



Organisation for Economic Co-operation and Development

G20 Argentina 2018

Governance of Skills Systems: as prepared by the OECD for the G20 Joint Education and Employment Working Group

Executive summary

1. Several trends are making the governance arrangements of skills systems more complex than ever before. Megatrends such as globalisation, digitalisation, and changing demographics have a great impact on the demand for skills. The automation of jobs and tasks that require routine and basic skills has increased the demand for higher cognitive skills and generated the need for new sets of skills. Thus, education and skills systems have to equip people with the right mix of skills to thrive in a complex and rapidly changing world. This requires improving the quality of education systems and expanding to the extremes beyond the traditional boundaries of formal education systems: early childhood education and care and adult learning.

2. When we focus on the traditional education systems (schools and higher education), governments play the largest role in terms of decision-making and funding. The most widespread trend in recent years has been to decentralise, shifting decision making responsibilities from central government to different levels, often with greater autonomy for regions, local authorities and schools. The reasoning justifying this trend is that in this way education systems will respond more effectively to local needs. However, the process of decentralisation is complex and may not result in better student outcomes unless it is accompanied by capacity building and accountability mechanisms. It also requires highly qualified teachers and strong school leaders who can implement rigorous evaluations and develop high curricular standards.

3. Decentralised systems require a clear definition of responsibilities at every layer of governance, as well as alignment, coordination and accountability between them. This includes funding: who will raise taxes, provide funding from other sources, and be responsible for decisions about how to allocate it. Mechanisms to prevent inequalities between regions from growing are also required.

4. Given the increasing importance of upskilling and reskilling across the life course, there is growing awareness of the need to shift from a front-loaded model whereby education only takes place from childhood to youth, towards a model of life-long learning. This requires developing further stages which have not been traditionally the core of education and training systems: early childhood education and care and adult learning. The need to involve a number of different actors makes governance arrangements complex.

5. Awareness about early childhood education and care has risen, given the large impact it has on the acquisition of cognitive and socio-emotional skills early on, and its influence on the ability to learn throughout life. Different countries are at different stages in the transition from being regarded as a social policy to facilitate the participation of women in the labour market, to a proper educational stage. Thus, there is huge heterogeneity both in terms of responsibilities within government (in some countries this is covered by ministries of social affairs, in others education), and providers since the private sector and local authorities tend to play significant roles. Setting common standards at this crucial stage is key.

6. The emerging need for adults to continue up-skilling throughout their lives, given the need to adapt to the rapid changes taking place in at work, requires employers to become involved and allow firms to become learning environments. The participation of social partners requires defining common standards, putting in place mechanisms to “train the trainers”, and implementing the right incentives (financial and otherwise). Educational settings may be required to equip people with foundation skills.

7. New forms of work and the motivation to continuously acquire new skills will make learning pathways very complex, and often the result of decisions made by individuals that will have to navigate uncertain and rapidly changing landscapes. Thus, new systems of skills recognition will have to be developed.

8. In summary, lifelong learning implies re-thinking governance arrangements so that they integrate learning across all stages of life, from the early years to adulthood. This shift also requires the participation of many actors, making system management even more complex. Good governance arrangements may not only help to create better policy coherence but also generate policy complementarities –i.e., policies that are aligned and mutually reinforcing. Governments sometimes struggle, however, to adopt systemic approaches to skills policies and may have difficulties putting in place effective governance systems.

Governance of education and skills systems

9. Among the many decisions that G20 governments have to make, those concerning the way responsibilities for education and training are distributed and managed have a direct impact on the acquisition of skills by the population. This short paper will discuss some of the considerations for governing education and skills systems to help achieve national policy objectives.

10. Globalisation, digitalisation, changing demographics and other megatrends are making effective governance critical for ensuring that a country's education and skills system provides people with the right mix of skills to thrive in a complex and rapidly changing world. Given the increasing importance of upskilling and reskilling across the life course, there is growing awareness of the need to shift from a front-loaded model whereby education only takes place from early childhood to youth, towards a model of life-long learning. This can foster resilience in labour markets exposed to international shocks and help improve the well-being of individuals but also increases the need for effective governance among an extended set of actors.

11. Lifelong learning implies re-thinking governance arrangements so that they integrate learning across all stages of life, from the early years to adulthood. This shift also requires the participation of many actors, making system management even more complex. Good governance arrangements may not only help to create better policy coherence but also generate policy complementarities –i.e., policies that are aligned and mutually reinforcing. Governments sometimes struggle, however, to adopt systemic approaches to skills policies and may have difficulties putting in place effective governance systems.

12. Moving from front-loaded education systems to life-long learning also requires the participation of many actors in financing education and training at different stages. Social partners will have an important role to play in adult learning, as well as vocational education and training. Individuals will also have to be responsible for the funding of their training under certain circumstances. The complexity of funding arrangements will require better coordination and accountability mechanisms, to ensure the effectiveness of the investment made.

13. Many of today's skills challenges are rooted in the lack of alignment among policy sectors and levels of government, lack of a strategic vision, poor coordination and collaboration with stakeholders, inadequate skills information, a lack of effective monitoring and evaluation of policy outcomes, and inefficient financing mechanisms.

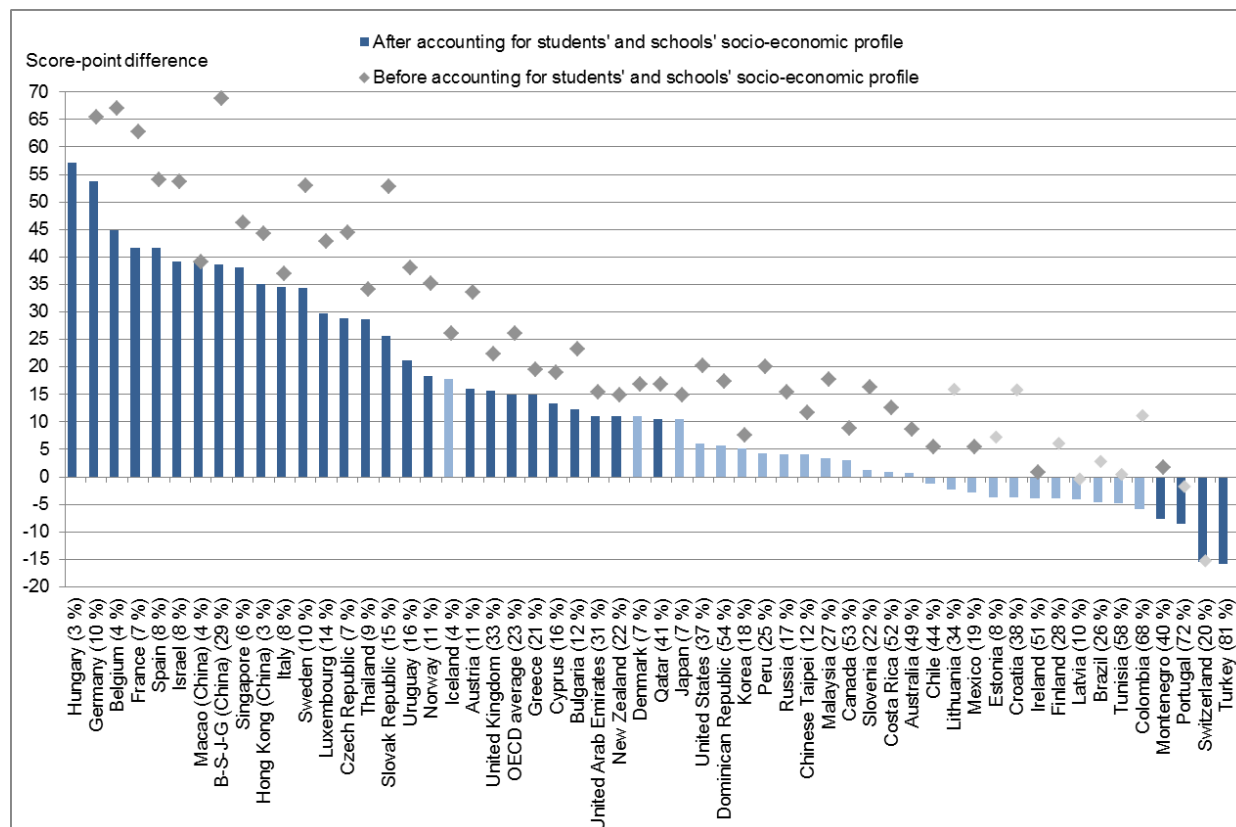
Some specific governance considerations related to different levels of education are discussed below.

Early childhood education and care (ECEC)

14. A major change has taken place in the shared understanding of the outcomes expected at this early stage, i.e. even before children enter primary school. Initially, most countries developed ECEC, especially for children under the age of three, in order to facilitate the integration of women into the labour market. Thus, it was traditionally seen as a social policy and labour market issue and, as consequence, the ministry in charge of social affairs or welfare was typically responsible for it (OECD, 2017d).

15. Over time, research has shown that children can develop an important set of cognitive and socio-emotional skills at early ages and the focus of ECEC has shifted to improving these outcomes through quality provision. Furthermore, the early acquisition of skills is linked to student performance and labour market outcomes later on (OECD, 2018c). On average across countries, students at the age of 15 (when the PISA survey is conducted), who had attended early childhood education for two years or more outperformed students who had attended early childhood education for less than two years in most countries (see Figure 1, OECD, 2017d). Research shows that the effect of ECEC is particularly marked for children with a disadvantaged background. Thus, early childhood should be regarded as a critical period for the development of emerging skills, which will have a strong impact on the ability to acquire further skills as children grow. High quality ECEC provision can serve as an efficient compensatory mechanism for students who come from difficult starting points.

Figure 1. Score-point difference in science performance between 15-year-old students who attended early childhood education (ISCED 0) for two years or more and those who attended for less than two years (PISA 2015)



Note: Score-point differences that are statistically significant are marked in a darker tone. The percentage of 15-year-old students who attended early childhood education (ISCED 0) for less than two years are added into brackets next to the country's name.

Countries and economies are ranked in descending order of the score-point difference in science performance between 15-year-olds who reported that they had attended early childhood education (ISCED 0) for two years or more and others, after accounting for socio-economic status.

Source: OECD (2016a), PISA 2015 Results (Volume II): Policies and Practices for Successful Schools, PISA, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264267510-en>.

16. This awareness has led to many countries expanding ECEC from very early ages and moving the responsibilities to the Ministry of Education. Many countries are establishing integrated ECEC settings and systems, i.e. the ECEC settings enrolling most children under and above the age of 3 are administered under the responsibility of one ministry, or have integrated curricula to facilitate a continuum of learning (OECD, 2017d). Integration within the ministry of education also facilitates collaboration between education levels and can strengthen coherence between ECEC and schools (OECD, 2017e). Italy's education reform provides an example of how the governance of ECEC is being integrated (Box 1). However, despite the growing role many education ministries play in ECEC management, governmental co-ordination (beyond education ministries) remains crucial due to the implications ECEC has on other social policy domains such as women's participation in the labour market and its potential to mitigate socio-economic inequalities later in life.

Box 1. Integration of Italy's early childhood education and care governance

In July 2015, law number 107 came into force in Italy, reforming the entire education system (*La Buona Scuola* or The Good School Reform). This reform is partly devoted to the integration of ECEC governance. For the first time in Italy, an integrated system of education and instruction from birth up to 6 years is being instituted. With the new decree, ECEC services for younger children will transition from an assistance dimension centred on care to a broad educational dimension.

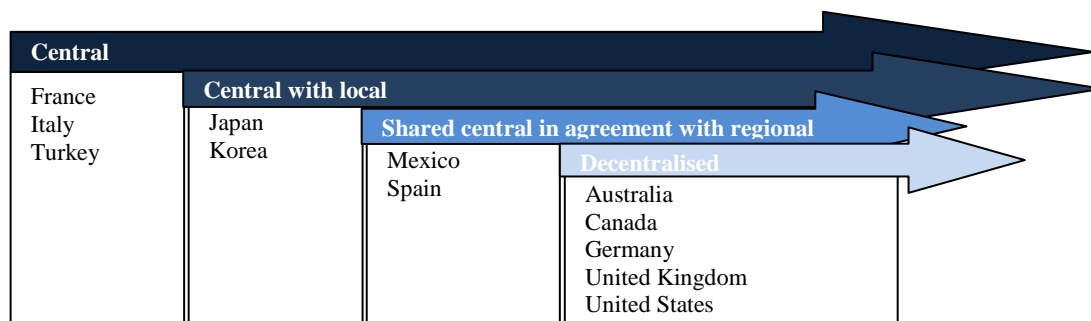
Source: Case study provided by Cristina Stringher (INVALSI), based on MIUR press release of April 2017; OECD 2017d

17. However, many countries are still in a transition phase in which the responsibilities and goals of ECEC are being re-considered and where significant management roles lie with local authorities and private providers who often enjoy substantial autonomy in catering for local needs. Public funding is more decentralised in early childhood education than at any other level of education and on average 32% of children are enrolled in private pre-primary programmes across OECD countries, either in independent or government-dependent private settings (OECD, 2017d). In a much decentralised sector, defining quality and standards, establishing a coherent monitoring system, and ensuring that monitoring contributes to policy reform and quality improvements can remain challenging (OECD, 2017e).

Education systems at the school level

18. Governance arrangements and policy making for school education varies across G20 countries (Figure 2). In recent years, many education systems have become more decentralised, shifting decision making responsibilities from central government to different levels, often with greater autonomy for regions, local authorities and schools (Gomendio, 2017). However, this process of decentralisation is complex and may not result in better student outcomes unless it is accompanied by capacity building and accountability mechanisms. It also requires highly qualified teachers and strong school leaders who can implement rigorous evaluations and develop high curricular standards (Hanushek, Link and Woessmann, 2013; OECD, 2011).

Figure 2. An overview of governance arrangements across select G20 countries



Source: OECD (2015a), Education Policy Outlook 2015: Making Reforms Happen, <http://dx.doi.org/10.1787/9789264225442-en>;

19. Although it might be tempting to look for easy, one-size-fits-all policy responses to specific problems, public governance must remain flexible enough to learn from and adapt to specific circumstances. To steer a clear course towards established goals, modern education and skills governance must be able to juggle dynamism and complexity with limited resources, and do so as efficiently as possible (Burns and Köster, 2016_[1]; Burns, Köster and Fuster, 2016_[2]). Given the right conditions, nearly all governance structures – centralised, decentralised, or somewhere in-between, can be successful. In this context, it is more fruitful to focus on processes rather than structures.

20. Effective governance requires finding a balance between accountability and trust; innovation and risk-avoidance, and consensus building and making difficult choices. The OECD has identified five key elements of effective governance processes for modern school systems:

- **Focuses on processes, not structures:** The number of levels and the power at each level are not what make or break a good system, but rather the strength of the alignment across the system, the involvement of actors and the processes underlying governance and reform.
- **The system should be flexible and able to adapt to change and unexpected events:** Strengthening a system's ability to learn from feedback is a fundamental part of this process and is also a necessary step to quality assurance and accountability.
- **Works by building capacity, stakeholder involvement and open dialogue.** Involvement of more stakeholders works best when there is a strategic vision and a set of processes to harness their ideas and input. Mexico's New Education Model is a good example of this (Box 2).
- **Requires a whole-of-system approach.** This means aligning policies, roles and responsibilities to improve efficiency and reduce potential overlap or conflict (e.g. between accountability and trust, or innovation and risk avoidance).
- **Harnesses evidence and research to inform policy and reform.** A strong knowledge system combines descriptive system data, research findings and expert practitioner knowledge. The key is knowing what to use, when, why and how.

Box 2. Mexico's New Education Model

The Secretary of Public Education (*Secretaría de Educación Pública, SEP*) presented a New Education Model (*Nuevo Modelo Educativo*) in 2017, following a public consultation with different stakeholders, including teachers, parents and entrepreneurs between 2014 and 2016. The New Education Model is based upon five pillars, which range from pedagogical methods to the governance of the system, to ensure quality education that prepares children for 21st century challenges.

The new model was implemented as a pilot exercise in the 2017-2018 school year and it will be universally implemented in two phases: at the beginning of the 2018-2019 school year and at the beginning of the 2019-2020 school year. The national consultations revealed a positive response to the core components of the education model. At the same time, a roadmap that aims to establish the next steps for implementation was produced by the SEP in 2017.

Source: Education Policy Outlook: Country Profile Mexico (OECD, 2018b).

21. It is crucial to define precisely the responsibilities of different layers of government in making decisions on a range of factors like teacher selection and training; resource allocation; curriculum; evaluations at the national, school and classroom level; the degree of school autonomy; budget allocation; and rules for student admission.
22. A strong knowledge system also combines descriptive system data, research findings and expert practitioner knowledge, to understand what to use, when, why and how. Building upon research and evidence to develop policy can help raise issues on the policy agenda to provide the impetus for reform, as well as dispel myths, provide fine-grained analysis on possible consequences of various policy options, and help spur a more meaningful dialogue with different stakeholders. Some examples of areas where research and evidence can inform policy development include: better awareness of the universality of basic skills; more nuanced discussion of the nexus between education expenditure and results; better understanding of trade-offs in the debate on class size; awareness of the need for reforms to change what happens in the classroom; and, awareness of the need for schools to use multiple types of assessment.
23. PISA offers one way for countries to use evidence that can inform awareness of the universality of basic skills. In this respect, the share of students who achieve the baseline level of skills in all three domains (science, reading and mathematics) varies considerably across countries, from more than 80% in Canada and Japan, to less than 20% in some middle-income countries. This information can also help countries monitor their progress towards achieving the Sustainable Development Goals.
24. It is important to understand the political economy of reform, the trade-offs, and the fact that timelines for education reforms tend to differ from those of political cycles. This can make it hard to keep a long-term perspective and continue aligning reforms and messages when the political context changes. In periods when resources are very limited, it is even more important to make sure that schools can concentrate their efforts on what is most important. At the same time, the administrative leadership needs to think about how alignment, consistency and the long-term perspective can be reconciled with the needs of politicians to gain support for a policy agenda in the short term.

25. Evidence of impact is important, especially in times of greater accountability. An example from France demonstrates how evaluation can help inform and monitor policies to allow for continuity (See Box 3). Thus, policy makers are encouraged to include evaluation of impact from the beginning of policy design. Research shows that there is no single model for success and education systems can achieve results by combining policies and implementation approaches in different ways. Looking to other countries and their experiences of education policy implementation around the world can provide policy makers with guiding questions, as well as answers. Just as teaching must be evidence-based, policy making should build on the best evidence of what works. And just like teaching, policy making is in many ways the science of adapting the knowledge base to local circumstances and opportunities.

Box 3. France's Action Plan to Defeat School Dropout

France implemented the action plan *Tous mobilisés pour vaincre le décrochage scolaire* in 2014. It integrates previous educational support measures geared toward students at the lower secondary education level (*dispositifs relais*) and focuses on the prevention of early school leaving and school retention. It also aims to develop partnerships, in particular with local and regional authorities, to target young people who have already left education. A systematic evaluation of the devices and experimentation are key success factors of this policy initiative to prevent school dropout. In 2017/18, the plan will continue to address prevention measures, such as education alliances and the right to redo an exam, as well as remediation, which includes personal activity accounts, an information system to track school dropouts and structures to facilitate the return to school.

Source: Education Policy Outlook 2018: Putting Student Learning at the Centre (OECD, forthcoming).

Vocational education and training

26. Building on general school education, vocational education and training (VET) systems are tasked with developing occupation-specific skills in immediate demand within the labour market. For VET systems to be effective, it is essential that they deliver the skills that employers need at the quality demanded. With the labour market changing quickly in response to technological change, mechanisms need to be in place to ensure VET systems can react appropriately. Effective governance helps to ensure that the right skills, at the right quality, are being provided.

27. Again, decentralisation has been one of the most practical responses, allowing local authorities and institutions a greater degree of freedom to respond to diverse and local demands, promoting private provision, where appropriate, and competition between institutions. In many countries the governance of initial and post-secondary vocational education involves a complex fabric of agencies, reflecting a division of responsibilities between different ministries, the relative autonomy of institutions and the separate roles of private training providers, employers, trade unions and other social partners.

28. Such decentralised governance has advantages in terms of diversity and innovation, as well as being able to adapt the policy to local needs. At the same time, it can lead to risks in terms of excessive variation in practice among regions within a

country, different standards, duplication of tasks such as curriculum design, and complicate transitions between institutions. Ministries of education and labour, as well as state agencies, must remain collectively responsible for ensuring high quality and equitable education and training (see Box 4 for an example from South Africa).

Box 4. Integrating vocational education and training policy in South Africa

In South Africa, prior to 2009, responsibility for education and training was divided between the Departments of Education and of Labour and sometimes weakly coordinated. In 2009 the Department of Higher Education and Training (DHET) was established, and given responsibility for one of the twelve objectives of the South African government, namely ‘to develop the human resources of the workforce in an inclusive way’. The Department brought together responsibility for the university and college sector, adult learning centres, the private institutions, the Sector Education and Training Authorities (SETAs) the National Skills Fund (NSF) and the regulatory bodies responsible for qualifications and quality assurance. Together, these form an integrated “post-school” system. This integration of responsibilities in DHET is a clear strength.

Source: Field, S., P. Musset and J. Álvarez-Galván (2014), A Skills beyond School Review of South Africa, OECD Reviews of Vocational Education and Training, OECD Publishing. <http://dx.doi.org/10.1787/9789264223776-en>

Higher education

29. Higher education governance is another complex web of legislative frameworks, the characteristics of institutions and how they relate to the whole system, how money is allocated to institutions, and how they are accountable for the way it is spent. It deals with the relationship between government and higher education institutions, students, social partners, communities and other stakeholder groups. It also relates to less formal relationships and structures which steer and influence behaviour. The wide range of actors involved in higher education implies challenges for governance.

30. In the 20th century in most G20 countries, governments exercised considerable control and influence over the higher education sector in pursuit of objectives such as economic growth and social equity. But many governments today accept that the central planning approach to higher education is often inefficient, and that a thriving society and economy require institutions to operate with some degree of independence.

31. Higher education also tends to be less financially dependent on the state than other levels of education. In comparison to other education sectors, higher education receives the largest proportion of funds from private sources, such as households and private enterprises: around 41% on average for G20 countries¹ (OECD, 2017a).

32. As a result, higher education institutions in some countries have become more autonomous and have gained more responsibility in terms of making decisions. Higher education institutions in many G20 countries have few restrictions on the internal

¹ The average was calculated based on the data available for 14 countries: Australia, Argentina, Canada, France, Germany, Indonesia, Italy, Korea, Japan, Mexico, Russia, Turkey, the United Kingdom and the United States.

allocation of funds from block grants; and many can borrow money, keep surpluses, own their own buildings and set tuition fees. However, the levels of autonomy differ across countries and between sub-sectors of higher education, and even between institutions in the same country.

33. The levels of staffing, academic and organisational autonomy have also been increasing, with universities often free to set recruitment and promotion procedures for staff, establish salary scales, decide on the number of students to admit, set admission procedures, create and terminate programmes, design its content, choose the language of instruction, and broadly define its governance, management and academic structures and statutes. Institutions themselves may often determine their own values, mission and purposes, their systems of decision-making and resource allocation, and the patterns of authority and hierarchy. They use a range of decision-making bodies which can be comprised of staff (academic and other staff), students and external representatives (such as employers).

34. In addition, market mechanisms are increasingly used to regulate supply and demand for diverse forms of learning delivered to diverse students. In many countries, constraints around the number of places in higher education and programmes delivered by higher education institutions have been lifted. Students are increasingly free to choose which institution to attend. Demand-driven systems strengthen market mechanisms and, as a result, students and their families behave more as consumers, making more demands on higher education institutions. Price can also influence choice and adequate information on prices and quality is a key factor in systems with market-type mechanisms.

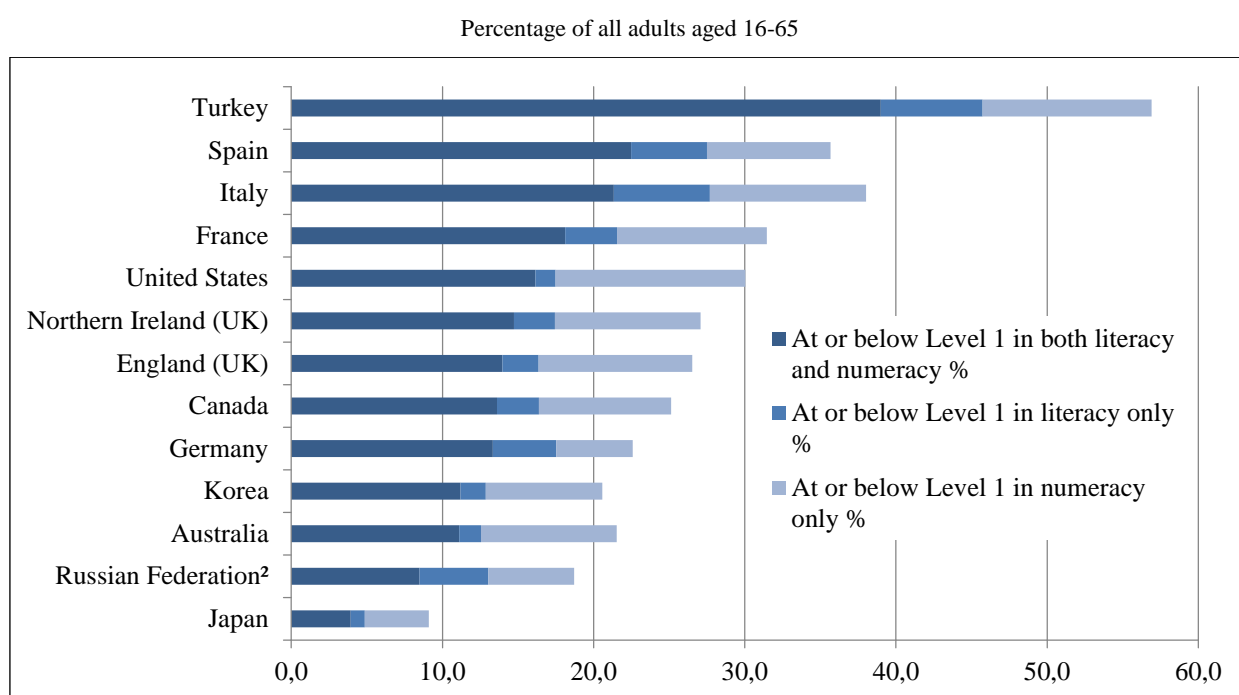
35. To counterbalance these approaches, monitoring and evaluation have become important elements of governance frameworks, along with the practice of involving a wider range of social and economic actors in decision-making processes. These accountability mechanisms attempt to ensure that higher education is of high quality and relevant to its users. This has resulted in the creation of supervisory or advisory bodies which play an increasingly important role in strategic planning, budget allocation and recruiting and overseeing the work of university leaders. Many countries have also created national agencies for the assessment and accreditation of institutions and programmes. Within Europe, national accreditation frameworks have also been shaped by the Standards and Guidelines for Quality Assurance in the European Higher Education Area.

36. However, the state continues to play an important role in steering higher education in most systems. Governments at the national or state/provincial level set the goals and strategic aims for higher education and use a range of regulatory, funding, information and organisational policy levers to encourage institutions to adhere to them. In some countries, government directly steers higher education through its ministries. In others, independent agencies and other quasi-autonomous non-governmental organisations, which are funded by government, also play a role. The extent of government involvement in steering higher education varies across countries and depends on many factors, including political and socio-economic conditions, historical path-dependencies between higher education and the state, the degree of decentralisation and autonomy, and the role of the private sector in planning and financing higher education.

Adult learning

37. Questions of governance extend further across objectives to create a culture of lifelong learning. Many adults are poorly equipped in their knowledge and skills to prosper within the labour market. Some may have left the education system without the basic skills needed to thrive in today's labour market; others may have experienced skills depreciation or obsolescence or both in a world of labour characterised by rapid and deep changes in technologies and skill needs. The Programme for International Assessment for Adult Competencies (PIAAC) highlights the extent of the problem encountered. Across a range of G20 countries, typically one in five adults fails to achieve levels of literacy, numeracy and problem solving in digital environments needed to operate within a modern economy (Figures 3 and 4). While many low-skilled adults struggle to find work, millions of others are employed. This distribution has implications for the governance of programmes designed to address working adults. In addition to ministries of education and labour, engagement from ministries responsible for social welfare and public employment services is also essential to address this challenge.

Figure 3. Share of low performing adults in literacy and/or numeracy



Note: Adults scoring at level 1 or below have only basic literacy and numeracy, deemed insufficient to function in today's knowledge-based society.

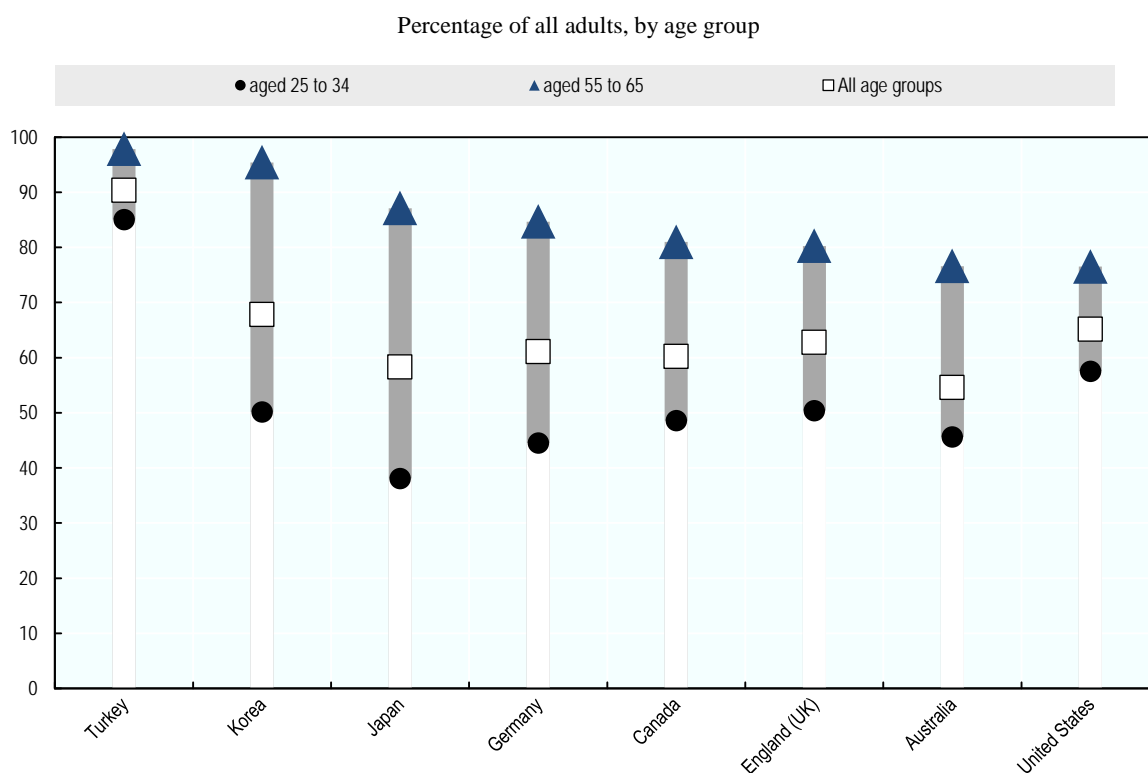
Source: OECD, Survey of Adult Skills (PIAAC) (2012, 2015).

38. Employers and trade unions are important gateways to making training available to the working population. In the case of basic skills, effective provision might include, for example, the strengthening of basic skills or creating the environment within which individuals are willing and able to identify themselves as having a 'problem' requiring redress. Similar governance issues apply to job-related training which can involve a large number of stakeholders, from employers, to private training providers, to the public employment service, and to learners themselves. Barriers to participation can be high for

adults, both in terms of the cost of training participation, the time it requires and, in many cases, the need to reconcile attendance with family responsibilities. Working with a range of stakeholders increases the likelihood of government policy interventions increasing the participation of adults in training that maintains and upgrades their skills and prepares them for further learning later in life.

39. One of the greatest challenges is the fact that low skilled adults are least likely to participate in learning and training opportunities offered to them, mainly due to a lack of motivation. As a consequence, adult learning is mainly targeted to high skilled adults, leaving low skilled adults lagging behind. Governments and social partners should find ways to engage low skilled adults in re-skilling and up-skilling to avoid having a proportion of the population left at the margins of technological and social progress. In many countries, older generations have lower levels of skills than younger ones.

Figure 4. Share of low performing adults in problem solving in digital environments, by age group



Note: Share of adults performing at level 1 or below, hence lacking the basic digital or problem solving skills needed to navigate a technology-rich environment.

Source: OECD, Survey of Adult Skills (PIAAC) (2012, 2015).

REFERENCES

- Blanchenay, P. and T. Burns (2016), “Policy experimentation in complex education systems”, in Burns, T. and F. Köster (eds.), *Governing Education in a Complex World*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264255364-10-en>.
- Burns, T. and F. Köster (eds.) (2016), *Governing Education in a Complex World*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264255364-en>.
- Burns, T., F. Köster and M. Fuster (2016), *Education Governance in Action: Lessons from Case Studies*, Educational Research and Innovation, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264262829-en>.
- Burns, T. and P. Blanchenay (2016), “Learning to fail, not failing to learn”, in Burns, T. and F. Köster (eds.), *Governing Education in a Complex World*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264255364-12-en>.
- Carpenter, H. et al. (2013), *Evaluation of Pupil Premium: Research Report*, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/243919/DFE-RR282.pdf;
- Fullan, M. (2010), *All Systems Go: The Change Imperative for Whole System Reform*, Corwin Press, Thousand Oaks.
- Gomendio, M. (2017), *Empowering and Enabling Teachers to Improve Equity and Outcomes for All*, International Summit on the Teaching Profession, OECD Publishing, Paris. <http://dx.doi.org/10.1787/9789264273238-en>
- Klijn, E. and J. Koppenjan (2014), “Complexity in Governance Network Theory”, *Complexity, Governance & Networks*, Vol. 1/1, pp. 61-70, <http://dx.doi.org/10.7564/14-CGN8>.
- Mason, M. (2016), “Complexity theory and systemic change in education governance”, in Burns, T. and F. Köster (eds.), *Governing Education in a Complex World*, OECD Publishing, <http://dx.doi.org/10.1787/9789264255364-4-en>.
- OECD (2018a), *Strategic Education Governance – Organisational Framework*, Centre for Educational Research and Innovation (CERI), <http://www.oecd.org/education/ceri/strategic-education-governance-organisational-framework.htm>

OECD (forthcoming), *Education Policy Outlook 2018: Putting Student Learning at the Centre*, OECD Publishing, Paris.

OECD (2018b), *Education Policy Outlook Country Profile: Mexico*, OECD Publishing, www.oecd.org/education/policyoutlook.htm.

OECD (2018c), *Engaging Young Children: Lessons from Research about Quality in Early Childhood Education and Care*, Starting Strong, OECD Publishing, Paris. <http://dx.doi.org/10.1787/9789264085145-en>

OECD (2017a), *Education at a Glance 2017: OECD Indicators*, OECD Publishing, Paris. <http://dx.doi.org/10.1787/eag-2017-en>

OECD (2017b), *Strategic Education Governance: Organisational framework for exploratory work on indicator development*, Centre for Educational Research and Innovation (CERI) Governing Board, EDU/CERI/CD(2017)8, Paris.

OECD (2017c), *The Funding of School Education: Connecting Resources and Learning*, OECD Publishing, Paris. <http://dx.doi.org/10.1787/9789264276147-en>

OECD (2017d), *Starting Strong 2017: Key OECD Indicators on Early Childhood Education and Care*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264276116-3-en>.

OECD (2017e), *Starting Strong V: Transitions from Early Childhood Education and Care to Primary Education*, Starting Strong, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264276253-en>.

OECD (2016a), *PISA 2015 Results (Volume II): Policies and Practices for Successful Schools*, PISA, OECD Publishing, Paris. <http://dx.doi.org/10.1787/9789264267510-en>

OECD (2016b), *Getting Skills Right: Assessing and Anticipating Changing Skill Needs*, Getting Skills Right, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264252073-en>.

OECD (2015a), *Education Policy Outlook 2015: Making Reforms Happen*, <http://dx.doi.org/10.1787/9789264225442-en>;

OECD (2015b), *Education Policy Outlook: United Kingdom*, www.oecd.org/edu/UKM_profile_final%20draft_EN.pdf.

OECD (2014a), *Education Policy Outlook: Germany*, www.oecd.org/edu/EDUCATION%20POLICY%20OUTLOOK%20GERMANY_EN.pdf.

OECD (2012), *Better Skills, Better Jobs, Better Lives, A Strategic Approach to Skills Policies*,

OECD Publishing, <http://dx.doi.org/10.1787/9789264177338-en>

OECD/Asian Development Bank (2015), *Education in Indonesia: Rising to the Challenge*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264230750-en>

Payne, C. (2008), *So Much Reform, So Little Change: The Persistence of Failure in Urban Schools*, Harvard Education Press, Cambridge.

Snyder, S. (2013), “The Simple, the Complicated, and the Complex: Educational Reform Through the Lens of Complexity Theory”, OECD Education Working Papers, No. 96, OECD Publishing, Paris, <http://dx.doi.org/10.1787/5k3txnpt1lnr-en>

Sutton Trust and Education Endowment Foundation (2015), *The Pupil Premium: Next Steps*, www.suttontrust.com/wp-content/uploads/2015/06/Pupil-Premium-Summit-Report-FINAL-EDIT.pdf.