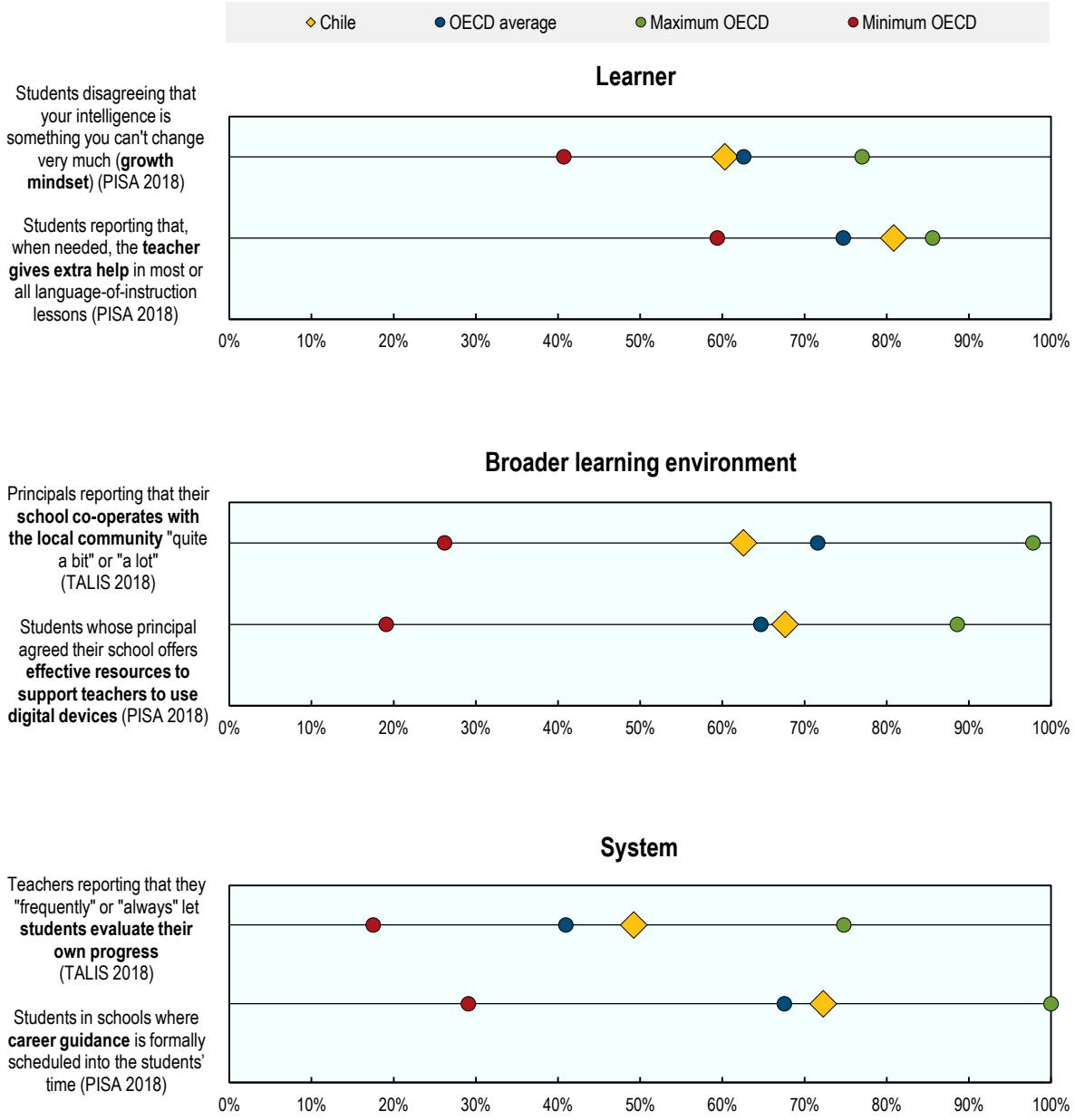
OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

Work BC (2021), *Covid Response: Workforce Shortages Stream*, https://www.workbc.ca/Employment-Services/Community-Workforce-Response-Grant/Workforce-Shortages.aspx (accessed on 1 April 2020). [9]

Chile

Figure 5.5. Selected indicators of education resilience in Chile

Self-reports of students, teachers or principals by percentage



Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for Chile

Preferential School Subsidy (Ley de Subvención Escolar Preferencial, SEP, 2008)

- ***Level of resilience**: Learner*

Chile's Preferential School Subsidy has played a key role in providing more equitable learning opportunities to the country's most disadvantaged students since its implementation in 2008. Schools receive additional funding based on their enrolment of students whose socio-economic conditions are likely to affect their learning outcomes, as well as for students from the poorest 80% of families. Schools use the funding to develop an educational improvement plan aimed at improving institutional management and learning outcomes for all students, but especially those from disadvantaged backgrounds. In order to obtain the subsidy, schools must exempt disadvantaged students from any financial charges and maintain good retention rates for the least able students. The subsidy has helped rebalance what was previously a regressive funding system, and has significantly strengthened the relationship between the Ministry of Education and individual schools. There is also evidence that it has led to improved standardised test scores in subsidised schools with a high proportion of low-income students.

The number of disadvantaged students benefitting from the subsidy has increased significantly since the policy was introduced in 2008. In 2019, Chile's Education Commission voted to extend the extra funding to all subsidised private schools. Previously, schools had been required to sign an Equal Opportunities and Educational Excellence agreement to access the subsidy. Some 700 subsidised private schools had not signed the agreement, meaning 200 000 children were not benefitting from the subsidy. The recent changes aim to ensure that all eligible students have access to the subsidy as well as giving greater autonomy to schools and principals (Diario Constitucional, 2019[6]). In the early stages of the COVID-19 pandemic, the Superintendency of Education granted schools greater flexibility in terms of how they could use the subsidy. This gave schools additional funding for sanitation and other preventative measures (Ministry of Education of Chile - Los Rios Region, 2020[7]).

Further reading: OECD (2018[8]), *Education Policy Outlook 2018: Putting Student Learning at the Centre*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264301528-en.

Adapting monitoring and support for schools in the context of COVID-19 (2020)

- ***Level of resilience:** Broader learning environment*

Chile adjusted its National System of Ministerial Supervision (*Sistema Nacional de la Supervisión Ministerial*) in 2020 to better support schools in responding to the COVID-19 pandemic and other emergencies. This included adding a strand to the system's school improvement framework (*Focos clave para la mejora educativa del Sistema Nacional de Supervisión*) that specifically addresses education in emergencies. The Ministry of Education also established a set of objectives to guide the supervision of and support for schools in the context of the pandemic. These include guiding the school system to ensure the continuity of learning and supporting schools to implement Chile's Curricular Prioritisation package, which allows them to adapt their curriculum over a two-year period to support education recovery and consolidate essential learning. While supervision would normally take place through regular face-to-face meetings between supervisors and school leadership teams, these methods were adapted in the early stages of the pandemic. Remote solutions included video and telephone calls, audio-visual resources, and over 7 000 remote technical meetings between March and June 2020.

Further reading: Ministry of Education of Chile (2020[9]), *El rol de la Supervisión Ministerial en contexto de emergencia [The role of Ministerial Oversight in an emergency context]*, https://www.mineduc.cl/sistema-nacional-de-la-supervision-ministerial/ (accessed 1 April 2021).

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Ministry of Education of Chile (2020), El rol de la Supervisión Ministerial en contexto de emergencia [The role of Ministerial Oversight in an emergency context], https://www.mineduc.cl/sistema-nacional-de-la-supervision-ministerial/ (accessed on 1 April 2021). [9]

Ministry of Education of Chile - Los Rios Region (2020), Superintendencia de Educación flexibiliza uso de la SEP para implementar estrategias de seguridad sanitaria por Covid-19 [Superintendency of Education makes more flexible use of the SEP to implement health security strategies due to Covid-19], https://losrios.mineduc.cl/2020/04/30/superintendencia-de-educacion-flexibiliza-uso-de-la-sep-para-implementar-estrategias-de-seguridad-sanitaria-por-covid-19/ (accessed on 1 April 2021). [7]

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OECD (2020), TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/19cf08df-en. [1]

OECD (2019), PISA 2018 Results (Volume II): Where All Students Can Succeed, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/b5fd1b8f-en. [4]

OECD (2019), PISA 2018 Results (Volume III): What School Life Means for Students' Lives, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/acd78851-en. [5]

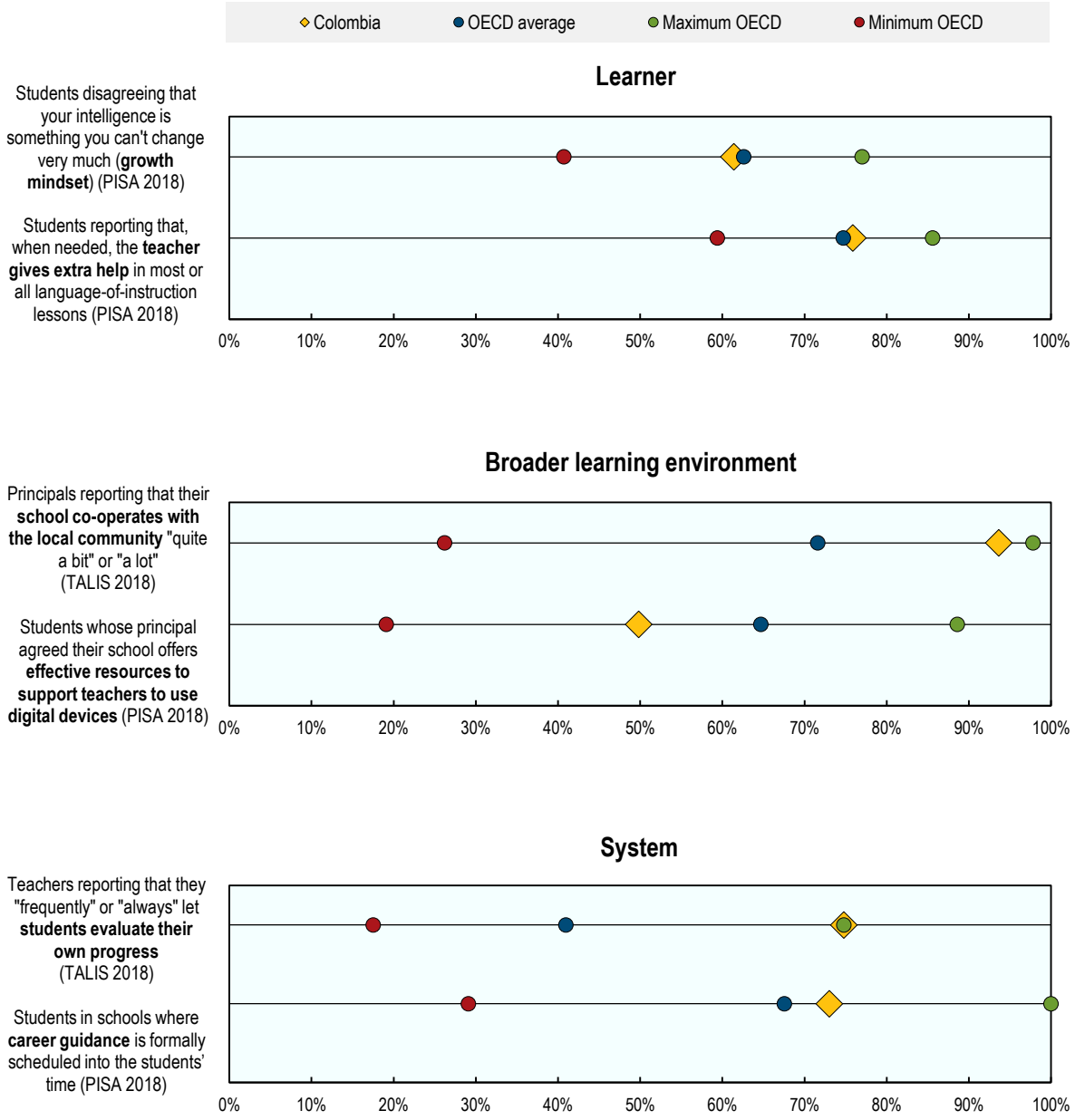
OECD (2019), TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

OECD (2018), Education Policy Outlook 2018: Putting Student Learning at the Centre, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264301528-en. [8]

Colombia

Figure 5.6. Selected indicators of education resilience in Colombia

Self-reports of students, teachers or principals by percentage



Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for Colombia

From Zero to Forever (De Cero a Siempre, 2011)

- ***Level of resilience**: Learner*

Colombia's Early Childhood Comprehensive Care Strategy (*De Cero a Siempre*, 2011) promotes quality and coverage of education and care for children from birth until five years of age. One of its initial aims was to ensure enrolment of 2 million 3-5 year-olds by 2018, and participation of all children in extreme poverty in early childcare programmes. The strategy promotes a holistic approach, with a strong emphasis on parental engagement and co-ordination of different services. A comprehensive ECEC framework defined the types of ECEC based on three modalities: family, community, and institutional. The family modality focused on support at home, targeting pregnant women, breastfeeding mothers, or children in rural areas.

The strategy significantly increased enrolment in ECEC and the co-ordinated approach paved the way for Colombia's education continuity strategy in the early stages of the COVID-19 pandemic. By 2019, some 1.4 million children under age five were enrolled in comprehensive ECEC, an increase from 566 400 children in 2010. The current target is to reach 2 million enrolments by 2022 (Government of Colombia, 2019[6]). Furthermore, after the closure of Early Childhood Development services in March 2020, the Colombian Institute of Family welfare (*Instituto Colombiano de Bienestar Familiar*, ICBF) launched My hands teach you (*Mis manos te enseñan*) to support continuous learning in the home, to ensure adequate nutrition for 0-5 year-olds, and to provide more comprehensive support to the most vulnerable families (e.g. distribution of food rations, pedagogical guides with activities and child-rearing practices, and materials to carry out the activities at home). This strategy made use of an interdisciplinary team of trained professionals including some 88 500 education agents, 47 200 community caregivers, and 6 000 psychological support specialists (Arbeláez et al., 2020[7]).

Further reading: OECD (2016[8]), *Education in Colombia*, Reviews of National Policies for Education, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264250604-en.

The Family-School Alliance (Alianza Familia-Escuela, 2020)

- ***Level of resilience:** Broader learning environment*

Colombia launched the Family School-Alliance Strategy in July 2020, when many schools and ECEC centres had switched to home learning. The strategy aims to support the learning, well-being, and development of children, adolescents, and young people by strengthening co-operation between educational institutions and families, with a focus on improving access to education and reducing drop-out. A set of guidelines underpin the institutional framework for family-school collaboration and support educational institutions in developing an action plan to strengthen their work with families. They include concrete examples of successful family engagement practices and tools to enable schools to evaluate the home environment and to support successful home learning. Colombia also organised online conferences for teaching professionals and families, and broadcast content on care, parenting, and learning via *Profe en tu Casa*, an educational broadcasting network established in the early stages of the pandemic.

Further reading: Ministry of National Education of Colombia (n.d.[9]), *Orientaciones técnicas: Alianza Familia - Escuela por el desarrollo integral de niñas, niños y adolescentes [Technical guidelines: Family - School Alliance - for the integral development of children and adolescents]*, website of *Aprender Digital [Digital Learning]*,http://aprende.colombiaaprende.edu.co/ckfinder/userfiles/files/Orientaciones%20T%C3%A9cnicas%20Alianza%20Familia%20Escuela%20por%20el%20desarrollo%20integral%20de%20ni%C3%B1as%2C%20ni%C3%B1os%20y%20adolescencia.pdf (accessed 1 April 2021).

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Government of Colombia (2019), *De Cero a Siempre [From Zero to Forever]*, http://www.deceroasiempre.gov.co/QuienesSomos/Paginas/QuienesSomos.aspx (accessed on 1 April 2021). [6]

Ministry of National Education of Colombia (n.d.), *Orientaciones técnicas: Alianza Familia - Escuela por el desarrollo integral de niñas, niños y adolescentes [Technical guidelines: Family - School Alliance - for the integral development of children and adolescents]*, http://aprende.colombiaaprende.edu.co/ckfinder/userfiles/files/Orientaciones%20T%C3%A9cnicas%20Alianza%20Familia-%20Escuela%20por%20el%20desarrollo%20integral%20de%20ni%C3%B1as%2C%20ni%C3%B1os%20y%20adolescencia.pdf (accessed on 1 April 2021). [9]

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OECD (2020), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/19cf08df-en. [1]

OECD (2019), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/b5fd1b8f-en. [4]

OECD (2019), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/acd78851-en. [5]

OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

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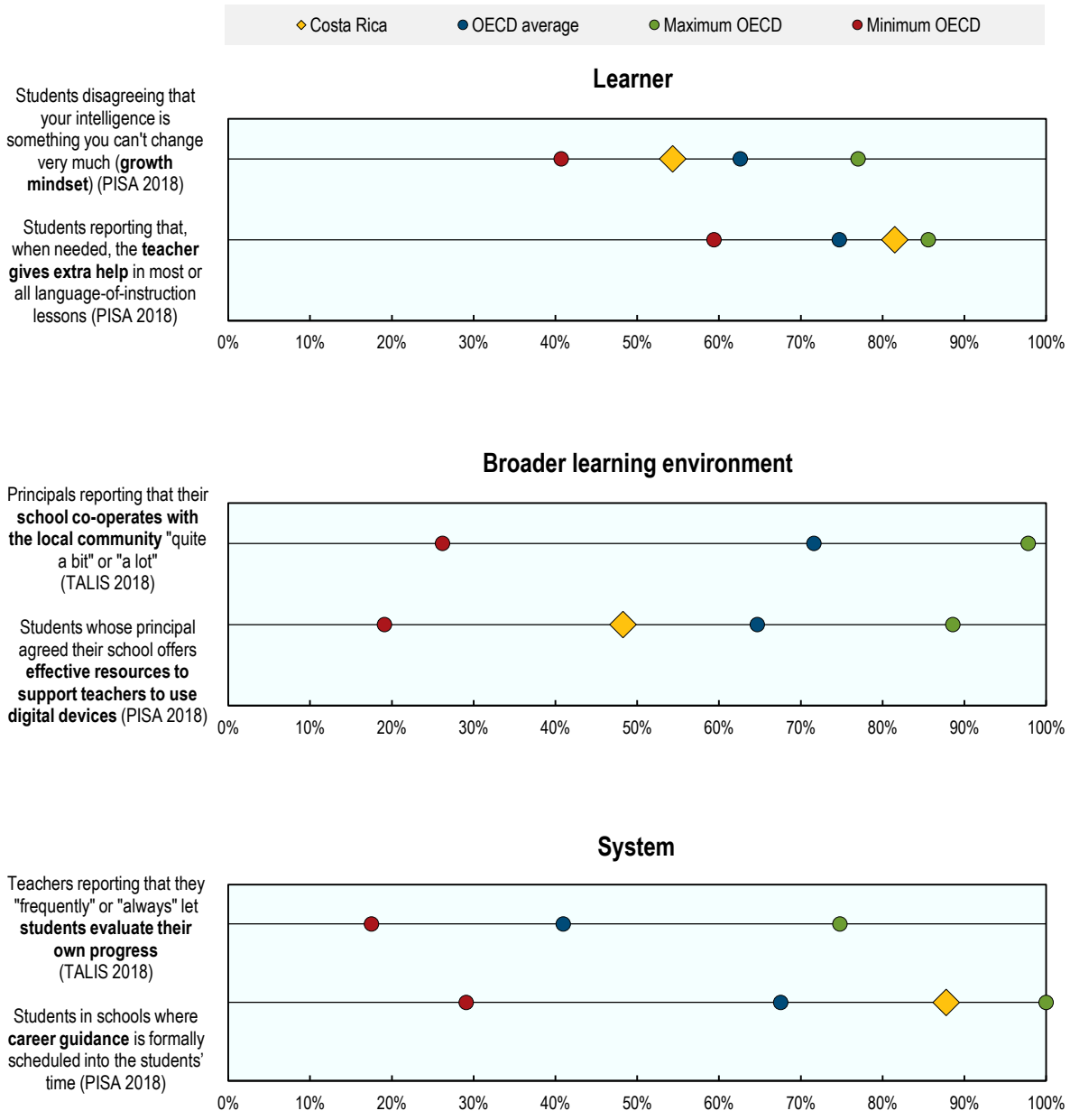
Costa Rica

Figure 5.7. Selected indicators of education resilience in Costa Rica

Self-reports of students, teachers or principals by percentage



Note: The absence of a yellow diamond means that the data for the Republic of Costa Rica was not available for the indicator.

Sources: OECD (2020[1]), TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), PISA 2018 Results (Volume II): Where All Students Can Succeed, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), PISA 2018 Results (Volume III): What School Life Means for Students' Lives, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

StatLink https://stat.link/57ajmt

Selected education policies for Costa Rica

Student Government Programme (Programa de Gobiernos Estudiantiles, 2009)

► ***Level of resilience**: Learner*

Costa Rica has introduced several measures to strengthen student voice in recent years. In 2009, an executive decree introduced new arrangements for student elections and the functioning of student government. A Department of Student Participation within the Ministry of Public Education (MEP) is responsible for promoting processes and spaces in which students can develop the knowledge, skills and attitudes they need to contribute to school improvement, and participate as citizens in the wider world. Between 2009 and 2015, the MEP collaborated with the Supreme Electoral Tribunal and the Institute for Training and Studies in Democracy to organise a series of workshops that familiarised students and teachers with the new regulations and processes. The MEP also collects data on the results of school elections to monitor progress in areas such as gender parity and the inclusion of students from an immigrant background. Student elections are now held across the majority of Costa Rica's primary and secondary schools, involving over one million students in democratic processes from an early age.

In 2019, the MEP organised its first national student dialogues. Student government representatives from Costa Rica's 27 Regional Directorates of Education met with the MEP's interdisciplinary teams to discuss issues such as student well-being, national testing, and dual education (Presidential Office of Costa Rica, 2019[6]). The 2020 student dialogues were held virtually in the early stages of the COVID-19 pandemic. The Minister of Education presented the country's school re-opening strategy to 1 600 student representatives, who provided feedback and shared their concerns regarding safety measures and university entrance exams. The MEP also launched an online survey which allowed all school students to give their feedback on the re-opening strategy (Ministry of Public Education of Costa Rica, 2020[7]) .

Further reading: Ministry of Public Education of Costa Rica (n.d.[8]), *Reglamento para la Organización y Funcionamiento del Gobierno Estudiantil [Student Government Regulations]*, https://www.mep.go.cr/sites/default/files/page/adjuntos/reglamento-gobiernos-estudiantiles.pdf (accessed 1 April 2021).

The Route to Digital Accessibility (Ruta a la Accesibilidad Digital, 2020)

► ***Level of resilience**: Learner*

Costa Rica's Ministry of Public Education worked alongside the National Council of People with Disabilities (*Conapdis*) and the Costa Rica Institute of Technology (*Tecnológico de Costa Rica*) to develop an accessible virtual learning strategy. The Route to Digital Accessibility (*Ruta a la Accesibilidad Digital*) was launched in June 2020 while many schools were still closed. It aims to provide teachers and other education professionals with the knowledge and skills needed to produce accessible digital resources for learners with disabilities. The strategy was developed after an evaluation of the digital resources launched in the early stages of the pandemic highlighted the need for more accessible resources. The first phase of the strategy involved nine online workshops that focused on accessibility for the visually impaired, which brought together 720 participants. In addition, a group of 40 visually impaired teachers received training on the use of audio and video-conferencing tools. In this sense, the strategy seeks to enable teachers with disabilities to make the most of digital technologies at the same time as ensuring that digital resources are accessible to all students.

Further reading: Ministry of Public Education of Costa Rica (2020[9]), *Tecnológico de Costa Rica, Conapdis y MEP se alían para mejorar accesibilidad digital [Tecnológico de Costa Rica, Conapdis and the MEP join forces to improve digital accesibility]*, https://www.mep.go.cr/noticias/tecnologico-costa-rica-conapdis-mep-se-alian-mejorar-accesibilidad-digital
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OECD (2019), TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

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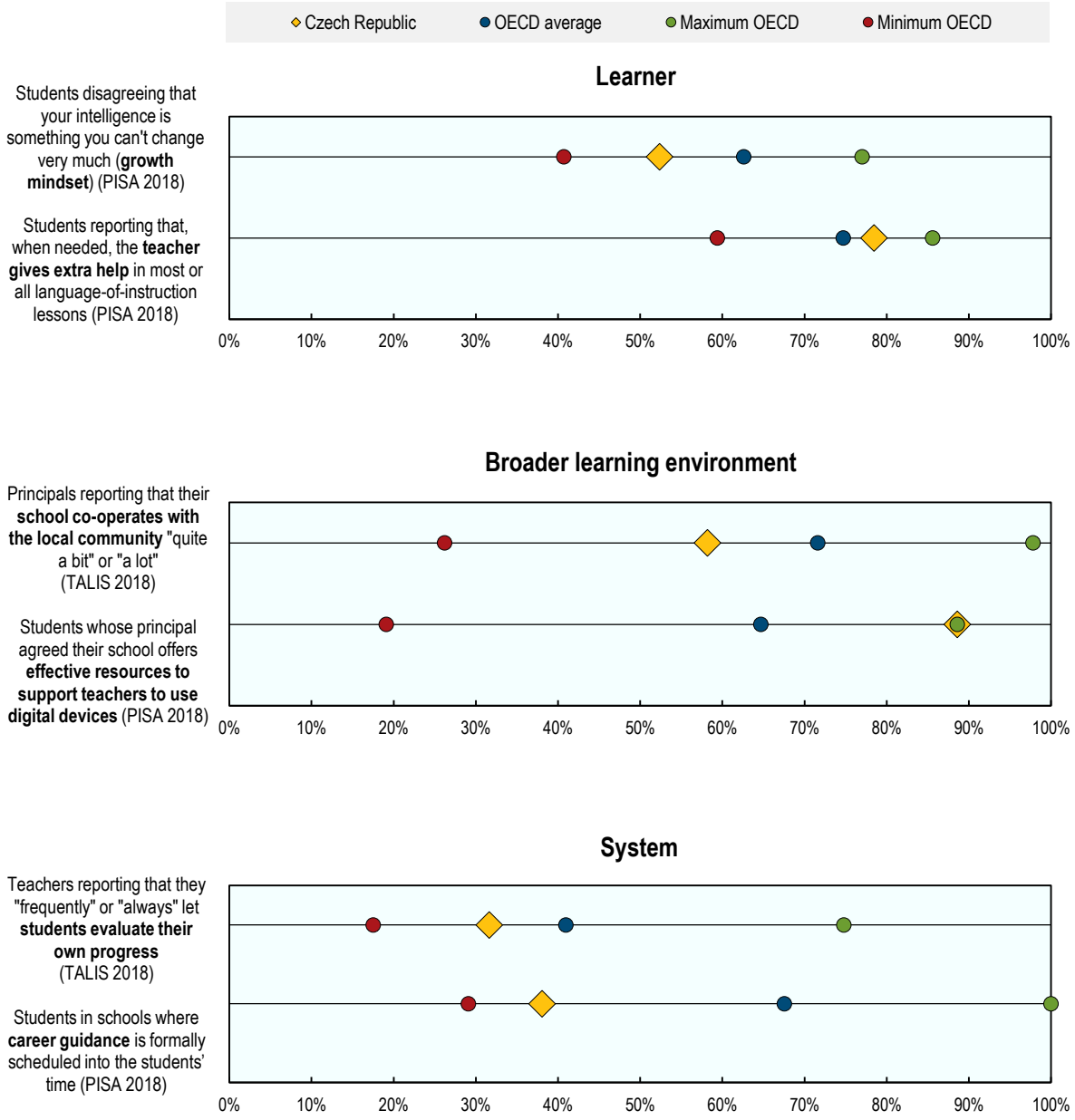
Czech Republic

Figure 5.8. Selected indicators of education resilience in the Czech Republic

Self-reports of students, teachers or principals by percentage



Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for the Czech Republic

Digital Strategy to 2020 (SDV, 2014)

- ***Level of resilience:*** *Broader learning environment*

The Czech Republic's Digital Strategy to 2020 (SDV, 2014) aimed to promote new approaches to teaching and learning through the use of digital technologies, to improve students' digital competencies, and to develop students' knowledge of information technologies. The government undertook regular, systematic evaluation of the strategy to monitor progress across seven lines of action. This gave policy makers a broad picture of the system's digital capacity at the start of the COVID-19 pandemic. As of 2019, significant progress had been made in the area of innovation. Actors in the public, private, and non-profit sectors worked collaboratively to promote innovation in education through forums such as the Digital Coalition, established in 2016. The strategy also analysed data on schools' use of digital technologies and their impact. Progress has also been made in providing support for the integration of digital technologies in schools. This is particularly important in the context of the pandemic, where many educational institutions have had to move to distance and blended learning approaches (Jednota školských informatiků, n.d.[6]).

Digital education is a key pillar of the Strategy for the Education Policy of the Czech Republic up to 2030+, which was launched in October 2020 (Ministry of Education, Youth and Sports of Czech Republic, 2020[7]). The strategy aims to support the digital literacy of learners in primary and secondary education, and to strengthen the digital competencies of teachers. This involves embedding digital skills across the curriculum, promoting the sharing of good practice, and providing mentoring for pre-service and in-service teachers (Ministry of Education, Youth and Sports of Czech Republic, 2020[8]).

Further reading: OECD (2020[9]), *Education Policy Outlook: Czech Republic*, https://www.oecd.org/education/policy-outlook/country-profile-Czech-Republic-2020.pdf (accessed on 28 October 2021).

Strategic plan for higher education (Strategický záměr, 2020)

- ***Level of resilience****: System*

The Czech Republic began working on a new strategic plan for higher education in 2019 and completed the process in the early stages of the COVID-19 pandemic. The plan was developed collaboratively with universities and representatives from organisations such as the Chamber of Commerce and the Confederation of Industry and Transport. One of the key priorities of the strategy is to increase the availability and relevance of flexible forms of learning, such as distance learning, and upskilling and reskilling courses. The strategy also aims to strengthen the connection between higher education and the 21st century labour market.

The six strategic goals break down into operational objectives and specific measures to be implemented at the national level or by individual institutions. For example, the government will support the creation of study programmes in areas where there is a demand for labour and skills and will create incentives for institutions to develop flexible learning options. It will also develop structures for institutions to collaborate and share best practices in work-based learning and blended learning. Higher education institutions are expected to make better use of labour-market data when designing programmes and to offer careers coaching to students and graduates. A number of steering mechanisms, including financial instruments, support the implementation of the strategy and aim to hold institutions to account for the funding they receive. An interim evaluation, due to be published in 2024, and data from student surveys will be used to monitor impact.

Further reading: Ministry of Education, Youth and Sport of Czech Republic (2020[10]), Nová Strategie pro Vysoké Školství [A New Strategy for Higher Education], https://www.msmt.cz/nova-strategie-pro-vysoke-skolstvi (accessed 1 April 2021).

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Jednota školských informatiků (n.d.), *Jak české vzdělávání využívá současné technologie? [How does Czech education use current technologies?]*, http://digivzdelavani.jsi.cz/home (accessed on 1 April 2021). [6]

Ministry of Education, Youth and Sport of Czech Republic (2020), *Nová Strategie pro Vysoké Školství [A New Strategy for Higher Education]*, https://www.msmt.cz/nova-strategie-pro-vysoke-skolstvi (accessed on 1 April 2021). [10]

Ministry of Education, Youth and Sports of Czech Republic (2020), *Strategie Vzdêlávací Politiki Čr Do Roku 2030+ [The Czech Republic's Education Policy Strategy to 2030+]*, https://www.msmt.cz/vzdelavani/skolstvi-v-cr/strategie-2030?lang=1 (accessed on 1 April 2021). [8]

Ministry of Education, Youth and Sports of Czech Republic (2020), *Vláda schválila novou Strategii vzdělávací politiky ČR do roku 2030+, která pomůže školám, žákům i učitelům [The government has approved a new Strategy for the Czech Republic's educational policy until 2030+, which will help schools, pupils and teachers]*, https://www.edu.cz/vlada-schvalila-strategii-vzdelavaci-politiky-cr-do-roku-2030-nejdulezitejsi-dokument-ceskeho-skolstvi/ (accessed on 1 April 2021). [7]

OECD (2020), *Education Policy Outlook: Czech Republic*, https://www.oecd.org/education/policy-outlook/country-profile-Czech-Republic-2020.pdf (accessed on 28 October 2021). [9]

OECD (2020), *Learning remotely when schools close: How well are students and schools prepared? Insights from PISA*, OECD Publishing, Paris, https://dx.doi.org/10.1787/3bfda1f7-en. [2]

OECD (2020), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/19cf08df-en. [1]

OECD (2019), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/b5fd1b8f-en. [4]

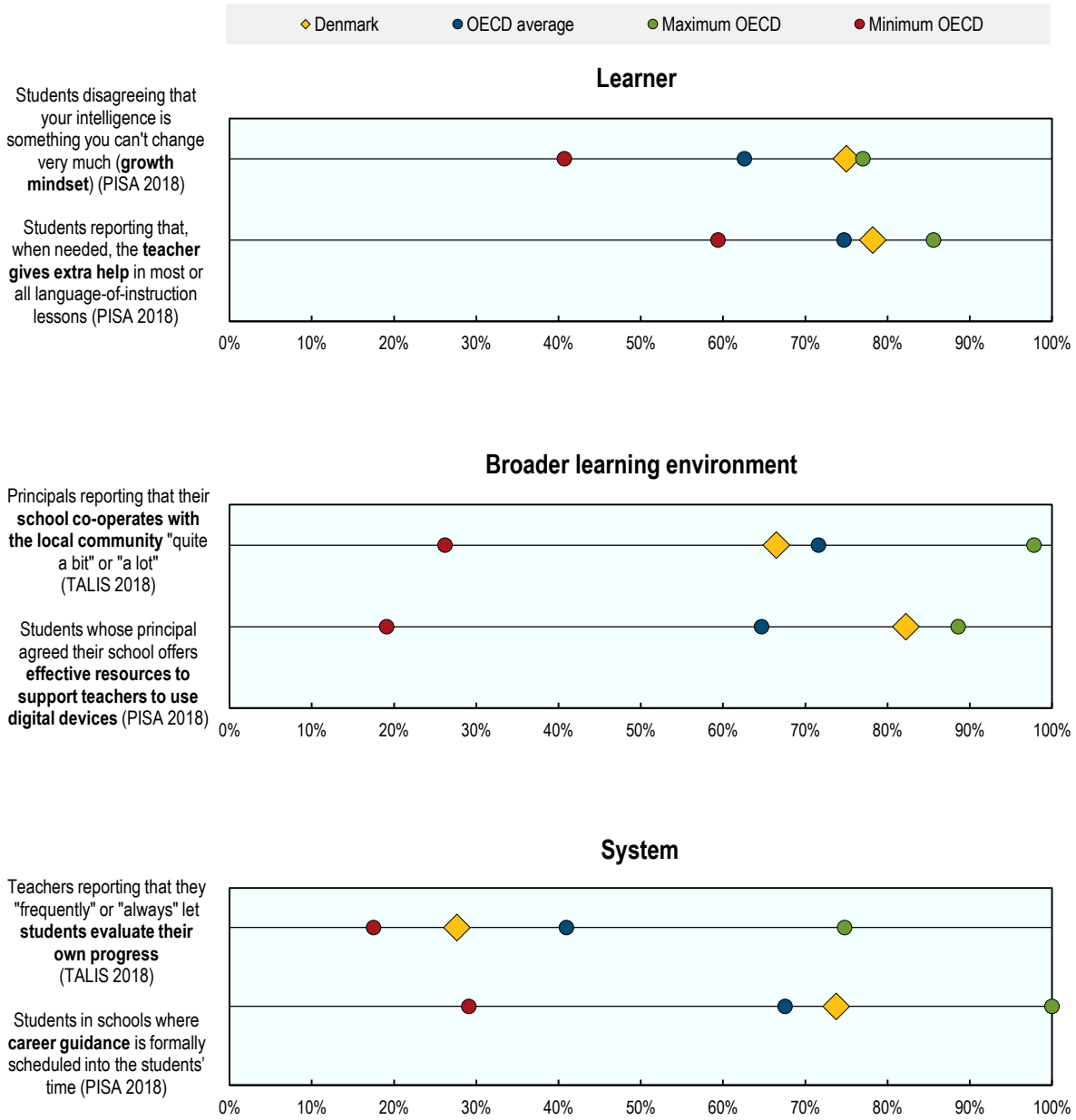
OECD (2019), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/acd78851-en. [5]

OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

Denmark

Figure 5.9. Selected indicators of education resilience in Denmark

Self-reports of students, teachers or principals by percentage



Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for Denmark

National Strategy on Promoting Science (National naturvidenskabsstrategi, 2018)

- ***Level of resilience**: Broader learning environment*

Denmark's National Strategy on Promoting Science (2018) contains a range of measures to strengthen teachers' performance and skills through collaboration and instructional leadership. Denmark's Ministry of Children and Education encouraged municipalities to hire municipal science co-ordinators and asked schools to recruit science supervisors. It has also provided financial support and advice to science teams in primary and lower-secondary schools who wish to develop their teaching practices through professional learning communities. At the secondary level, there has been a focus on building professional networks between schools and sharing good practice. The strategy also aims to develop curricular content and pilot pedagogical approaches in digital technologies. One pilot scheme, carried out in 46 primary and lower-secondary schools from 2018-21, trialled course content, developed with the support of an expert group, aiming to foster the skills, insights and capacities learners need to engage critically and constructively with digital technologies. Denmark has also introduced a new basic VET course on digital technologies as part of the strategy.

In 2019, the Ministry launched new national networks for science co-ordinators and supervisors across the country. The networks are facilitated by the National Centre for Learning in Nature, Engineering and Health (ASTRA), and aim to deepen collaboration and knowledge sharing between schools and municipalities. A report from 2019 points to the continued need to plan for teachers' competence development in the natural sciences (Ministry of Children and Education of Denmark, 2019[6]).

Further reading: OECD (2020[7]), *Education Policy Outlook: Denmark*, http://www.oecd.org/education/policy-outlook/country-profile-Denmark-2020.pdf (accessed on 28 October 2021).

Tripartite agreement on extraordinary support for apprentices and employers (Trepartsforhandlinger, 2020)

- ***Level of resilience**: System*

In the early stages of the COVID-19 pandemic, the Danish government and social partners agreed on a range of measures to ensure the continuity of work-based learning in the short term, and to meet the need for skilled workers in the years to come. Short-term measures included a temporary wage subsidy, available from May to December 2020, in order to encourage employers to retain apprentices and offer new placements. In the longer-term, the government and social partners agreed to set aside DKK 500 million per year from the Employers Educational Contribution fund (AUB) to finance initiatives that promote apprenticeships and strengthen VET. There are also plans to simplify the apprenticeship scheme and adjust the funding model to provide further incentives to employers. Addressing labour shortages in the health and social care sectors is a priority of the agreement. With this in mind, a budget of DKK 50 million has been set aside for initiatives aimed at public sector apprenticeships.

There was a 16% increase in the number of new apprenticeship agreements in June 2020 compared to the previous year (Ministry of Children and Education of Denmark, 2020[8]).

Further reading: Ministry of Children and Education of Denmark (2020[9]), *Over fem mia. kr. skal holde hånden under lærlinge, elever og virksomheder [Over five billion DKK to hold the hand of apprentices, students and companies]*, https://www.uvm.dk/aktuelt/nyheder/uvm/2020/maj/200528-over-fem-milliarder-kroner-skal-holde-haanden-under-laerlinge--elever-og-virksomheder (accessed 1 April 2021).

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Ministry of Children and Education of Denmark (2020), Stigning i antallet af lærepladser i juni [Increase in the number of apprenticeships in June], https://www.uvm.dk/aktuelt/nyheder/uvm/2020/aug/200825-stigning-i-antallet-af-laerepladser-i-juni (accessed on 1 April 2021). [8]

Ministry of Children and Education of Denmark (2019), Undersøgelse af kompetencebehov blandt naturfagslærere i grundskolen [Study of competence needs among science teachers in primary school], https://www.uvm.dk/publikationer/2019/191106-undersoogelse-af-kompetencebvehov-blandt-naturfagslaerere-i-grundskolen (accessed on 1 April 2021). [6]

OECD (2020), Education Policy Outlook: Denmark, http://www.oecd.org/education/policy-outlook/country-profile-Denmark-2020.pdf (accessed on 28 October 2021). [7]

OECD (2020), Learning remotely when schools close: How well are students and schools prepared? Insights from PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/3bfda1f7-en. [2]

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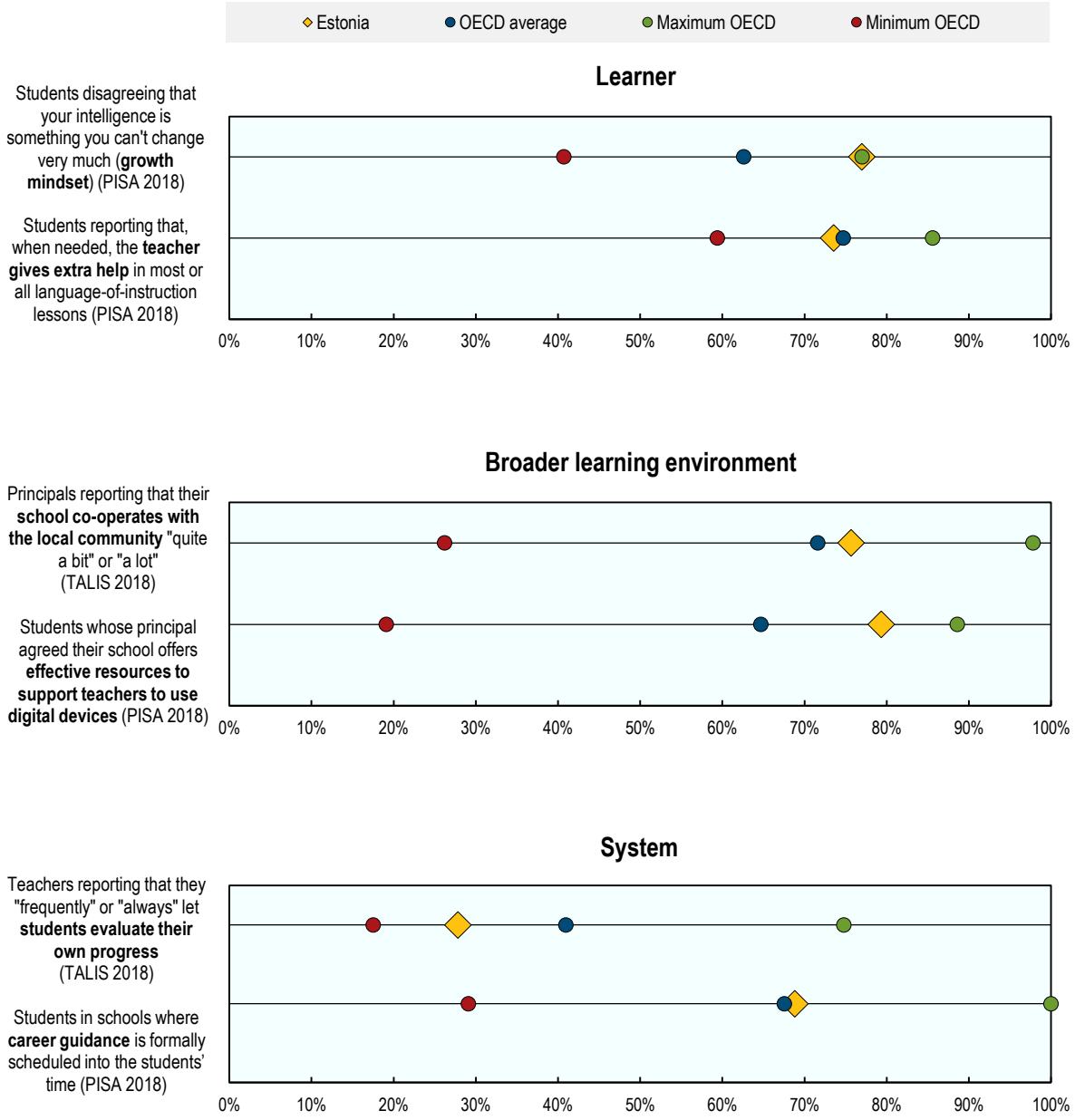
OECD (2019), TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

Estonia

Figure 5.10. Selected indicators of education resilience in Estonia

Self-reports of students, teachers or principals by percentage



Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for Estonia

Satisfaction with education surveys (Rahulolu haridusega, 2018)

- ***Level of resilience**: Broader learning environment*

In 2018, Estonia began implementing a range of surveys to measure different stakeholders' satisfaction with the education system. The surveys cover all levels of the system, from pre-primary to upper-secondary and vocational education and training, and capture the views of learners, parents, and teachers. Questions cover aspects relating to the school environment, student learning, and student well-being. Schools and school owners receive a report summarising the results from their school across different stakeholder groups and comparing these to the national average. At the system level, the aggregated data is used to measure progress in Estonia's Lifelong Learning Strategy, which contains an indicator for stakeholder satisfaction. In this sense, the surveys support the improvement of individual institutions at the same time as informing strategic improvement at the system level.

In a similar vein, Estonia collected stakeholder feedback on distance learning and other forms of emergency provision in the early stages of the COVID-19 pandemic. Estonia gathered data on teachers' experiences of distance learning in the first week of school closures and used this to develop recommendations for implementing remote learning. This was followed by a broader study on distance learning conducted by the Ministry of Education and Research and the University of Tallinn, which made longer-term recommendations for school development and the organisation of learning. The study drew on qualitative case studies and a national survey of students, teachers, parents, and school leaders.

Further reading: OECD (2020[6]), *Education Policy Outlook: Estonia*, http://www.oecd.org/education/policy-outlook/country-profile-Estonia-2020.pdf (accessed on 28 October 2021).

Funding for VET programmes for at-risk youth (2020)

- ***Level of resilience**: System*

In 2020, the Estonian Ministry of Education and Research made a total of EUR 1.7 million available to VET institutions to fund new programmes for at-risk youth. Institutions can apply for grants of EUR 100 000-200 000 for programme proposals that support young people's transitions to the workplace or further study. The initiative is funded by the European Economic Area and Norway's 2014-21 Local Development and Poverty Reduction grant. The target group includes young people who have fallen out of compulsory education, or those who are not in education, employment or training, students who need enhanced support, and those with poorly defined career goals. In this sense, the funding is directed towards the groups most likely to be affected by the economic fallout of the COVID-19 pandemic. Institutions can use the grants for curriculum development, including planning for out-of-school learning, and for training and networking activities for school staff and partners in the workplace. The initiative aims to reach at least 400 young people in 15 VET institutions, and for 50% of participants to be in work or further study by 2024.

Further reading: Ministry of Education and Research of Estonia (2020[7]), *Kutseõppeasutusi toetatakse 1,7 miljoni euroga [1.7 million EUR to support vocational insitutions]*, https://www.hm.ee/et/uudised/kutseoppeasutusi-toetatakse-17-miljoni-euroga (accessed on 1 April 2021).

References

Ministry of Education and Research of Estonia (2020), *Kutseõppeasutusi toetatakse 1,7 miljoni euroga [1.7 million EUR to support vocational insitutions]*, https://www.hm.ee/et/uudised/kutseoppeasutusi-toetatakse-17-miljoni-euroga (accessed on 1 April 2021). [7]

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OECD (2019), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/b5fd1b8f-en. [4]

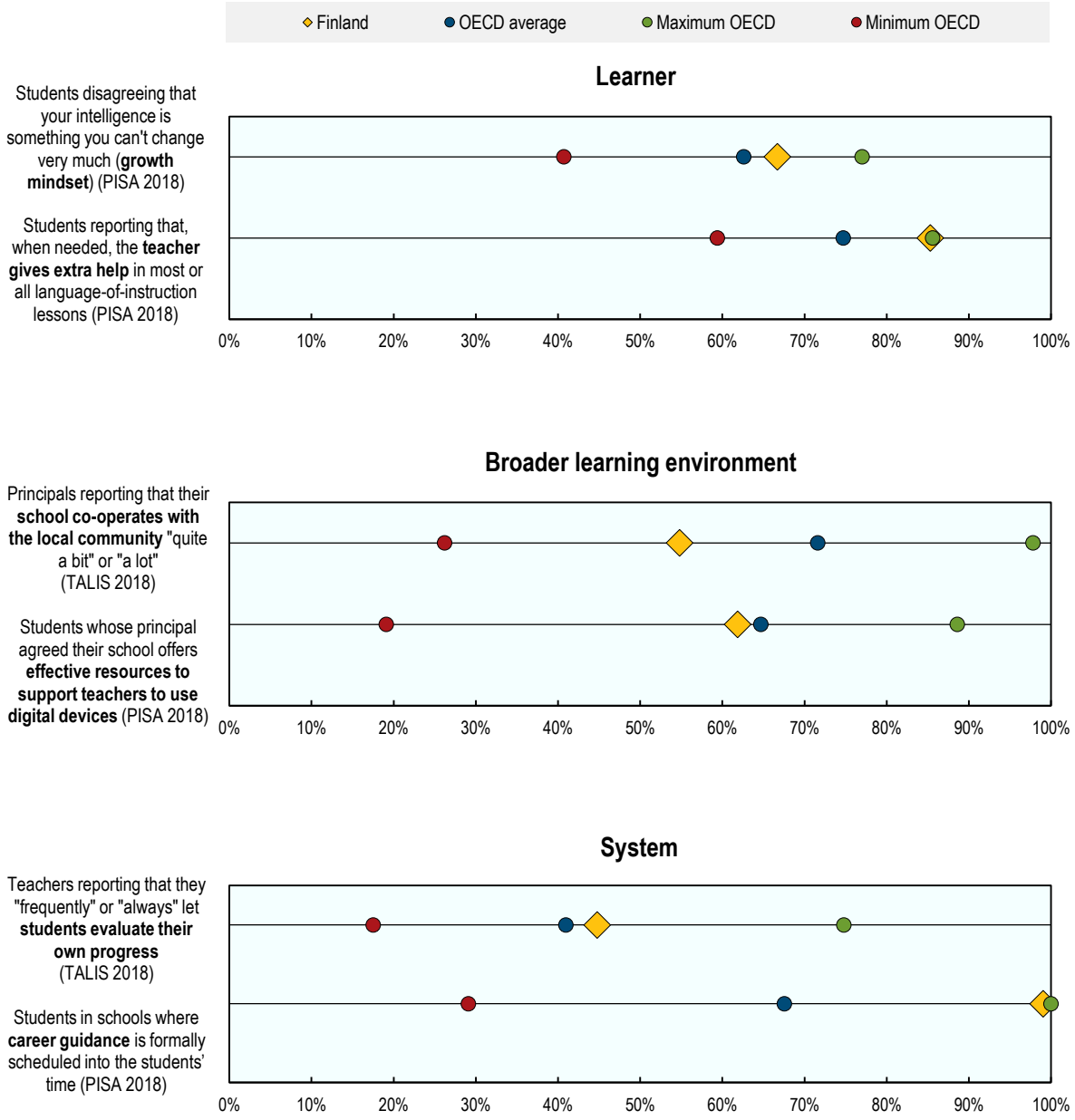
OECD (2019), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/acd78851-en. [5]

OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

Finland

Figure 5.11. Selected indicators of education resilience in Finland

Self-reports of students, teachers or principals by percentage



Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for Finland

Alternative Path to University (Toinen reitti yliopistoon, TRY project, 2019)

- ***Level of resilience**: System*

The Alternative Path to University project (2019) promotes equitable access to higher education as part of a broader student admissions reform (2018-20). Through this project, open studies courses are available at most higher education institutions across Finland, which allow learners to study at evenings, weekends, and via distance learning. There are no admissions requirements, and courses come at a relatively low cost to learners. Although they do not lead to a qualification, open studies courses allow learners to gain credits recognised within the European Credit Transfer and Accumulation System (ECTS), which can contribute towards a degree at the same university. In addition, the TRY project aims to develop new entry routes for secondary-level students, and admissions options that fit the needs of working life. The project was funded by Finland's Ministry of Education and includes 11 of the country's universities.

According to a study of the Finnish case, the TRY project has already contributed to an increase in the number of students entering degree programmes through the open studies pathway. By late 2019, there were more than 200 open studies pathways to bachelor and masters-level courses, exceeding the project's original projections. The development of the open studies pathway provides learners who may not otherwise have entered higher education with greater flexibility and an alternative to the traditional, highly competitive route. This will be particularly importantly in the context of the global recession, when many workers are likely to be seeking opportunities to retrain. However, the open studies pathway is not available in all subject areas, including highly competitive fields such as medicine and teacher training. The report recommends that Finland introduce regulations to widen the offer of open studies courses.

Further reading: Moitus, S., L. Weimer and J. Välimaa (2020[6]), *Flexible Learning Pathways in Higher Education: Finland's country case study for the UNESCO International Institute for Educational Planning (IIEP-UNESCO) SDG4 project in 2018–2021* Finnish Education Evaluation Centre, https://karvi.fi/app/uploads/2020/09/KARVI_1220.pdf (accessed on 19 May 2021).

Career guidance development programme (Opinto-ohjauksen kehittämisohjelma, 2020)

- ***Level of resilience**: System*

Finland's guidance counselling development programme aims to provide more targeted and personalised career guidance to students in primary, lower secondary, general upper-secondary education and VET. One of its key objectives is to increase equity in education by making the full range of educational and career opportunities visible to all. With this in mind, the strategy reinforces support and guidance for students with SEN, students from an immigrant background, and students with mental health issues. The programme also provides for more intensive and personalised guidance for 10 000 students in the 8th and 9th grades of lower-secondary school who have been identified as needing extra support. There is a particular focus on improving the quality and amount of career guidance for students in VET to improve learning outcomes and retention rates. Other objectives include improving the use of labour-market and skills forecasting data and using career guidance to identify and develop students' competencies. The programme supports Finland's recovery from the projected economic and social fallout of the COVID-19 pandemic by targeting career guidance towards those who are most likely to benefit. It also supports longer-term strategic objectives, such as the plan to extend compulsory schooling, and initiatives to improve the quality of VET and upper-secondary education.

Further reading: Ministry of Education and Culture of Finland (2020[7]), *Opinto-ohjauksen kehittämisohjelma [Career guidance development programme]*, https://minedu.fi/hanke?tunnus=OKM033:00/2020 (accessed on 1 April 2021).

References

Ministry of Education and Culture of Finland (2020), *Opinto-ohjauksen kehittämisohjelma [Career guidance development programme]*, https://minedu.fi/hanke?tunnus=OKM033:00/2020 (accessed on 1 April 2021). [7]

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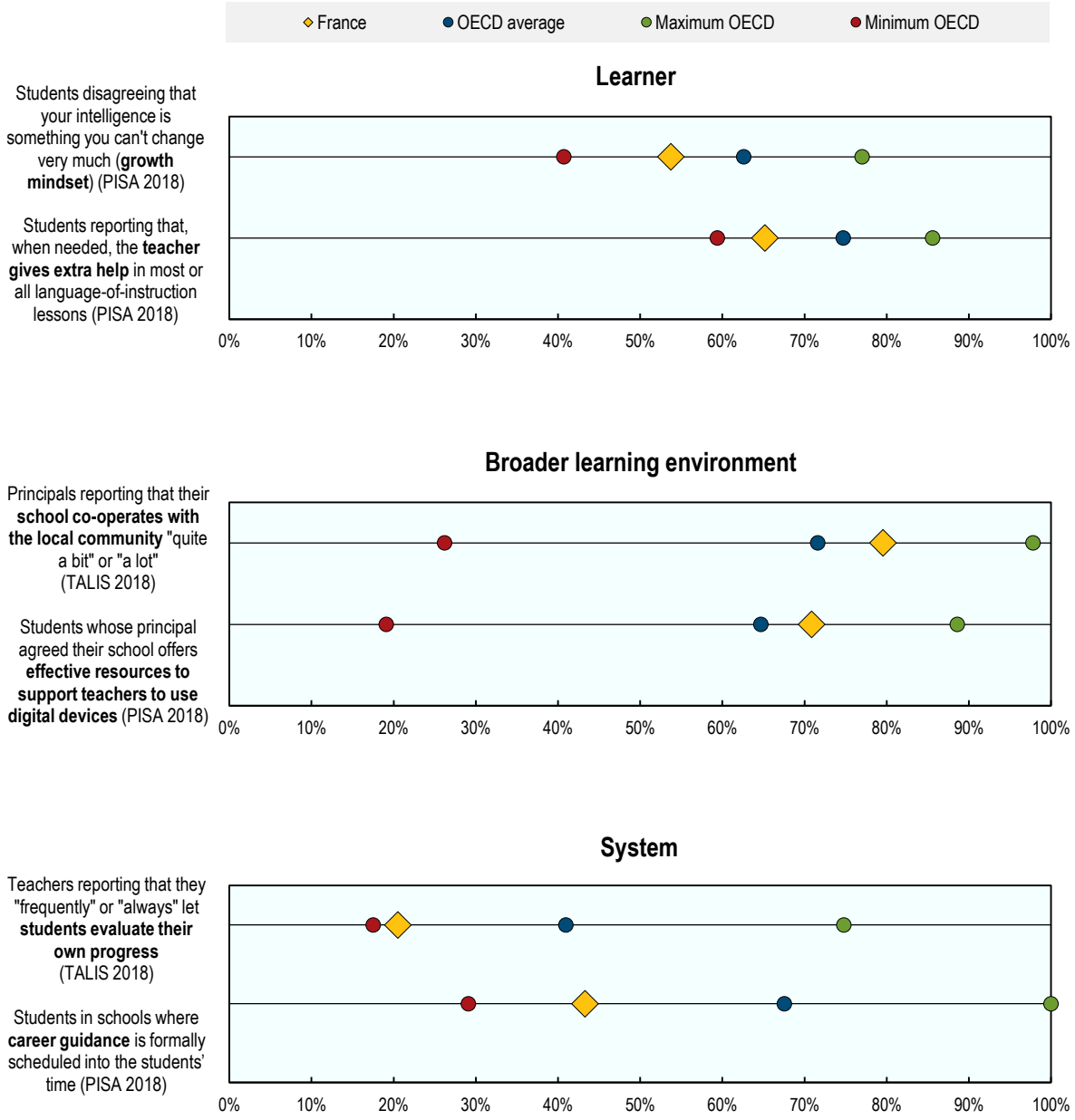
OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

France

Figure 5.12. Selected indicators of education resilience in France

Self-reports of students, teachers or principals by percentage



Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

StatLink https://stat.link/5fk14c

Selected education policies for France

Digital Strategy for Higher Education (Stratégie numérique pour l'enseignement supérieur, 2013)

► ***Level of resilience**: Learner*

One of the key aims of France's Digital Strategy for Higher Education, launched in 2013, was to provide more flexible and personalised learning experiences for students and the wider public. As part of this, the France Digital University (*France Université Numérique*) platform (2013) brings together some 547 massive open online courses (MOOCs) designed by educators working in the higher education sector. However, a 2015 report from the European Commission notes that the majority of users are university graduates, rather than current higher education students or those outside of the system (European Commission, 2015[6]). Another effort is the Sup-numérique platform (2015), which contains over 30 000 digital learning resources aimed at higher education professionals, students, and the wider public. Other aspects of the digital strategy focus on embedding digital pedagogy to meet the increasingly diverse needs of learners, and on improving the digital infrastructure of higher education institutions.

These measures supported the transition to distance learning in the early stages of the COVID-19 pandemic. In addition, the online platforms made a range of distance-learning opportunities available to workers wishing to develop their skills. As part of its COVID-19 recovery plan, France allocated EUR 35 million to developing blended learning and digital resources in the higher education sector (Ministry for the Economy, Finance, and Recovery of France, 2020[7]).

Further reading: Ministry of Higher Education, Research and Innovation of France (2015[8]), *Stratégie numérique pour l'enseignement supérieur [Digital Strategy For Higher Education]*, https://www.enseignementsup-recherche.gouv.fr/cid89439/le-numerique-service-une-universite-performante-innovante-ouverte-sur-monde.html#numerique-outil-renovation-pratiques-pedagogiques (accessed on 1 April 2021).

1 youth, 1 solution (1 Jeune, 1 Solution, 2020)

► ***Level of resilience**: System*

In July 2020, France launched a wide-ranging set of measures to protect 16-25 year-olds from the economic consequences of the COVID-19 pandemic. The overarching goals of the strategy are to facilitate young peoples' transitions to the world of work, to train 200 000 young people for the jobs of the future, and to support young people who have fallen out of work in developing a 'personalised career path'. As part of these measures, the government aims to create 100 'digital campuses' (*campus connectés*) by 2021 to bring higher education learning opportunities to young people in isolated regions. The development and implementation of the strategy involves three government ministries, as well as social partners and youth organisations. Local and regional authorities work alongside social partners and employers to adapt the national strategy to the local context and identify priority sectors within the job market. They are also encouraged to work with local youth organisations in order to reach out to young people and to connect them with the services they need. The strategy will be monitored using local, regional, and national level indicators relating to employment and youth participation. Evaluation will pay particular attention to areas of the country experiencing economic difficulties and to groups at risk of discrimination.

Further reading: Government of France (2020[9]), *Plan 1 Jeune, 1 Solution [The 1 Youth, 1 Solution Plan]*, https://travail-emploi.gouv.fr/IMG/pdf/dp_plan_jeunes.pdf (accessed on 1 April 2021).

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Ministry for the Economy, Finance, and Recovery of France (2020), *Hybridation, et services numériques aux étudiants [Hybridisation and digital student services]*, https://www.economie.gouv.fr/plan-de-relance/profils/administrations/hybridation-services-numeriques-etudiants (accessed on 1 April 2021). [7]

Ministry of Higher Education, Research and Innovation of France (2015), *Stragtégie numérique pour l'enseignement supérieur*, https://www.enseignementsup-recherche.gouv.fr/cid89439/le-numerique-service-une-universite-performante-innovante-ouverte-sur-monde.html#numerique-outil-renovation-pratiques-pedagogiques (accessed on 1 April 2021). [8]

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OECD (2020), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/19cf08df-en. [1]

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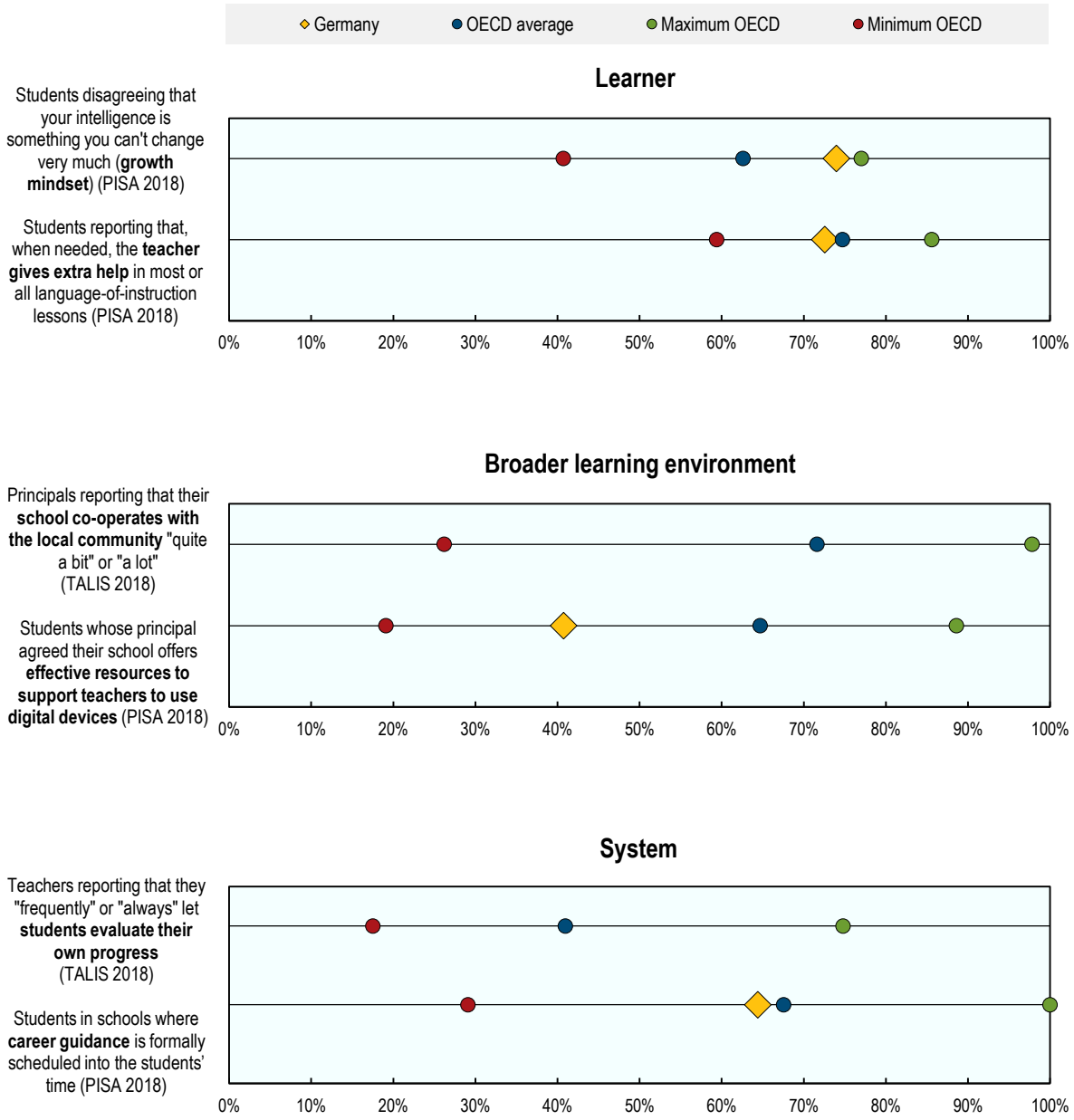
OECD (2019), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/acd78851-en. [5]

OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

Germany

Figure 5.13. Selected indicators of education resilience in Germany

Self-reports of students, teachers or principals by percentage



Note: The absence of a yellow diamond means that the data for Germany was not available for the indicator.

Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for Germany

Culture is Strength - Education Alliances („Kultur macht stark. Bündnisse für Bildung", 2013)

- ***Level of resilience:*** *Broader learning environment*

Since 2013, Germany's Culture is Strength - Education Alliances initiative has provided extra-curricular and cultural activities for 3-18 year-olds from disadvantaged backgrounds. Children and young people take part in activities such as theatre, music, art, and digital media and everyday culture. Through these activities, run by local education alliances, the programme aims to promote key competencies such as creativity, self-confidence and social skills, as well as participation in society. These alliances bring together local actors from the cultural, education, and youth sectors who offer different types of expertise and have good access to the target population group. Over 80% of those surveyed felt that their alliance had strengthened networking between different actors and that this alliance was well-integrated into community structures. Around 1 in 4 had not previously worked with the other partners, suggesting the alliances have led to new collaborations (Federal Ministry of Education and Research, 2019[6]).

More than 1 million children and young people have taken part in projects funded by the initiative since the initial round of funding in 2013. In the early stages of the COVID-19 pandemic, while institutions like theatres, museums and libraries were closed, local adult education centres, schools and public places created alternative spaces. The concept of forming local alliances proved to be a considerable advantage in this situation and the initiative continued to support the resilience of disadvantaged children and young people while they needed it most (Kempmann, n.d.[7]).

Further reading: Federal Ministry for Education and Research of Germany (n.d.[8]), *Kultur Macht Stark Trotzt Corona ["Culture is Strength" defies Corona]*, https://www.buendnisse-fuer-bildung.de/index.html (accessed on 1 April 2021).

Reinforcing the Digital Pact for Schools (DigitalPakt Schule, 2019)

- ***Level of resilience:*** *Broader learning environment*

In the early stages of the COVID-19 pandemic, Germany announced additional measures for the Digital Pact for Schools (2019). The Pact aims to equip students with the skills they need for the 21st century by establishing the necessary digital infrastructure in schools, developing digital content and curricula, and strengthening teachers' digital competencies through professional learning. As was the case in many other countries and economies, school closures in 2020 gave a significant boost to Germany's digital agenda. At the same time, it highlighted the need to strengthen the digital capacities of teachers and schools, and to ensure students' equitable access to digital technologies. In March 2020, the federal government allocated EUR 100 million for the upgrading of digital infrastructure in schools, and to meet the need for digital pedagogical content. This was followed by an additional EUR 500 million to purchase personal digital devices for students in need, and tools for teachers to create digital content. Another EUR 500 million was added later in 2020 for financing the local administration of the digitisation schemes. Finally, from January 2021, a further EUR 500 million will be dedicated to supplying teachers with digital devices to ease their access to all appropriate forms and means of distance education. In accordance with the Digital Pact for Schools, the Länder make a 10% contribution to these funds and are responsible for purchasing the necessary equipment; schools are responsible for allocating devices to students.

Further reading: Federal Ministry of Education and Research of Germany (n.d.[9]), *Digitalpakt Schule [Digital Pact for Schools]*, https://www.bmbf.de/de/wissenswertes-zum-digitalpakt-schule-6496.php (accessed on 1 April 2021).

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Federal Ministry of Education and Research (2019), *Positive mid-term result for "Culture is Strength" (Positive Halbzeitbilanz für „Kultur macht stark")*, https://www.buendnisse-fuer-bildung.de/de/positive-halbzeitbilanz-fuer-kultur-macht-stark-1933.html (accessed on 1 April 2021). [6]

Federal Ministry of Education and Research of Germany (n.d.), *Digitalpakt Schule [Digital Pact for Schools]*, https://www.bmbf.de/de/wissenswertes-zum-digitalpakt-schule-6496.php (accessed on 1 April 2021). [9]

Kempmann, M. (n.d.), *"Culture is Strength!" - especially in times of Corona*, https://www.buendnisse-fuer-bildung.de/de/kultur-macht-stark---gerade-in-corona-zeiten-1962.html (accessed on 1 April 2021). [7]

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OECD (2019), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/b5fd1b8f-en. [4]

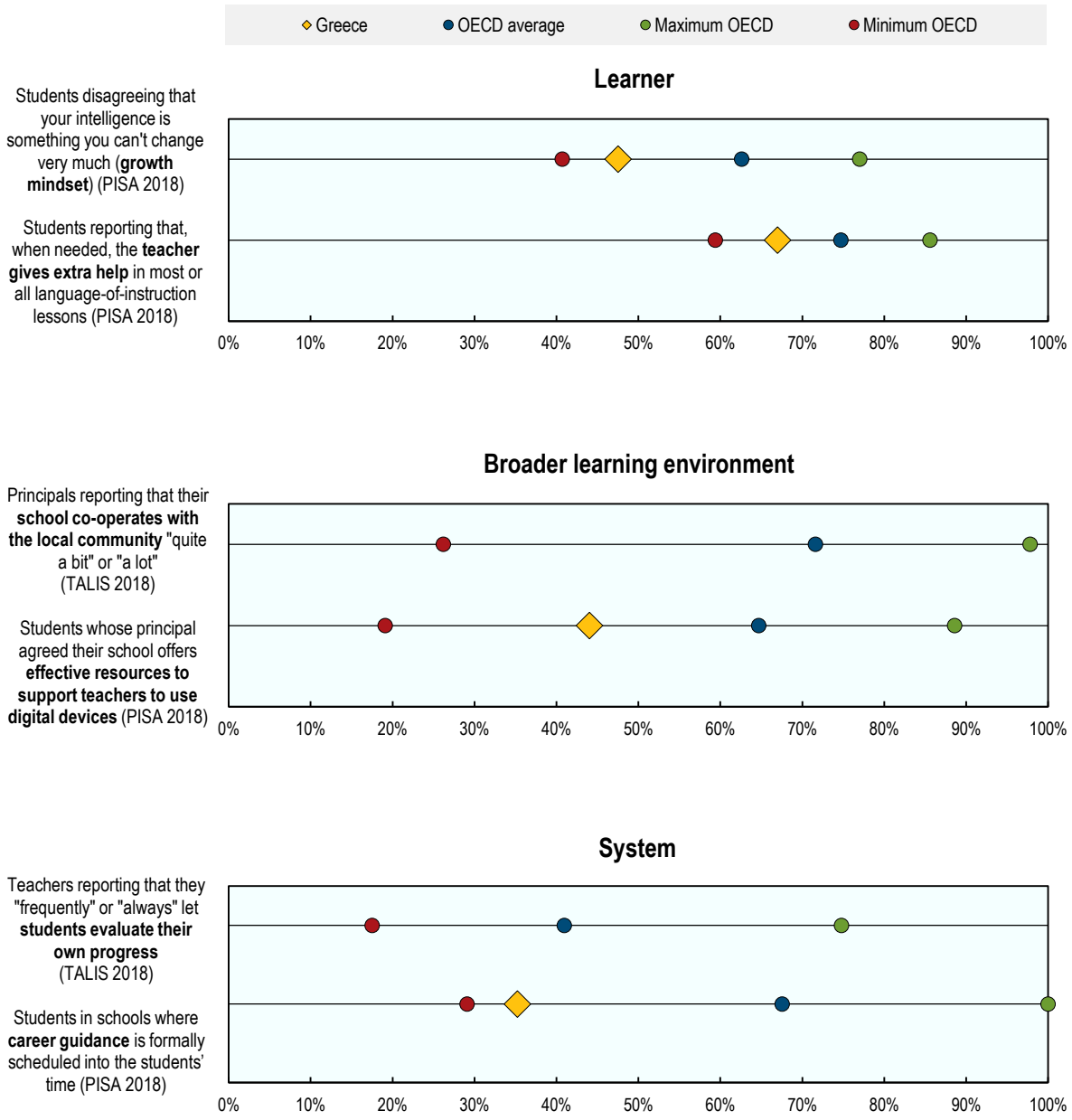
OECD (2019), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/acd78851-en. [5]

OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

Greece

Figure 5.14. Selected indicators of education resilience in Greece

Self-reports of students, teachers or principals by percentage



Note: The absence of a yellow diamond means that the data for Greece was not available for the indicator.

Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for Greece

Providing refugee and migrant children with access to education

- ***Level of resilience**: Learner*

Since 2016, Greece has taken several measures to give increasing numbers of refugee and migrant children access to education. The strategy has evolved in response to previous evaluations and monitoring, support and planning mechanisms have been strengthened to ensure the strategy continues to adapt. In 2018, Greece established a Department for the Co-ordination and Monitoring of Refugee Education, charged with the planning, management and monitoring of the strategy. Regional Refugee Education Co-ordinators mediate between the Ministry, the accommodation centres, and local schools. Based on their reports, Greece's Institute of Education Policy monitors reception, enrolment and educational needs. This helps to ensure the strategy adapts to the changing demographic of refugee students, as more children leave accommodation centres.

In 2019, Greece introduced a mandatory requirement for asylum-seeking children to be enrolled in the school system and their inclusion in formal education, regardless of where they reside. By 2020/21, around 14 400 refugee children were enrolled in Greek public schools; Human Rights Watch estimate that, in 2019, around half of those were on the mainland, but a smaller share of those resided on islands. During school closures in 2020, the United Nations High Commissioner for Refugees (UNHCR) and the United Nations Children's Fund (UNICEF) worked with the Ministry to provide educational materials and essential items to enable refugee students to continue learning. Some learning was delivered online, with offline resources being delivered to refugee children at the entrance of accommodation centres (ReliefWeb, 2020[6]).

Further reading: OECD (2020[7]), *Education Policy Outlook: Greece,* https://www.oecd.org/education/policy-outlook/country-profile-Greece-2020.pdf (accessed on 28 October 2021).

21st Century Skills Labs module (2020)

- ***Level of resilience**: Learner*

In September 2020, 218 schools and kindergartens across Greece began piloting new approaches to teaching soft skills, with a view to developing a new skills curriculum. Following this, from September 2021, the 21st Century Skills Labs module is being taught in all kindergartens, primary and lower-secondary schools in Greece as part of the compulsory curriculum.

Skills Labs modules aim to develop students' soft skills, life skills, and digital skills using innovative methods, with an emphasis on experiential learning. Teachers and school leaders work collaboratively to design a skills programme based on four thematic cycles: well-being; environment; social empathy and accountability; and creative thinking and innovation. An online platform brings together differentiated teaching resources and suggested activities, assessment material, and information for parents. This is supported by online professional development activities. The programme seeks to develop social and emotional skills – such as empathy, adaptability, and planning – that support the resilience of learners. Science and technology skills, such as digital literacy and modelling and simulation, aim to support successful online learning and students' transitions to the labour market. Descriptive assessments aim to evaluate the effectiveness of the programme at the same time as assessing students' skills development. In May 2021, the Skills Labs received a Global Education Award from the Global Education Network Europe (Global Education Network Europe, 2021[8]).

Further reading: Ministry of Education and Religious Affairs (2020[53]), *Implementation of pilot "Skills Workshops" in Primary and Secondary Education*, https://www.minedu.gov.gr/publications/docs2020/document.pdf (accessed on 1 April 2021).

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Global Education Network Europe (2021), *GENE Global Education Awardees 2020/2021*, https://www.gene.eu/awards (accessed on 12 October 2021). [8]

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OECD (2020), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/19cf08df-en. [1]

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OECD (2019), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/acd78851-en. [5]

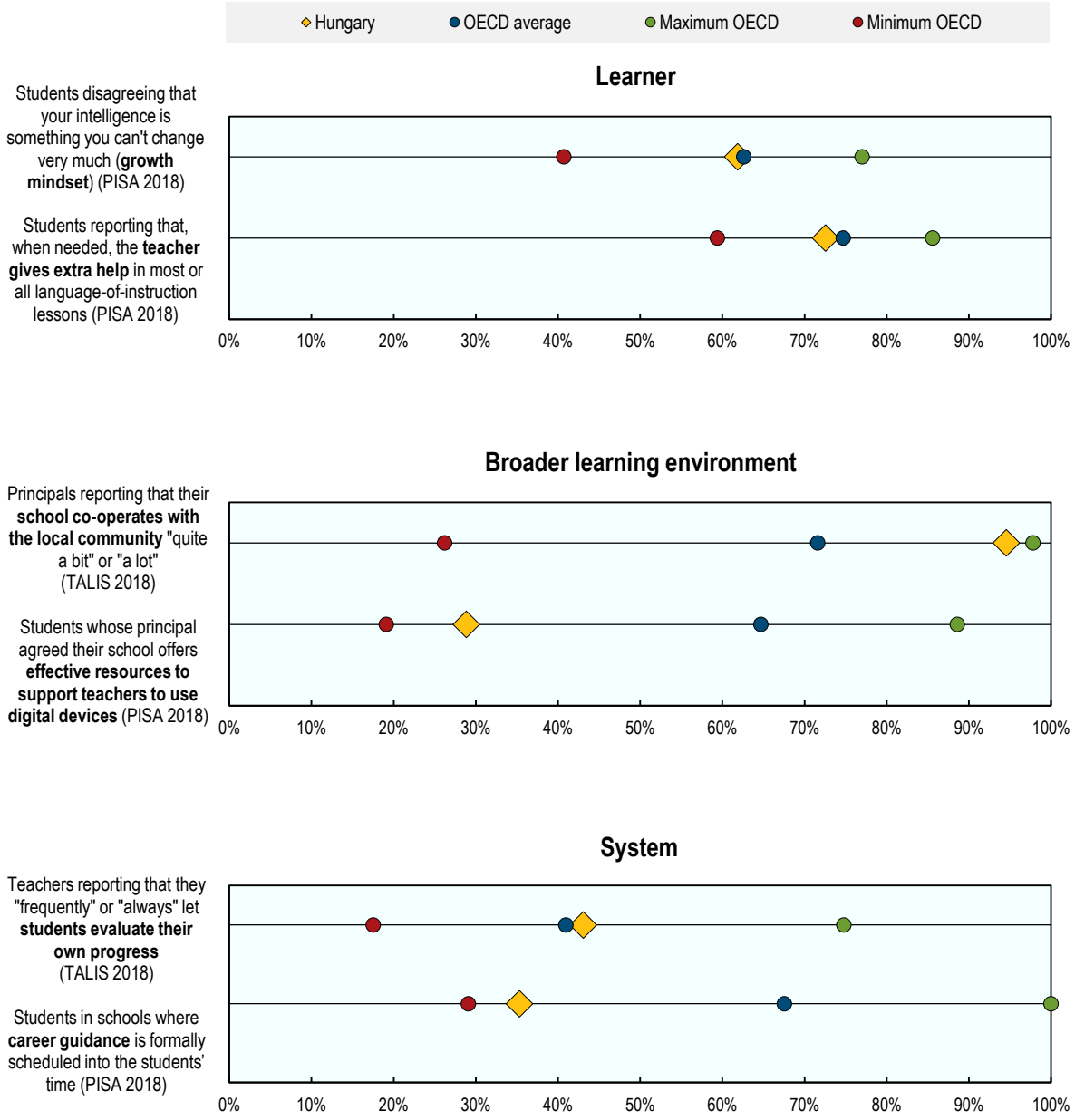
OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

ReliefWeb (2020), *Refugee students happy to be back at school on Greek islands*, https://reliefweb.int/report/greece/refugee-students-happy-be-back-school-greek-islands (accessed on 1 April 2021). [6]

Hungary

Figure 5.15. Selected indicators of education resilience in Hungary

Self-reports of students, teachers or principals by percentage



Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for Hungary

Digital Education Strategy (DOS, 2016)

- ***Level of resilience:*** *Broader learning environment*

A key focus of Hungary's digital strategy is transforming teachers' pedagogical practices by improving their digital competencies, promoting knowledge sharing, and providing them with pedagogical tools and methodological support. The Digital Pedagogical Methodology Centrer (DPMK), which provides training, support, and resources for teachers, has therefore been a key pillar of the reform. The strategy also involves measures to upgrade digital infrastructure in schools. The DPMK played a key role in supporting teachers with distance learning in the early stages of the COVID-19 pandemic. As well as organising its own webinars for teachers and school leaders, the DPMK published a range of e-learning opportunities for teachers on its website. It also produced recommendations for distance learning when schools closed in March 2020, and provided guidance on implementing blended learning during 2020/21.

In 2020, the OECD began working alongside the Hungarian Ministry of Innovation and Technology on the "Support for the Digital Transformation of Hungarian Higher Education" project. This project will assist the Hungarian government in setting new guidelines for digital learning in higher education and evaluating and revising existing practices, building on innovations that took place in the early stages of the pandemic. As such, it supports the aims of the Digital Education Strategy as well as Hungary's higher education strategy (Digital Welfare Program, 2020[6]).

Further reading: OECD (2019[7]), *Education Policy Outlook 2019: Working Together to Help Students Achieve their Potential*, OECD Publishing, Paris, https://dx.doi.org/10.1787/2b8ad56e-en.

Improving career guidance and promoting careers in STEM (2017, 2020)

- ***Level of resilience****: System*

In 2020, the Educational Authority in Hungary developed an online Career Orientation Measurement and Support Tool. This supports the objectives of a project, funded by the European Social Fund, which aims to improve approaches to career guidance in primary and secondary schools, with a particular focus on promoting careers in science, technology, engineering and mathematics (STEM). The online measurement tool assesses students' general competencies – as well as those related to STEM – and matches them with career paths that suit their characteristics. To support implementation, some 1 500 teachers received training on the importance of career guidance, and on using the tool with students. Project specialists will continue to develop the online tool based on teachers' experiences during training.

Other career guidance initiatives include developing a methodology for career guidance and establishing a professional forum that brings together representatives from the school and tertiary education sectors with representatives from the labour market. The initiatives were due to be implemented in 2021.

Further reading: Hungarian Education Authority (2020[8]), A pályaorientációs lehetőségek bővítésén dolgozik az Oktatási Hivatal [The Office of Education is working on expanding career guidance opportunities], https://www.oktatas.hu/sajtoszoba/sajtoanyagok/palyaorientacios_lehetosegek_bovitesen_dolgozik_az_oktatasi_hivatal (accessed on 1 April 2021).

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OECD (2020), TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/19cf08df-en. [1]

OECD (2019), Education Policy Outlook 2019: Working Together to Help Students Achieve their Potential, OECD Publishing, Paris, https://dx.doi.org/10.1787/2b8ad56e-en. [7]

OECD (2019), PISA 2018 Results (Volume II): Where All Students Can Succeed, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/b5fd1b8f-en. [4]

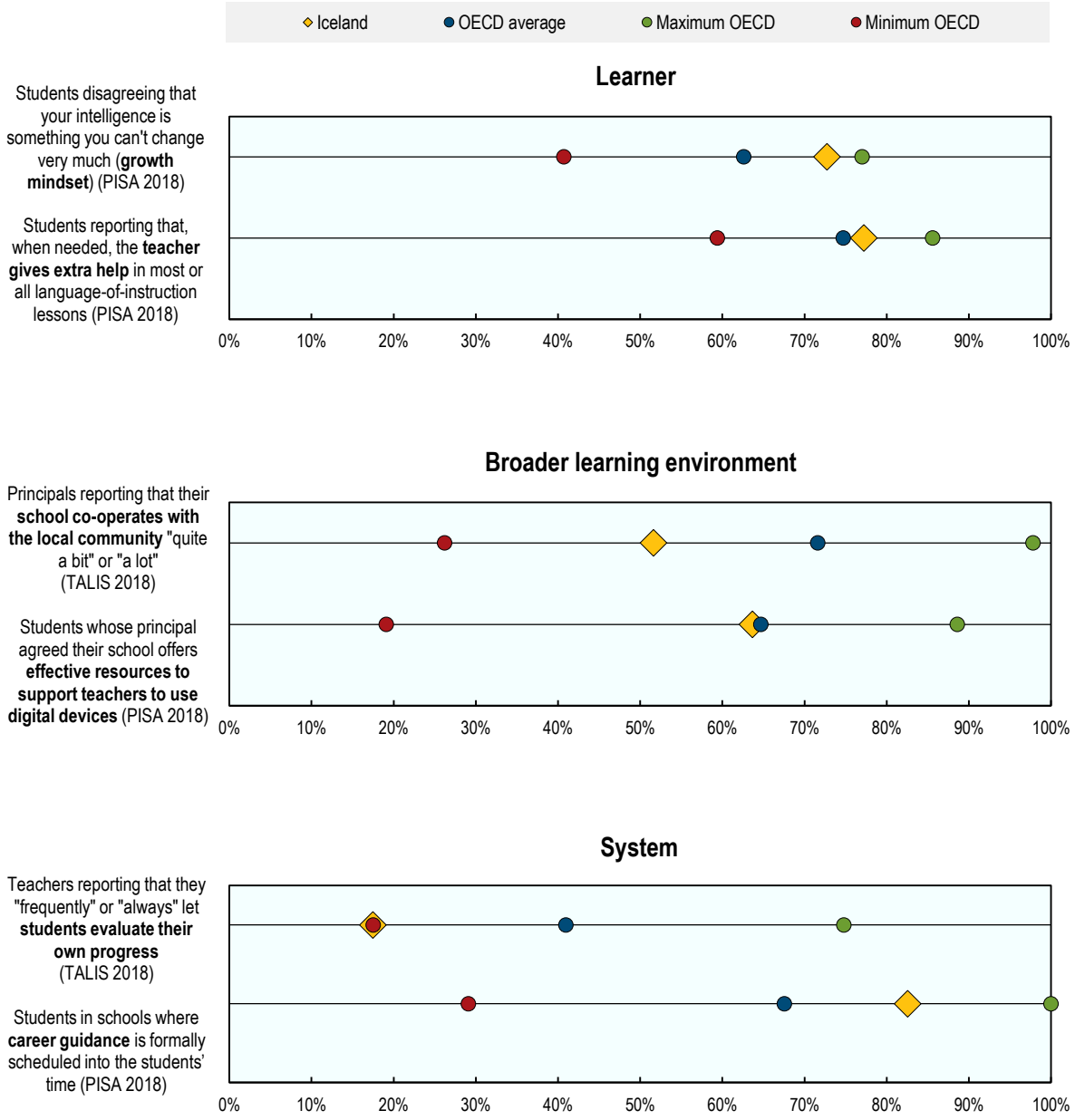
OECD (2019), PISA 2018 Results (Volume III): What School Life Means for Students' Lives, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/acd78851-en. [5]

OECD (2019), TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

Iceland

Figure 5.16. Selected indicators of education resilience in Iceland

Self-reports of students, teachers or principals by percentage



Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for Iceland

Education Policy 2030 (2018)

- ***Level of resilience:*** *Broader learning environment*

Education Policy 2030 is a ten-year strategy that outlines an overall vision for Iceland's education system based on the values of resilience, courage, knowledge, happiness and sustainability. The strategy builds on Iceland's previous collaborations with the OECD and draws on evidence from international research. For example, Iceland undertook an assessment of its system using the framework of the Education Policy Outlook. Thus, the key pillars of the strategy – equal opportunities for all, superior teaching, skills for the future, putting well-being first, and quality at the forefront – align with challenges previously identified by the OECD. Iceland began work on the strategy in 2018, published a draft document in 2020, and has sought guidance from the OECD on turning the document into an actionable implementation strategy. In this process, Iceland has also involved stakeholder groups through a series of meetings with representatives from municipalities, parents, students, teachers, and other interest groups during 2018 and 2019 and through an online public consultation in 2020. An OECD assessment found that this process has built trust and enthusiasm among stakeholders. At the same time, the report encourages Iceland to develop more permanent methods of engagement, involving stakeholders throughout the implementation process.

Implementation is due to take place in three phases over ten years, with an implementation plan and performance indicators for each of the phases. Moving forward, the OECD has recommended that Iceland prioritise key issues identified in the strategy and analyse the impact of existing policies in order to clarify how they relate to new measures.

Further reading: OECD (2021[6]) "Iceland Education Policy 2030 and its implementation", *OECD Education Policy Perspectives*, No. 32, OECD Publishing, Paris, https://doi.org/10.1787/6e9d2811-en.

Draft strategy for the education of young people with an immigrant background (Menntun barna og ungmenna með fjölbreyttan tungumálaog menningarbakgrunn, 2020)

- ***Level of resilience****: Learner*

In the early stages of the COVID-19 pandemic, Iceland launched the first draft of a comprehensive strategy to support the academic attainment and well-being of learners with a mother tongue other than Icelandic. The proposals were the result of a working group established by the Ministry of Education, Science and Culture in 2019, in response to an increase in the number of students with an immigrant background in the Icelandic education system, from ECEC to upper-secondary schools. They include measures to support immigrant students' successful transitions between different levels of the education system, including incentives to promote collaboration across school levels. There are specific measures that aim to improve parental engagement and prepare teaching professionals to teach in multicultural and multilingual contexts. In September 2020, the Ministry also published a set of guidelines containing practical ideas to implement support for mother tongues and active plurilingualism in schools, after-school programmes, and within the family. The guidelines are aimed at parents as well as professionals, and support schools to co-operate with families. The proposed actions of the draft strategy will be part of the implementation of the Education Policy 2030, with resilience as one of the core values.

Further reading: Ministry of Education, Science and Culture of Iceland (2020[7]), *Policy Draft: Comprehensive policy on the education of students with a mother tongue other than Icelandic*, https://www.stjornarradid.is/efst-a-baugi/frettir/stok-frett/2020/05/27/Drog-kynnt-ad-heildstaedri-stefnu-um-menntun-nemenda-med-annad-modurmal-en-islensku/ (accessed on 1 March 2021).

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Ministry of Education, Science and Culture of Iceland (2020), *Policy Draft: Comprehensive policy on the education of students with a mother tongue other than Icelandic*, https://www.stjornarradid.is/efst-a-baugi/frettir/stok-frett/2020/05/27/Drog-kynnt-ad-heildstaedri-stefnu-um-menntun-nemenda-med-annad-modurmal-en-islensku/ (accessed on 1 March 2021). [7]

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OECD (2020), *Learning remotely when schools close: How well are students and schools prepared? Insights from PISA*, OECD Publishing, Paris, https://dx.doi.org/10.1787/3bfda1f7-en. [2]

OECD (2020), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/19cf08df-en. [1]

OECD (2019), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/b5fd1b8f-en. [4]

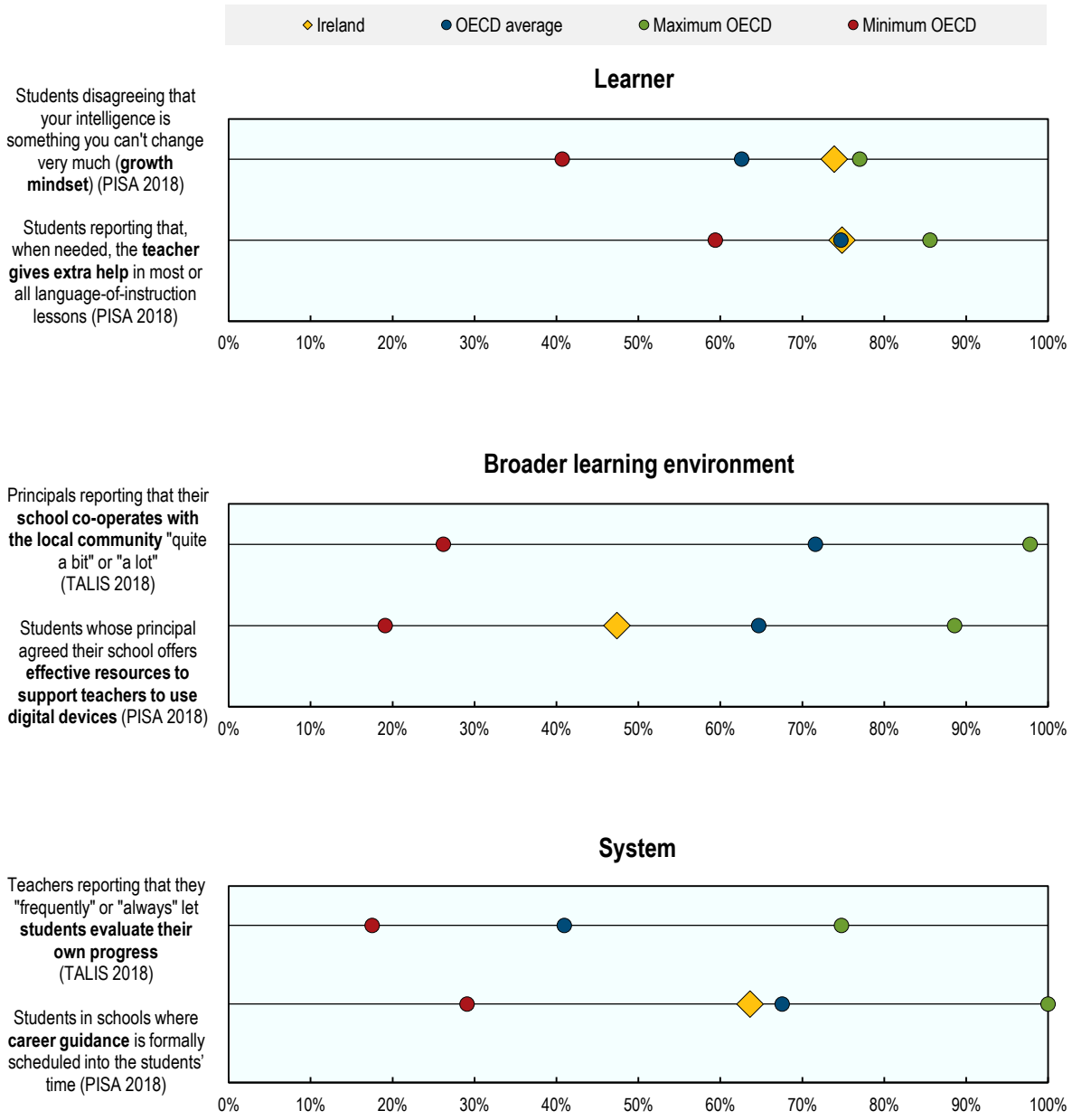
OECD (2019), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/acd78851-en. [5]

OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

Ireland

Figure 5.17. Selected indicators of education resilience in Ireland

Self-reports of students, teachers or principals by percentage



Note: The absence of a yellow diamond means that the data for Ireland was not available for the indicator.

Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for Ireland

National Forum for the Enhancement of Teaching and Learning in Higher Education (2012)

► ***Level of resilience:*** *Broader learning environment*

The National Forum for the Enhancement of Teaching and Learning in Higher Education (2012) has four broad strategic priorities: the professional development of all higher education teaching staff; teaching and learning in a digital world; teaching and learning within and across disciplines; and student success. The Forum supports projects relating to its strategic priorities through the Teaching and Learning Enhancement Fund, involving partnerships both within and beyond the higher education sector. According to a review from 2017, one of the key roles played by the National Forum has been to strengthen pre-existing teaching and learning networks and promote collaboration across disciplines. The Forum's representative governance structure is also identified as having a positive impact by promoting the sharing of knowledge and opinions between different stakeholder groups, including staff, students and institutions. The review points to a need to include stakeholders from beyond the higher education sector, such as employers and other social partners. This will be important in ensuring that teaching and learning in higher education meets the needs of the knowledge economy. Ireland is considering relocating the National Forum under the aegis of the Higher Education Authority to support stakeholder engagement and ensure longer-term sustainability and accountability.

After institutional closures in 2020, the National Forum carried out a feedback exercise involving higher education institutions (HEIs) and student organisations to support institutions in their preparations for 2020/21. This led to a report summarising key insights that drew on national and international evidence, and identifying key practices to maintain in the new semester. In November 2020, the government announced EUR 5 million in funding to support HEIs to embed these practices. The National Forum and the Higher Education Authority work alongside HEIs to optimise the potential of the fund (O'Shea, 2020[6]).

Further reading: Henard, F. (2017[7]), *Review of the National Forum for the Enhancement of Teaching and Learning*, https://hea.ie/assets/uploads/2017/04/Review-of-the-National-Forum-for-the-Enhancement-of-Teaching-and-Learning-2.pdf (accessed on 1 April 2021).

Future FET: Transforming Learning (2020 - 2024)

► ***Level of resilience****: System*

Ireland's latest National Further Education and Training (FET) Strategy (Future FET: Transforming Learning 2020) has three key pillars: building skills, fostering inclusion, and creating pathways. The Strategy aims to support recovery from the COVID-19 pandemic at the same time as responding to long-term shifts in the profile of learners and the demand for labour and skills. Measures include the Skills to Compete initiative, to upskill and reskill those who have lost their jobs due to the pandemic. Participants can access new Level 4-6 (upper-secondary, post-secondary non-tertiary and short-cycle tertiary) VET courses in sectors of future demand and receive tailored support and advice. To foster inclusion, the Strategy targets priority cohorts (e.g. people with disabilities, new migrants, Travellers, or the long-term unemployed). Other measures aim to make VET more attractive to school leavers, for example, by offering VET taster courses to secondary-school students, and improving transitions from VET to higher education. The targets of the Strategy will be reflected in the next set of strategic performance agreements between SOLAS (*An tSeirbhís Oideachais Leanúnaigh agus Scileanna*, Ireland's FET Authority) and the 16 regional Education and Training Boards.

Further reading: Department of Further and Higher Education, Research, Innovation and Science (2020[8]), *Future FET: Transforming Learning*, https://www.solas.ie/f/70398/x/64d0718c9e/solas_fet_strategy_web.pdf (accessed on 1 April 2021).

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Department of Further and Higher Education, Research, Innovation and Science (2020), *Future FET: Transforming Learning*, https://www.solas.ie/f/70398/x/64d0718c9e/solas_fet_strategy_web.pdf (accessed on 1 April 2021). [8]

Henard, F. (2017), *Review of the National Forum for the Enhancement of Teaching and Learning*, https://hea.ie/assets/uploads/2017/04/Review-of-the-National-Forum-for-the-Enhancement-of-Teaching-and-Learning-2.pdf (accessed on 1 April 2021). [7]

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OECD (2019), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/acd78851-en. [5]

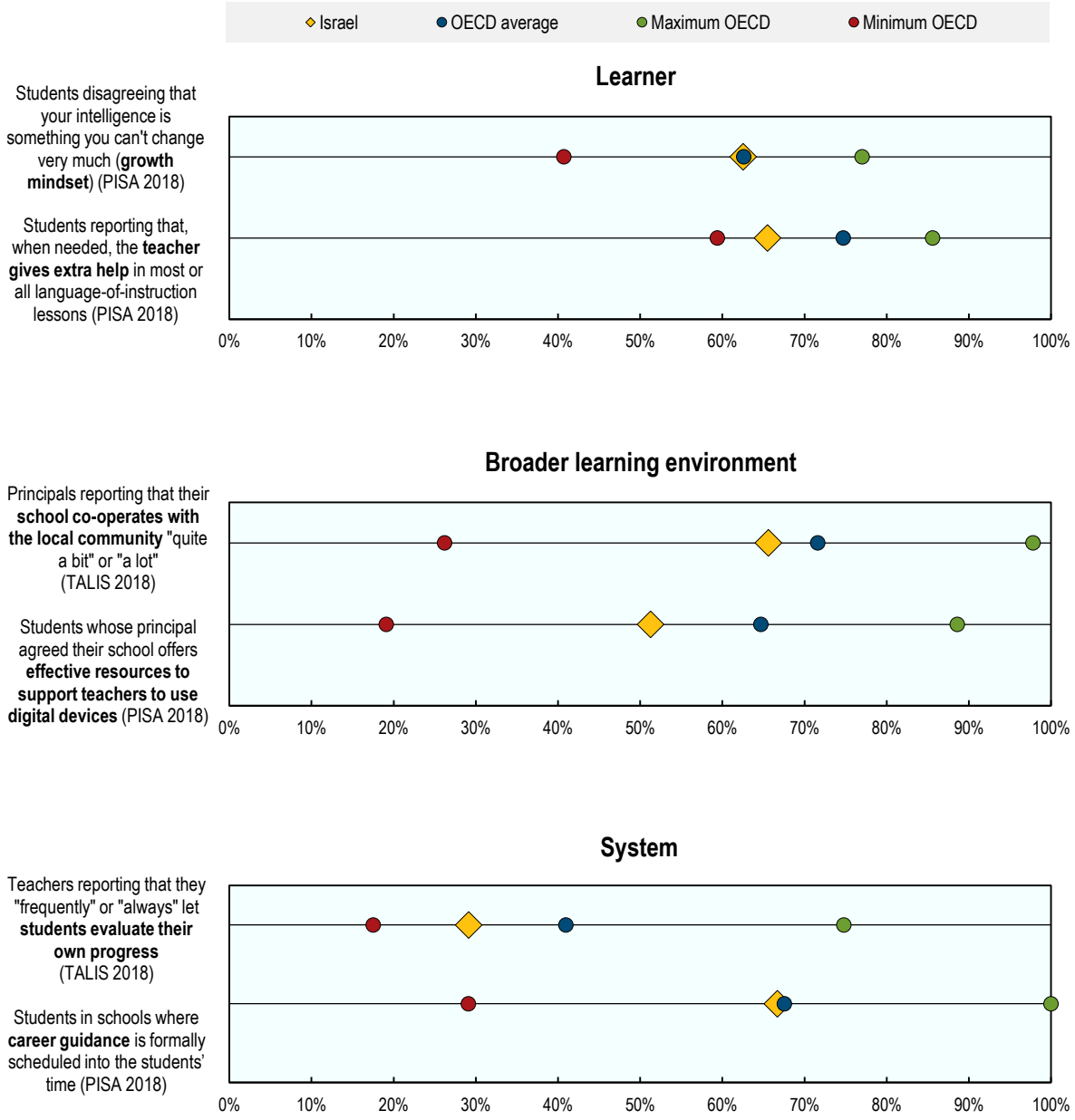
OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

O'Shea, M. (2020), *Minister Harris Announces €5 million COVID-19 fund for teaching and learning reforms*, https://hea.ie/2020/11/09/minister-harris-announces-e5-million-covid-19-fund-for-teaching-and-learning-reforms/ (accessed on 1 April 2021). [6]

Israel

Figure 5.18. Selected indicators of education resilience in Israel

Self-reports of students, teachers or principals by percentage



Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for Israel

Starter Apprenticeship Programme (2016)

► ***Level of resilience**: System*

The Starter Apprenticeship Programme (2016) is aimed at unemployed adults and low-paid workers. It addresses a need to expand Israel's VET offer, and to embed work-based learning in vocational programmes. The programme also aims to support employers by targeting sectors of the economy with a high need for skills. In the first stage of the programme, apprentices spend 6-8 weeks undertaking theoretical and practical studies in the classroom. For the following 4-7 months, participants spend 3 days per week at a college and 3 days per week in the workplace. The curriculum is designed through collaboration between employers and the Ministry of Labour, Social Affairs, and Social Services. At the end of the programme, participants take official certification examinations designed by the Ministry, and receive formal credentials. According to government sources, many trainees go on to work for the employer they were placed with for training.

The OECD has noted employers' enthusiasm for the programme, as well as positive results from evaluations of the pilot phase. Candidates pass a screening test, and participants receive mentoring and basic skills training. However, the review also noted that the stipend participants receive in the first stage of the programme was below the minimum wage. This could discourage participation from those from low-income backgrounds. The OECD recommended using findings from evaluations to expand and systematically develop the programme. In addition, the number of participants in the programme remains relatively small.

Further reading: Kuczera, M., T. Bastianić and S. Field (2018[6]), *Apprenticeship and Vocational Education and Training in Israel*, OECD, http://dx.doi.org/10.1787/9789264302051-en.

Early Childhood Council (2019)

► ***Level of resilience**: Learner*

Israel's Early Childhood Council was established in law in 2017 and began its activities in 2019. It brings together representatives from different government departments and ECEC experts from different fields to develop a comprehensive national approach to the care of children aged 0-6. One of its core functions is to promote co-ordination and co-operation between these actors to better identify and support children and families at risk, and to support the goal of reducing child poverty. The Council also produces guidance on the evaluation of ECEC provision and on training for ECEC professionals. In 2019, the Council began working on a three-year national plan for ECEC, based on an assessment of existing provision. The plan aims to puts the needs of children at the centre, and defines responses to their needs through three circles of support: parents and family; community; and education and care frameworks. It defines how these needs will be met by different bodies, and how the response will be co-ordinated. In the early stages of the COVID-19 pandemic, the Council examined the impact of the pandemic on early childhood provision and organised talks with practitioners to gain insights. The lessons learnt from the crisis will be used to update and finalise the Council's three-year plan. However, Israel has faced some challenges ensuring adequate funding for the initiatives in the Council's three-year plan.

Further reading: Ministry of Education of Israel (n.d.[7]), *The Early Childhood Council*, https://edu.gov.il/owlHeb/AboutUs/LawsAndPolicy/Pages/early-childhood-council.aspx (accessed on 1 April 2021).

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Kuczera, M., T. Bastianić and S. Field (2018), *Apprenticeship and Vocational Education and Training in Israel*, OECD, http://dx.doi.org/10.1787/9789264302051-en. [6]

Ministry of Education of Israel (n.d.), *The Early Childhood Council*, https://edu.gov.il/owlHeb/AboutUs/LawsAndPolicy/Pages/early-childhood-council.aspx (accessed on 1 April 2021). [7]

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OECD (2020), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/19cf08df-en. [1]

OECD (2019), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/b5fd1b8f-en. [4]

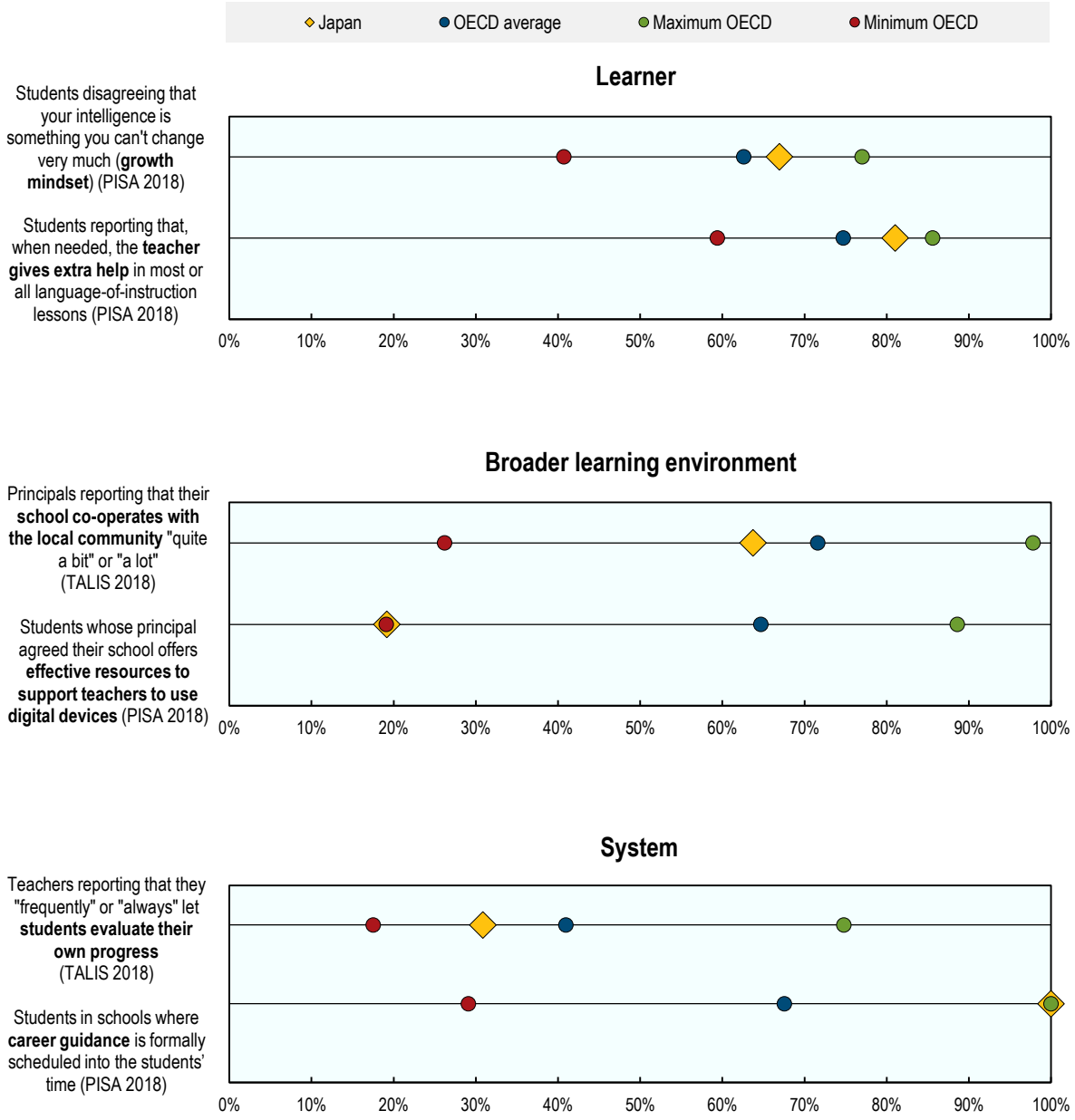
OECD (2019), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/acd78851-en. [5]

OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

Japan

Figure 5.19. Selected indicators of education resilience in Japan

Self-reports of students, teachers or principals by percentage



Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for Japan

Third Basic Plan for the Promotion of Education (2018–2022)

- ***Level of resilience:*** *Broader learning environment*

Japan's Third Basic Plan for the Promotion of Education sets out the goals for the entire education system in the period 2018-22, and defines a comprehensive approach to policy implementation. Its overarching aim is to ensure that the education system prepares learners for the world of 2030. As such, there is a focus on developing the skills required for the knowledge economy though the integration of information and communication technology (ICT) and problem solving into learning, as well as promoting lifelong learning and enabling learners to adapt to changes in the labour market. The plan builds on the success of the first and second basic plans for education, which include improving standardised test scores in lower-performing regions, implementing individualised learning and support plans for students with special educational needs (SEN), and reducing the cost of ECEC for low-income families. Outstanding issues from the previous two basic plans were taken into account when setting goals for the current plan. Key measures include strengthening school-community partnerships and reforming school leadership to allow teachers to focus their energy on teaching and to maintain Japan's holistic approach to education with support from the community. There is also a focus on promoting collaboration between schools, and between the different services that sustain the well-being of learners. The implementation process involves systematically setting goals for education policies, developing indicators to monitor progress, and identifying measures to achieve these goals. Measures and goals of the Plan are refined on a continuous basis. Many activities are carried out by local actors, and local governments are encouraged to develop distinctive goals and measures based on their context.

Further reading: Ministry of Education, Culture, Sports, Science and Technology of Japan (2018[6]), *The Third Basic Plan for the Promotion of Education*, https://www.mext.go.jp/en/policy/education/lawandplan/title01/detail01/1373799.html (accessed on 1 April 2021).

Education in Japan beyond the crisis of COVID-19 – Leave No One Behind – (2020)

- ***Level of resilience:*** *Broader learning environment*

In Japan, the Comprehensive Package for Ensuring Children's Learning offers elementary and secondary schools greater flexibility over the curriculum and school calendar. It aims to enable schools to address learning gaps and adapt the pace of learning where necessary. Schools can compensate for lost learning time by organising classes on Saturdays or by reviewing the calendar of vacations. Where they find it difficult to deliver the full curriculum due to school closures, they can move content from the 2020 academic year to one or two years in the future. The GIGA School digital learning programme (2019) has been strengthened in the context of the pandemic. As well as providing students with personal devices, the programme seeks to promote the sharing of digital learning practices between teachers. In higher education, Japan has introduced measures to support students whose financial situation has changed as a result of the pandemic, and who may otherwise have trouble completing their studies.

Further reading: Ministry of Education, Culture, Sports, Science and Technology of Japan (2020[7]), *Education in Japan beyond the Crisis of COVID-19: Leave No One Behind*, https://www.mext.go.jp/en/content/20200904_mxt_kouhou01-000008961_1.pdf (accessed on 1 April 2021).

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Ministry of Education, Culture, Sports, Science and Technology of Japan (2018), *The Third Basic Plan for the Promotion of Education*, https://www.mext.go.jp/en/policy/education/lawandplan/title01/detail01/1373799.html (accessed on 1 April 2021). [6]

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OECD (2020), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/19cf08df-en. [1]

OECD (2019), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/b5fd1b8f-en. [4]

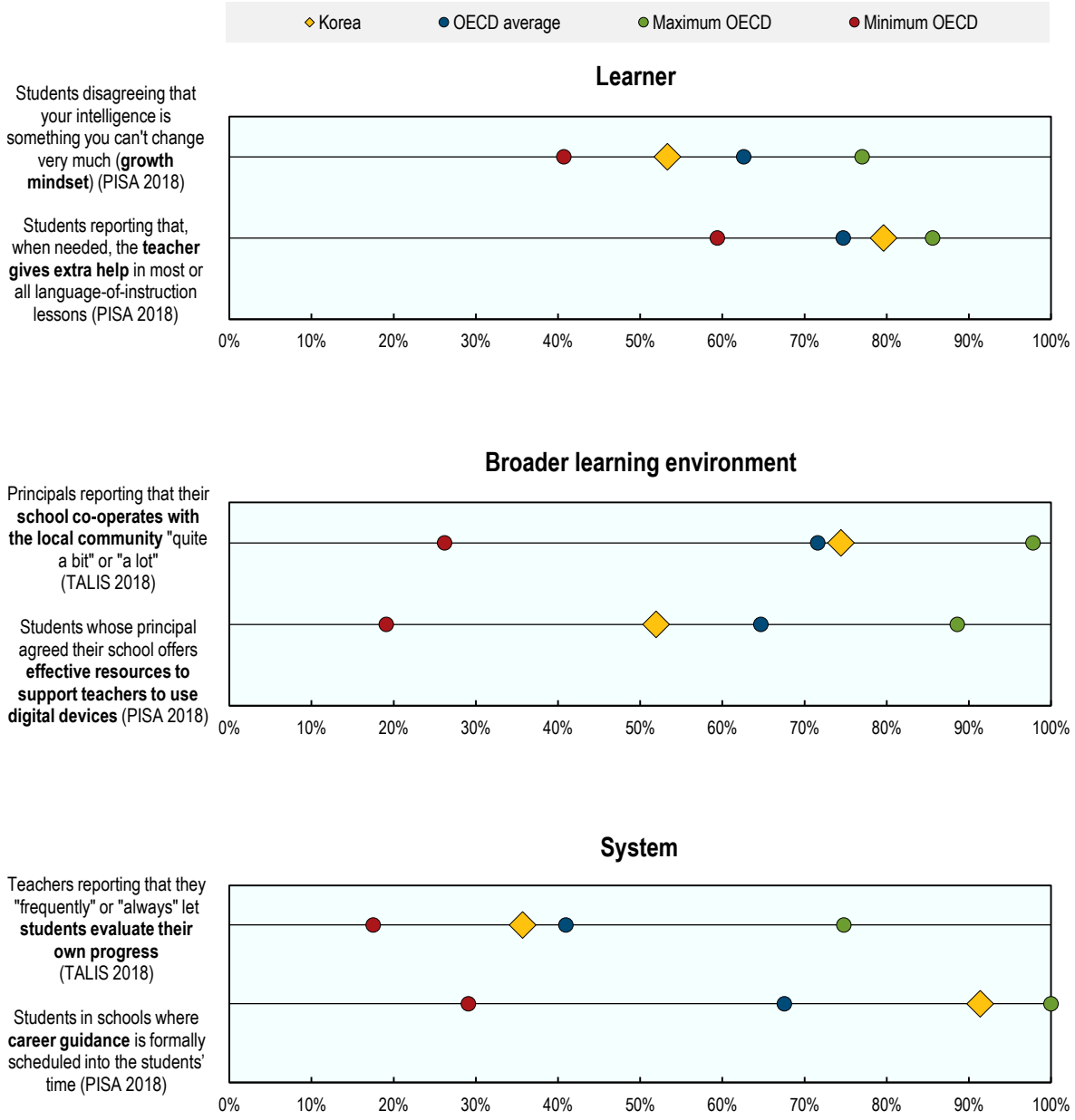
OECD (2019), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/acd78851-en. [5]

OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

Korea

Figure 5.20. Selected indicators of education resilience in Korea

Self-reports of students, teachers or principals by percentage



Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for Korea

Revised National Curriculum (2015)

- ***Level of resilience**: Learner*

Korea has been revising its national curriculum for primary and secondary education in an ongoing process that began in 2015. One set of reforms took place between 2015 and 2020, with a focus on moving from a knowledge-based approach to teaching and learning to a competence-based, student-centred approach. With this in mind, the curriculum centres on six core competences to be developed throughout a young person's education: self-management; knowledge-information processing; creative thinking; aesthetic and emotional competency; communication skills; and community competence. Major reforms at the primary school level included strengthening Korean language education and introducing courses that encourage students' active participation. Reforms to the middle school curriculum involved full implementation of the 'free semester' programme (2013), which lessens the burden of test preparation. As well as reducing student stress, the 'free semester' allows students to pursue career-related activities, with innovative assessment methods. A 2014 survey found that the programme had increased student, teacher and parent satisfaction. Since 2018, Korea has been laying the foundations for Artificial Intelligence (AI) education by gradually expanding software education in primary and middle schools. Korea opened 247 AI pilot schools and 34 designated high schools in 2020 to develop models for AI education.

Korea is currently working on further revisions to the curriculum, which will gradually be implemented in primary schools from 2024 and in secondary schools from 2025. This has involved revisiting the core competences with a focus on enabling learners to adapt to future change. Korea also plans to involve key stakeholders such as students, teachers, parents and metropolitan and provincial offices of education in the process, and to establish a curriculum development governance system that encourages the participation of the general public (National information provided to the OECD).

Further reading: OECD (2019[6]), *Education Policy Outlook 2019: Working Together to Help Students Achieve their Potential*, OECD Publishing, Paris, https://dx.doi.org/10.1787/2b8ad56e-en.

Strengthening digital capacities of teaching staff (2020)

- ***Level of resilience:** Broader learning environment*

Korea has implemented several measures to strengthen the digital capacities of pre-service and in-service teachers since the COVID-19 outbreak. A more recent effort is the Knowledge Spring (2020), a personalised teacher training platform, allowing users to select content and resources based on their identified needs, with expert teachers providing the content. It promotes collaboration between teachers across the country (OECD, 2021[7]). Korea has also formed a "10 000 community" to support remote classes for teachers in the online school opening situation. This community brings together representative teachers, the Ministry of Education, the provincial offices of education, and related organisations to support distance learning at school sites. In this community, teachers try to find and solve problems that may arise during remote classes through online communication. These measures are supported by 495 pilot schools for online education whose teachers share best practices across the system. Korea has also established Future Education Centres at higher education institutions of initial teacher training to strengthen the digital competencies of pre-service teachers, as well as other skills that students will need for their future; 10 centres opened in 2020 with a further 18 opening during 2021 (National information provided to the OECD).

Further reading: Ministry of Education of Korea (2020[8]), *The Community of 10 000 Representative Teachers*, http://english.moe.go.kr/boardCnts/view.do?boardID=72731&boardSeq=80548&lev=0&searchType=null&statusYN=W&page=1&s=english&m=0701&opType=N (accessed on 1 April 2021).

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OECD (2019), *Education Policy Outlook 2019: Working Together to Help Students Achieve their Potential*, OECD Publishing, Paris, https://dx.doi.org/10.1787/2b8ad56e-en. [6]

OECD (2019), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/b5fd1b8f-en. [4]

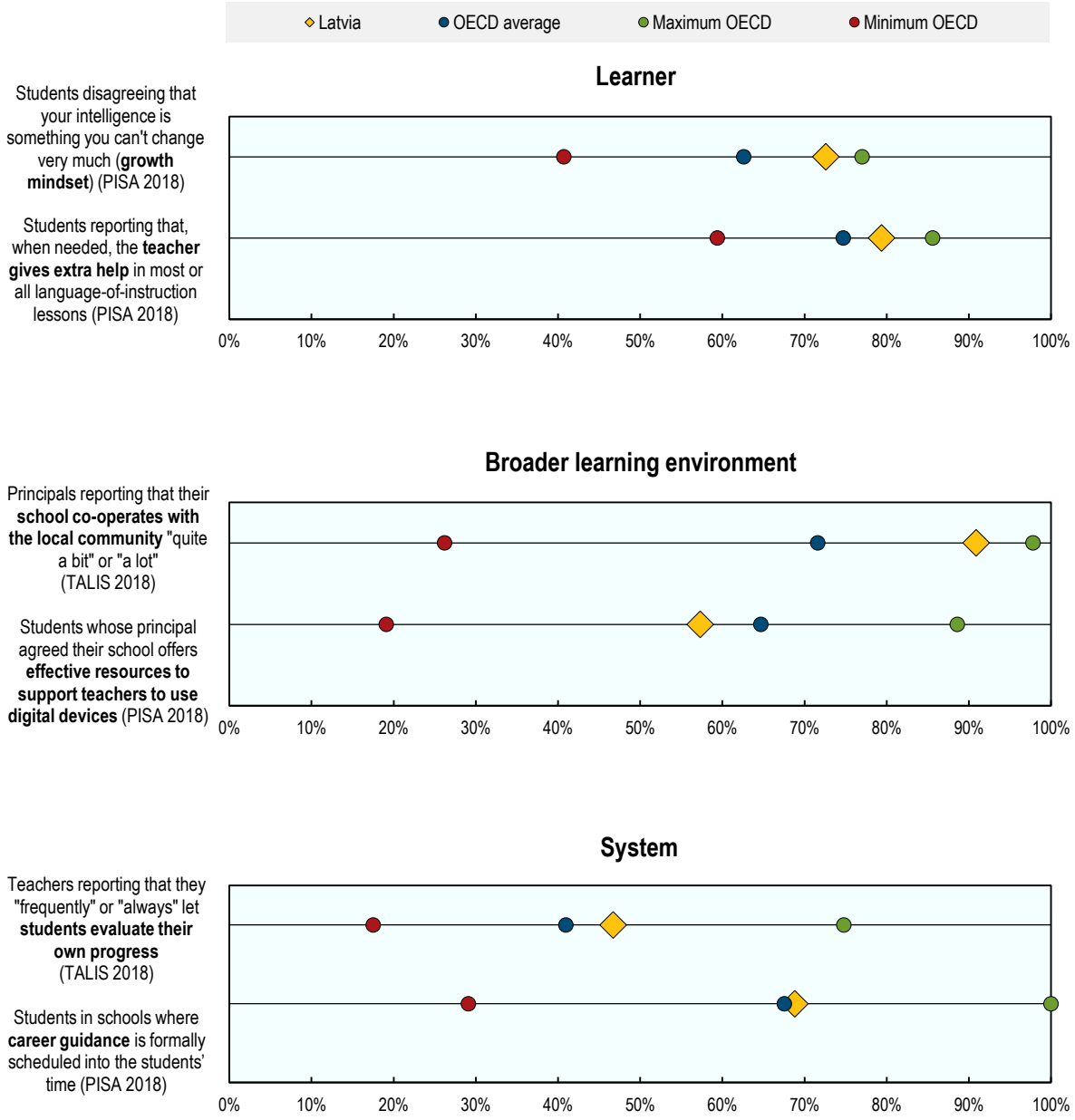
OECD (2019), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/acd78851-en. [5]

OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

Latvia

Figure 5.21. Selected indicators of education resilience in Latvia

Self-reports of students, teachers or principals by percentage



Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

StatLink https://stat.link/akq3um

Selected education policies for Latvia

Tackling Early School Leaving project (PuMPuRS, 2017 - 2022)

► ***Level of resilience**: Learner*

The Tackling Early School Leaving project targets students in general education from later primary education to upper-secondary education (Grades 5-12) as well as those in vocational upper and post-secondary education (Grades 10-13) who are at risk of early school leaving. A recent evaluation highlighted the individual support given to students as a key success factor. At the beginning of the semester, a teacher creates an individual support plan for each learner in the programme based on an assessment of the different risk factors. Support measures may include individual consultations with specialised support staff or financial support for transport, accommodation or study materials. Teachers and educational institutions can access seminars and workshops, supervision, and methodological tools. A co-ordinated database promotes information sharing and co-operation between individual institutions and local and national government, and allows for the evaluation of the effectiveness of different measures. The mid-term evaluation of the project (2019) found that the individual support measures had a positive impact on learners' progress and well-being, their relationships with teachers, and their attitudes towards learning (Dynamic University, 2019[6]). It also found the strategy had strengthened the capacity of staff to support students, and had improved co-operation between learners, parents and teachers, and between different levels of government. Challenges remain in identifying, monitoring, and addressing non-academic risk factors and in reaching learners with low motivation.

The project continued many of its operations during school closures in 2020. Students were offered remote academic and emotional support, and VET students on apprenticeship placements continued to receive support for accommodation, transport, and meals (PuMPuRs, 2020[7]).

Further reading:
Dynamic University (2019[6]), *Evaluation of the European Social Fund Project No 8.3.4.0/16/I/001 "Support for Reducing Early School Leaving"*, http://www.pumpurs.lv/sites/default/files/2020-06/IKVD_Pumpurs_Petijums_GALA_ZINOJUMS_29_06_2020.pdf (accessed on 1 April 2021).

Education Development Guidelines (2021–2027)

► ***Level of resilience**: System*

Latvia's Education Development Guidelines for 2021-2027 outline the medium-term policy objectives for the entire education system. The overarching goal is to offer learners high-quality opportunities to develop their potential at any stage of their lives and to equip them with the skills they need to respond to changes in the economy and society. While some of the goals and policy actions are carried over from the previous set of Education Development Guidelines (2014-2020), others have emerged through a consultation process that involved the Ministry of Education and Science and other relevant ministries, as well as labour-market partners and other stakeholders. The OECD has supported Latvia in developing the guidelines. Additional guidance by the OECD to Latvia includes making greater use of digital technologies in pedagogical and administrative processes, providing financial support to ensure equal access to education, and measures to reduce skills imbalances in the labour market. In this sense, the guidelines aim to help Latvia respond to long-term trends such as technological progress and demographic change, at the same time as addressing the urgent needs that have emerged during the pandemic.

Further reading: OECD (2020[8]), *OECD Skills Strategy Implementation Guidance for Latvia: Developing Latvia's Education Development Guidelines 2021-2027*, OECD Skills Studies, OECD Publishing, Paris, https://dx.doi.org/10.1787/ebc98a53-en.

References

Dynamic University (2019), *Evaluation of the European Social Fund Project No 8.3.4.0/16/I/001 "Support for Reducing Early School Leaving"*, http://www.pumpurs.lv/sites/default/files/2020-06/IKVD_Pumpurs_Petijums_GALA_ZINOJUMS_29_06_2020.pdf (accessed on 1 April 2021). [6]

OECD (2020), *Learning remotely when schools close: How well are students and schools prepared? Insights from PISA*, OECD Publishing, Paris, https://dx.doi.org/10.1787/3bfda1f7-en. [2]

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OECD (2020), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/19cf08df-en. [1]

OECD (2019), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/b5fd1b8f-en. [4]

OECD (2019), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/acd78851-en. [5]

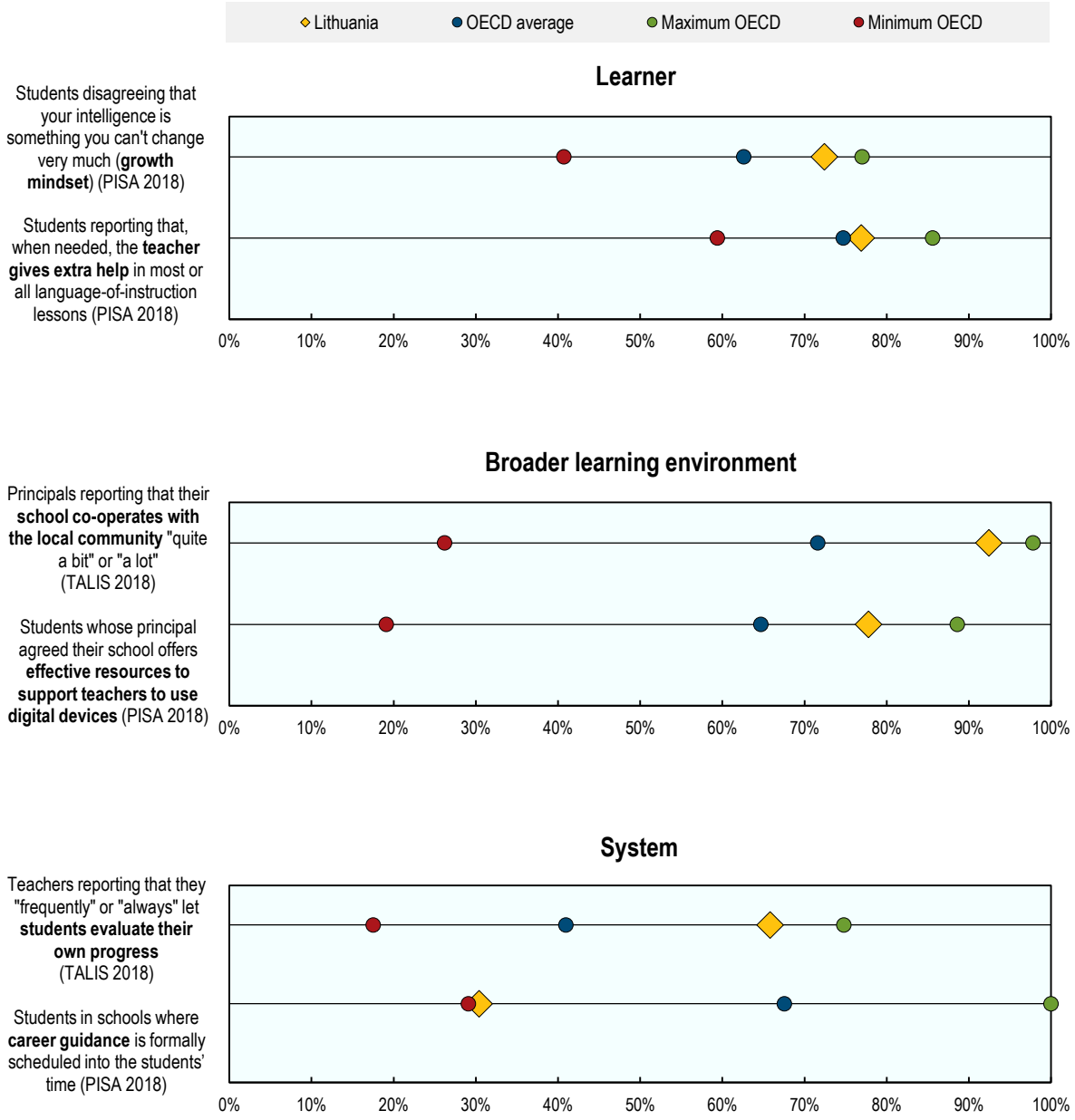
OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

PuMPuRs (2020), *The PuMPuRS project expands the support provided during the emergency situation (Projekts PuMPuRS paplašina sniegtā atbalsta iespējas ārkārtējās situācijas laikā)*, http://www.pumpurs.lv/lv/projekts-pumpurs-paplasina-sniegta-atbalsta-iespejas-arkartejas-situacijas-laika (accessed on 1 April 2021). [7]

Lithuania

Figure 5.22. Selected indicators of education resilience in Lithuania

Self-reports of students, teachers or principals by percentage



Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for Lithuania

Providing equitable funding for ECEC and school education (2018)

► *Level of resilience: Learner*

In 2018, Lithuania introduced changes to its school funding formula, previously based on funding per student, with a new 'class basket'. The funding formula takes account of student characteristics such as SEN, migrant status or national minority-language status. Mainstream schools receive a funding premium to finance specialist support for students with SEN, based on their determined level of individual need. This is also the case in ECEC, where funding provides for children with SEN to receive ECEC services from birth. Access to specialised teachers and physical therapy or speech therapy are also possible, in order to help SEN children enrol in mainstream education. According to national data, in 2013, 13% of Lithuanian children in preschool and pre-primary education had some sort of special need (OECD, 2017[6]). OECD reports have found that the differentiated funding scheme has provided target students with access to appropriate services, and the mechanism ensures significantly less strain on budgets for these schools.

Further reading: OECD (2021[7]), *OECD Skills Strategy Lithuania: Assessment and Recommendations*, OECD Skills Studies, OECD Publishing, Paris, https://doi.org/10.1787/14deb088-en; OECD (2016[8]), "School funding in Lithuania", in *OECD Reviews of School Resources: Lithuania 2016*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264252547-7-en; OECD (2017[6]), *Education in Lithuania*, Reviews of National Policies for Education, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264281486-en.

4k learning model (4k mokymosi modelis - 2020)

► *Level of resilience: Learner*

In 2020, Lithuania began the renewal of its general curriculum framework for primary, basic, and secondary education, focusing on the development of relevant competencies for the 21st century, such as social and emotional skills, healthy lifestyle, citizenship, culture, creativity and communication. As part of this process, Lithuania has developed the 4K model to supplement the former social and civics curriculum. The model recommends students to take part in 60 hours of non-formal learning activities per school year based on the four Ks present in the name of the model in Lithuanian (which translates as "I create, I change, I am with others, I am for others"). These could include volunteering, sports, personal development, social activities or all of these combined. The 4K model aims to promote student agency, reflection, and self-assessment through a three-step process. First, the student chooses activities that interest them and sets goals. Secondly, the student carries out their activities, collecting evidence of the competencies they have gained. Finally, the student assesses whether they have achieved their goals, reflects on lessons learnt and identifies how they could improve. A co-ordinator guides students through these steps, helping them to improve, reflect, and learn from mistakes. The OECD has highlighted the model's potential to strengthen formative assessment practices in Lithuania at the same time as recognising the broader competencies that learners can gain in non-formal contexts (OECD, 2021[7]).

The 4K model was approved in December 2020, following a public consultation process. Municipalities are due to participate in a pilot project in 2022. The Ministry of Education Science and Sport has developed methodological materials to support the pilot phase, which schools can adapt to their context. During the post-pandemic recovery, the 4K model's focus on building student agency and co-agency could be particularly useful in helping students build resilience to future change and potential disruption.

Further reading: OECD (2021[7]), *OECD Skills Strategy Lithuania: Assessment and Recommendations*, OECD Skills Studies, OECD Publishing, Paris, https://doi.org/10.1787/14deb088-en; Ministry of Education, Science and Sport of Lithuania, (2020[9]), *4K modelis: aš kuriu, aš keičiu, aš su kitais, aš kitiems [4K model: I create, I change, I with others, I with others]*, https://www.smm.lt/web/lt/pranesimai_spaudai/naujienos_1/4k-modelis-as-kuriu-as-keiciu-as-su-kitais-as-kitiems- (accessed on 24 June 2021).

References

Ministry of Education, Science and Sport of Lithuania (2020), *4K modelis: aš kuriu, aš keičiu, aš su kitais, aš kitiems [4K model: I create, I change, I with others, I with others]*, https://www.smm.lt/web/lt/pranesimai_spaudai/naujienos_1/4k-modelis-as-kuriu-as-keiciu-as-su-kitais-as-kitiems- (accessed on 24 June 2021). [9]

OECD (2021), *OECD Skills Strategy Lithuania: Assessment and Recommendations*, OECD Skills Studies, OECD Publishing, Paris, https://dx.doi.org/10.1787/14deb088-en. [7]

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OECD (2020), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/19cf08df-en. [1]

OECD (2019), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/b5fd1b8f-en. [4]

OECD (2019), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/acd78851-en. [5]

OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

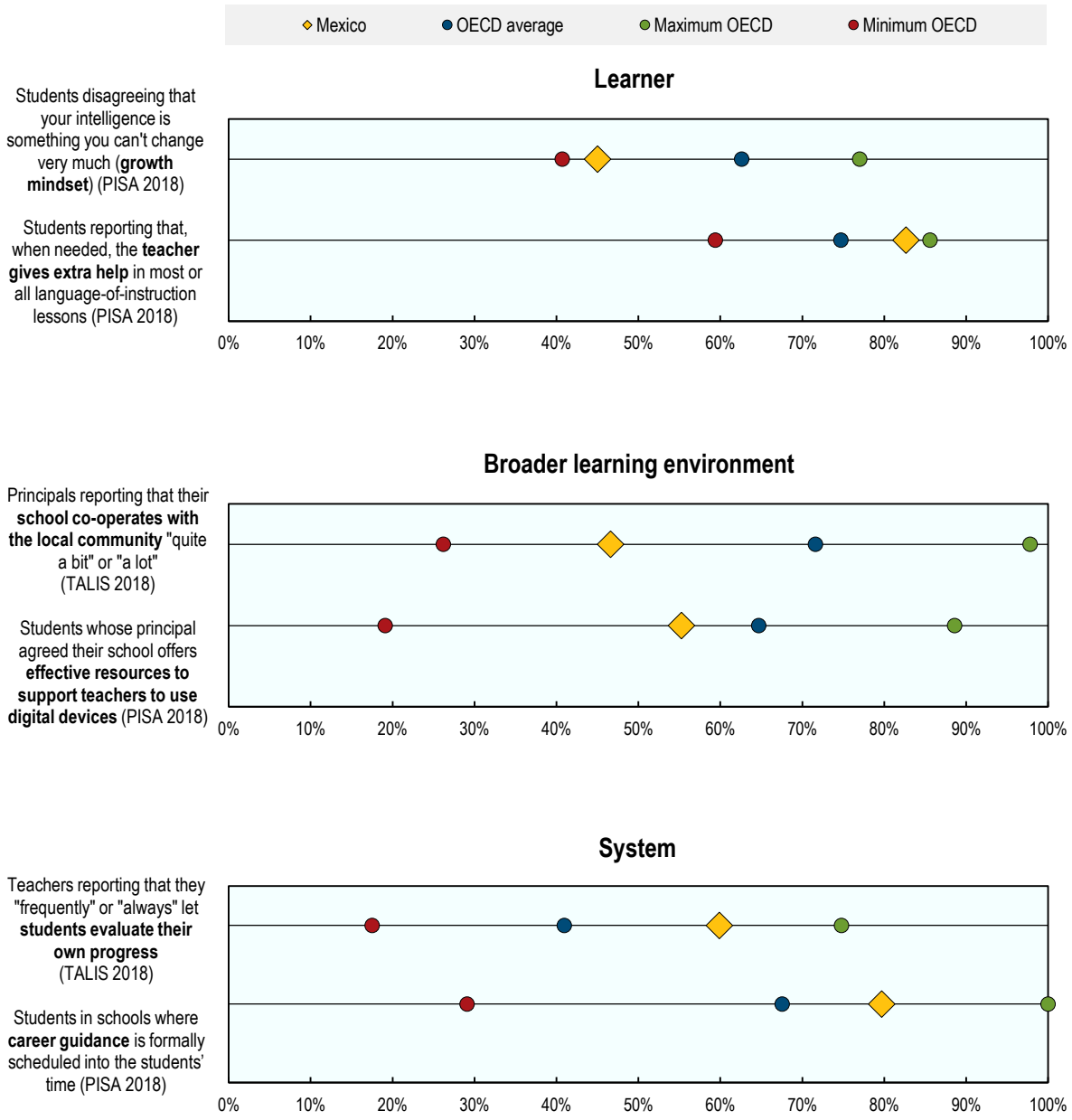
OECD (2017), *Education in Lithuania*, Reviews of National Policies for Education, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264281486-en. [6]

OECD (2016), "School funding in Lithuania", in *OECD Reviews of School Resources: Lithuania 2016*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264252547-7-en. [8]

Mexico

Figure 5.23. Selected indicators of education resilience in Mexico

Self-reports of students, teachers or principals by percentage



Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for Mexico

STEM, Girls Can (NiñaSTEM Pueden, 2017)

- ***Level of resilience**: System*

NiñaSTEM Pueden (STEM, Girls Can), launched in 2017, is a joint initiative between the OECD and the Government of Mexico seeking to increase the number of girls and young women entering STEM careers. While Mexico has made progress towards achieving gender parity with regards to participation in education, there are persistent gaps in boys' and girls' achievements in the physical and natural sciences, and women and girls continue to be under-represented in STEM subjects and careers. The project therefore focuses on challenging gender stereotypes and convincing girls that they can be successful in STEM. It introduces participants to different STEM fields through workshops, conferences and digital content. At the same time, successful Mexican women working in STEM careers act as mentors to girls in the process of choosing their study options, and work with students and their families in out-of-school learning activities. In 2020, activities included a workshop in Mexico City where mentors worked with 220 boys and girls on mechanics and robotics and an aerospace conference with presentations on the future of work.

By 2020, the initiative had reached 3 200 girls, 800 boys, 270 teachers, and 260 parents across 10 cities in Mexico. In the early stages of the COVID-19 pandemic, technology companies supported the initiative by providing girls with digital tools and platforms. After successful exploratory and pilot phases, the project was due to be fully implemented across Mexico in 2021. Mexico and the OECD are exploring the possibility of extending the initiative to other countries and economies in the Latin America and Caribbean region, such as Chile, Colombia, Peru, and Costa Rica.

Further reading: OECD (n.d.[6]), *Initiative NiñaSTEM Pueden (STEM, Girls Can)*, https://www.oecd.org/centrodemexico/iniciativa-niastem-pueden.htm (accessed on 28 July 2021).

Learning at Home (Aprende en Casa, 2020)

- ***Level of resilience:** Broader learning environment*

Mexico's Secretariat of Public Education launched the Learning at Home (*Aprende en Casa*) programme during school closures in 2020 to provide pedagogical continuity across Mexico's large and diverse education system. Learning is primarily delivered through audio-visual content broadcast using a pre-existing educational television network. The objective is to transmit the content to students in rural areas, many of whom do not have Internet access at home. The programme also involves radio content aimed at students from Indigenous communities and available in 15 different languages. In addition, it offers teacher training in digital skills in collaboration with universities, technology firms, and non-profit organisations. *Aprende en Casa* also worked alongside technology firms and television and radio companies to develop content and improve coverage across the country. In spite of these efforts, a study published in August 2020 points to a need to reinforce Mexico's digital inclusion strategy, estimating that about 31% of students did not have sufficient access to the technologies they needed to participate in distance education (Fernandez and De la Rosa, 2020[7]). A parent survey carried out in October 2020 showed that 75% of parents have remained in contact with school staff during school closures, but only 16% have observed that the teacher has provided feedback to their children (OECD, 2021[8]).

Further reading: Florencia Ripani, M. and A. Zucchetti (2020[9]), *México: Aprende en Casa (Learning at home)*, OECD Publishing, https://oecdedutoday.com/wp-content/uploads/2020/07/Mexico-Aprende-en-casa.pdf.

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Fernandez and De la Rosa (2020), *Ante la precaria inclusión digital, ¿aprender en casa? [In the face of precarious digital inclusion, learning at home?]*, https://educacion.nexos.com.mx/ante-la-precaria-inclusion-digital-aprender-en-casa/ (accessed on 5 May 2021). [7]

Florencia Ripani, M. and A. Zucchetti (2020), *Mexico: Aprende en Casa (Learning at home)*, OECD Publishing, https://oecdedutoday.com/wp-content/uploads/2020/07/Mexico-Aprende-en-casa.pdf. [9]

OECD (2021), *The State of School Education: One Year into the COVID Pandemic*, OECD Publishing, Paris, https://dx.doi.org/10.1787/201dde84-en. [8]

OECD (2020), *Learning remotely when schools close: How well are students and schools prepared? Insights from PISA*, OECD Publishing, Paris, https://dx.doi.org/10.1787/3bfda1f7-en. [2]

OECD (2020), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/19cf08df-en. [1]

OECD (2019), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/b5fd1b8f-en. [4]

OECD (2019), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/acd78851-en. [5]

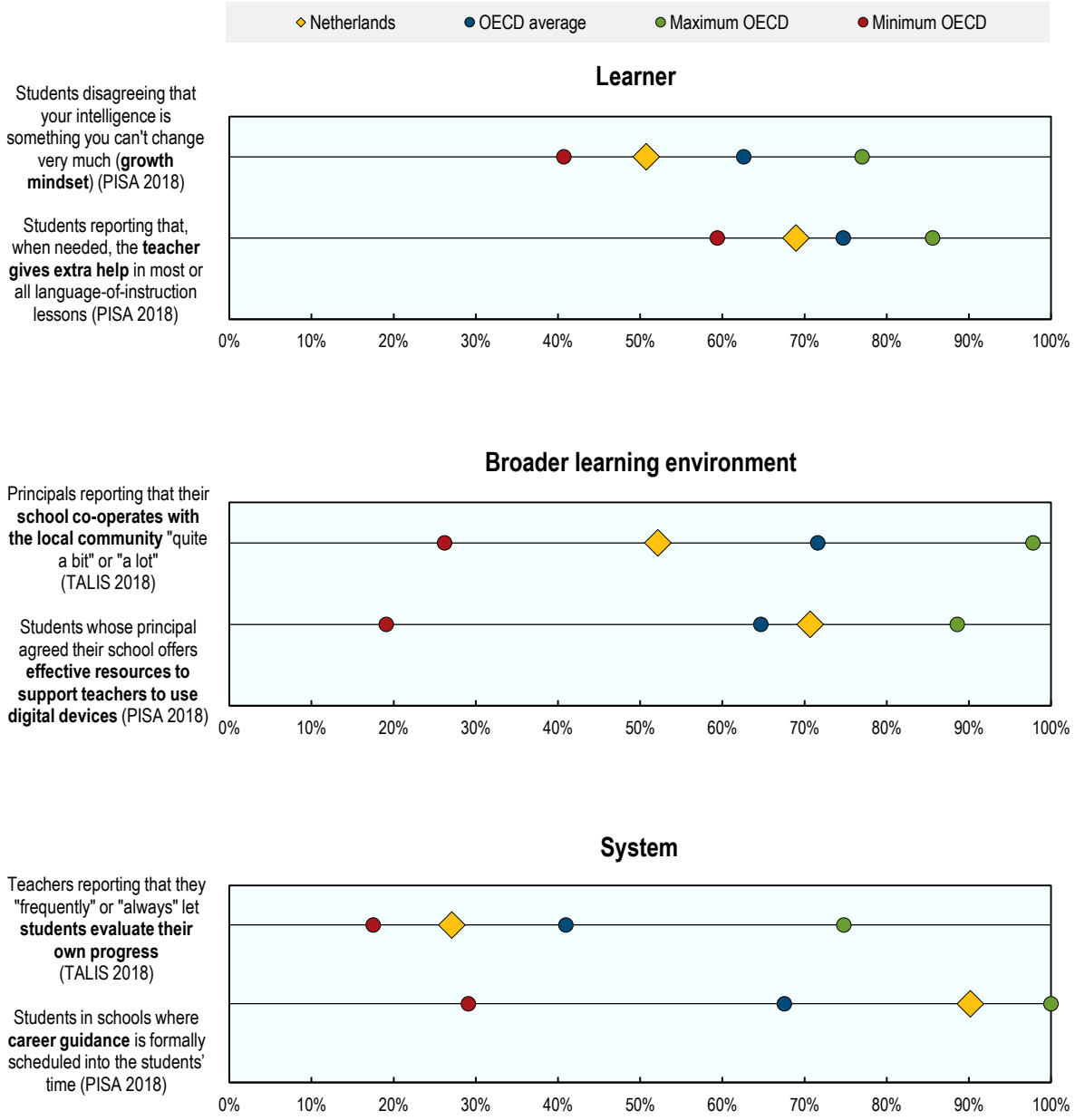
OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

OECD (n.d.), *Initiative NiñaSTEM Can*, https://www.oecd.org/centrodemexico/iniciativa-niastem-pueden.htm (accessed on 28 July 2021). [6]

Netherlands

Figure 5.24. Selected indicators of education resilience in the Netherlands

Self-reports of students, teachers or principals by percentage



Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for the Netherlands

Measures to reduce early school leaving (2016, 2019)

► ***Level of resilience**: System*

The Netherlands has taken several measures to tackle early school leaving since the launch of its Drive to Reduce Drop-out Rates in 2002, which drew on the education and training targets of the Europe 2020 Strategy. More recently, since 2016, the Netherlands has been strengthening its regional co-operation approach, in which schools and municipalities within 40 regions make joint agreements on measures to combat early school leaving over a four-year period. Within each region, a regional co-ordinator, a contact municipality and contact school are charged with facilitating collaboration between the different parties. Schools and municipalities also work with employers and partners in the health, youth and justice sectors to provide a comprehensive safety net for those at risk. An evaluation from 2018 found that strengthening the role of regional co-ordinators and contact municipalities has deepened collaboration between education institutions and, in some cases, with employers. At the same time, the report highlights a need to equip co-ordinators and contact municipalities with the time and skills they need to carry out new roles and tasks, and to give all parties the time and guidance they need to develop lasting collaborations (Van der Gaag et al., 2018[6]). A law from 2019 makes this collaboration between schools and municipalities with regard to reducing early school leaving mandatory and sets out the roles and responsibilities of different actors.

The Netherlands has achieved the EU benchmark target by reducing its share of early school leavers to below 10%. This share fell from 15.1% in 2001 to 7.1% in 2017, managing to stay at 7.0% in 2020 (European Commission, 2021[7]). The Ministry of Education, Culture and Science has since undertaken research into the causes of drop-out. There has also been an increased focus on monitoring and combatting absenteeism, and increasing resources to support career guidance. During the period of school closures in 2020, schools worked with municipal youth services to organise home visits in order to maintain contact with students at risk, and to ensure their access to distance learning. These efforts may have contributed to a reduction in the number of early school leavers in 2019/20 (Van Engelshoven, 2021[8])

Further reading: Ministry of Education, Culture and Science of Netherlands (n.d.[9]), *Voortijdig schoolverlaten [Early School Leaving]*, https://www.rijksoverheid.nl/onderwerpen/vsv (accessed on 27 July 2021).

National Education Programme (2021)

► ***Level of resilience**: Learner*

The National Education Programme aims to restore learning lost in the early stages of the COVID-19 pandemic within 2.5 years while also addressing the impact of the pandemic on student well-being. Starting from the summer of 2021, schools develop a multi-year recovery plan choosing from a menu of interventions that have been shown to be effective in addressing learning gaps and increasing student well-being. Municipalities implement additional education programmes, guidance, and knowledge sharing activities to support schools, particularly those experiencing additional challenges. Schools can access the results of monitoring activities so they can adapt school-level measures accordingly. The government will also evaluate the impact of different interventions to share best practices and to strengthen the menu of options available. The current phase of the strategy is due to run until 2023.

Further reading: Ministry of Education, Culture and Science of Netherlands (n.d.[10]), *Nationaal Programma Onderwijs [National Education Programme]*, https://www.nponderwijs.nl/ (accessed on 26 July 2021).

References

European Commission (2021), *Early leavers from education and training by sex*, https://ec.europa.eu/eurostat/databrowser/view/t2020_40/default/table?lang=en (accessed on 26 July 2021). [7]

Ministry of Education, Culture and Science of Netherlands (n.d.), *Nationaal Programma Onderwijs [National Education Programme]*, https://www.nponderwijs.nl/ (accessed on 26 July 2021). [10]

Ministry of Education, Culture and Science of Netherlands (n.d.), *Voortijdig schoolverlaten [Early School Leaving]*, https://www.rijksoverheid.nl/onderwerpen/vsv (accessed on 27 July 2021). [9]

OECD (2020), *Learning remotely when schools close: How well are students and schools prepared? Insights from PISA*, OECD Publishing, Paris, https://dx.doi.org/10.1787/3bfda1f7-en. [2]

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OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

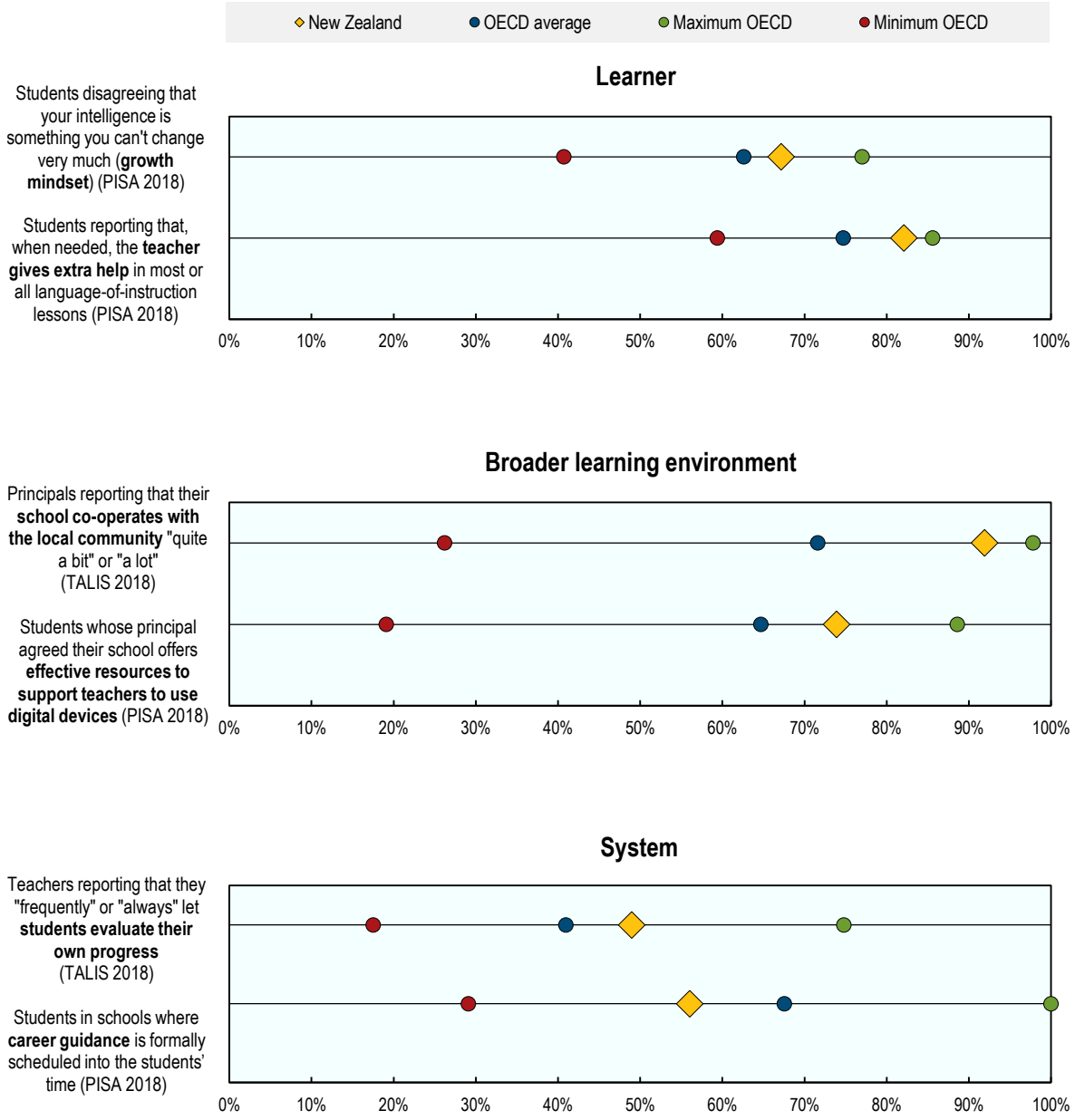
Van der Gaag, M. et al. (2018), *Voortgangsonderzoek: aanpak van voortijdig schoolverlaten en jongeren in een kwetsbare (eindrapport) [Progress report: tackling early school leaving and supporting vulnerable young people (final report)]*, University of Groningen, https://research.rug.nl/en/publications/voortgangsonderzoek-aanpak-van-voortijdig-schoolverlaten-en-jonge. [6]

Van Engelshoven, I. (2021), *Kamerbrief over voortgang aanpak voortijdig schoolverlaten [Letter to parliament on progress in tackling early school leaving]*, https://www.rijksoverheid.nl/documenten/kamerstukken/2021/02/12/voortgang-aanpak-voortijdig-schoolverlaten (accessed on 27 July 2021). [8]

New Zealand

Figure 5.25. Selected indicators of education resilience in New Zealand

Self-reports of students, teachers or principals by percentage



Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for New Zealand

Recognising and promoting micro-credentials (2018, 2019)

- ***Level of resilience**: System*

New Zealand has implemented two key measures to recognise and promote micro-credentials at tertiary level in recent years. In 2018, the New Zealand Qualifications Authority (NZQA) implemented a process for recognising micro-credentials as part of the country's regulated education and training system. This was based on a pilot programme, in which the NZQA collaborated with partners from the education and youth sectors to investigate the role micro-credentials could play in New Zealand's qualification system of the future (New Zealand Qualifications Authority, n.d.[6]). The NZQA considers applications from tertiary education organisations (TEOs) based on a set of criteria published on its website. The criteria aim to ensure that micro-credentials meet the skill-development needs of employers, industry and communities, and that they do not duplicate learning that already exists within the tertiary education system. Once approved, qualifications are reviewed on a yearly basis. A range of other organisations, such as professional bodies, partner with TEOs to develop micro-credentials that meet their skill-development needs.

In 2019, New Zealand introduced a funding system to encourage high-performing TEOs to develop micro-credentials that meet the demand for skills. To be eligible for funding, TEOs must demonstrate that the qualification has excellent learner outcomes, strong employer or community demand, and contributes to government priorities such as those set out in New Zealand's Tertiary Education strategy (2014). Applications are considered in light of their contribution to the tertiary education landscape, with particular attention to areas of under-delivery. A recent report from the OECD identifies New Zealand as a leader in promoting alternative credentials in their education policies (Kato, Galán-Muros and Weko, 2020[7]).

Further reading: New Zealand Qualifications Authority (n.d.[8]), *Micro-Credentials*, https://www.nzqa.govt.nz/providers-partners/approval-accreditation-and-registration/micro-credentials/ (accessed on 1 April 2021); Tertiary Education Commission (2019[9]), *Micro-credentials: Funding approval guidelines*, https://www.tec.govt.nz/assets/Forms-templates-and-guides/Micro-credentials-funding-approval-request-guidelines.pdf (accessed on 1 April 2021).

Targeted Training and Apprenticeship Fund (2020)

- ***Level of resilience**: System*

From 2020, New Zealand's Targeted Training and Apprenticeship Fund covers study costs for learners of all ages who undertake vocational education and training. The fund targets New Zealanders whose employment situation has been adversely affected by the COVID-19 pandemic, as well as sectors of the job market with a high demand for skills. Financial support towards tuition fees is available for all apprenticeship programmes and Level 3–7 vocational programmes in targeted areas. Targeted areas for 2020 included technology, construction, and primary industries such as agriculture, fisheries, and forestry. Based on emerging insights into skills demands, the list was expanded in 2021 to include fields such as conservation, and community support roles including nursing and teacher aides. New Zealand's Workforce Development Councils and Regional Skills Leadership Groups play an important role in aligning the allocation of funding with regional and industry needs. The Tertiary Education Commission monitors education providers' compliance with the funding agreement, paying attention to aspects such as student retention. The current round of funding is due to continue until December 2022.

Further reading: Tertiary Education Commission (2020[10]), *Targeted Training and Apprenticeship Fund (free trades training)*, https://www.tec.govt.nz/funding/funding-and-performance/funding/fund-finder/targeted-training-and-apprenticeship-fund/ (accessed on 1 April 2021).

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Kato, S., V. Galán-Muros and T. Weko (2020), "The emergence of alternative credentials", *OECD Education Working Papers*, No. 216, OECD Publishing, Paris, https://dx.doi.org/10.1787/b741f39e-en. [7]

New Zealand Qualifications Authority (n.d.), *Micro-credential pilots*, https://www.nzqa.govt.nz/about-us/future-state/quality-assurance/micro-credential-pilots/ (accessed on 1 April 2021). [6]

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OECD (2019), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/b5fd1b8f-en. [4]

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OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

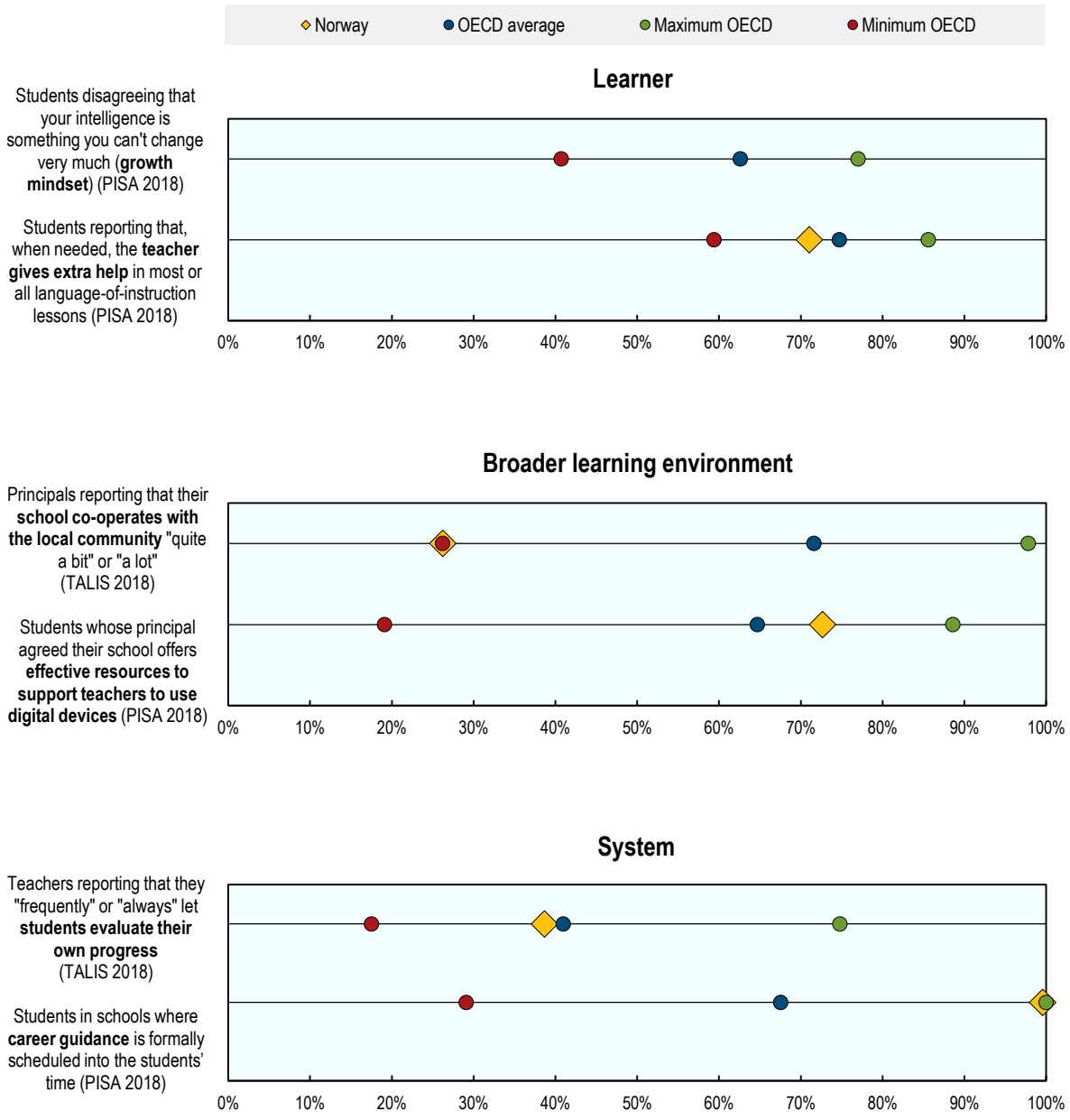
Tertiary Education Commission (2020), *Targeted Training and Apprenticeship Fund (free trades training)*, https://www.tec.govt.nz/funding/funding-and-performance/funding/fund-finder/targeted-training-and-apprenticeship-fund/ (accessed on 1 April 2021). [10]

Tertiary Education Commission (2019), *Micro-credentials: Funding approval guidelines*, https://www.tec.govt.nz/assets/Forms-templates-and-guides/Micro-credentials-funding-approval-request-guidelines.pdf (accessed on 1 April 2021). [9]

Norway

Figure 5.26. Selected indicators of education resilience in Norway

Self-reports of students, teachers or principals by percentage



Note: The absence of a yellow diamond means that the data for Norway was not available for the indicator.

Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for Norway

Assessment for learning programme (2010)

- ***Level of resilience:*** *Broader learning environment*

Norway's Assessment for Learning Programme (2010-18) aimed to support schools, municipalities, and training providers to embed formative assessment practices and cultures. The Norwegian Directorate for Education and Training set the guiding principles for the programme, organised seminars and conferences for participating municipalities, and provided online training and resources for schools. Local school authorities were charged with establishing learning networks, with many building on existing network structures. According to an evaluation from 2018, the network model, which combined professional development activities, knowledge sharing, and reflection, was a crucial factor in the programme's success. The evaluation also highlights the role of local authorities and school leaders in driving development processes. Pro-active local authorities maintained dialogue with training providers, school leaders, and teacher participants throughout the process, while observing what was happening in schools. There was also a particular focus on building expertise at the school and local authority level to ensure that the improvement process continued after the programme finished. As a result, in many cases, participation in the programme increased the use of formative assessment practices in classrooms, as well as strengthening a culture of research and development among schools (Norwegian Directorate for Education and Training, 2018[6]).

Formative assessment is one of the core principles of Norway's new core curriculum (2020). The Directorate for Education and Training has produced a bank of resources to support assessment for learning across the curriculum, including resources to support teachers' collaborative learning. The reforms paved the way for Norway's response to school closures in 2020, when formative assessment played a vital role in monitoring student learning.

Further reading: (OECD, 2020[7]) *Education Policy Outlook: Norway*, https://www.oecd.org/education/policy-outlook/country-profile-Norway-2020.pdf.

Reinforcing Norway's skills strategy to support economic recovery (2020)

- ***Level of resilience****: System*

Norway has strengthened elements of its skills strategy to protect individuals from the economic fallout of the COVID-19 pandemic and to support the country's economic recovery. Key measures include the Education Promise (2020), which aims to prevent youth unemployment by expanding the offer of apprenticeships and study places in VET and higher education. In 2020, the government provided funding for 4 000 new higher education study places in fields with a high demand for skills, such as health, teacher education and ICT. The government also funded 1 500 additional VET places, based on counties' and municipalities' assessments of local needs. In addition, the government allocated NOK 110 million to expand its tripartite industry-based training initiative for sectors where jobs are at risk. Under this scheme, the government provides funding to support the expansion of training places, while industry partners determine the content of training and recruit participants. Other measures include increasing the offer of flexible skills courses and providing opportunities for individuals to complete upper secondary education. As well as responding to the short-term need for skill-development opportunities, the measures support the aims of Norway's Skills Reform (2019), which aims to upgrade the labour market skills of the adult population.

Further reading: Skills Norway (2020[8]), *Kompetansepolitikken sentral i statsbudsjettet for 2021 [The skills policy is central to the state budget for 2021],* https://www.kompetansenorge.no/nyheter/statsbudsjettet-for-2021/ (accessed on 1 April 2021).

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Norwegian Directorate for Education and Training (2018), *Observations on the National Assessment for Learning Programme (2010 - 2018)*, https://www.udir.no/contentassets/977da52955c447bca5fc419d5be5e4bf/the-norwegian-assessment-for-learning-programme_final-report-2018.pdf (accessed on 1 April 2021). [6]

OECD (2020), *Education Policy Outlook: Norway*, https://www.oecd.org/education/policy-outlook/country-profile-Norway-2020.pdf (accessed on 28 October 2021). [7]

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OECD (2020), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/19cf08df-en. [1]

OECD (2019), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/b5fd1b8f-en. [4]

OECD (2019), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/acd78851-en. [5]

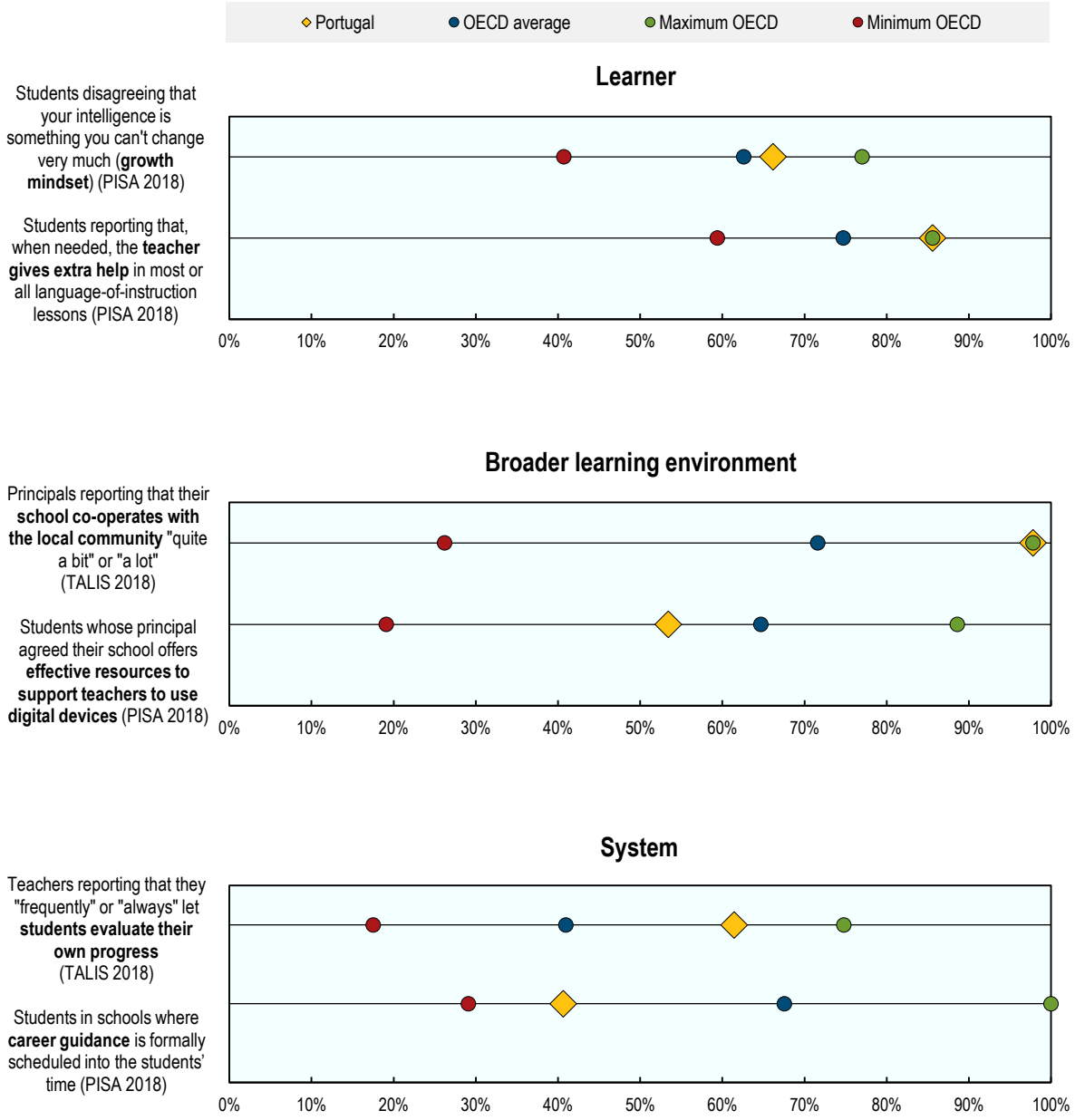
OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

Skills Norway (2020), *Kompetansepolitikken sentral i statsbudsjettet for 2021 [The skills policy is central to the state budget for 2021]*, https://www.kompetansenorge.no/nyheter/statsbudsjettet-for-2021/ (accessed on 1 April 2021). [8]

Portugal

Figure 5.27. Selected indicators of education resilience in Portugal

Self-reports of students, teachers or principals by percentage



Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for Portugal

Qualifica Programme (2016)

- ***Level of resilience**: System*

Portugal's Qualifica Programme is an integrated strategy to enhance the employability of adults by tackling the low qualification levels among the adult population. By 2021, it has already led to an increase in adult participation in training and in the number of adults obtaining qualifications. Qualifica operates through three main strategic structures and tools. A network of regional Qualifica Centres aim to bring adult learning and career guidance services closer to target populations. Furthermore, the Qualifica Passport is a digital tool that records an individual's qualifications, skills, prior learning and interests, and provides guidance on qualifications pathways. Finally, the National Credit System sets out the units of learning that make up professional qualifications, allowing learners to accumulate learning outcomes and certification across different contexts. Between 2017 and 2020, over half a million adults enrolled in Qualifica Centres. Of these, 22% engaged in prior learning assessment and recognition, and 85% obtained a new certification (National Information provided to the OECD). Challenges remain in ensuring sustainable funding for the initiative and in recruiting and retaining high-quality adult educators and career guidance professionals.

In the early stages of the pandemic, Qualifica Centres across the country moved certification and supervision processes online and developed new distance-learning opportunities. In 2021, the government plans to launch the Qualifica Social Programme in response to a need for labour and skills in the social care sector (Porto Canal, 2020[6]).

Further reading: OECD (2020[7]), *Education Policy Outlook: Portugal,* www.oecd.org/education/policy-outlook/country-profile-Portugal-2020.pdf.

Skills 4 post-COVID – Skills for the Future (2020)

- ***Level of resilience:** Broader learning environment*

Portugal's Skills 4 post-COVID Strategy was developed through collaboration between the Directorate-General for Higher Education, HEIs and employers to respond to both immediate challenges in 2020/21, and the medium-term structural issues highlighted by the COVID-19 pandemic. The Strategy aims to foster innovative teaching and learning practices in higher education, with a particular focus on inclusion and active learning pedagogies. It also aims to diversify the higher education offer, creating new opportunities for upskilling and reskilling, and to strengthen the relationship between higher education activities, science and the labour market. The Strategy builds on an assessment of the need for labour and skills (2019) and takes places alongside a Labour Market Relevance and Outcomes initiative conducted with the OECD (2019-21). Enhancing peer learning and networking between HEIs at national and international levels to promote knowledge sharing and embed innovative approaches is a key pillar of the Strategy. Portugal will collaborate with teams from Austria, Slovenia, and Hungary. During 2020/21, HEIs worked to disseminate innovative teaching and learning practices and developed an offer of short and modular courses.

Further reading: Office of the Minister for Science, Technology and Higher Education of Portugal (2020[8]), *Skills 4 pós-Covid – Competências para o futuro [Skills for post-COVID - Skills for the Future]*, https://www.portugal.gov.pt/download-ficheiros/ficheiro.aspx?v=%3d%3dBAAAAB%2bLCAAAAAAABACztDQwBQD4RCgOBAAAAA%3d%3d (accessed on 1 April 2021).

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OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

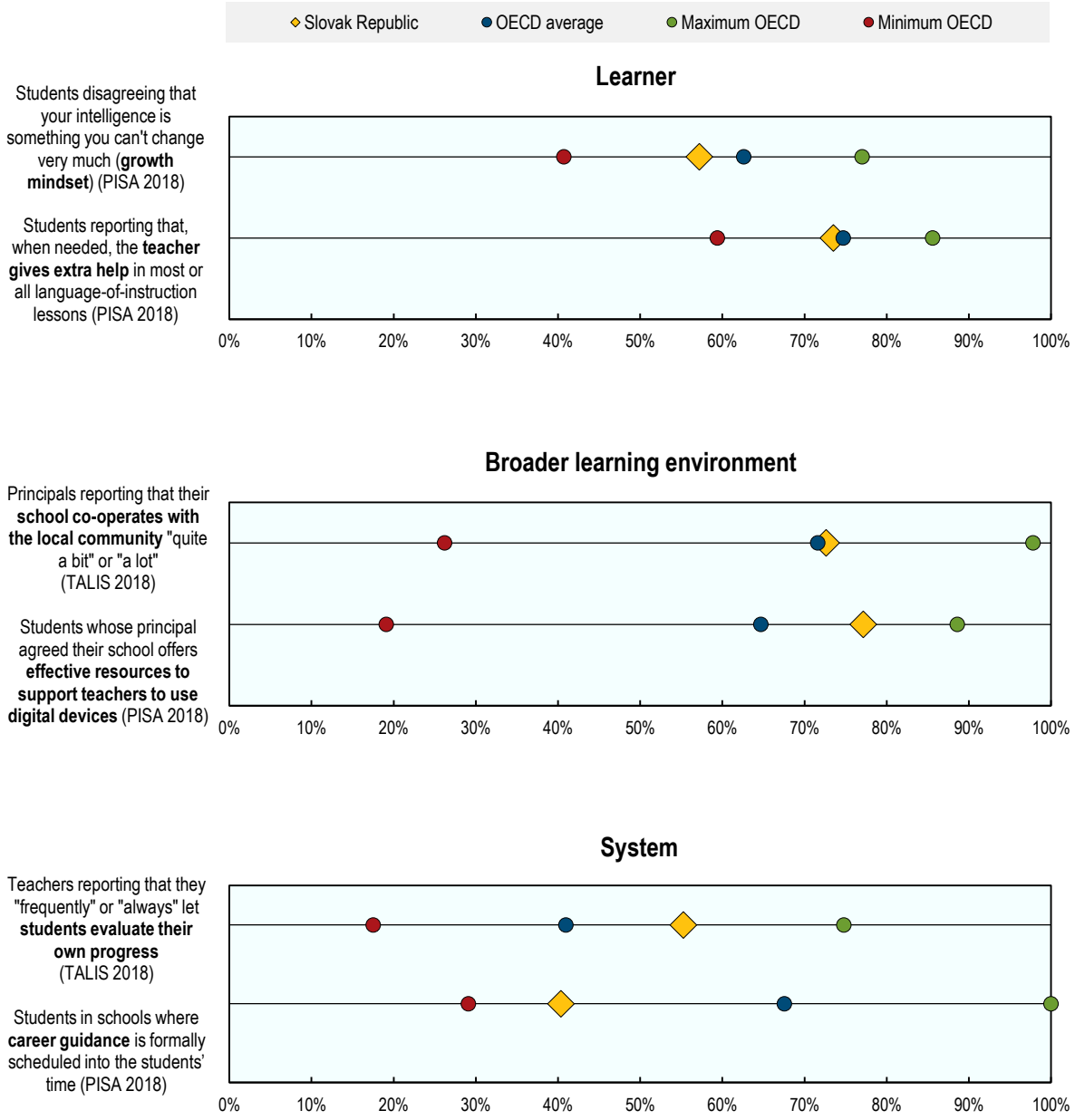
Office of the Minister for Science, Technology and Higher Education of Portugal (2020), *Skills 4 pós-Covid – Competências para o futuro [Skills for post-COVID - Skills for the Future]*, https://www.portugal.gov.pt/download-ficheiros/ficheiro.aspx?v=%3d%3dBAAAAB%2bLCAAAAAAABACztDQwBQD4RCgOBAAAAA%3d%3d (accessed on 1 April 2021). [8]

Porto Canal (2020), *Governo cria programa de qualificação dos trabalhadores do setor social [Government creates qualification program for social sector workers]*, https://portocanal.sapo.pt/noticia/238937 (accessed on 1 April 2021). [6]

Slovak Republic

Figure 5.28. Selected indicators of education resilience in the Slovak Republic

Self-reports of students, teachers or principals by percentage



Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for the Slovak Republic

Increasing the quality of primary and secondary education through the use of electronic testing (2013)

- ***Level of resilience**: System*

Between 2013 and 2015, the Slovak Republic's National Institute for Certified Educational Measurements (NÚCEM) developed a range of electronic assessments, with the aim of gradually introducing e-testing in all primary and secondary schools. E-testing has taken place every year since the successful completion of the project in 2015, with many schools making use of the tests in the early stages of the COVID-19 pandemic. The assessments cover a range of education levels and subject areas and provide information to different audiences for different purposes. School-level assessments are designed to support internal evaluation and teacher professional development. Teachers can access a database of 'teacher tests', which give them rapid feedback on students' progress, reducing the time they spend on marking. NÚCEM has also produced electronic examinations for external assessment and certification, including the school-leaving certificate (*Maturita*), and e-tests for grades 5 and 9.

In spring 2020, when schools had moved towards distance learning, NÚCEM made 24 new e-assessments available to all schools in the country. Rather than assessing students' knowledge, the aim of these assessments was to support consolidation of learning and to assess complex competences. The tests covered skills such as financial and statistical literacy, as well as reading, mathematics, science and foreign languages. Over 16 000 students from 251 primary and secondary schools participated in the 2020 round of testing (NUCEM, 2020[6]).

Further reading: NUCEM (n.d.[7]), *Increasing the quality of primary and secondary education with the use of electronic testing*, http://www.etest.sk/275-en/news/ (accessed on 1 April 2021).

Adjusting the primary school curriculum framework and objectives for greater curricular flexibility (2020)

- ***Level of resilience:** Broader learning environment*

The Slovak Republic is piloting a new Curriculum Framework by Cycle of Education (*RUP podła cyklov*) and Adjusted Objectives of Education (*Upravené ciele a obsah vzdelá*vania). These seek to allow primary-level schools to compensate for learning time lost in the early stages of the COVID-19 pandemic, and to reduce curricular overload. The 2019/20 school closures meant that, by the end of the academic year, some learners had not acquired the expected knowledge and skills for their grade level or were inadequately prepared for the transition to lower secondary. The reforms allow primary schools to organise the curriculum in three multi-year cycles, rather than grade levels, with required knowledge and skills determined at the end of each cycle. This gives schools the freedom and flexibility to adapt the content and pace of learning to the needs of their learners and to address learning gaps as they arise. Schools also have greater control over the time allocation for individual subjects. One of the cycles covers the first year of lower-secondary school as well as the last two years of primary to ensure learners' successful transitions between the two levels of schooling. In a pilot project, due to take place over a three-year period, participating schools will receive guidance and support, including methodological guidance that sets out different options for curricular adjustments.

Further reading: National Institute for Education of the Slovak Republic (2020[8]), *Methodological guidance - Framework curricula by cycle of education*, https://www.statpedu.sk/files/sk/svp/pilotne-overovanie/metodicke-usmernenie/metodicke_usmernenie_bez_dodatku.pdf (accessed on 1 April 2021).

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NUCEM (2020), *Počas dištančného vzdelávania bol najväčší záujem o e-testy z čitateľskej gramotnosti [During distance learning, the greatest interest was in e-test in literacy]*, http://www.etest.sk/data/files/2712_publicita-jun-2020_ts_jarne-e-testovania-final.pdf (accessed on 1 April 2021). [6]

NUCEM (n.d.), *Increasing the quality of primary and secondary education with the use of electronic testing*, http://www.etest.sk/275-en/news/ (accessed on 1 April 2021). [7]

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OECD (2019), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/b5fd1b8f-en. [4]

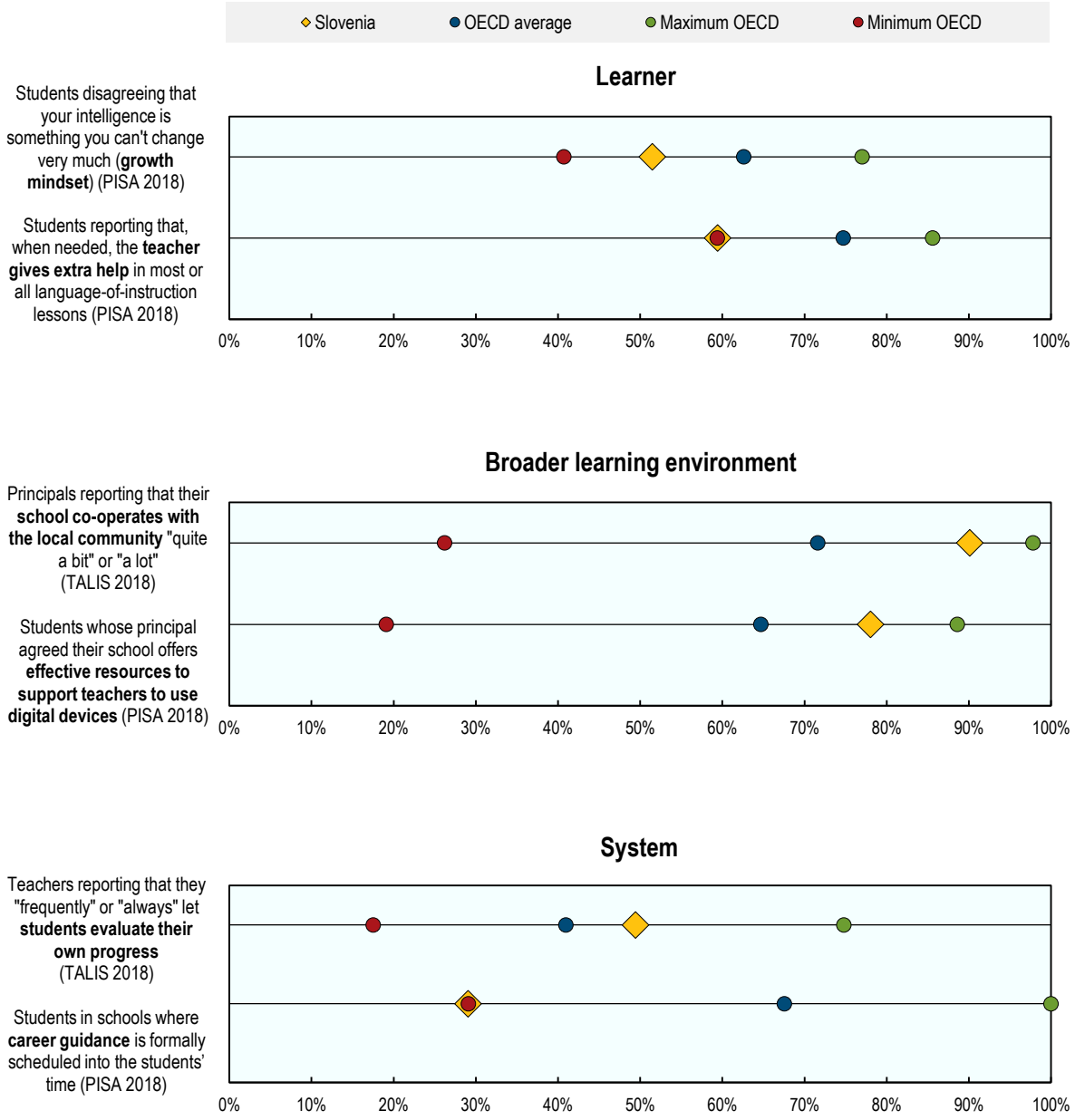
OECD (2019), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/acd78851-en. [5]

OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

Slovenia

Figure 5.29. Selected indicators of education resilience in Slovenia

Self-reports of students, teachers or principals by percentage



Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for Slovenia

Career Centres at Higher Education Institutions (2010)

- ***Level of resilience**: System*

Since 2010, public and private HEIs across Slovenia have been establishing career centres with the support of funding from the European Social Fund and Slovenian Ministry of Education, Science, and Sport. The Ministry has launched three public calls for tender since 2010, with the aim of expanding career guidance activities and smoothing learners' transitions to the labour market. As well as providing individual career counselling, career centres have organised career camps focusing on job application skills, workplace visits, and speed-dating activities with employers. According to country-level data, some 88 000 students participated in these activities between 2015 and 2020, which connected them with around 1 900 potential employers from Slovenia and abroad (National Information provided to the OECD).

A 2015 evaluation notes the centres' successes in connecting higher education staff and students with partners in the labour market, though points to some challenges in making the centres visible to employers. Students reported that they valued career counselling (MK Projekt, 2015[6]). Following recommendations from this report, subsequent calls for tender placed a particular emphasis on networking between careers professionals in different institutions, as well as with secondary education sector and labour market partners. The next round of funding aims to promote a more holistic approach with efforts to improve career guidance for students from vulnerable groups (e.g. those with SEN, those with care obligations or gifted students) including training opportunities for staff working with these groups. Other developments include supporting the analysis of local skills needs and monitoring equity issues in students' transitions within and beyond higher education in the Eastern Cohesion Region (National Information provided to the OECD).

Further reading: MK Projekt (2015[6]), *Review of Implementation of the Strategic Goals for Higher Education in the Republic of Slovenia*, MK Projekt, https://www.gov.si/assets/ministrstva/MIZS/Dokumenti/Kohezijska-politika/Vrednotenja/Pregled-uresnicevanja-strateskih-ciljev-visokega-solstva.pdf.

Supporting teaching professionals in implementing distance learning (2020)

- ***Level of resilience:** Broader learning environment*

Slovenia's National Education Institute (ZRSS) and National Research and Education Network (ARNES) played a vital role in supporting teachers with distance learning during the COVID-19 pandemic. The government charged both with organising professional learning activities for teachers. Those organised by ZRSS aimed to help teachers find and create engaging digital learning content and addressed aspects such as assessment and collaboration in the context of distance learning. During school closures in 2020, ZRSS also conducted a survey on distance education, involving teachers, school leaders, and 24 650 students across the country. This informed a detailed set of guidelines on implementing primary and secondary education in the context of COVID-19, published in September 2020 (National Education Institute of the Republic of Slovenia, 2020[7]). The guidelines shaped education delivery models for different pandemic scenarios, with guidance on teacher training and addressing learning gaps. ARNES maintained the Slovenian Education Network portal, which provided networking opportunities between teachers and advisors and became a platform for sharing best practices between schools. With the help of partners from other organisations, ARNES developed over 700 interactive workshops for teachers, 14 MOOCs, 21 short webinars and 2 national conferences to share expert advice and best practices.

Further reading: National Education Institute of the Republic of Slovenia (2020[8]), Vzgoja in izobraževanje v Republiki Sloveniji v razmerah, povezanih s Covid-19 [Education in the Republic of Slovenia in Conditions Related to Covid-19: Models and Recommendations], https://www.zrss.si/digitalnaknjiznica/Covid_19/ (accessed on 1 April 2021).

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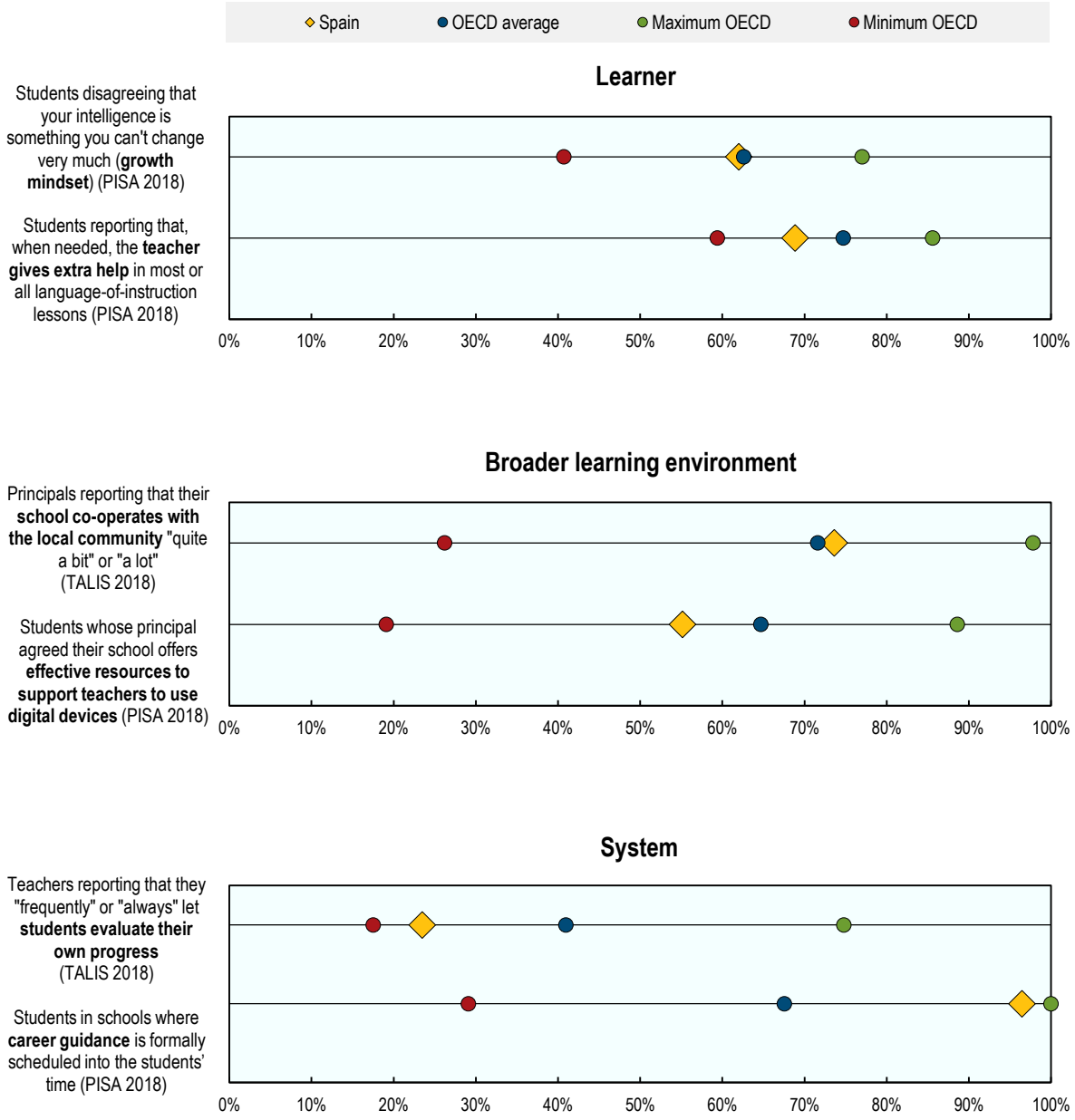
Spain

Figure 5.30. Selected indicators of education resilience in Spain

Self-reports of students, teachers or principals by percentage



Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for Spain

Dual Vocational Training Model (FP Dual, 2012)

- ***Level of resilience**: System*

Spain's dual vocational training model was designed to promote employability and improve qualification levels among young people. Subsequent regulations have sought to strengthen the links between companies and VET providers, and to increase the work-based learning component. As such, one of the key successes of the programme has been to promote the exchange of knowledge between these labour market partners and educational institutions. This process also benefits employers by delivering training that is suited to their needs (JP Morgan Chase & Co, 2016[6]). Participation in dual vocational training has increased as the quality and programme offer have improved, and young people have become more aware of the advantages of dual education. By 2016, 24 000 students in 10 000 companies were involved in dual education, an increase from 4 292 students and 513 companies in 2012/13. However, dual education still represented only 3% of VET students enrolled in dual training in 2016/17 (Sancha and Gutiérrez, 2019[7]).

Protecting young people from the economic impact of the COVID-19 pandemic was one of the key themes in the Alliance for Dual Training's annual forum in 2020, where over 1 000 experts from across the country met to exchange best practices in dual training. The alliance has highlighted the need for national-level regulations to ensure the quality of dual training, and to provide better information for guidance counsellors, students and families (Belil, 2020[8]). Spain's Plan for the Modernisation of VET (2020), which will create 200 000 additional VET places by 2023, includes measures to support the participation of small and medium enterprises in dual training (Ministry of Education and Vocational Training of Spain, 2020[9]).

Further reading: OECD (2018[10]), *Education Policy Outlook 2018: Putting Student Learning at the Centre*, OECD Publishing; Sancha, I. and S. Gutiérrez (2019[7]), *Vocational education and training in Europe: Spain*, https://www.refernet.es/docs/default-source/informesactividades/informe_nacional_2018_en.pdf (accessed on 1 April 2021).

Digital education programme (Educa en Digital, 2020)

- ***Level of resilience:** Broader learning environment*

Spain's Digital education programme (*Educa en Digital*, 2020) aims to accelerate the digital transformation of the education system, and respond to inequalities in access to digital technologies revealed in the early stages of the pandemic. The programme allocated up to EUR 260 million at the start of the 2020/21 academic year to provide devices and connectivity to educational institutions, with priority given to the most vulnerable students. It will also develop digital learning platforms for teachers, students, and education authorities. These platforms will make use of adaptive technology and artificial intelligence to deliver more personalised learning content for students and to enable teachers to monitor their progress more effectively. In addition, between March and June 2020, some 5 773 teachers took part in certified courses delivered by the National Institute of Educational Technologies and Teacher Training (INTEF). Its offer of courses for 2020/21 addresses topics such as equity and diversity, and the assessment of digital learning (Ministry of Education and Vocational Training of Spain, 2020[11]). A monitoring committee made up of representatives from different government agencies and autonomous communities will approve the annual calendar of actions and monitor progress on the objectives of the overall strategy.

Further reading: Government of Spain (2020[12]), Convenio para la ejecución del programa 'Educa en Digital' [Resolution on the implementation of the Digital Education Programme], https://www.boe.es/diario_boe/txt.php?id=BOE-A-2020-7682 (accessed on 1 April 2021).

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Ministry of Education and Vocational Training of Spain (2020), *Plan de Modernización de la Formation Profesional [Plan for the Modernisation of VET]*, https://www.lamoncloa.gob.es/serviciosdeprensa/notasprensa/educacion/Documents/2020/220720-Plan_modernizacion_FP.pdf (accessed on 1 April 2021). [9]

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OECD (2020), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/19cf08df-en. [1]

OECD (2019), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/b5fd1b8f-en. [4]

OECD (2019), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/acd78851-en. [5]

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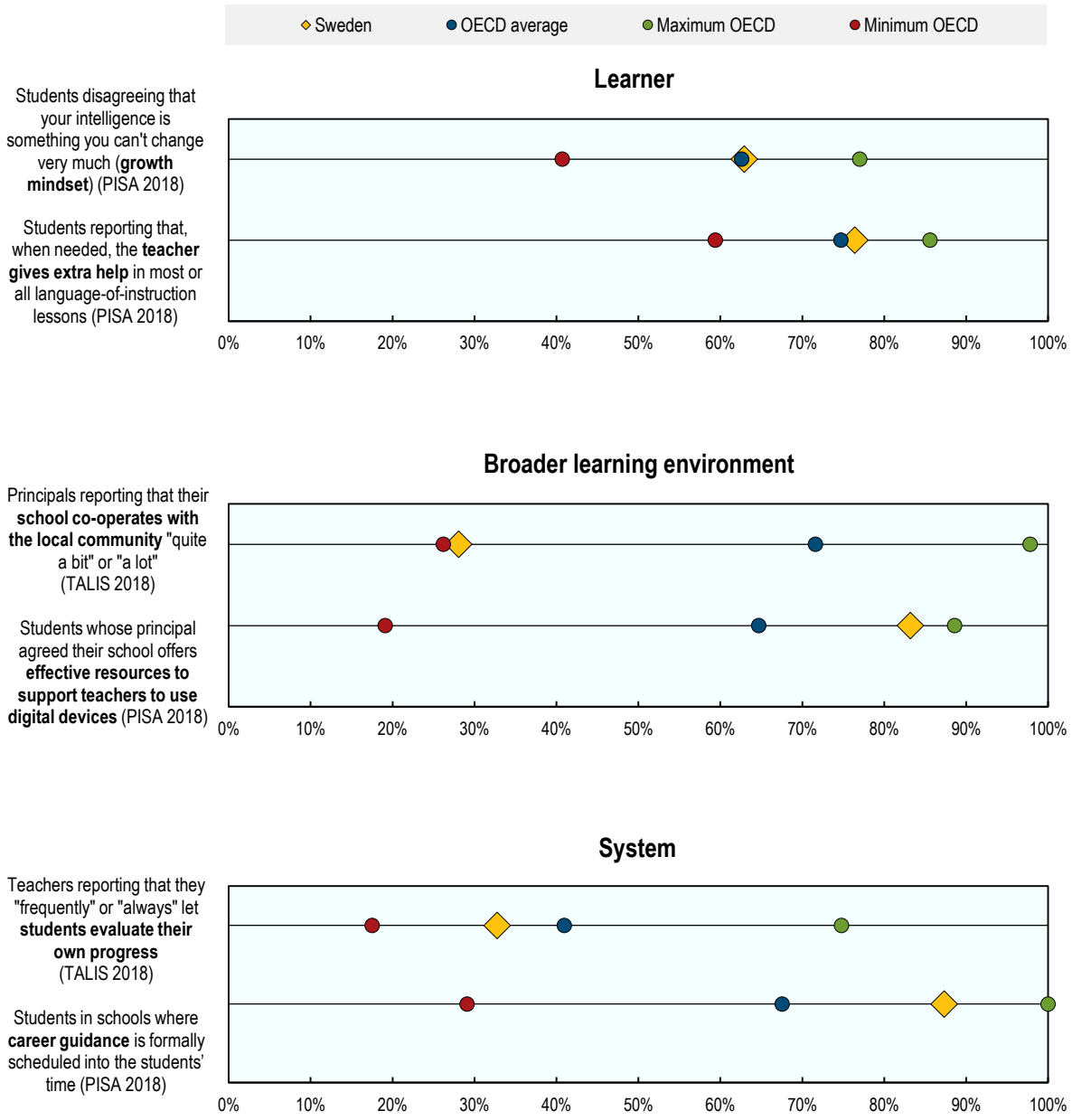
OECD (2018), *Education Policy Outlook 2018: Putting Student Learning at the Centre*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264301528-en. [10]

Sancha, I. and S. Gutiérrez (2019), *Vocational education and training in Europe: Spain*, https://www.refernet.es/docs/default-source/informesactividades/informe_nacional_2018_en.pdf (accessed on 1 April 2021). [7]

Sweden

Figure 5.31. Selected indicators of education resilience in Sweden

Self-reports of students, teachers or principals by percentage



Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for Sweden

ECEC curriculum revisions (Läroplan för Förskolan, 2010, 2018)

► ***Level of resilience**: Learner*

Sweden's ECEC curriculum was designed to put children and play at the centre of ECEC by: 1) ensuring continuous child development through the use of one national framework plan for ECEC; 2) balancing content by addressing academic and socio-emotional development; 3) reflecting on parental opinions and expectations; and 4) addressing respect for cultural values. Implemented in 1998 – with revisions made in 2010, and additions made in 2016 – Sweden began implementing the latest revision (*Lpfö 18*) in 2018. The new curriculum came into force in July 2019.

The latest revisions highlight the importance of teachers and teaching in meeting the goals and purposes of preschool education. Key changes include aligning the structure of the ECEC curriculum with the structure of the primary and lower secondary curriculum (*Lgr 11*). There is also a focus on developing learners' digital competence and introducing digital tools to pre-primary education in line with Sweden's digital education strategy (2017). To support the implementation of the curriculum, the National Agency for Education has developed two professional development initiatives aimed at ECEC professionals: a blended learning course on the theme of teaching in preschool and an online course on the theme of identity, gender equality, and digitalisation in preschool. An evaluation from 2020 found that participants were overwhelmingly satisfied with the professional development initiatives, and that they had contributed to the successful implementation of the strategy. In particular, participants found the online format more accessible and flexible than traditional in-person formats. Recommendations for improvement included better adapting professional development activities to the needs of ECEC principals, providing clearer guidance on the division of responsibilities between teachers and ECEC leaders, and developing an equivalent course for childminders (Swedish National Agency for Education, 2020[6]).

Further reading: Swedish National Agency for Education (2019[7]), *Curriculum for the Preschool, Lpfö 18*, https://www.skolverket.se/publikationsserier/styrdokument/2019/curriculum-for-the-preschool-lpfo-18 (accessed on 1 April 2021).

Strengthening the supply of skills (2020)

► ***Level of resilience**: System*

In 2020 and 2021, Sweden has invested in a range of VET and adult learning initiatives to help workers and learners adjust to the economic impact of the COVID-19 pandemic, and to strengthen the supply of labour-market skills in the long term. There is a particular focus on developing flexible upskilling and reskilling opportunities that meet the needs of working life and can be combined with other responsibilities. Since 2021, state funding allows municipalities to offer an additional 15 500 places in adult vocational education. Furthermore, Sweden's offer of Higher VET will increase by 5 600 places in 2022 and 5 500 places in 2023. The government has also allocated funding for higher vocational education institutions to provide short upskilling courses for professionals. Employers currently receiving a subsidy for short-term work to maintain workers in times of lower production can apply for an additional 60% subsidy for skills initiatives that take place during working hours. This aims to make use of the time that has become available during periods of lower production. Given the significant investment involved in these skills initiatives, it will be important to introduce measures for quality assurance and to monitor their impact on labour market outcomes.

Further reading: Ministry of Education of Sweden (2020[8]), *Stärkt kompetensförsörjning och utbildning som leder till jobb [Strengthened skills supply and education leading to jobs]*, https://www.regeringen.se/artiklar/2020/09/starkt-kompetensforsorjning-och-utbildning-som-leder-till-jobb/ (accessed on 1 April 2021).

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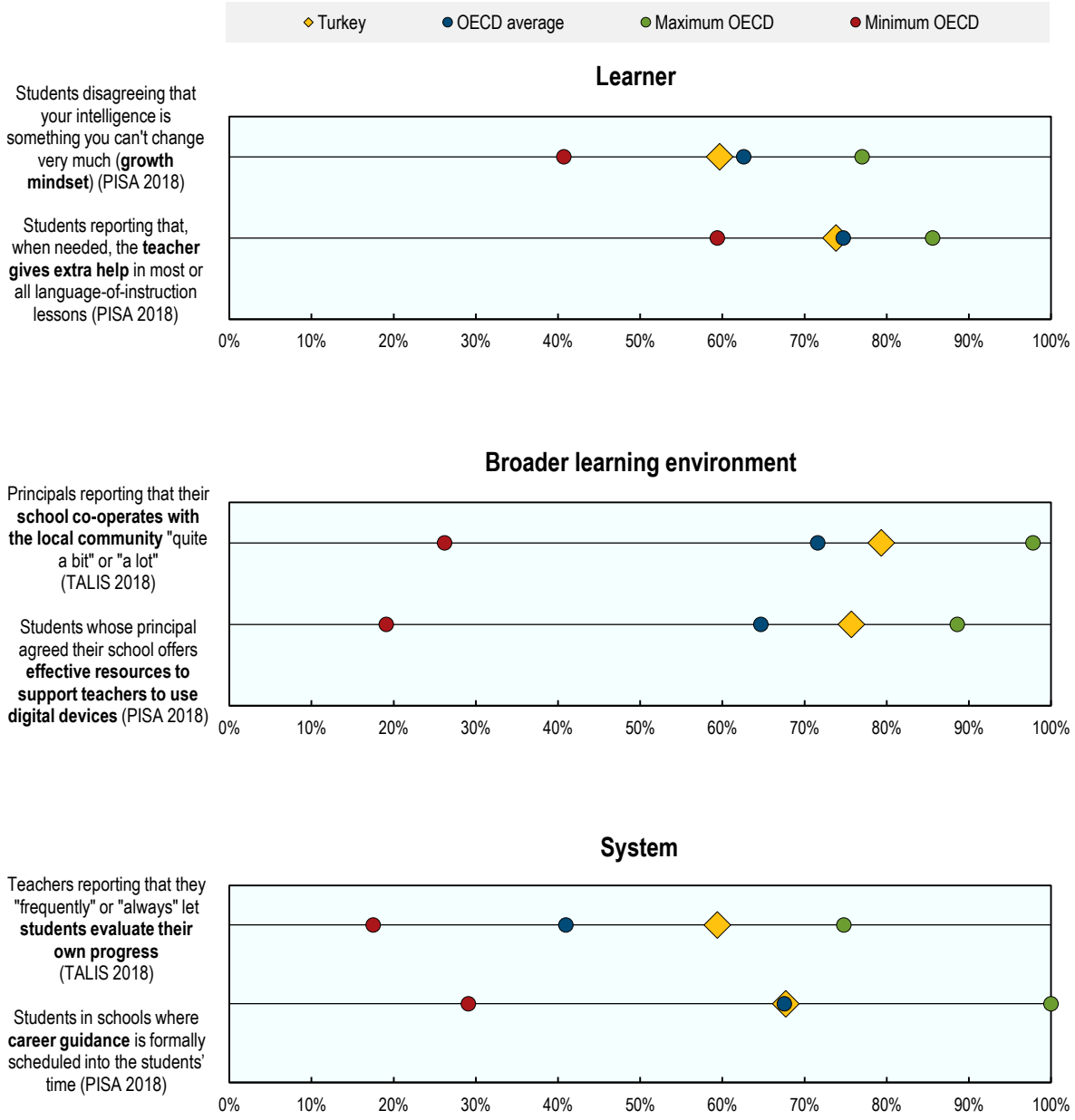
Turkey

Figure 5.32. Selected indicators of education resilience in Turkey

Self-reports of students, teachers or principals by percentage



Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for Turkey

Increasing the quality and attractiveness of VET (2019)

- ***Level of resilience**: System*

In Turkey, under a revised co-operation model (2019), VET sector representatives collaborate on curriculum design, provide work-based learning for students and teachers, offer scholarships and prioritise students for employment. Based on a VET mapping study carried out in 2019, Turkey has also sought to match the specialisms of VET institutions with the needs of the regional economy in which they are located more effectively. There have also been considerable efforts to increase the involvement of VET teachers in in-service training. The Co-operation Protocol for Teaching allows teachers to carry out professional development in real work environments; Turkey has also developed distance-learning opportunities for VET teachers. As a result of these efforts, the scale of in-service professional development for VET teachers has increased by six times since 2018. According to a national review of vocational education from 2018, labour force participation and employment rates were higher among VET students than students in the general upper secondary track. National-level data from 2020 points to a 17% increase in students choosing VET between 2018 and 2019 (Ministry of National Education of Turkey, 2018[6]). A report from the European Training Foundation underlined several improvements in Turkey's VET provision but pointed to continued challenges in aligning skills with labour market demand (Zelloth, 2020[7]). Turkey is seeking to deepen the involvement of labour market partners in providing infrastructure for VET provision and in setting up schools.

Further reading: OECD (2020[8]), "Education Policy Outlook in Turkey", *OECD Education Policy Perspectives*, No. 23, OECD Publishing, Paris, https://dx.doi.org/10.1787/b7c69f4c-en.

Distance-learning training for teachers and school leaders (2020)

- ***Level of resilience:** Broader learning environment*

During 2020, Turkey worked with UNICEF to develop professional development programmes for teachers and school leaders in the context of the COVID-19 pandemic. For example, the "Development of Design and Management Skills in Distance Education" course aims to strengthen teacher capacity in promoting three kinds of interactions in distance education: student-student interaction; student-teacher interaction; and 'student-material' interaction. The course also covers effective use of Turkey's online learning and assessment platform (EBA) and the V-factory application, which allows teachers to design digital learning activities and environments. The "Development of Distance Education, Design and Management Skills of School Administrators" course gives school leaders the opportunity to share their experiences and seeks to develop the administrative, technical, and communication skills they will need to lead learning in uncertain times. This is supported by moves to reduce the administrative workload of school leaders to allow them to focus on educational activities. By October 2020, some 150 000 teachers and 40 000 school leaders had completed the new courses.

Further reading: Turkish Ministry of National Education (2020[9]), *"We are carrying out the largest teachers' training program of the Turkish education history"*, http://www.meb.gov.tr/we-are-carrying-out-the-largest-teachers-training-program-of-the-turkish-education-history/haber/21795/en (accessed on 1 April 2021).

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OECD (2020), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/19cf08df-en. [1]

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OECD (2019), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/acd78851-en. [5]

OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [3]

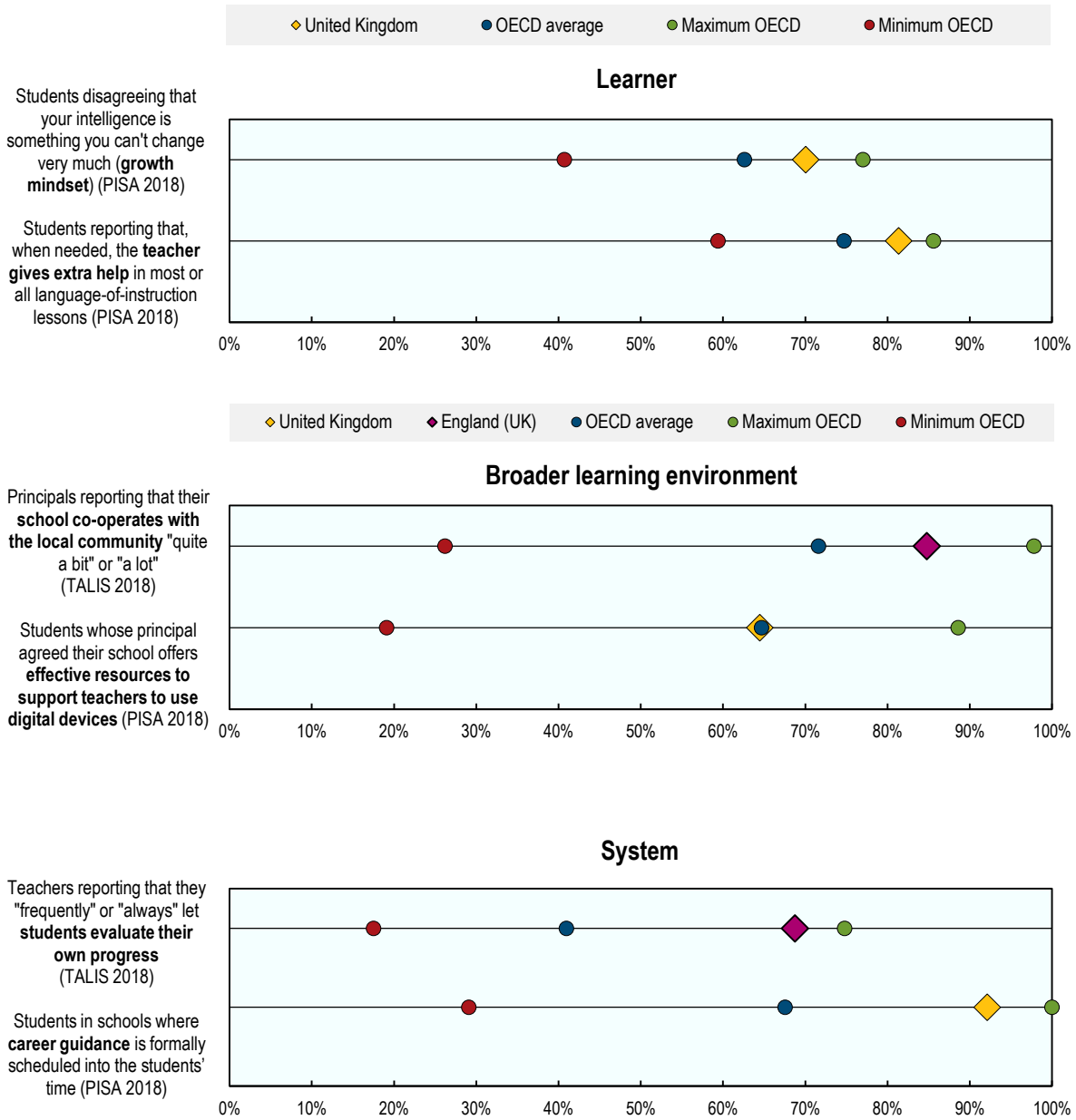
Turkish Ministry of National Education (2020), *"We are carrying out the largest teachers' training program of the Turkish education history"*, http://www.meb.gov.tr/we-are-carrying-out-the-largest-teachers-training-program-of-the-turkish-education-history/haber/21795/en (accessed on 1 April 2021). [9]

Zelloth, H. (2020), *Policies for Human Capital Development in Turkey*, https://www.etf.europa.eu/en/publications-and-resources/publications/trp-assessment-reports/turkey-2020 (accessed on 1 April 2021). [7]

United Kingdom

Figure 5.33. Selected indicators of education resilience in the United Kingdom

Self-reports of students, teachers or principals by percentage



Note: Sub-regional data of England were plotted when available.

Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for the United Kingdom

Measures to promote transitions to higher education and the labour market (2019, 2021)

► ***Level of resilience**: System*

In recent years, the United Kingdom (UK) has taken several measures to improve the quality of careers information available to prospective and current higher education students. The Discover Uni platform (2019) supports prospective students across the UK in deciding whether, where, and what to study. It builds on data from the Unistats platform (2012), which incorporated data from existing surveys on student satisfaction and the labour market outcomes of recent graduates. Unistats also integrated course-level information, including aspects such as the time spent in teaching and learning activities, assessment methods, and accommodation costs. Evaluations from 2013 and 2015 found that while the site was widely used, there was scope for improved brand recognition and market penetration, particularly among those outside of the school or college environment (DELNI, HEFCE, HEFCW, and SFC, 2015[6]). More recent research from the UK's Office for Students suggests that learners who do not have friends or family who have been to university, or who do not have access to specialist career advice, experienced particular challenges in accessing relevant information (Maskell, 2019[7]). As well as including information on student satisfaction and labour market outcomes, the new Discover Uni platform provides advice and guidance for prospective students throughout the decision-making process. This includes information on student finance and study options such as distance learning and apprenticeships. This information will be important in the context of a global recession, where learners are likely to be more sensitive to the cost and labour market prospects of different study options (Discover Uni, n.d.[8]).

In 2021, the Department for Education, in collaboration with the Quality Assurance Agency, professional bodies and the Office for Students, developed the Graduate Employment and Skills Guide. It supports current tertiary students and recent graduates to transition to the labour market through offering guidance on identifying and developing skills, gaining experience, applying for jobs and maintaining well-being. This includes advice on securing public, private and voluntary sector opportunities to help build skills for work, gain work experience, or enter the labour market. It provides links to further study options and resources on graduate mental health and well-being (Department for Education and Office for Students, 2021[9]).

Further reading: DELNI, HEFCE, HEFCW, and SFC (2015[6]), *UK review of information about higher education: Report on the review of the Key Information Set and Unistats*, https://dera.ioe.ac.uk/24489/1/HEFCE2015_27.pdf (accessed on 1 April 2021).

Personal Learning Accounts (Wales, 2020)

► ***Level of resilience**: System*

In 2019, Wales piloted the Personal Learning Accounts programme in two further education colleges; this was then rolled out across the country in 2020 as part of the COVID-19 recovery plan. The programme gives workers earning below the medium income, along with furloughed or at-risk workers, the opportunity to retrain in high-demand fields. The courses are flexible, with part-time and distance-learning options, and are designed to fit around learners' existing responsibilities. During the first year of implementation, the programme offer was driven by the demands of the local economy. Before enrolling, applicants take part in a digital interview with an experienced careers advisor to discuss their career aspirations. This helps direct them towards reskilling opportunities that fit their aspirations and lifestyles and are likely to lead to employment. The initiative is funded by Wales' skills and jobs fund, a GBP 40 million package aimed at helping workers and the economy recover from the COVID-19 pandemic (Government of Wales, 2020[10]).

Further reading: Working Wales (2020[11]), *Rewrite your career with a Personal Learning Account*, https://workingwales.gov.wales/personal-learning-account (accessed on 1 April 2021).

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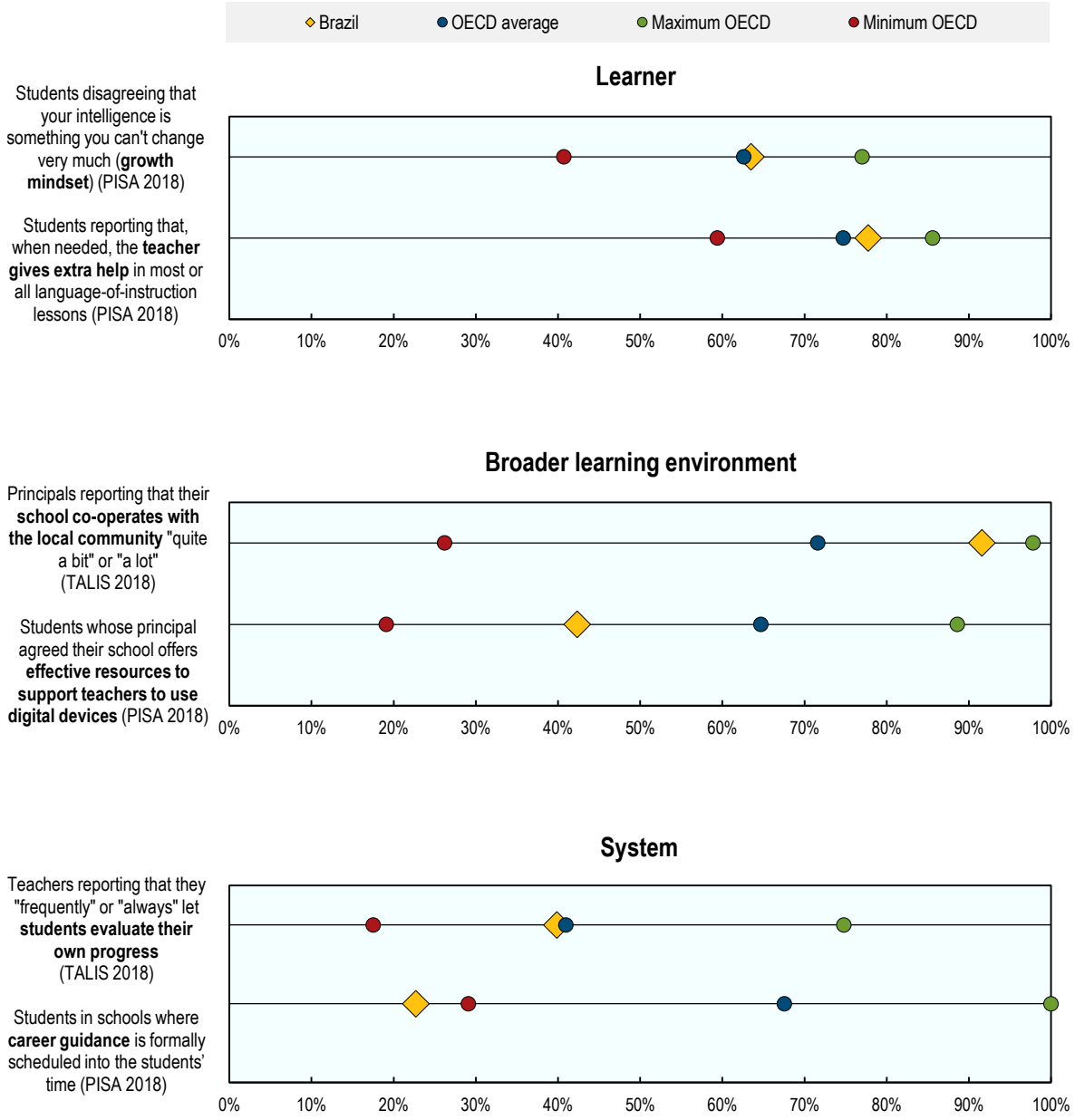
Brazil

Figure 5.34. Selected indicators of education resilience in Brazil

Self-reports of students, teachers or principals by percentage



Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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Selected education policies for Brazil

Internal Commissions for the Prevention of Accidents and School Violence (Comissão Interna de Prevenção à Acidentes e Violência Escolar, CIPAVE, 2012)

► ***Level of resilience**: Learner*

The CIPAVE is a network of support around schools in the state of Rio Grande do Sol, which works to prevent and respond to bullying, school violence and other issues affecting the learning climate in schools. CIPAVE was first developed in the city of Caixias do Sul (2013), where schools formed an internal commission involving different stakeholders to discuss issues affecting the school community, and established partnerships with local actors such as the police, fire departments, and non-governmental organisations (NGOs). Implemented across the state in 2013, the training and implementation of the internal commissions became a state priority in 2015. The commissions work on issues such as conflict resolution, forming a regionalised support network and planning actions in collaboration with different members of the school community. At the state level, the Secretariat of Education works with other government departments to provide guidance on issues that affect the school climate, and with schools to identify negative behaviours, their causes and frequency, and to take preventative action. Schools register the incidents that occur in the community on the programme's website, and the state uses this information to invite partners to develop projects in schools. In 2020, the state launched the CIPAVE+ platform to facilitate monitoring and collaboration.

State-level data from 2019 suggests the preventative actions developed under CIPAVE have contributed to a 65% reduction in violent incidents since 2015. School leaders have highlighted preventative actions – drawing on conflict resolution approaches such as peace circles and restorative circles – as key success factors (Federal Ministry of Education of Brazil, 2019[6]). Many of these actions have continued in the context of the COVID-19 pandemic, with activities moving online when schools closed. For example, a restorative justice programme organised in partnership with the police provided mediation training for students via distance learning.

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Learning Inside and Outside the School (Projeto Aprender: Dentro e fora da escola, 2020)

► ***Level of resilience:** Broader learning environment*

In the early stages of the COVID-19 pandemic, the Brazilian state of Maranhão collaborated with the non-profit organisation Education Laboratory (*Laborarório de Educação*) to develop an engagement strategy for parents and guardians of children in ECEC. The main aim of the strategy was to assist them in providing care for young children at home while ECEC centres were closed, particularly those from low-income families. With this in mind, the Maranhão Secretariat of Education consulted with the *Laborarório de Educação* who adapted their evidence-based family engagement curriculum for use across the state. *Laborarório de Educação*'s video, photo and audio content gives suggestions for transforming daily household discussions and interactions into learning opportunities without the need for additional resources. The use of a range of communication channels were key factors in the success of the strategy. The resources reached over 10 000 people within two weeks of the launch of the strategy.

Further reading: Paulet Piedra, N. and F. Reimers (2020[8]), *Brazil: Educação Infantil no Maranhão (Early Learning in Maranhão)*, https://oecdedutoday.com/wp-content/uploads/2020/05/Brazil-Educacao-Infantil-no-Maranhao.pdf (accessed on 1 April 2021).

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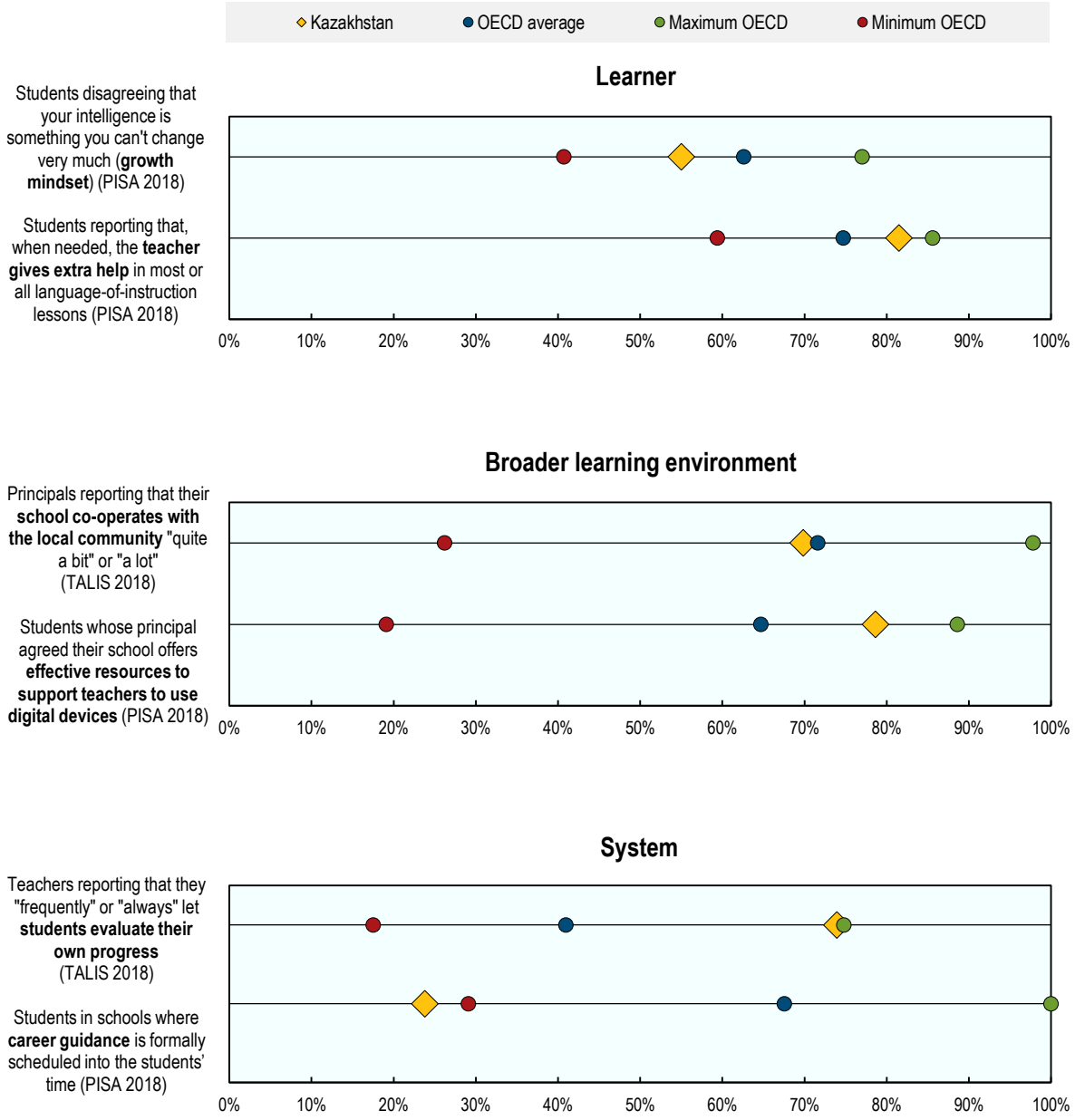
Kazakhstan

Figure 5.35. Selected indicators of education resilience in Kazakhstan

Self-reports of students, teachers or principals by percentage



Sources: OECD (2020[1]), *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/19cf08df-en; OECD (2020[2]), "Learning remotely when schools close: How well are students and schools prepared? Insights from PISA", OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, https://doi.org/10.1787/3bfda1f7-en; OECD (2019[3]), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en; OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/b5fd1b8f-en; OECD (2019[5]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

StatLink https://stat.link/nqw1r5

Selected education policies for Kazakhstan

Resource centres (Опорная школа, 2012)

- ***Level of resilience:*** *Broader learning environment*

Building on a successful pilot in the city of Karaganda, Kazakhstan has developed a network of resource centres to improve educational quality in smaller schools. While Kazakhstan's school network provides extensive geographical coverage, there have been challenges in ensuring high-quality learning in small-class schools, many of which are in rural areas. Resource centres are mostly based in large, well-resourced schools and provide support to three or four satellite schools within their vicinity. Support includes special teaching sessions for students at the end of lower-secondary education (grades 8 and 9) that take place at the resource centres. Students from small-class schools take part in three two-week sessions during the school year and receive remote support between these face-to-face sessions. Students are assessed in the first and last session, allowing teachers to tailor the content to their needs and monitor progress over the year. Other support efforts target teachers through providing assistance with specific pedagogical challenges and professional development. Staff from across the network of centres collaborate, including through a regular webinar in which they identify common challenges in delivering support to teachers and co-develop possible solutions.

The OECD has highlighted the potential of the resource centres to address disparities between larger and smaller schools. It has found that the initiative is responsive to student needs and promotes collaboration between different types of schools. To harness the full potential of the initiative, the OECD recommended expanding the network of resource centres and increasing the scope of the support that they provide. In particular, the report identified a need to deepen the collaboration between highly skilled teachers in the resource centres and those in the small-class schools (OECD/The World Bank, 2015[6]).

Further reading: OECD (2021[7]), *Education Policy Outlook: Kazakhstan*, https://www.oecd.org/education/Education-Policy-Outlook-Country-Profile-Kazakhstan-2018.pdf; OECD/The World Bank (2015[6]), *OECD Reviews of School Resources: Kazakhstan 2015*, OECD Reviews of School Resources, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264245891-en.

Digital Education project (2020)

- ***Level of resilience****: System*

Kazakhstan announced a new digital education project in the early stages of the COVID-19 pandemic. The project applies to all levels of the education system and aims to train over 3 million digital specialists across all economic sectors by 2030. In order to do so, it focuses on ongoing changes in the demand for labour and skills and the digital skills deficit identified by international surveys such as the International Survey of Adult Skills (PIAAC) and the International Computer and Information Literacy Study (ICILS). A new digital literacy curriculum will be introduced. Whereas the previous ICT curriculum began in grade 7, under these changes, starting at grade 1, students will study topics such as algorithms and information hygiene and security from 2021. Students from grade 3 upwards will learn coding, 3D printing, and robotics. In 2020/21, Kazakhstan implemented 31 new programmes in leading VET colleges to train specialists for the digital industry. In higher education, ICT programmes were updated according to professional standards. In addition, the Open University of Kazakhstan – a newly developed online platform – provides a range of MOOCs with the support of 63 higher education institutions. The programme is supported by ongoing efforts to bring high-speed Internet connection to larger numbers of schools and rural communities.

Further reading: Office of the Prime Minister of Kazakhstan (2020[8]), *By 2030, educational institutions of Kazakhstan will train over 3 million specialists of new formation,* https://primeminister.kz/en/news/k-2030-godu-uchebnye-zavedeniya-kazahstana-budut-gotovit-bolee-3-mln-specialistov-novoy-formacii-mon-rk-305310 (accessed on 1 April 2021).

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Education Policy Outlook 2021

SHAPING RESPONSIVE AND RESILIENT EDUCATION IN A CHANGING WORLD

Education systems operate in a world that is constantly evolving towards new equilibria, yet short-term crises may disrupt, accelerate or divert longer-term evolutions. This Framework for Responsiveness and Resilience in Education Policy aims to support policy makers to balance the urgent challenge of building eco-systems that adapt in the face of disruption and change (resilience), and the important challenge of navigating the ongoing evolution from industrial to post-industrial societies and economies (responsiveness). Building on international evidence and analysis from over 40 education systems, this framework endeavours to establish tangible, transferable and actionable definitions of resilience. These definitions, which are the goals of the framework (*Why?*), are underpinned by policy components of responsiveness (*What?*), which define priority areas for education policy makers. Policy pointers for resilience (*How?*) then illustrate how policy makers can apply these components in ways that promote resilience at the learner, broader learning environment and system levels of the policy ecosystem. Finally, a transversal component looks into the people and the processes undertaken in order to reach a given purpose (*Who?*). The report has been prepared with evidence from the Education Policy Outlook series – the OECD's analytical observatory of education policy.

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