Chapter 1. Developing tools to explore education policy ecosystems

Better decisions on education policy are needed to respond to the broad challenges that education systems are facing. Reform success depends on much more than the nature and design of reforms. Policy makers need to understand policy ecosystems, which encompass political and economic contexts, systemic policy priorities, key actors and well aligned arrangements conducive to policy implementation. This chapter lays the foundation for policy makers to navigate the knowledge base presented in subsequent chapters on key policy priorities, challenges and recent education policy reforms across these systems.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Introduction

The OECD aims to promote policies that improve economic and social well-being. It helps governments to formulate and implement *better policies for better lives*. The concept of *better lives* goes beyond providing basic services or setting minimum thresholds. It is about empowering people to thrive and fulfil their potential (OECD, 2017a). Better education quality plays a key role in providing individuals with better lives and can help achieve stronger, fairer and more resilient economies. Highly skilled individuals contribute to building more participative and trusting societies, report better health, and are, in general, more satisfied with life (OECD, 2016a). OECD's support of countries thus includes helping them to empower all people to continuously enhance their education, skills and values.

At the same time, education systems need to better prepare students to live in an increasingly interconnected and interdependent world. Today, people live and work amidst increased cultural, political and linguistic pluralism, and often through rapidly evolving communication technologies. These globalisation-related phenomena bring challenges to education that require coherent and complementary policies – at the level of students, institutions and education systems. Key trends and challenges for education identified by international evidence include evolving skills' needs, demographic change and increasing system complexity.

Rapidly evolving skills' needs can contribute to increasing social and economic disparities if education systems cannot respond quickly. Jobs involving routine cognitive or mechanical tasks are susceptible to substitution by technology, whereas many jobs involving non-routine tasks that cannot yet be carried out by technology occur at either the low or the high end of the skill distribution (Levy and Murnane, 2013; OECD, 2017b). The global economic crisis, with high levels of unemployment, particularly among youth, highlighted the need for education systems to focus on developing non-routine and interpersonal skills for all students, so that they can become more resilient to job loss (EC, 2016). Personality characteristics are gaining increased attention, given their relationship with the development of cognitive capacities, the attainment of educational qualifications and the formation of a family (Kankaraš, 2017).

Demographic change poses challenges on how to distribute limited education resources fairly among heterogeneous school profiles. Some countries face decreasing enrolment in some areas but increasing enrolment in others. Population ageing may result in larger shares of people attending post-secondary education than ever before, which raises the challenge of balancing quality, access and mass education (see, for example, Batljan and Thorslund, 2009; Joung et al., 2000; Riphahn and Trübswetter, 2006; OECD, 2013; OECD, 2008; and UK Government Office for Science, 2016). As migration becomes more prevalent, the student population is also becoming more diverse and multicultural in many countries. This implies rethinking the role of the school and the community in providing the learning environments required for the effective integration of students (OECD, 2017c). It also poses questions on how to best activate the skills of migrants and other at-risk populations and how they could be developed further, to facilitate their integration into the labour market and society.

Increasing system complexity: In terms of the number of actors and relationships, there is greater emphasis on the importance of ensuring coherence in policy design and their implementation processes. Societies have higher expectations than ever on the quality of their education systems, and the number of stakeholders in education systems is also

larger than ever before (Hooge, Burns and Wilkoszewski, 2012). These stakeholders have different needs, visions and levels of decision-making power. With the progress of technology, engagement and accountability mechanisms are also becoming more sophisticated. This makes it essential to find high-quality, evidence-informed criteria to reach the best decisions and to ensure that all relevant stakeholders have a voice in education policy processes. Responding to the dual requirements of involving stakeholders and generating evidence to inform the policy discourse is a key objective for OECD education systems. For example, a 2017 survey conducted among EU education systems found that 18 EU education systems have a legal requirement to involve stakeholders, while 12 have a legal requirement to produce research/statistics or other kinds of data from evidence providers (11 of the 12 are required to produce both) (European Commission/EACEA/Eurydice, 2017).

The Education Policy Outlook is part of the OECD's efforts to address these global challenges that may hinder individuals' opportunities to reach their full potential. Its mandate is to undertake comparative analysis of policies across all levels of education to better understand how policy priorities and approaches are evolving across countries and identify pathways to policy improvement. It does so by reviewing a broad range of international and national evidence on education policies collected through a number of OECD initiatives in recent years, as well as evidence gathered specifically through the Education Policy Outlook project.

Other key OECD initiatives to respond to these challenges on different fronts include:

- The *Getting Skills Right: Assessing and Anticipating Changing Skills Needs* project involves analysis of skills anticipation and assessment systems and how well these systems are informing skills policies and programmes (OECD, 2016b).

- The *OECD Inclusive Growth* project posits that growth goes beyond increasing income levels and that the proceeds of economic growth should be shared among developed and emerging economies. "Inclusive growth" is defined as economic growth that creates opportunities for all population segments and fairly distributes monetary and non-monetary dividends across society (OECD, 2017d).

- Focusing specifically on tackling inequities in education, the *Educational Opportunity for All* project (OECD, 2017e) closely examines the causes and drivers of inequalities in education throughout the life cycle, to identify population cohorts at risk (e.g. low-income groups, migrants and women) and to shed light on government policies and programmes that ensure greater equity.

- The *OECD International Migration Outlook 2017* analyses recent developments in international migration, recent labour market trends and integration policies in OECD countries. It stresses that most migration movements to Europe and the OECD region occur legally and outside of the asylum system (OECD, 2017f). A related project, *Teacher Education for Diversity*, examines how the teaching profession can best respond to the increasing diversity in classrooms (OECD, 2017g). More recently, the *Strength for Diversity Project* has also analysed the resilience of students with an immigrant background (OECD, 2018).

- The Skills for Social Progress project addresses the need to enable children to develop a balanced set of cognitive, social and emotional skills, based on the premise that talented, motivated, goal-driven and collegial children are more likely to weather the storms of life, perform well in the labour market and consequently achieve lifetime success (OECD, 2015a).

- *The School Resources Review* project is high on education policy agendas across the OECD. The projects' focus is on ensuring that resources are directed to those areas where improvements in teaching and learning can best be achieved, to achieve efficiency and equity objectives (OECD, 2016c).

Outside of the OECD, the United Nations' Sustainable Development Goals (SDGs) are a notable example of a multilateral effort to improve life chances for people around the world. Building on the Millennium Development Goals, the SDGs have an ambitious agenda to eliminate poverty. They also include more demanding targets on health, education and gender equality. The United Nations considers that these objectives apply to all people as a basic right. Goal 4 on education is "to ensure inclusive and quality education for all and promote lifelong learning opportunities". This goal sees inclusive and quality education as a way of helping individuals to break from the cycle of poverty, to live healthier lives and to contribute to more peaceful societies (UN, 2017a). Specific targets include ensuring that all girls and boys complete free primary and secondary schooling by 2030, providing attractive, high-quality vocational training and eliminating gender and wealth disparities to achieve universal access to quality higher education (UN, 2017b).

Better opportunities for society require better decisions on education policy

Emerging global trends demand urgent and multidimensional responses, and they create both challenges and opportunities for the way in which education systems are organised and governed. Education systems must have the ability to react flexibly to these challenges, with approaches that are evidence-informed, cost-effective and perceived as legitimate by the different actors.

Introducing policies and making them work implies a large effort across education systems. Therefore, constant policy change can be both inefficient and detrimental for the credibility and buy-in of stakeholders. On the other hand, the capacity within education systems to improve policies can help increase their potential success. This capacity can also be helpful when designing new policies, as possibilities for flexibly improving policies to help increase their potential impact can be incorporated into the design.

Education policies that succeed can have a long-lasting impact on people's lives. The OECD (2010) estimated, for example, that increasing all countries' scores on the OECD Programme for International Student Assessment (PISA) by a modest 25 points would generate a gain in OECD GDP of USD 115 trillion over the lifetime of the cohort born in 2010. Countries are becoming progressively more aware of the importance of education and are increasingly investing in education. For example, from 2008 to 2014, expenditure per student on primary, secondary and post-secondary non-tertiary educational institutions increased by 7% on average across OECD countries, while the number of students decreased by 2%, resulting in an increase of 10% in expenditure per student over the same period.

However, investment needs to be targeted correctly to yield improved outcomes (OECD, 2010). The question of whether the resources devoted to education are providing adequate returns is prominent in public debate (OECD, 2017h). Evidence collected by PISA shows that in countries where cumulative spending for students from age 6 to age 15 is below USD 50 000, increases in spending are strongly associated with improvements in performance. But at higher levels of cumulative spending, performance may differ from one country to another and may not translate into improvements (OECD, 2016a). More

resources, therefore, may not necessarily mean better performance. Evidence suggests that, while it is necessary to ensure a certain threshold of resources, it is possible to achieve better performance without having a high level of resources.

Among the seven top-performing countries in PISA, only Singapore also had one of the top levels of cumulative expenditure per student up to age 15. The remaining six, including Estonia and Korea, achieved high performance in their education systems despite having public spending per student below the OECD average (OECD, 2016a) (Figure 1.1). In the same way, it is possible to achieve sustained student improvement without having a high level of resources. Examples of this are Portugal and Colombia, which are among the few education systems with sustained education improvements across PISA cycles among all participant countries (OECD, 2016a).

Figure 1.1. Science performance in PISA 2015 and spending per student (2013), ages 6 to 15
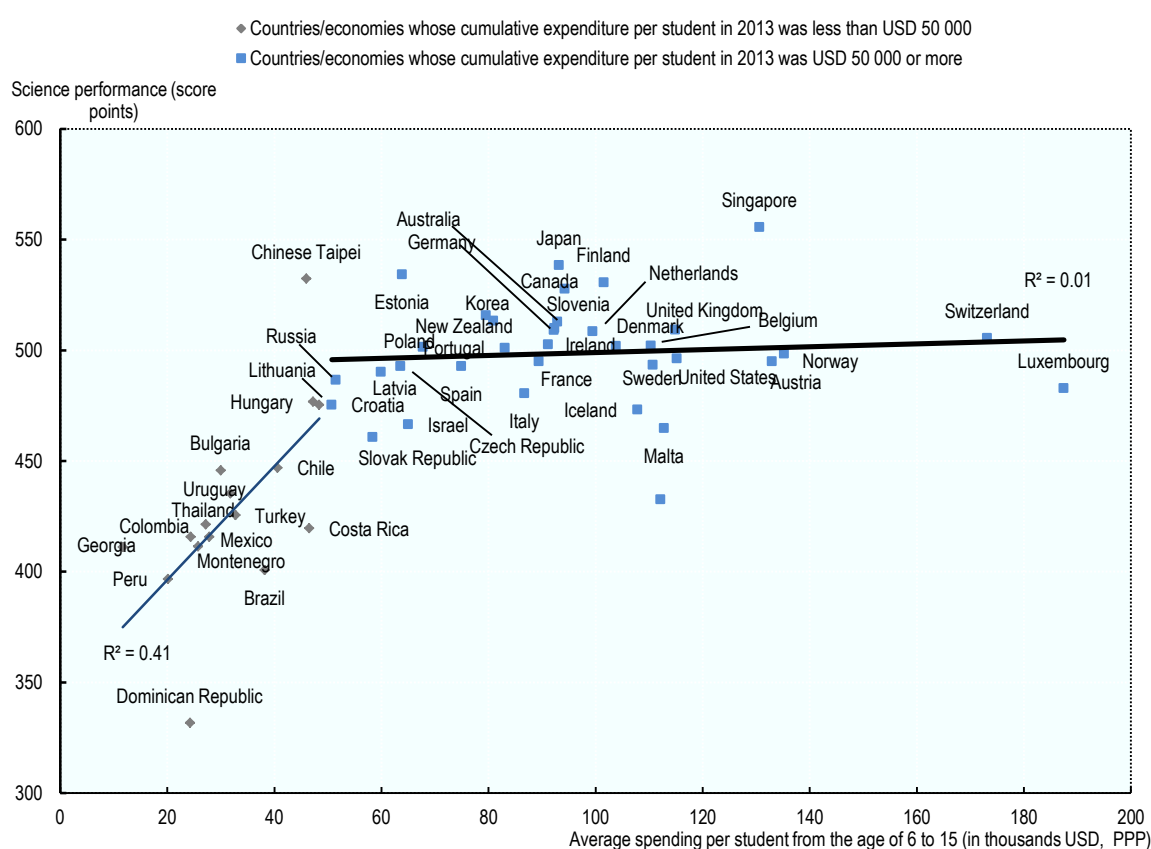
Notes:
1. Only countries and economies with available data are shown.
2. A significant relationship (p < 0.10) is shown by the black line.
3. A non-significant relationship (p > 0.10) is shown by the blue line.
Source: OECD (2016d), *PISA 2015 Results (Volume II): Policies and Practices for Successful Schools,* PISA, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264267510-en.

StatLink ᵃᵢₛⁿ http://dx.doi.org/10.1787/888933436215

It is clear that policies matter and that well-designed policies can make a significant difference in providing better educational opportunities for students. But good policies can fail, if they are not adequately implemented. Failed policies incur high costs, not only in terms of public money spent. Unsuccessful policies imply high opportunity costs for:

- *Students*, as they can miss the chance to have better-quality learning as they progress through their education pathways, potentially hindering their opportunities to succeed later in life.

- *Schools*, as they have to invest valuable time making sense of a new education policy while implementing others, often while facing numerous competing demands.

- *Communities*, as better-quality education is related to more participative societies, better health, less anti-social behaviour and less reliance on social aid (Mincer 1958; Cunha and Heckmann, 2007).

- *Countries at large*, as increasing skills for all students is key for equitable economic growth, and resilience to economic change. Higher skills are also linked to the creation of new technologies, and higher-quality research and development, making economies grow (Romer, 1990).

However, the success of reforms depends on much more than the nature and design of the policies introduced into a system (OECD, 2015b). Their success also depends on how well governments consider the policy ecosystem in which policies operate. Policy ecosystems, as defined by the Education Policy Outlook, are the environments within an education system in which different policies interact with one another.

Understanding education policy ecosystems to help policies succeed

Policy ecosystems are comprised of core policy priorities for improvement, the existing context of the system in which policies interact, key actors (through their engagement and capacities) and the key systemic arrangements needed to make policies feasible and effective. These components can come together in different ways across education systems, influencing the potential of success of a policy to varying extents. For example, the level of decentralisation of a system can define the role of actors in an education reform, the number and type of policy priorities established and the arrangements needed to put a reform in place.

That said, examining how education policies have been adopted in one education ecosystem can serve as opportunities for learning for other systems that face similar challenges. This report offers pathways to gain understanding on education policy ecosystems. Understanding policy ecosystems, and how to increase the possibilities of success of a policy within them, is not an easy prospect for policy makers.

Policy priorities

Policy priorities for a particular country generally reflect: 1) key challenges (areas where the system is underperforming and which have been identified as points of concern, such as a high level of student dropout or unemployment); 2) key system-specific contextual issues to keep in mind (such as demographic change or development of new regional or national industries); and 3) systemic objectives (the short-, mid- and long-term goals defined by government administrations). Policy priorities are dynamic and may adapt in scope and focus over time, as contexts and challenges change. Coherent priorities that are

well aligned to challenges and context should be the key to guiding investment of resources. That said, students are the actors most directly affected by successful or failed education policy implementation. How policies influence students' opportunities for quality learning must be at the centre of policy reforms.

Context

The political or economic situation, the institutional settings of each country and its education system, and the current performance of an education system have a strong influence on the way policies are introduced and sustained. Policy outcomes therefore depend on the system's political structure and social, cultural and economic context. Reforms can follow different channels depending on their political context. For example, federal systems have different dynamics than majoritarian or other parliamentary models (OECD, 2012), and local factors (e.g. size and institutional complexity) matter for policy responses (McLaughlin, 1987).

A substantial amount of evidence highlights the importance of contextual factors in policy development and implementation. Policy making therefore needs to be aligned to the governance structure and take into account the respective responsibilities of different actors (Fazekas and Burns, 2012). Looking for general solutions without acknowledging the particular context can lead to incoherent implementation efforts. Policies that can appear similar in design may require different types of efforts to be implemented, depending on the context (Payne, 2008; Cerna, 2013). Implementation plans must also be flexible enough to adapt to issues that policy designers may not have foreseen (Haddad and Demsky, 1995; Barber, 2003).

Actors

Actors need to be engaged effectively in education policy processes, feel a sense of ownership of the process and have willingness and the necessary capacity to make change and implement the reform (OECD, 2015b). Promoting leadership across different groups of actors is important to ensure that all key actors are engaged, not only those with previous mobilisation capacity. Actors with different intentions, interests and interpretations can enter at different points of a reform process and at different levels. There also needs to be awareness that actors may have previously acquired firm beliefs in education that are strongly tied to their identities and experiences. Therefore, high-quality evidence (e.g. indicators, research studies or policy evaluations) needs to be continuously at the core of discussions between actors (Datnow, 2002; Burns and Köster, 2016).

Alignments

For policy implementation to be successful, institutional alignment needs to be ensured, aiming for a shared long-term vision and planning for policy monitoring or evaluation, even at the design stage. For example, in several countries where increased autonomy was granted to local and school levels, tools of accountability (e.g. testing) were also implemented. Institutional alignment can be promoted by defining a few key objectives, removing distractors, and regularly evaluating through available data.

Alignment can be strengthened by effective policy design, implementation and evaluation. Educational evaluation is a rapidly growing professional field, which is developing on the back of other forms of evaluation that have become embedded in education systems over recent years (Kelleghan, Stufflebeam and Wingate, 2003). Good-quality evaluation processes not only serve to aid decision making when different reform

approaches are being considered, but they also provide institutional perspectives on the factors which favour or hinder successful reform implementation. Furthermore, evaluation can provide information to policy makers on the impact of the reform on the system and whether the reform was a good use of resources, thus also informing future policies (Golden, forthcoming).

Therefore, when putting policies into action, policy makers should always consider the general policy ecosystem and aim to continuously improve the environment in which policies operate. In today's contexts of greater accountability, the knowledge and ability to do this is increasingly crucial for ensuring the best use of finite resources.

Identifying needs and pathways for improvement

Strengthening the knowledge base

This report aims to support education systems to identify pathways for policy improvement. When the OECD is working to identify such pathways, the key steps undertaken are to assess education policy ecosystems, identify relevant international thematic evidence and international practices and assess how these components come together to inform a final recommendation on education policy (Figure 1.2).

Figure 1.2. Components of a recommendation on education policy (OECD)
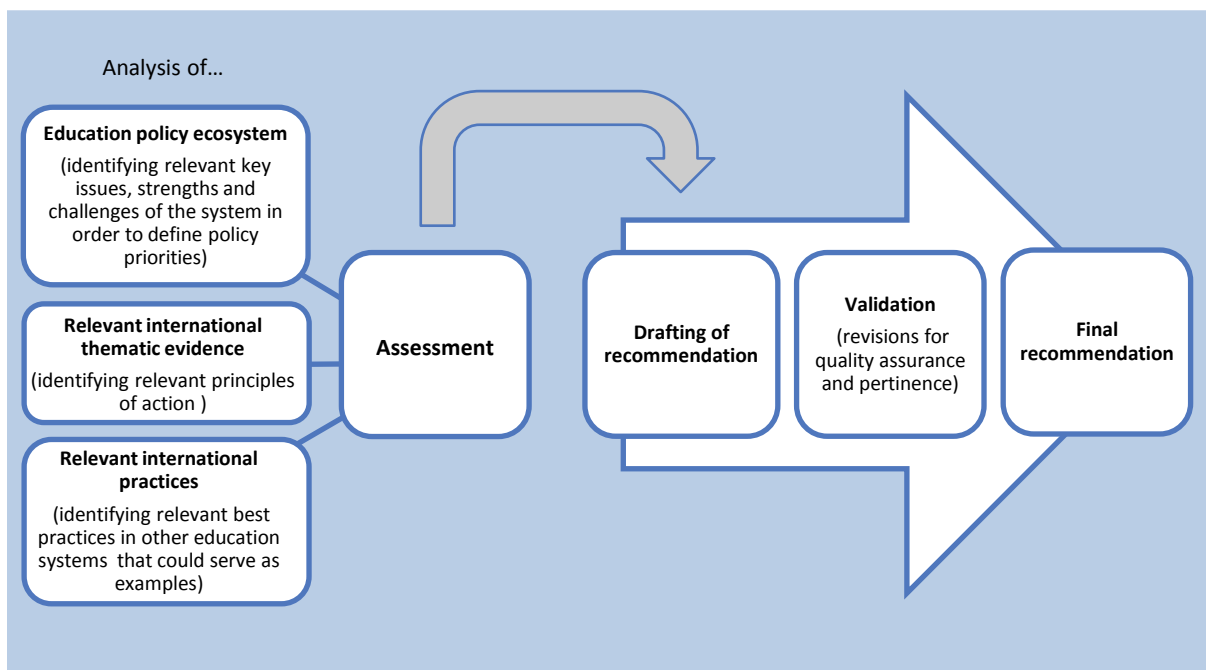
Source: Analysis by the authors of OECD country-based work between 2000 and 2017.

The *Education Policy Outlook* uses an analytical framework to examine education policy ecosystems. This framework draws on OECD work on education policy carried out with countries (see Annex A for an outline of the main elements). One strand of the work, and the focus of this report, reviews the system from the point of view of *students* – the challenges they face in accessing education, performing well, developing the skills they need and successfully transitioning through the system and on to the next stage of their lives.

Another strand looks at the system from the perspective of *institutions* – how well teachers and education systems are able to structure themselves to deliver the kind of educational environment necessary for success, and what role evaluation and assessment play across the system.

The final strand takes a *systemic* perspective – the point of view of those who govern and resource the system, how the system is governed, the role of different actors across the system and the funding mechanisms in place.

Drawing on this previous work, this report, *Education Policy Outlook 2018: Putting Student Learning at the Centre*, takes the students' perspective to provide comparative analysis of education policies across OECD countries, taking into account the policy ecosystems in which they are expected to produce positive outcomes. It examines the evolution of key policy priorities in education systems since the publication of the first comparative report, *Education Policy Outlook 2015: Making Reforms Happen* (OECD, 2015b).

To prepare this report, the OECD Secretariat used international evidence and analysis of literature, as well as key sources of evidence which provide updated education policy insights on 43 education systems (see the Reader's Guide and Annex A for more details).

Structure of the report

This report analyses aspects of policy ecosystems in OECD countries and outlines recent trends in policies aimed at improving outcomes for students. It proceeds as follows:

- Chapters 2 and 4 focus on the **policy priority** aspect of education policy ecosystems. These chapters trace the evolution of education policy priorities of participating education systems between 2008-13 and 2014-17 from a comparative perspective, for Equity and quality (Chapter 2) and Preparing students for the future (Chapter 4). They also examine education policy priorities previously identified by OECD country-based work, as well as broad "principles of action" provided to these countries. Selected education policy examples demonstrate how these principles of action can apply differently because of the varied contexts within different policy ecosystems.

- Chapters 3 and 5 provide a comparative perspective of education policy developments across countries that participated in the EPO Survey 2016-17. They provide a general picture of education policy trends in terms of introduction, continuity and evolution or completion, as well as, in some cases, the impact of policies. These chapters aim to promote deeper insight into **contextual factors** or **arrangements** that can enhance or inhibit policy success. In the same way, Chapter 7 offers some contextual information on education systems.

- Chapter 6 provides a comparative overview of lessons learned on policy implementation, mainly from the perspective of policy evaluations carried out before, during or after implementation. It discusses the importance of **actors** and **arrangements** in order to promote policy success. This can be useful for education systems to inform future implementation plans focused on the topics addressed in this report.

- Chapter 7 presents "snapshots" (brief descriptions) of countries that replied to the EPO Survey 2016-17 or participated in the project through a country profile in 2017. For each country, these snapshots bring together priorities and policy

actions outlined in Chapters 2-5, contextualised with additional information relevant to their policy ecosystem. Some education reforms too recent to show any impact are also included as promising practices.

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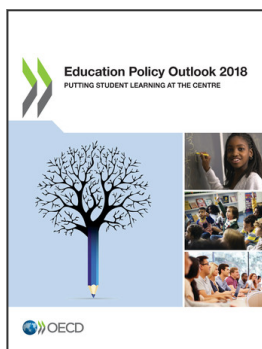
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