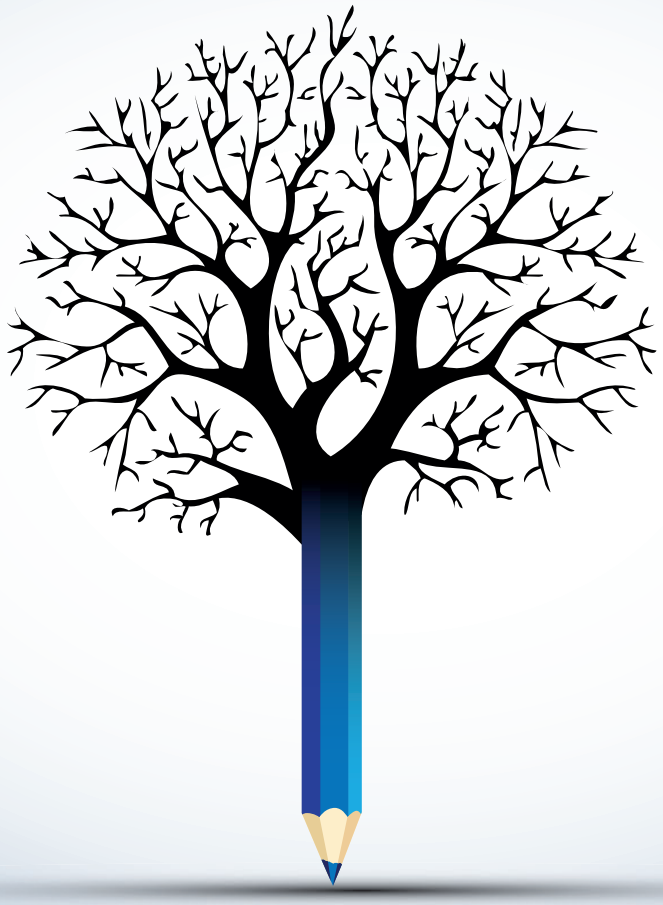
Education Policy Outlook 2015

MAKING REFORMS HAPPEN



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Please cite this publication as:
OECD (2015), *Education Policy Outlook 2015: Making Reforms Happen*, OECD Publishing.
http://dx.doi.org/10.1787/9789264225442-en

ISBN 978-92-64-22094-2 (print)
ISBN 978-92-64-22544-2 (PDF)

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Foreword

Governments increasingly look at how to achieve ambitious reforms in education to improve results. But such changes are not easy to make: education change takes time, options for improvement may not be evident, groups with vested interests may hamper reforms, and politicians may face conflicting priorities or lack evidence on what can work best within the context. Education Policy Outlook 2015: Making Reforms Happen *is designed to support governments move education systems forward by providing policy makers with choices to help formulate and implement policies.*

Designed for policy makers, analysts and practitioners who seek information and analysis of education policy, the Education Policy Outlook 2015: Making Reforms Happen *addresses the need for improvement in education in a comparative manner, taking into account the importance of national context. Through a review of different countries' context, challenges and experience in implementing education reform, this publication offers directions and strategies to facilitate successful introduction of changes. It also provides a comparative review of policy trends and explores specific reforms across the OECD to help countries learn from one another and choose the reforms best adapted to their needs and context.*

The Education Policy Outlook *series, which began in 2012, aims to deliver new insights for future education policy reform by combining country reform information with quantitative and qualitative knowledge available at the OECD. It draws on OECD indicators from the Programme for International Student Assessment (PISA), the Teaching and Learning International Survey (TALIS), the Programme for the International Assessment of Adult Competencies (PIAAC) and the annual publication* Education at a Glance, *as well as OECD country and thematic studies, including work on early childhood education and care, teachers, school leadership, evaluation and assessment for improving school outcomes, equity and quality in education, governing complex education systems, vocational education and training, and tertiary education.*

Education Policy Outlook 2015: Making Reforms Happen *aspires to help countries and policy makers learn from each other with the aim of developing better education policies for better lives for all citizens.*

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Acronyms

A3ES	*Agência de Avaliação e Acreditação do Ensino Superior* – Assessment and Accreditation Agency for Higher Education (Portugal)
ADIPPDE	Authority for Quality Assurance in Primary and Secondary Education (Greece)
ADQS	Agency for the development of Quality in Schools (Luxembourg)
AHS	*Allgemeinbildende Höhere Schule* – Academic secondary school (Germany)
AITSL	Australian Institute for Teaching and School Leadership
ALC	Area Learning Communities (Northern Ireland, United Kingdom)
ARES	*Académie de Recherche et d'enseignement supérieur* – Higher Education and Research Academy (Belgium, French Community)
ASQA	Australian Skills Quality Authority
ATP	*Asesores Técnico-pedagógicos* – Pedagogical advisors (Mexico)
BDA	Federation of German Employers
BDI	Federation of German Industries
BIAC	Business and Industry Advisory Committee to the OECD
CAE	*Crédito con Aval del Estado* – Subsidy to private student loans (Chile)
CCR	College and Career Ready
CEDEFOP	European Centre for the Development of Vocational Training
CEUVIZ	Central Register of Participants in Education Institutions (Slovenia)
CfE	Curriculum for Excellence (Scotland, United Kingdom)
CIEL	Centre for Innovative Educational Leadership (British Columbia, Canada)
CIS	*Commission d'inclusion scolaire* – Commission for School Inclusion (Luxembourg)
Cito	Central Institute for Test Development (The Netherlands)
CLS	Centre for Learning Schools (Austria)
CMEC	Council of Ministers of Education, Canada
CNESCO	*Conseil national d'évaluation du système scolaire* – National Council for the Evaluation of the School System (France)
COAG	Council of Australian Governments (Australia)
ComUE	*Communautés d'universités et établissements* – University Communities (France)
CONAEDU	*Consejo Nacional de Autoridades Educativas* – National Council of Educational Authorities (Mexico)
CPD	Continuing Professional Development
CQEP	*Centros para a Qualificação e o Ensino Profissional* – Centres for Qualification and Vocational Education (Portugal)
ČŠI	Czech School Inspection (Czech Republic)
CSR	Comprehensive School Reforms
DBFM	Design Build Finance Maintain
DEIS	Delivering Equality of Opportunity In Schools: An Action Plan for Educational Inclusion (Ireland)
DoDEA	Department of Defense Education Activity (United States)

ECE	Early Childhood Education
ECEC	Early Childhood Education and Care
Éclair	Écoles, collèges et lycées pour l'ambition, l'innovation et la réussite – Primary and secondary schools for ambition, innovation and success (France)
ED	Department of Education (United States)
EDK	Swiss Conference of Cantonal Ministers of Education (Switzerland)
EDUCANZ	Education Council of Aotearoa New Zealand
EEP	Evaluation of Education Practice (Greece)
EHEA	European Higher Education Area
EI	Education International
EK	Confederation of Finnish Industries
EPO	Education Policy Outlook
EQAR	European Quality Assurance Register for Higher Education
EQF	European Qualifications Framework
EREP	*Escolas de Referência do Ensino Profissional* – Vocational Reference Schools (Portugal)
ESaGS	Every School a Good School (Northern Ireland, United Kingdom)
ESCS	Economic, Social and Cultural Status
ESEA	Elementary and Secondary Education Act (United States)
ESI	Effective School Improvement
ESO	*Educación Secundaria Obligatoria* – Compulsory Secondary Education (Spain)
ESPE	École Supérieure du Professorat et de l'Éducation – New (2013) institutions for training primary and secondary teachers (France)
ETB	Educational and Training Board
EU	European Union
Evš	Electronic higher education information system (Slovenia)
FET	Further Education and Training (Ireland)
FFO	*Fondo di finanziamento ordinario* – Operating Fund (Italy)
GAN	Global Apprenticeship Network
GCSE	General Certificate of Secondary Education
GDP	Gross Domestic Product
HEI	Higher Education Institution
ICT	Information and Communication Technologies
ILE	Innovative Learning Environments
ILO	International Labour Organisation
INDIRE	*Istituto Nazionale di Documentazione, Innovazione e Ricerca Educativa* – National Institute for Documentation, Innovation and Research in Education (Italy)
INEE	*Instituto Nacional para la Evaluación de la Educación* – National Institute for Educational Assessment and Evaluation (Mexico)
INIFED	*Instituto Nacional de la Infraestructura Física Educativa* – National Institute for Educational Physical Infrastructures (Mexico)
INSET	In-Service Education and Training of Teachers
IOE	International Organisation of Employers
IUFM	*Institut Universitaire de Formation des Maîtres* – University Institute for Teacher Training (France)

INVALSI	*Istituto nazionale per la valutazione del sistema educativo di istruzione e di formazione* – National Institute for the Evaluation of the Education and Training System (Italy)
IAEA	Improving the Quality of Education for All Project (England, United Kingdom)
ISCED	International Standard Classification of Education
KiFöG	*Kinderförderungsgesetz* – Children's Assistance Act (Germany)
KMK	*Kultusministerkonferenz* – Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* (Germany)
LOMCE	*Ley Orgánica para la Mejora de la Calidad Educativa* – Organic Law for the Improvement of Educational Quality (Spain)
LVS	Leerlingvolgsysteem – Pupil monitoring system (The Netherlands)
MEXT	Ministry of Education, Culture, Sports, Science and Technology (Japan)
MoNE	Ministry of National Education (Turkey)
MSIP	Manitoba School Improvement Programme (Manitoba, Canada)
NAHVE	Swedish National Agency for Higher Vocational Education
NAP-I	National Action Plan on Integration (Germany)
NAPLAN	National Assessment Program – Literacy and Numeracy (Australia)
NASWD	National Agreement for Skills and Workplace Development (Australia)
NCEA	National Certificate of Educational Achievement (New Zealand)
NEET	Neither Employed nor in Education or Training
NEIS	National Education Information System (Korea)
NMS	*Neue Mittelschule* – New Secondary Schools (Austria)
NOKUT	Norwegian Agency for Quality Assurance in Education
NOII	Networks of Inquiry and Innovation (British Columbia, Canada)
NP	National Partnership Agreement on Skills Reform (Australia)
NQF	National Qualifications Framework
NQS	National Qualifications System (Czech Republic)
NSO	National System of Occupations (Czech Republic)
NTPDES	National Teacher Professional Development and Evaluation System (Korea)
NUV	*Národní ústav pro vzdělávání* – National Institute of Education (Czech Republic)
PET	Professional Education and Training (Switzerland)
PIAAC	Programme for the International Assessment of Adult Competencies
PISA	Programme for International Student Assessment
PREMAC	*Plano de Redução e Melhoria da Administração Central* – Plan for Reduction and Improvement of Central Administration (Portugal)
PSU	*Prueba de Selección Universitaria* – University Selection Test (Chile)
QIBB	*Qualitätsinitiative Berufsbildung* – Quality management systems for VET schools (Austria)
REP	*Réseaux d'éducation prioritaire* – Priority Education Networks (France)
RRS	Réseau de réussite scolaire – Network for educational success (France)
RTT	Race to The Top (United States)
SEN	Special Education Needs
SIES	*Servicio de Información de Educación Superior* – Higher Education Information System (Chile)
SLA	Student Learning Assessments (Alberta, Canada)
SOLAS	*An tSeirbhís Oideachais Leanúnaigh agus Scileanna* – Further Education and Training Authority (Ireland)

SNTE	*Sindicato Nacional de Trabajadores de la Educación* – National Union of Education Workers (Mexico)
SNV	*Servizio Nazionale di Valutazione* – National Evaluation System (Italy)
SQA	*Schulqualität in der Allgemeinbildung* – Quality management systems for general schools (Austria)
SQF	Slovenian Qualification Framework
SRS	Schooling Resource Standard (Australia)
STEM	Science, Technology, Engineering and Mathematics
TALIS	Teaching and Learning International Survey
TEIP	*Territórios Educativos de Intervenção Prioritária* – Education Territories of Priority Intervention (Portugal)
TES	Tertiary Education Strategies (New Zealand)
TUAC	Trade Union Advisory Committee to the OECD
TÜBİTAK	Scientific and Technological Research Council of Turkey
TUREM	Employment of Tourism Training Centres (Turkey)
TUSIAD	Turkish Industry and Business Association
UMEM	Specialised Vocational Training Centres Project (Turkey)
VET	Vocational Education and Training
WMR	Western Metropolitan Region (Victoria, Australia)
YÖK	Council of Higher Education (Turkey)
ZEP	Zone of Educational Priority

Acknowledgements

The *Education Policy Outlook* is a collaborative effort between OECD governments and the OECD Secretariat. It was prepared by the *OECD Education Policy Outlook* team, Beatriz Pont, Diana Toledo Figueroa, Juliana Zapata and Sylvain Fraccola, under the responsibility of Richard Yelland, Head of the Policy Advice and Implementation Division and Andreas Schleicher, Director of the Directorate for Education and Skills.

Sincere thanks are due to the many contributors who helped develop the *OECD Education Policy Outlook*. Members of the OECD Education Policy Committee and the national co-ordinators provided guidance and comments throughout the process. There are substantial contributions from the Business and Industry Advisory Committee to the OECD (Johnny Greenhill), the Trade Union Advisory Committee to the OECD (John Bangs) and the European Commission Country Desk Unit (Mónika Képe-Holmbergn), as well as from colleagues in the Directorate for Education and Skills (Tracey Burns, Corinne Heckmann, David Istance, Deborah Nusche, Paulo Santiago, Claire Shewbridge and Désirée Wittenberg). At different stages in the process, Étienne Albiser, Queralt Capsada, Anaïs De Fresnoye, Oren Geva, Lorenz Klumpp, Soumaya Maghnouj, Judith Peterka and Annette Skalde provided input as part of the Outlook team. Additional review was provided by Yuri Belfali, Éric Charbonnier, Arno Engel, Simon Field, Pedro García de León, Ineke Litjens, Patricia Mangeol, Anna Pons, David Valenciano and Sophie Vayssettes.

Communications assistance was provided by Lynda Hawe and Sylvain Fraccola with contributions from Marilyn Achiron, Louise Binns, Marika Boiron, Célia Braga-Schich, Cassandra Davis and Sophie Limoges and editorial support from Susan Copeland.

Editorial

Recovery from the financial crisis has been slow and national governments are working hard to tackle unemployment, address inequality and promote competitiveness. Increasingly they are turning to education in seeking to restore long-term and inclusive economic growth. It was estimated in 2010 that bringing all countries up to the average performance of Finland, one of the OECD best performing education system in PISA, would result in financial gains in the order of USD 260 trillion over the lifetime of those born in that year.

High-performing education systems will improve the lives of citizens in many ways. Those with at least upper secondary education are more likely to be employed than those without, and those who have completed tertiary education will earn more. Both higher literacy proficiency and educational attainment are associated with higher levels of social outcomes, including health, interpersonal trust and political efficacy.

Expenditure on education has held up well during the crisis: education is seen as an investment and one that is increasingly important. Governments increasingly examine how to make the best use of that investment and ensure that it is effective, fair and efficient. *Education Policy Outlook 2015: Making Reforms Happen* reveals the scale and scope of the reforms being undertaken in the 34 OECD member countries. It details more than 450 separate initiatives taken in the past seven years.

Reforms cover every aspect of education policy, from targeting equity by supporting disadvantaged students and providing early childhood education and care, through evaluation and assessment processes, to the transition into the world of work. Improvements to the way in which education is provided in school have been particularly in focus. We recognise that teachers are key to achievement: more than one in five reforms across OECD countries focus on teacher quality and the curriculum.

Education systems are complex entities to manage and reform. They affect every child across OECD member countries: more than 200 million from Norway to New Zealand; from Santiago to Seoul. They engage students, parents, administrators, teachers and politicians. And change in one area cannot be made in isolation. Reform has to be systematic, sustainable and effective. Many of the developments set out in this book may be too recent for the evaluation of their impact but, it is clear that success in reform implementation can only be achieved if given sufficient time to work and from there the impact can be understood.

In taking stock of reforms and reviewing trends, this report aims to assist policy makers and those who influence practice and delivery in education in improving attainment and performance. It builds on the rich source of education data at the OECD, including PISA, TALIS, PIAAC and *Education at a Glance* and it adopts a structured approach, identifying policy levers that are common to every system.

There is no room for complacency in education reform so this report is only a beginning: it covers a period which has been marked by the financial crisis, and provides a record of the initiatives that have been undertaken across OECD member countries. Reforms need to look ahead to a future that will be marked by continuing technological progress, demographic change and globalisation. Policy makers often have only a short time to demonstrate how effectively they are implementing reforms to improve education results so prioritisation choices can be difficult. Paradoxically perhaps, while widespread evidence on the willingness to reform is to be welcomed, it may be necessary to step back and take a longer-term view, both of what has been done and of what is needed next. This report aspires to support that reflection and in doing so help shape better policies and reforms for better education.

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Executive summary

Across OECD countries, more than 12% of public spending is invested in education. Yet as international surveys like the OECD Programme for International Student Assessment (PISA) show, there is considerable variation in how that money is spent and the outcomes it produces. This first edition of the *Education Policy Outlook 2015: Making Reforms Happen* aims to help policy makers and other stakeholders in education learn how their peers in other countries respond to common challenges, from teaching diverse student populations to instituting measures that render schools accountable for the quality of the education they provide. The report offers a detailed look at some 450 education reforms that were adopted across OECD countries between 2008 and 2014. While these policies were developed in specific contexts, they can serve as inspiration for policy makers who are looking for effective ways to improve their own education systems.

Trends in education policies

Nearly one in five 15-year-old students in OECD countries does not acquire the minimum skills necessary to participate fully in today's society. Some 16% of recent reforms focus on ensuring **quality and equity** in education. Many countries have prioritised policies to support disadvantaged students or schools with diverse student populations. These policies include New Zealand's support to their Māori and Pasifika populations, England's Pupil Premium and Chile's Law on Preferential Subsidies. Meanwhile, Australia and Poland have focused on enlarging enrolment in, and improving the quality of, early childhood education and care.

Some 29% of reform measures considered in the report aim to better **prepare students for the future**. To this end, many countries have focused on improving the quality and relevance of their vocational education and training (VET) programmes or expanding their work-based training and apprenticeship systems. Portugal introduced a comprehensive VET strategy, while Denmark and Sweden reformed their VET programmes. Many countries also introduced policies to ensure that students can find a job or a place in further education. National qualifications frameworks have also been revised, often in collaboration with the European Union, to increase transparency across education systems.

Countries have also focused on **school improvement** (24% of reform measures considered in this report address this issue), with the aim of developing positive learning environments and attracting and retaining quality staff. Policies related to teachers have been a priority: Australia created the Australian Institute for Teaching and School Leadership, and the Netherlands developed a Teacher Programme. France and the United States concentrated on improving initial teacher training, while Finland adopted measures

to create a system of professional development for school staff. Some of the Nordic countries and Japan reformed their curricula.

To guide their reform efforts, school systems rely on **evaluation and assessment**. Some 14% of the policies under discussion targeted this facet of education. Chile and Mexico, for example, strengthened their evaluation institutions. With its VALES project, Italy has introduced policies to develop tools and processes to support internal and external evaluations of schools.

Given that the **governance** of education systems is becoming increasingly complex (9% of reforms in this dataset address governance issues), some countries have elaborated overarching visions for their education systems (Denmark's *Folkeskole* reform and Canada's nationally agreed strategies and priorities) or have refined roles and responsibilities, either by creating new institutions or by reorganising local governance arrangements (Estonia). **Funding** reforms (12% of all reform measures considered in the report) have been widespread at the system level ("Race to the Top" in the United States and Germany's "Investing in the Future"), the institution level (Mexico's "Dignified Schools" programme and Belgium's school-funding reforms), and at the level of the individual student (New Zealand).

Successful implementation of policies

Education reform can only be effective if policies are well implemented. This means that, to support reforms in evaluation and assessment, there must be a coherent framework in place, with sufficient capacity for conducting and interpreting evaluations at all levels of the education system. To be introduced successfully innovations in the learning environment must concretely address specific teaching and learning issues. And to improve the quality of the education that schools provide, policies must focus on changing classroom practices, balancing external pressure and support, and developing and pursuing long-term objectives.

More generally, the analysis of selected reforms shows that the most effective policies are designed around students and learning, build teachers' capacity, and engage all stakeholders. In most OECD countries, teachers' unions and business organisations, in particular, are becoming increasingly involved in policy implementation. Teachers' unions are calling for more structured dialogue with governments, while the business sector is keen to establish closer links with education systems.

As important, the analysis shows that once new policies are adopted, there is little follow-up. Only 10% of the policies considered in this dataset have been evaluated for their impact. Measuring policy impact more rigorously and consistently will not only be cost-effective in the long run, it is also essential for developing the most useful, practicable and successful education policy options.

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Chapter 1

Policy options for better education

* 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.

Across OECD countries and beyond, the need for innovation, knowledge and skills to promote growth and development is well recognised. Inequalities are intensifying, with youth employment growing and the more disadvantaged falling behind in some countries (OECD, 2014a). Governments face increasing pressure to define and implement education policies, as they seek to improve the quality, equity and effectiveness of their education systems. They understand that more resources do not necessarily mean better outcomes – those resources need to be invested in the best possible ways. To respond to their concrete contexts and challenges, policy makers need better access to information on the full range of policy options available.

The *Education Policy Outlook* aims to help policy makers and others make choices in education reform, building on comparative and contextualised analysis. It is based on a framework designed to analyse and compare education policies implemented across OECD countries. To the authors' knowledge, this is the first comprehensive systematic study of education policies at the international level. It is intended to serve as a source of information, while maintaining the premise that policy design and implementation have multiple contextual dimensions that feed into the reality of policy processes (Ball et al., 2012), which makes them unique to every education system and situation.

This edition of the *Education Policy Outlook* reviews education policy options adopted across OECD countries between 2008 and 2014. Part I reviews the range of policy options across different policy areas. Part II focuses on ways to support effective implementation through analysis of reforms in evaluation and assessment, innovative learning environments, and school improvement, and also explores the engagement of teacher unions and business and industry representatives in developing and implementing education policy. Part III presents education policy country snapshots for the 34 OECD member countries.

Need for effective education policy reforms

Globalisation, innovation and growth have an important human capital component, and the comparative advantage of many OECD countries has become their capacity to have highly skilled people that can work in knowledge-based professions (OECD, 2011a). In addition, education contributes to social cohesion, better health and enhanced participation in civic and democratic aspects of society. Ensuring that education and training are of high quality and that education systems are equitable can contribute to growth and progress (OECD, 2012a). Governments need to make sustained efforts to adapt and improve their education systems.

From different factors influencing the need to invest in education, three major socio-demographic, economic and technological trends directly shape how education systems function and the types of policy responses that may be implemented (OECD, 2013a):

- Growing importance of international trade: Economic activity has become globally interconnected on an unprecedented scale, bringing people, goods, and services together faster than ever. The total volume of world trade increased more than tenfold

since the 1970s, from USD 334 billion in 1970 to USD 3 910 billion in 2010. This growing integration of economies has an impact on strategies for national competitiveness, innovation, employment and skills (OECD, 2013a). In education, this global economic integration creates both a need and an opportunity to develop new curricula to provide students with the skills required in a globalised economy. These curricula have to foster competencies like language skills, problem-solving in international environments and creativity, especially in vocational and higher education programmes.

- More diverse communities: Migration has become much more common, particularly towards affluent countries. The mobility of individuals, families and human capital is facilitated by technological advances and driven by trade and skills imperatives. Migrants represent 11.5% of the population on average in OECD countries, but this proportion varies considerably from one country to another and has increased markedly in some countries. This implies that communities are changing, reflecting the increasing diversity of their citizens. This diversity has a strong impact on schools, forcing us to rethink the role of classrooms, teachers, parents and others – both within schools and in the community as a whole. Students with immigrant backgrounds can face issues of integration and language learning. Education systems also have to deal with transferability of skills and experience so that they can adequately recognise prior learning and qualifications of immigrant students. Newly migrated students may also face learning difficulties that strengthen inequalities in education outcomes and make them among those most likely to cope with precariousness and exclusion.
- The digital society: Rapid technological development has changed the way we interact with each other and our communities. User-generated content has made the Internet a participatory experience and has redefined knowledge as well as community, with social networking playing an ever increasing role. Schools and teachers face the challenges of educating and guiding students through the positive and negative aspects of the virtual world (OECD, 2013a). Participatory and collaborative models from the Internet have an impact on formal learning systems. Open education platforms modify learning methods and give access to quality resources to a larger population (OECD, 2007). These new tools also enrich learning environments and can be used to improve learning in the classroom and beyond (OECD, 2013a). Information and communication technologies (ICT) offer opportunities to store and share data, foster dialogue among education professionals, and strengthen feedback mechanisms and evaluation procedures (OECD 2013b). In this way, ICT can help to engage all stakeholders in school improvement – students, teachers, school leaders and communities.

These factors contribute to the need to invest in quality education outcomes. In our fast-changing knowledge economies, with globalisation, heightened competition, changing labour markets and employment instability, citizens have to learn skills for the jobs of today, tomorrow and the years to come. The reality across OECD countries shows a varied picture, with progress and challenges (Figure 1.1 and Table 1.1).

Achieving equity and quality in an education system is possible. Among OECD countries, Korea, Japan, the Netherlands, Finland, Canada, Estonia and Australia combine high performance and high levels of equity, as shown in the upper right quadrant of Figure 1.1. These systems manage to mitigate the impact of students' background on mathematics performance (the percentage of variation in performance explained by the PISA index of economic, social and cultural status [ESCS]) while delivering high-quality

Figure 1.1. **Student performance and equity (2012)**

Student performance in mathematics and strength of relationship with ESCS

Source: OECD (2013a), *PISA 2012 Results: Excellence through Equity (Volume II): Giving Every Student the Chance to Succeed*, Table II.2.1.

StatLink http://dx.doi.org/10.1787/888933171349

results. Education systems that are equitable can not only redress the effect of broader social and economic inequalities, but also allow all individuals to take full advantage of education and training irrespective of their background (OECD, 2013c).

In addition, education systems need to be fair, and ensure that youth reach a minimum level of achievement. The picture here, however, is less positive. Around 23% of 15-year-olds across OECD (almost one in four) performed below Level 2 in mathematics on PISA 2012 and around 20% of 15-year-olds (one in five) performed below Level 2 in reading. Level 2 is considered the baseline level of reading or math proficiency at which students begin to demonstrate the skills that will enable them to participate effectively and

Table 1.1. **Annualised change in PISA performance across OECD countries, 2000-12**

▲ improved mean performance, = unchanged mean performance, – decreased mean performance

	Reading (2000-2012)	Mathematics (2003-2012)	Science (2006-2012)
Israel	▲	▲	▲
Poland	▲	▲	▲
Portugal	▲	▲	▲
Turkey	▲	▲	▲
Chile	▲	▲	=
Germany	▲	▲	=
Italy	▲	=	▲
Japan	=	▲	▲
Korea	=	▲	▲
Mexico	▲	▲	=
OECD average	-	▲	▲
Estonia	=	▲	=
Greece	▲	=	=
Switzerland	=	▲	=
Luxembourg	-	▲	=
Hungary	-	▲	=
Ireland	=	-	▲
Austria	=	=	=
Norway	=	=	=
Spain	=	=	=
United Kingdom	=	=	=
United States	=	=	=
Belgium	-	=	=
Czech Republic	-	=	=
Denmark	-	=	=
France	-	=	=
Netherlands	-	=	=
Australia	-	-	=
Slovak Republic	-	=	-
Slovenia	-	-	=
Canada	-	-	-
Finland	-	-	-
Iceland	-	-	-
New Zealand	-	-	-
Sweden	-	-	-

Notes: Countries/economies in which the annualised change in performance is statistically significant. Countries and economies are ranked in order of their positive change in mean score across PISA cycles.
Source: OECD, *PISA 2012 Database*, Tables I.2.3b, I.4.3b and I.5.3b.

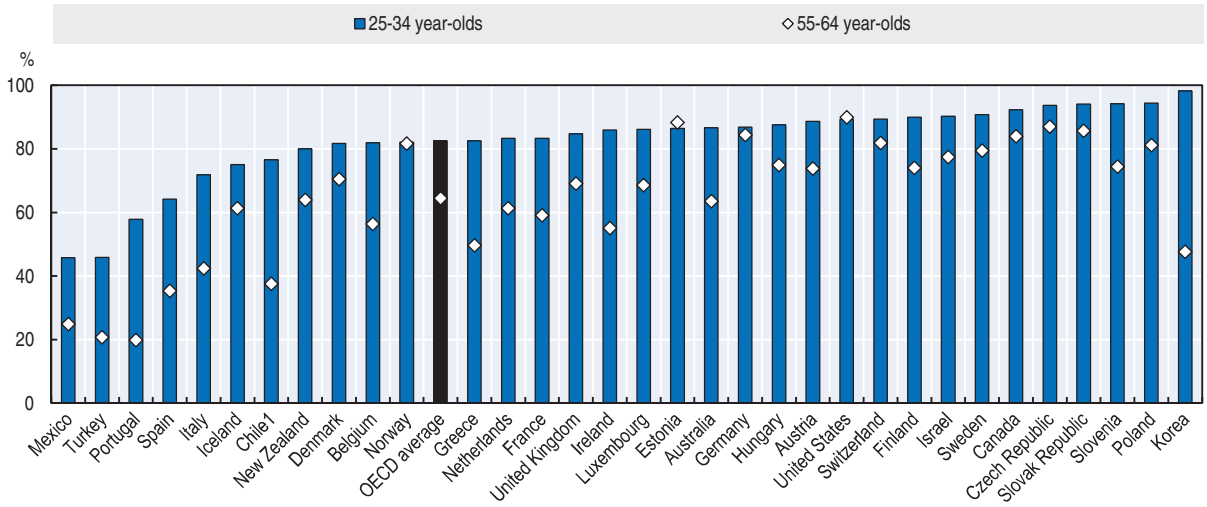
productively in life. Those lacking these basic skills at age 15 may drop out, or may not finish upper secondary education and enter the workforce unprepared, requiring additional support and struggling more than their peers.

At the same time, progress is possible for countries with different performance levels. Countries with lower initial levels of skills, such as Mexico, Chile, Israel, Turkey and Portugal, have improved in at least two subjects assessed in PISA (Table 1.1). Other countries with near-average or high levels of skills, including Germany, Italy, Japan and Poland, have also made important progress in at least two domains. In some countries, both equity and performance in education have improved or remained stable. Between 2003 and 2013, Germany, Turkey and Mexico improved both their mathematics

performance and equity levels, while Norway, Switzerland and the United States improved their equity levels without change in performance. Performance has remained stable or declined in other countries. Defining and adopting policies adapted to context and particular challenges can, over the long term, lead to higher and more equitable student performance.

There has also been progress in education attainment. Rates have increased over the past decades for both males and females, although dropout remains high. On average, 82% of younger adults (25-34 year-olds) have attained at least upper secondary education, compared to 64% of older adults (55-64 year-olds) (Figure 1.2). This implies an increase in the number of adults having attained at least an upper-secondary education in most OECD countries. Evidence shows that completing upper secondary offers better chances to prevent unemployment and to find rewarding and better paying jobs. Women's access to higher education has also increased significantly, with 84% of younger women having attained at least upper secondary education, compared to 61% of older women (OECD, 2014a). However, dropout or non-completion rates remain high in some countries. On average, at least 18% of young adults across OECD countries have not completed upper secondary education, and that figure rises to 25% in Italy, Spain, Portugal, Turkey and Mexico.

Figure 1.2. **Population with at least upper secondary attainment, by age group (2012)**

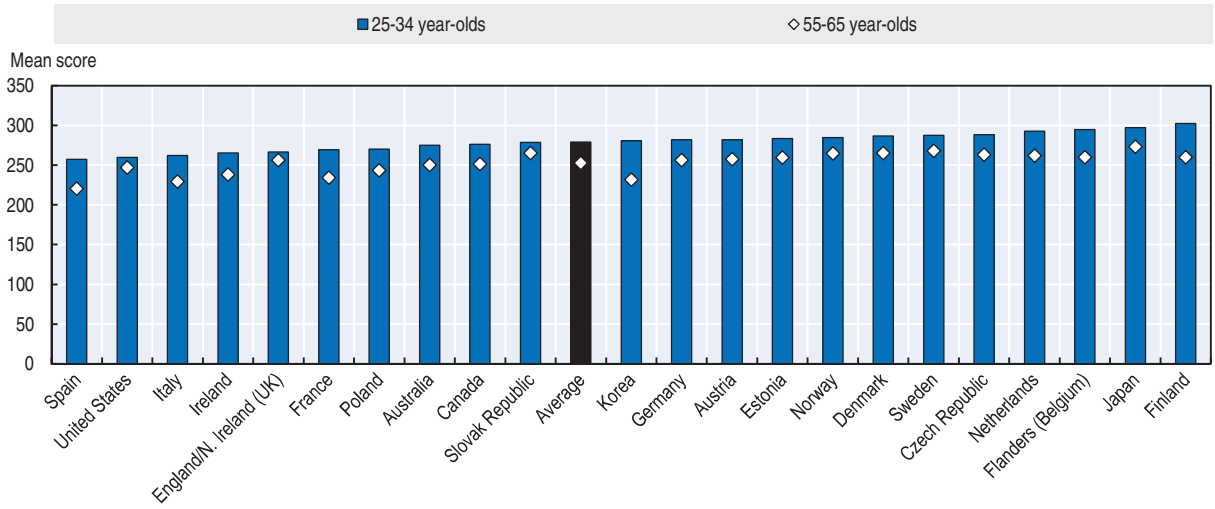


Note: These calculations exclude ISCED 3C short programmes. Data are missing for Japan.
1. Year of reference 2011.
Source: OECD (2014), *Education at a Glance 2014: OECD Indicators*, OECD Publishing, Paris, Table A1.2a.

StatLink http://dx.doi.org/10.1787/888933171353

The comparison of adults' skills across generations also demonstrates improvements in educational systems and outcomes. Among the 22 OECD national and sub-national entities participating in the OECD Survey of Adult Skills, younger adults (25-34 year-olds) showed higher proficiency in numeracy than older adults (55-65 year-olds), with average scores of 279.4 for 25-34 year-olds and 252.7 points for 55-65 year-olds (Figure 1.3). The generational difference in numeracy performance varies from 10.2 points in England and Northern Ireland (United Kingdom) to 48.9 in Korea, with an average difference of 26.7 points. As low-skilled tasks become increasingly automated, these information-processing skills seem necessary to gain and maintain employment. Moreover, in a

Figure 1.3. **Mean numeracy proficiency of adults by age group (2012)**



Source: OECD (2013), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, OECD Publishing, Table A3.2 (N).

StatLink http://dx.doi.org/10.1787/888933171364

knowledge economy, highly skilled citizens are more likely to achieve their goals and develop the knowledge and potential to participate fully in society (OECD, 2013d).

Overall, while progress is apparent across OECD countries, there are still many young people with low levels of skills and knowledge, low completion rates in some countries and trends pushing for new and better investments to deliver education that responds to the needs of students, economies and societies in the future.

Exploring policy options to improve education

From a policy perspective, education systems can do more to deliver education that contributes to developing stronger skills and better outcomes for their citizens: raising overall literacy and numeracy skills and ensuring completion to at least upper secondary to ensure effective transitions into further education or the labour market. Education policy reforms that are targeted, contextualised and sustained over time can help meet these objectives.

There is a growing body of evidence on the different factors that contribute to education improvement. A number of international reports have reviewed the factors that contribute to quality education (Hattie, 2009; Fullan, 2010; Levin, 2008, 2010; Hargreaves and Shirley, 2009; Mourshed et al., 2010; OECD, 2012a; OECD, 2012b; Schleicher, 2012). While each of these reports adds its own specific focus to the quest for what makes good systems perform as they do, many agree on a range of policy areas that deliver high yield:

- investing in teaching and teachers
- setting high standards for all students
- using data to follow student progress
- building capacity of those engaged in the education process
- recognising the key role of school leadership
- supporting disadvantaged students and schools
- ensuring sound policy making with consistent accountability mechanisms.

Many of these reports focus on high performing school systems or analysis of the variables that make a difference in improving school outcomes. They propose ways to motivate education systems to achieve high performance and highlight the importance of taking into account specificities of governance and context to ensure success. A study that measures policy and country outcomes in cognitive tests internationally has aimed to estimate the role of different policies. It proposes that the more formal education students have and the younger they are in receiving it (including all the factors that contribute to positive discipline in the classroom), the higher their abilities will be (Rindermann and Ceci, 2009). However, across the international literature, there is no systematic comparative analysis of education policies adopted across countries or their impact.

In addition, much evidence highlights the importance of contextual factors in policy development and implementation. The political or economic situation and institutional structures of each country and its education system have a strong influence on the way policies are introduced and sustained. Policy reforms will differ according to social, cultural and economic contexts and in different political structures: dynamics in federal systems will not be the same as those in majoritarian or other parliamentary models (OECD, 2010a). Context is key in the process of policy design and implementation. There is no assurance that a specific policy from one country might have similar results in another.

In fact, education systems extend from local schools and independent universities to national ministries in capitals. Education policy is becoming increasingly complex with many different stakeholders engaged and a tendency towards greater decentralisation and accountability. The responsibilities of institutions and different levels of government vary from country to country, as do the relative importance and independence of non-public providers.

This implies that policy making needs to a) be aligned to the governance structure and b) take into account the respective responsibilities of different actors (Fazekas and Burns, 2012). Federal systems such as Austria, Australia, Canada, Germany or Switzerland, where states or provinces are responsible for delivering education, may look for different options to steer the system and require different types of policies or institutional arrangements.

Many factors highlight the need to systematise the knowledge base on education policy reform:

- With an increased focus on raising education outcomes across countries, policy makers seek better knowledge of policy options to consider.
- Heightened accountability for the results and achievements of education systems calls for better use of the national and international comparative knowledge base available to formulate policy.
- A growing consensus on policy areas that are key for improvement requires a more in-depth and comparative analysis of these specific areas.
- The recognition that context and implementation processes are critical for success in education policy reform calls for policy makers to have better knowledge on how to respond.

Together, these factors provide the foundation for the OECD *Education Policy Outlook* series (Box 1.1). This analysis of education policies and practices across OECD countries can help to systematise and improve the knowledge base on education reform and provide

responses for education policy makers and practitioners as they work to strengthen the results of their education systems.

Box 1.1. **About the *Education Policy Outlook***

The *OECD Education Policy Outlook* series was developed starting in 2012. It offers comparative analysis of education policy reforms across OECD countries, providing policy makers with clear and accessible information on policies adopted to respond to challenges in education systems today: strengthening equity and quality, preparing students for the future, and improving schools, evaluation and assessment, governance and funding. A range of products are available to assist policy makers, analysts and education stakeholders in their quest for education improvement:

- The Education Policy Outlook Country Profiles provide a unique assessment of OECD countries' education policies by reviewing their current context, challenges and reforms. The profiles include links to relevant sources and a statistical annex capturing the main education indicators (including PISA data). Seventeen country policy profiles have been published over 2013-14 (*www.oecd.org/edu/profiles.htm*).
- The *Education Policy Outlook* biennial reports (the first, this volume, in 2015) explores trends and reforms across OECD countries, including comparative insight into policies and the reform process itself.
- The *Education Policy Outlook Reforms Finder* (*www.oecd.org/edu/reformsfinder.htm*) is a pilot multi-criteria search engine on education policies adopted across OECD countries. Users will be able to search based on their particular needs and interests, generate charts and maps, and easily save, embed and share them with others.

Source: OECD (2012c), *www.oecd.org/edu/policyoutlook.htm*.

The *Education Policy Outlook* framework for analysis: Policy levers

The *Education Policy Outlook* has devised a comparative framework to analyse education policies across different areas, taking into account the country context. It has done so by aligning OECD education policy work with country reform strategies, resulting in a set of policy levers that policy makers can use to progress in their work to raise student outcomes.

Policy levers refer to the governing instruments which policy makers have at their disposal to direct, manage and shape change in public services, the range of functional mechanisms through which government and its agencies seek to implement policies (Rivzi and Lingard, 2010). In education, policy levers aim to gradually "steer" the system towards better education outcomes. Their selection is not neutral or automatic – it can be political and depend, for example, on the objectives established, the analysis of potential benefits or the capacity of impact foreseen (Steer et al., 2007; Smith, 2002).

To review education policy trends and actions in countries, the OECD has organised the knowledge around six policy levers for which there is analysis derived from major projects at OECD and selected evidence regarding their contribution to improving performance and equity. The levers are grouped in three categories:

- Students: How to raise outcomes for all in terms of equity and quality and preparing students for the future (refers to outputs of the education system).

- Institutions: How to raise the quality of instruction through school improvement and evaluation and assessment (refers to quality of the inputs).
- Systems: How to align governance and funding of education systems to be effective.

This framework used to analyse and compare policies implemented across OECD countries from 2008 through 2014, is explained more in detail in Table 1.2 and the section that follows.

Table 1.2. ***Education Policy Outlook* policy levers**

Policy levers	Definition	Policy options	Policies
Students: Raising outcomes			
Equity (and quality)	Policies to ensure that personal or social circumstances do not hinder achieving educational potential (fairness) and that all individuals reach at least a basic minimum level of skills (inclusion)	Investing early on	Provision of quality early childhood education and care
		Tackling system level policies	Avoiding grade repetition, early tracking and student selection; managing school choice; developing funding strategies that address students' and schools' needs; designing upper secondary pathways to ensure completion.
		Supporting low-performing disadvantaged schools and students	Supporting school leadership; stimulating positive school climates; strengthening the quality of teachers; ensuring effective classroom learning strategies; linking schools with parents and community.
Preparing students for the future	Policies to help prepare students for further education or the labour market	Upper secondary	Flexibility in choice; ensuring quality across programmes; engaging communities, parents and the private sector; ensuring effective transitions into the labour market or further education.
		VET	Matching skills offered by VET programmes with labour market needs; adequate career guidance; quality of teachers; providing workplace training; tools for stakeholder engagement.
		Tertiary education	Steering tertiary education; matching funding with priorities; assuring quality and equity; enhancing the role of tertiary education in research and innovation; strengthening links with the labour market; shaping internationalisation strategies.
		Transitions	Transitions across education pathways and links to the labour market.
Institutions: Enhancing quality			
School improvement	Policies to strengthen delivery of education in schools that can influence student achievement	Learning environments	Class size; curriculum; instruction time; learning strategies; interactions in schools.
		High quality teachers	Recruitment, selection and induction; salary and working conditions; initial training; professional development opportunities and career paths.
		School leaders	Attracting, developing and retaining school principals in the profession; support and networks.
Evaluation and assessment	Policies to support measurement and improvement of school system's outcomes	System evaluation	Evaluation of the system as a whole and of sub-national education systems; programme and policy evaluation.
		School evaluation	Internal school evaluation; external school evaluations; school leadership.
		Teacher appraisal	Probationary periods; developmental appraisal; performance management; appraisal for accountability and improvement purposes.
		Student assessment	Formative assessments; summative assessments.
		Evaluation and assessment frameworks	Co-ordinated arrangements: governance, configuration/architecture; competencies and skills; use of results; implementation strategies and factors.
Systems: Governing effectively			
Governance	Ensuring effective planning, implementation and delivery of policies	Formal structures	Type of government; organisation of education system; locus of decision making.
		Setting objectives	Definitions of national education goals or priorities.
		Stakeholder process	Relevant institutions and engagement with stakeholders.
Funding	Policies to ensure effective and efficient investment in education systems	Economic resources in the education system	Public expenditure: GDP and share by education level.
		Use of resources	Time resources; human resources; material resources by education level.

Source: OECD (2012c), *Proposal for an Education Policy Outlook* (EDU/EDPC(2012)17/REV1).

Students: Raising outcomes for all

Equity

There is a growing body of evidence that shows that the highest-performing education systems are those that combine equity and quality. Equity in education is achieved when personal or social circumstances, such as gender, ethnic origin or family background, do not hinder achieving educational potential (fairness) and all individuals reach at least a basic minimum level of skills (inclusion) (OECD, 2012a).

Addressing these inequities (e.g. students' background, geographic inequalities, etc.) and school failure can strengthen the capacity of individuals and societies to respond to recession and contribute to economic growth and social well-being. Conversely, poorly educated societies can limit economies' capacities to produce, grow and innovate. Investing early on and in good quality education up to completion of secondary education is among the most profitable policies. This can be done by:

- Providing early childhood education and care (ECEC) (ages 0 to 6/7 across OECD countries): While ECEC is not compulsory in most OECD education systems, evidence shows that children who participated in early childhood education tend to perform better academically. ECEC has been linked to improvements in child well-being, reduction of poverty, increased intergenerational social mobility, more female labour market participation, increased fertility rates and better social and economic development. Key to improving access are goals and regulations, funding and other incentives to raise the quality of provision, such as improving qualifications, training and working conditions (OECD, 2012d).
- Tackling system-level policies that hinder equity in education includes avoiding grade repetition, early tracking and student selection, managing school choice, developing funding strategies that address students' and schools' needs, and designing upper secondary pathways to ensure completion (OECD, 2012a).
- Measures to improve low-performing disadvantaged schools include strengthening and supporting school leadership, stimulating and supporting school climate and learning environments, strengthening the quality of teachers, ensuring effective classroom learning strategies, and linking schools with parents and the community.

Preparing students for the future

In today's knowledge-based economies and societies, ensuring that students have the skills required to enter the labour market is key across OECD countries. After comprehensive school and lower secondary education, students enter more complex and differentiated study programmes as they progress through secondary education towards employment. At age 16 at the latest, students in all OECD countries leave the comprehensive education system to access more specific instruction, either upper secondary or vocational education and training (VET) that can lead to tertiary education and/or the labour market. More vulnerable students may be at higher risk of receiving inadequate support for their specific learning needs at this stage, disengaging from their studies or dropping out. A challenge countries face is being inclusive while at the same time fostering the development of students' specific profiles according to their chosen pathways (OECD, 2011b).

This lever analyses how upper secondary, VET and tertiary education are addressing students' current needs to help prepare them for the future.

a) Upper secondary education (from age 15 to 20 across OECD countries): In most OECD countries, the majority of the population has upper secondary education, although it is generally not part of the compulsory system. Challenges remain to provide relevant education to prepare young adults for work or education and, at the same time, develop their capacity for further learning. Incentives to remain in school beyond the end of compulsory education and to graduate from upper secondary education could help reduce the risk of unemployment and other forms of exclusion for young adults who do not have sufficient education (OECD, 2004; OECD, 2010b; OECD, 2014a).

b) Vocational Education and Training (from age 15 across OECD countries): This area of education refers to the education and training programmes created at upper secondary (initial) or post-secondary level that generally lead to a specific job or type of job. OECD related studies propose the need to foster improvement at the initial VET level. For example, governments can work on: ensuring that the skills offered through VET programmes correspond to labour market needs; providing adequate career guidance for all; improving the quality of teachers through appropriate education and experience; making use of workplace training; developing tools for stakeholder engagement; and greater transparency to support system improvement (OECD, 2010b; OECD 2014b).

c) Tertiary education (from age 17 across OECD countries): Tertiary education has been expanding in recent years and a major study on tertiary education defined key areas for improvement (OECD, 2008). Today more than one-third of young adults complete tertiary-type A education in OECD countries (OECD, 2014a). This expansion has also brought a diversification of studies, due to the need to better address the connection between education, the labour market and the external world, improve social and geographical access to education, and cater to less theory-based training needs. This poses challenges of quality, equity, internationalisation, adequate funding and implementation of policies targeted at this level of education (OECD, 2008a; OECD, 2008b). A key issue to review is how to assure and improve quality.

Enhancing quality in institutions

School improvement

This policy lever relates to how to strengthen the key factors in schools that influence and support student achievement, such as high-quality teachers, good school leadership, and adequate learning environments and curriculum. Evidence shows that high-quality teaching has a strong influence on raising student performance (OECD, 2005; Schleicher, 2012). Therefore, a priority must be improving the way systems attract, develop and retain high-quality teachers at schools. This can be related to recruitment, selection and induction processes; salary and working conditions; initial training and professional development opportunities; and career paths available to teachers. It can also include feedback and assessment and working collaboratively.

At the same time, the role of school leaders has evolved to prioritise a more pedagogical function, as evidence points to their key contribution to student learning when they focus on developing teachers and setting the conditions and environment for quality learning. In a context of increasing autonomy and accountability, their role is also becoming progressively more complex, but the support they receive may not be evolving accordingly (Pont, Nusche and

Moorman, 2008; Schleicher, 2012). Among the key policy levers for them to contribute to raise student performance are to clarify the role of effective school leaders, to distribute this role, to ensure school leadership development throughout their careers – and to ensure that school leadership is an attractive profession that can draw and retain high-quality candidates.

In addition to teachers and learning professionals, it is also important to consider the conditions shaping the environments in which learning takes place (Dumont, Istance and Benavides, 2010). This refers to the structural school-level conditions that affect the way in which students and teachers interact. Factors such as class size, learning time at school, instruction time, the curriculum or share of instruction in the curriculum by subject are tangible policies used across countries to improve the learning process.

Evaluation and assessment

Evaluation and assessment have become a key policy issue in education, as countries are looking for ways to measure student progress and to evaluate the performance of those engaged in the education process – teachers, schools and their leaders – to help improve education systems. With decentralisation, an increased focus on results, and pressures for accountability, evaluation and assessment have become ways in which ministries/departments of education and policy makers measure progress, and parents and societies gain more information on results of schooling. Evaluation and assessment are seen as key to both improvement and accountability in school systems, and as instrumental to define strategies that can improve school practices with the ultimate goal of enhancing student outcomes (OECD, 2013b).

Evaluation and assessment frameworks are co-ordinated arrangements that seek to support the improvement of a school system's student outcomes. They bring together student assessment, teacher appraisal, school evaluation, and system evaluation, seeking coherent alignment towards student learning objectives. Countries can use these tools to steer the system, as indicators of progress and especially to better understand how to provide the support needed for improvement. The different dimensions of evaluation and assessment frameworks (OECD, 2013b) used in the analysis undertaken by the *Education Policy Outlook* include:

- System evaluation: How governments at national or sub-national levels evaluate progress towards education goals and overall performance. This can include evaluation of the system as a whole, evaluation of sub-national education systems, and programme and policy evaluation.
- School evaluation: Policy makers can design approaches to evaluate individual schools as organisations. This can include internal school evaluation (schools' self-evaluation), external school evaluation (school reviews, school inspections) and school leadership.
- Teacher appraisal: More countries are introducing ways to assess and evaluate teachers to judge their performance. Among different options: a probationary period, formative appraisal, performance management, appraisal for accountability purposes and teacher registration or certification.
- Student assessment: Student assessment refers to how student progress is measured and planned in a systematic way to measure evidence of learning and make judgments about student learning. Policy options include student formative assessments as learning is taking place to identify aspects to deepen and shape in subsequent learning, and student summative assessments; summarising learning that has taken place to record, grade or certify achievements.

Systems: Governance and funding effectively

Governance

In a context where decision-making is increasingly shared among different stakeholders, countries and their policy makers need to understand better how to optimise structures and dynamics to achieve clear results. The concept of governance addresses this need to understand how "means" and "processes" come together for a country's policy making. Governance refers not only to the formal structures in place in a system, but also to how governments set priorities and interactions among actors contribute to shape the success of policy making (World Bank, 1994; Hewitt de Alcántara, 1998; Cerna, 2013).

Effective governance can be viewed in two key dimensions. The first is related to what institutions/actors are involved in a decision-making process and how these are expected to interact. The second refers to how governments carry out policies, and how they set priorities, plan and implement new policies through a mix of leverage and consultation (Fazekas and Burns, 2012; OECD, 2011c). In the scope of the *Education Policy Outlook*, governance can be analysed by reviewing the formal structures and processes in place to deliver education policy and the stakeholder engagement process for policy making. In terms of formal structures, the policy-relevant issues for comparison are the type of government (federal or unitary), the organisation of the education system policy-making process (institutions/actors that intervene in policy design and delivery) and how education is delivered (public, private with public support, or private).

The degree of decentralisation in decision-making across the system has also become a key issue in governance. As greater decentralisation has devolved responsibilities to local authorities, schools and their families, ministries of education and their related institutions have taken on a guiding and support role, which has changed policy-making dynamics and incentives and the role of regional and local governments. In terms of those involved in the process of policy making, stakeholder engagement refers to how governments and actors interact in more informal and dynamic aspects. It includes participation and engagement of stakeholders and how they interact with governments to influence the policy making process. The role of representatives of the teaching profession, for example, and the process of consultation with stakeholders are key in governance.

Funding approaches

The context of the economic crisis and the growing pressure for transparency, accountability and better education outcomes confirm the challenge that countries face to do more with less. The way available resources are used affects student learning opportunities and is a key policy lever to influence outcomes. Funding refers not only to the amount of resources expended on the education system, but more importantly (as evidence on student performance shows) to how these resources are invested and distributed – according to needs, priorities and capacities to use them efficiently (OECD, 2012a; OECD, 2012e; OECD, 2013e; OECD, 2014a).

Key to understanding an education system is looking at the economic resources invested and how they are allocated within the national education agenda. The degree of public investment in education (in terms of GDP, share by education levels and educational institutions, and participation of private sources) provides a picture of how the system operates and where priorities are set. In addition, it is important to analyse how resources are allocated both across the system and at the institutional level.

An overview of selected policies and reforms introduced across OECD

Using this framework to analyse the reforms adopted across OECD education systems from 2008 through 2014 shows that countries have developed a wide range of policies adapted to their context to respond to their concrete challenges. The analysis drew on a rich source of qualitative data (Box 1.2) that is further developed in Part I and Part III of this report.

Box 1.2. **The *Education Policy Outlook* data on policies and reforms**

The *Education Policy Outlook* 2015 edition builds on a data set of education policies introduced by OECD countries between 2008 and 2014, drawn from the following sources:

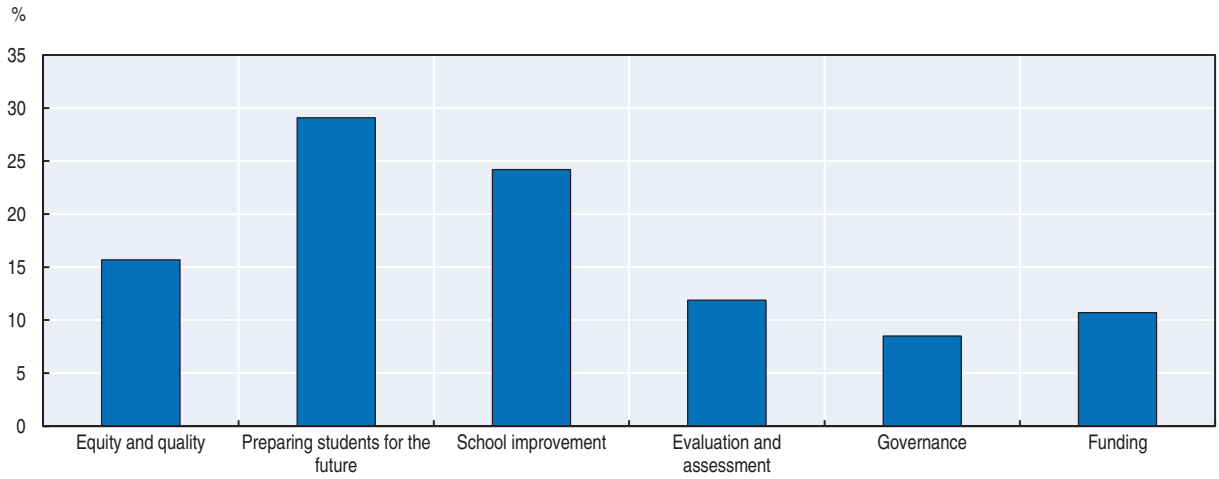
- The Education Policy Outlook Country Profiles: These reports provide an assessment of OECD countries' education policies, reviewing their current context, challenges and reforms. They include links to relevant sources and a statistical annex capturing main education indicators. The documents have been drafted by the OECD Directorate for Education and Skills and validated by countries (*www.oecd.org/edu/profiles.htm*).
- The Education Policy Outlook Country Snapshots: Presented in Part III of this report, they are based on a snapshot survey designed for this publication by the OECD Secretariat and completed and reported by countries and the OECD. They provide a succinct overview of the education context, issues and reforms implemented in each OECD country.
- The OECD Directorate for Education and Skills knowledge base: Quantitative data and indicators providing comparable data on education systems across OECD member and partner countries and economies include PISA, *Education at a Glance*, TALIS and PIAAC. Qualitative knowledge comes from a range of thematic and country reviews which cover topics such as teacher policy, school leadership, evaluation and assessment, education infrastructure, early childhood education, tertiary education and governance. Much of this knowledge can be accessed directly through the OECD Education GPS (*http://gpseducation.oecd.org*).

Classified in a database, the data includes around 450 policies introduced in OECD countries between 2008 and 2014. It is important to point out some caveats to the database that will be object of further refinement in future editions of the Outlook: This is a qualitative exercise, based on country responses and OECD categorisation. There is an imbalance in terms of country policies included, as the reforms refer to Education Policy Outlook Country Profiles completed by OECD for 17 countries and shorter country snapshots for countries without profiles. Once all 34 member Country Profiles are completed by OECD, the aim will be to correct this imbalance. It is also important to note that the dataset may not cover policy areas that have not been a recent focus of OECD analysis (such as ICT in education, special needs education, and lifelong or adult learning). Also consistency of data gathering may vary across countries. In future editions of the *Education Policy Outlook*, the process for gathering and including policies and data will be refined and enriched. Also, inaccuracies that may still arise in the coutries' policies information despite the OECD Secretariat's efforts will also be corrected.

The data set also includes descriptive information, such as year of implementation, education level targeted, main actors in charge of implementation and information on the impact evaluation if available. The data set will be available online in a pilot tool in development called the Reforms Finder (*www.oecd.org/edu/reformsfinder.htm*).

Key reform areas where the most policies were reported include Preparing students for the future (29%) and School improvement (24%), followed by Equity and quality (16%), Evaluation and assessment (12%) and Funding (12%) and Governance (9%) (Figure 1.4). Under the range of policy options, key reform areas include enhancing equity, developing the teaching profession, modifying curriculum, strengthening evaluation and assessment, finding different options to fund education, and targeting specific levels of education, such as vocational education and training or tertiary.

Figure 1.4. **Distribution of education policies by policy lever, 2008-14**



Methodological note: Classification of the policies was undertaken using OECD Secretariat methodology and analysis: variables and their codes were defined based on an initial analysis and policies inputted into a databank, with final revision of classification. The databank contains a large sample of education policies from OECD countries across a set of policy areas. The data is based on a snapshot survey completed by countries and Education Policy Outlook Country Profiles which have been revised by member countries.
Source: OECD, *Education Policy Outlook Reforms Finder*, 2014, *www.oecd.org/edu/reformsfinder.htm*.

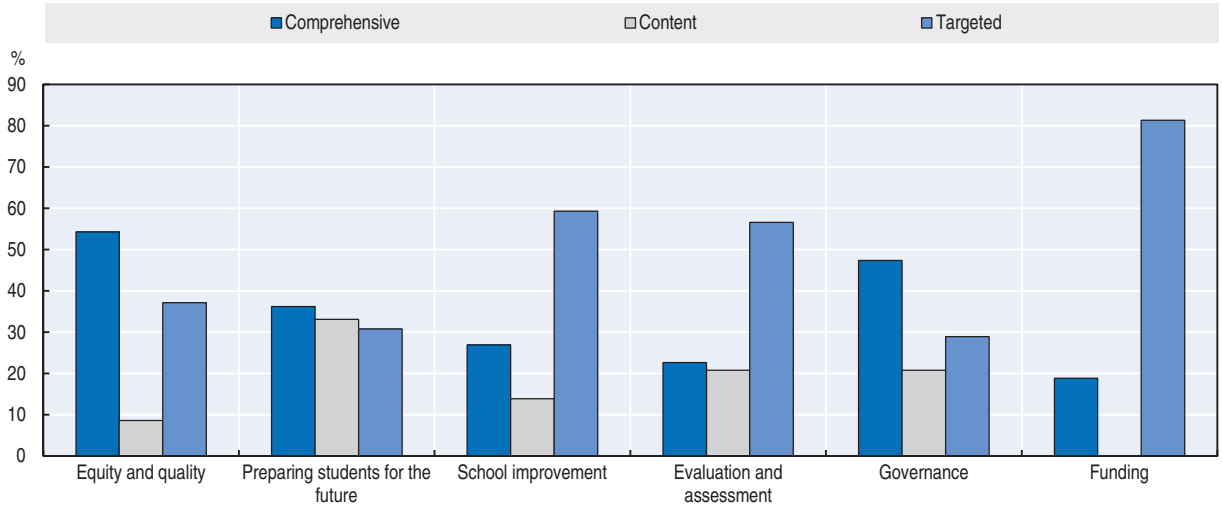
StatLink http://dx.doi.org/10.1787/888933171377

In addition to policy levers, it is important to classify policies according to their scope. Countries are implementing policies of different nature, breadth and focus in all areas analysed. The *Education Policy Outlook* also classifies education policies by their scope of intervention to provide a better understanding of the different approaches available to policy makers, enable a level of comparability of qualitative education inputs and facilitate peer-learning among education policy makers. The classification is descriptive, based on an empirical approach using the dataset as its starting point. It does not take into account for purposes of comparison the political context in which policies are developed. Policies have been classified according to the following definitions of scope of intervention:

- Comprehensive policies are overarching general strategies using various, if not all, policy tools available under a particular lever. Aiming for systemic change within a policy lever, they can take the form of general strategies-setting goals and priorities or the introduction of new governance systems or new structures.
- Content policies are those that define or reform the content knowledge produced under a specific policy lever. They can be of different nature, such as curriculum or standards.
- Targeted policies are those that target a concrete aspect of a policy lever.

Of the policy options analysed for this report, almost half (47%) are targeted policies. In three policy levers, this was the prioritised approach to make policy: School improvement (59%), Evaluation and assessment (57%) and Funding (81%) (Figure 1.5). A comprehensive policy approach was adopted for around half of the policies analysed under Equity and quality (54%) and Governance (47%). Content policies were more common under Preparing students for the future policy lever (33%), mainly in the form of curriculum guidelines or qualification frameworks.

Figure 1.5. **Distribution of education policies by scope, 2008-14**



Methodological note: Classification of the policies was undertaken using OECD Secretariat methodology and analysis: variables and their codes were defined based on an initial analysis and policies inputted into a databank, with final revision of classification. The databank contains a large sample of education policies from OECD countries across a set of policy areas. The data is based on a snapshot survey completed by countries and Education Policy Outlook Country Profiles which have been revised by member countries.
Source: OECD, *Education Policy Outlook Reforms Finder*, 2014, *www.oecd.org/edu/reformsfinder.htm*.

StatLink http://dx.doi.org/10.1787/888933171386

Finally, it is important to point out that measuring policy impact through consistent quantitative and qualitative indicators would allow for more accountability and strengthened knowledge for policy makers to make more evidence-based policy choices. However, OECD countries do not yet systematically include policy evaluation in the policy-making process. Within the limited time span of this study (2008-14), only 10% of policies in the dataset have been reported to be evaluated for their impact.

As information from countries on impact evaluation is currently limited, the 2015 edition of the *Education Policy Outlook* report does not explore the impact of the policies examined, but instead reviews the policy intent (as expressed by policy makers) to classify them within the framework. Future editions of this report may focus on impact evaluation.

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PART I

Trends

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PART I

Chapter 2

Equity and quality in education

What kinds of policy options do policy makers have to deliver equity and quality in education? This chapter discusses the context, main issues and policy options adopted across OECD countries to promote equity and quality in education and raise student outcomes. Policies that combine equity and quality refer to those focused on ensuring that personal or social circumstances do not hinder achieving educational potential (fairness) and that all individuals reach at least a basic minimum level of skills (inclusion). They comprise investing in early childhood education and care (ECEC), tackling system-level policies that may hinder equity (such as grade repetition, unsupported school choice or early tracking) and supporting students from disadvantaged backgrounds.

The chapter reviews policies adopted across OECD countries between 2008 and 2014 in a comparative approach, drawing mainly from the Education Policy Country Snapshots (Part III), Education Policy Outlook Country Profiles, and OECD comparative and country-specific analysis. The reforms vary across countries, as they are influenced by context, traditions, institutional settings and specific national or regional challenges. They have been grouped according to the different policy options and their scope.

Key findings

- Delivering equity and quality to foster education improvement is a challenge across many OECD countries. Almost one in five 15-year-old students across OECD countries does not reach a minimum level of skills to function in today's society, and there are large performance differences between students of different socio-economic backgrounds. Countries have adopted different policy options to respond to their equity challenges.
- Students from disadvantaged or diverse backgrounds are at greater risk of lower performance and attainment, and OECD countries have made it a priority to improve their outcomes. Countries have introduced either general strategies focused on equity or disadvantaged schools or students, such as Chile's Law on Preferential Subsidies for disadvantaged schools or England's pupil premium, or more targeted policies directed towards migrants or native populations, such as New Zealand's policies to support their Māori and Pasifika populations.
- Early childhood education and care (ECEC) policies aim to provide a strong foundation for students, to raise performance and ensure well-being from early ages. ECEC policies have been prioritised in a number of countries, most often through comprehensive approaches focused on improving the quality and coverage of provision for young children, such as in Australia and Poland where universal coverage has been a priority. A small number of OECD countries have introduced policies to strengthen the ECEC curriculum, or to enhance and support children's early learning through assessment tools.
- System-level policies, such as grade repetition, unsupported school choice or early tracking, can hinder equity. Some OECD countries have introduced policies aiming for more inclusive education systems. Targeted policies aim to reduce grade repetition, as in France, or to raise the age of early tracking, such as the New Middle School in Austria. Countries have also introduced policies to manage school choice, either to introduce more school options or to mitigate its negative impact on equity, as in Chile. A few countries have introduced structural changes to their systems, as in Turkey.

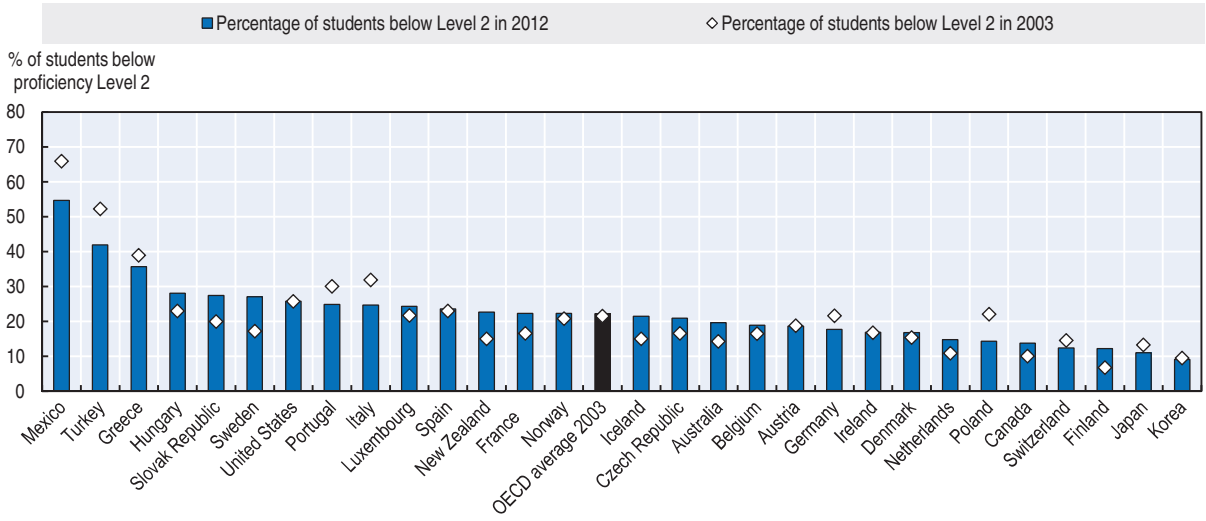
Education systems need to focus on equity and quality

A growing body of evidence shows that the highest performing education systems are those that combine equity with quality. Equity in education is achieved when personal or social circumstances, such as gender, ethnic origin or family background, do not hinder achieving educational potential (fairness) and all individuals reach at least a basic minimum level of skills (inclusion) (OECD, 2012a). Evidence shows that investing in equity should be a priority, as it pays off for economies, societies and individuals. Policies addressing inequities that arise from school failure and personal circumstances (e.g. students' background, geographic inequalities, etc.) can strengthen the capacity of individuals and societies to promote social well-being, respond to recession and contribute to economic growth (OECD, 2012a; OECD, 2012b; OECD, 2013a). Conversely, a poorly educated population can limit economies' capacities to produce, grow and innovate (OECD, 2001).

Across OECD countries, delivering equity and quality in education remains a key issue. Performance of 15-year-olds on PISA 2012 assessments gives an indication of how school systems are performing and improving in terms of both equity and quality. PISA 2012 data show that almost one in every five 15-year-old students across OECD countries performed below the baseline proficiency Level 2 on the mathematics assessment, which suggests that they do not reach a minimum level of skills to function in today's society (OECD, 2014a) (Figure 2.1), and this share has increased slightly (0.7 score percentage points) on average between 2003 and 2012.

At the same time, there are more disadvantaged students with higher risks of low performance. Students with a disadvantaged socio-economic background or an immigrant background show higher risks of low performance in many countries, with marked exceptions (Figure 2.3). According to PISA 2012, the strength of the relationship between the PISA index of economic, social and cultural status (ESCS) and mathematics performance remains high, with ESCS explaining 14.8% of variance in mathematics performance in PISA 2012 (OECD, 2013a). On average, the proportion of immigrants in OECD countries increased from 8.7% in 2003 to 11.5% in 2012. This has led to greater diversity in schools, and there is a difference in performance between non-immigrant and immigrant students of around 21 score points. Finally, between 2007 and 2010, the average relative income poverty in OECD countries (i.e. the share of people living with less than half the median income of their country annually) rose from 12.8% to 13.4% among children (0-18) (OECD, 2014b).

Figure 2.1. **Proportion of 15-year-old students below Level 2 in mathematics (2003 and 2012)**



Source: OECD, *PISA 2012 Database*, Figure I.2.23.

StatLink http://dx.doi.org/10.1787/888933171396

Within this context of changing societies, growing income inequalities and a strong influence of socio-economic background on student performance, many challenges arise for countries and their policy makers. Among the main ones are supporting and raising attainment and achievement of low performing students, students with socio-economically disadvantaged backgrounds, and population sub-groups (such as migrants or ethnic minorities) and reducing the impact of socio-economic background on education outcomes.

Policy options to deliver equity and quality in education

OECD countries and their policy makers have responded to equity challenges by adopting different policy options that respond to their need and context. Policies focused on investing early on and providing a good quality education for all up to completion of secondary education are considered among the most efficient to consolidate basic skills and support young people to continue on into further studies and/or the labour market. Providing support to the most disadvantaged from early on and targeting specific population subgroups are also considered effective policies (OECD, 20012a; OECD, 2012b; OECD, 2012c). While this chapter reviews education policies, it is important to note that education is not the only area in which policies can respond to equity and quality challenges: health, housing, welfare, justice, and social development policies can also impact student distribution and their well-being in schools (OECD, 2012a).

More concretely, the analysis of education policies adopted between 2008 and 2014 across OECD countries, as reported for this publication, shows that countries have adopted different and complementary options to deliver equity and quality in education. Early childhood education and care (ECEC) is among the policy options in which OECD countries have invested, primarily through broad strategies to improve provision or more targeted curriculum or assessment policies. System-level reforms have been adopted to design more inclusive education systems, through structural changes to education systems or more targeted approaches to reduce grade repetition, balance school choice with equity or raise the age of early tracking. Finally, a large number of broad strategies or more targeted policies have been designed to support students from disadvantaged or diverse backgrounds who appear to be underperforming or at a disadvantage (e.g. because of socio-economic, immigrant or ethnic background).

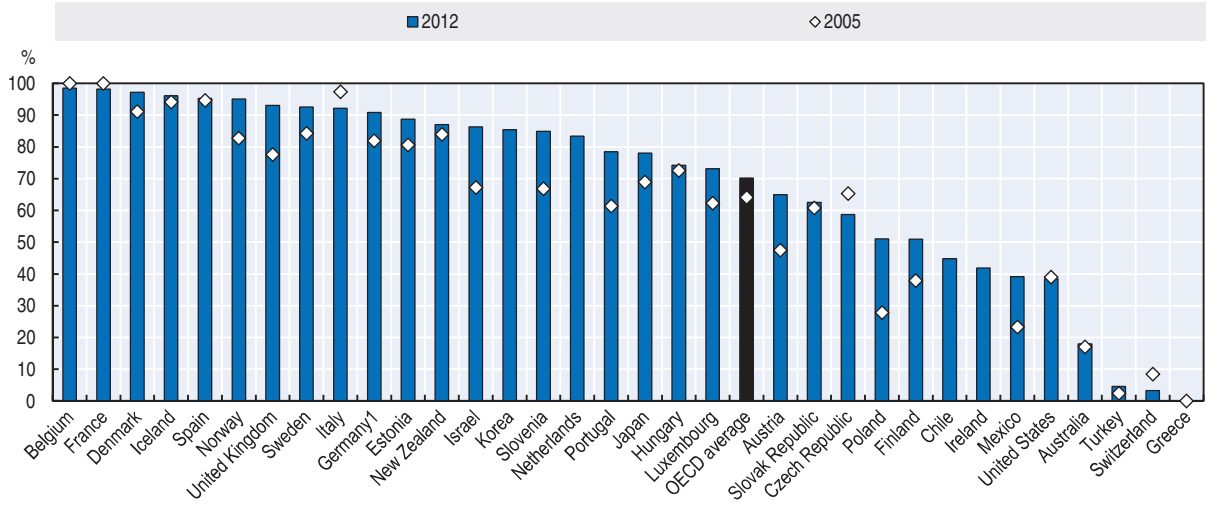
Overall, the analysis of equity policy options highlights a variety of characteristics. The policies adopted vary in duration and type, depending on the structure of the education system or specific challenges the country faces, such as a high proportion of immigrants, high poverty rates or other inequalities that may impact student performance. How responses are adopted may also depend on political and historical approaches to policy making in a given country, whether these are introduced by national laws or other types of regulations, or guided by strategies that use specific funding allocations (often used in more decentralised environments). Evaluation of policies and/or follow-up is limited, although when possible, policies with evidence of impact are described.

Developing early childhood education and care

One of the ways in which countries are targeting equity and quality is by introducing or consolidating provision and delivery of ECEC. Evidence shows that children who participated in early childhood education tend to perform better academically (OECD, 2014c). At the same time, ECEC has been linked to improvements in children's well-being, reduction of poverty, increases in inter-generational social mobility, higher levels of women's participation in the labour market, increases in fertility rates, and better social and economic development for society (OECD, 2012b). According to PISA 2012, those who did not participate in pre-primary education were 1.84 times more likely to score at the bottom of the performance distribution (OECD, 2013a).

Across OECD countries, ECEC settings provide care and education for children under the compulsory age, while early childhood education (ECE) settings provide education to children and can be part of compulsory education. ECEC caters to 0-7 year-olds before entering primary school, and in many countries children start ECEC between ages 2 and 3. ECEC has become compulsory for at least one year in ten OECD countries, as they are putting more emphasis on this education level in recent years. It may be delivered in public or private institutions, often by qualified staff. Across OECD countries, enrolment of children age 3 in ECE settings has increased from 64% on average in 2005 to 70% in 2012, with wide variations between countries – ranging from 3% in Switzerland to more than 95% in Belgium, Denmark, France, Iceland, Norway and Spain (Figure 2.2). This data may even underestimate enrolments, as OECD countries might provide formal childcare beyond early childhood education.

Figure 2.2. **Enrolment rates at age 3 in early childhood education (2005 and 2012)**



Note: Countries are ranked in descending order of the enrolment rates of 3-year-olds in 2012.
1. Year of reference 2006 instead of 2005.
Source: OECD (2014), *Education at a Glance 2014: OECD Indicators*, OECD Publishing, Paris, Table C2.1.

StatLink http://dx.doi.org/10.1787/888933171405

While provision has increased, countries are facing challenges in broadening and securing coverage for all young children, ensuring quality provision in ECEC settings and their staff, and ensuring that ECEC has educational objectives (OECD, 2012b). Ensuring universal and appropriate coverage requires organising services to ensure access for all. Furthermore, evidence suggests that to reap longer-term benefits in terms of child development, systems should target the quality and training levels of staff and set goals that focus on children's cognitive and social skills (OECD, 2012b; OECD, 2006).

To respond to these challenges, expanding or consolidating the provision and quality delivery of ECEC are policy options that many countries are adopting. OECD countries have introduced comprehensive policies encompassing broad general strategies and structures, content-related policies which aim to strengthen the curriculum, and targeted policies which focus on assessment (Table 2.1). Countries have also aimed to improve quality and access in ECEC through funding policies (Chapter 6).

Table 2.1. **Policies to consolidate early childhood education and care, 2008-14**

Comprehensive policies	Content	Targeted
GENERAL STRATEGY and STRUCTURE	**CURRICULUM**	**ASSESSMENT**
Australia: National Early Childhood Development Strategy (2009); National Quality Framework for Early Childhood Education and Care (2012); National Partnership Agreement on Universal Access to Early Childhood Education (2013-14) **Austria:** Free compulsory year of pre-primary education (2010) **Canada:** CMEC Early Learning and Development Framework (2014) **Estonia:** Amendments to the Pre-school Act of 2000 (2010) **Finland:** ECEC administration moved from Ministry of Social Affairs to Education (2013) **Germany:** Legal entitlement to an ECEC place to children age 1 and 2 (2013) **Korea:** After-school childcare for 3-5 year-olds (2013) **New Zealand:** An Early Learning Taskforce (2013) **Norway:** Legal right for a place in ECEC from age 1 (2009) **Poland:** Amendments to the School Education Act (2011, 2013) **Slovenia:** Kindergarten Act (2008, 2010); Childcare fees benefits within the Exercise of Rights to Public Funds Act (2008, 2012) **Turkey:** Pre-school Education Project (2010-13); Law No. 29072 (2014) **United States:** Pre-school Development Grants (2013)	**Czech Republic:** Innovation of the Framework Educational Programme of Pre-primary education (2012) **Finland:** Curriculum for pre-primary education (2010) **Iceland:** National curriculum guidelines for pre-primary (2011) **Italy:** National Curriculum for ECEC (2012) **Korea:** Nuri curriculum (2012) **Sweden:** Curriculum for pre-primary education (2011)	**Australia:** Australian Early Development Index (2009) **Denmark:** Mandatory assessment of language development (2010) **Portugal:** Evaluation and monitoring guidelines for pre-school education (2011)

Source: Education Policy Country Snapshots (Part III) and Education Policy Outlook Country Profiles, *www.oecd.org/edu/profiles.htm*.

Launching general ECEC strategies: Most countries that have taken measures in ECEC have done so through broad strategies to enhance this key level of education, to either increase or ensure availability and quality delivery, for example:

- Australia has been active in ECEC. With the National Early Childhood Development Strategy (2009), it undertook a comprehensive reform to provide both universal coverage and specific care to the most disadvantaged. It set six priority areas regarding health, safety, early learning and well-being and also introduced several initiatives at local and national levels to improve equity, inclusion and community engagement. In addition, a new National Partnership Agreement on Universal Access to Early Childhood Education (2013-14) was put in place to ensure access to quality ECEC programmes in the 12 months prior to full-time schooling, to be delivered by degree-qualified early childhood teachers.
- Canada set out a pan-Canadian vision for early learning as a framework for ECEC across its jurisdictions with the Council of Ministers of Education's Early Learning and Development Framework (2014). It contains key guiding principles and aims to support the development of policies and initiatives to enhance learning in the early years and beyond.

- Poland has targeted coverage and access. An amendment to the School Education Act (2011) made attendance in pre-primary education compulsory for 5-year-olds in 2011, and all 3-4 year-olds will have a right to participate from 2015 and 2017. Amendments to the School Education Act (2013) also introduced a limit to the fees paid by parents, with earmarked grants from the state to local governments compensating the difference in cost.
- Turkey is making efforts to increase access and coverage for pre-school students through the Pre-school Education Project (2010-13) and a new Law No. 29072 (2014). The new legislation aims to fulfil the needs of pre-school students by establishing clubs to support children's social and personal development, if requested by parents and where conditions permit; enabling access to pre-school institutions during the summer, especially for those who cannot attend during the regular educational term; and opening free mobile classes, particularly for disadvantaged students in rural areas.

Strengthening the quality of curriculum: Almost all OECD countries have some form of curriculum or framework in place to guide ECEC staff and ensure an even level of quality across different settings. While the age groups covered may differ, curricula that are aligned with those of primary schooling or beyond also promise to facilitate transition to the next level of education (OECD, 2012b). Some countries have introduced broad curriculum reforms that also included ECEC (Chapter 4). More concretely, Finland and Korea introduced curricula to strengthen the quality of provision:

- Finland revised the curriculum for pre-primary education (2010) and is currently developing a broader curriculum reform for 2016 that includes pre-primary as well as primary and secondary education.
- In 2012, Korea introduced the Nuri Curriculum, an integrated curriculum for early childhood kindergarten and nursery centres for 3-5 year-olds. It aims to promote the holistic development of children and establish overarching principles for becoming responsible citizens, through the provision of key objectives and with financial support for tuition for all children regardless of household income.

Identifying learning needs in ECEC through assessment: Assessment of ECEC aims to enhance and support children's early learning, identify their learning needs and improve the overall quality of ECEC. A recent survey by the OECD ECEC project found that most of the 25 jurisdictions surveyed monitor or assess early child development in some form (OECD, forthcoming). Both Australia and Denmark have recently introduced assessment policies:

- Australia implemented the Early Development Index (2009) which every three years provides a snapshot of children's development by the time they reach school, to give local institutions the opportunity to use these data and then engage with their communities to develop action plans. National data about health, maturity, social competence, knowledge and language have already been collected twice (in 2009 and 2012) among more than 96.5% of Australian children in their first year of schooling (Australian Government, 2013).
- Denmark introduced a mandatory assessment of language development (2010) for all 3-year-olds, which aims to diagnose possible language problems before children start school and offers mandatory support for parents.

Tackling system-level policies that hinder equity

The design of some education systems and some system-level policies implemented can exacerbate socio-economic disparities and lead to segregation or dropout, while other designs or policies may mitigate these effects. System-level policies, such as using grade repetition, tracking students into different pathways at an early age or unsupported school choice, may hinder equity and lead to school failure (OECD, 2012a; OECD, 2012d). However, some policies can mitigate the negative effect of these system-level practices, which vary depending on historical and political contexts.

Selected countries face challenges to counterbalance practices that may lead to student segregation or to unequal opportunities for different population groups. These system-level policies may require changing structures or arrangements that may have been in place for a long time, may be costly, or may even lack public support. For example, grade repetition and tracking at age 10 or 11 are long-standing practices that are embedded in the culture and functioning of some education systems and are challenging to modify (OECD, 2012a). Selected OECD countries have introduced comprehensive and targeted policies with the aim of improving equity (Table 2.2).

Table 2.2. **Policies tackling system-level practices that hinder equity, 2008-14**

Comprehensive policies	Targeted policies	
STRUCTURE	**MANAGEMENT OF SCHOOL CHOICE**	**REDUCE EARLY TRACKING**
Poland: Lowering the age of compulsory primary education from 7 to 6 (2009) **Turkey:** 4 + 4 + 4 policy (2012)	**Chile:** Initiatives within the General Education Law (2009) **New Zealand:** Partnership Schools/*Kura Hourua* Programme within the Education Amendment Act (2013) **United Kingdom (England):** Increasing the number of academies and free schools (2010)	**Austria:** New Secondary Schools (2008) **GRADE REPETITION** **Belgium (French community):** Take-off Project (2012) **France:** Amendment to the Reform of the Republic's School (2014) **Germany (North Rhine-Westphalia):** Come along! – Promotion instead of retention initiative (2008)

Source: Education Policy Country Snapshots (Part III) and Education Policy Outlook Country Profiles, *www.oecd.org/edu/profiles.htm*.

Education system structure reforms: Comprehensive system-level policies have been introduced in some countries with the aim of reforming organisation of their system to increase access and participation of students, for example:

- Turkey's 4 + 4 + 4 policy (2012) increased the length of education from 8 to 12 years and also aims to restructure the system into primary, lower and upper secondary education.
- In addition to providing more ECEC opportunities, Poland lowered the age of compulsory education from 7 to 6 and offered parents the right to primary education for 6-year-olds in 2009.

Managing school choice with equity considerations: Targeting system-level practices such as school choice with equity considerations can help improve the equity of the education system. This is because school choice schemes that do not take into account equity considerations can result in greater sorting and segregation of students, by ability,

income or ethnic background, for example (OECD, 2012a). Varied policies have tackled choice by introducing equity considerations or broadening choice options:

- Given that Chile's education system is based on school choice, Chile introduced an approach to balance school choice with equity (General Education Law, 2009). It prohibits selection into primary schools based on income and performance, and limits schools' ability to expel low-performing students. According to the Fund for Research and Development in Education, these reforms to the school selection processes seem to have had little impact on school admission policies (Carrasco, 2014).
- New Zealand introduced the Partnership Schools (*Kura Hourua*, 2012) to offer greater school choice to students under the Education Amendment Act in 2012. This new type of school will offer educators greater freedom and flexibility to innovate and engage with their classes in order to improve students' educational success.
- England (United Kingdom) introduced a policy to increase the number of academies and free schools (2013). These schools are publicly funded independent schools, which are not under the control of local authorities, and do not have to follow the national curriculum. Academies can have sponsors, while free schools are not-for-profit institutions that can be set up by a range of groups such as charities, universities, teachers, parents or businesses. It will be important to follow up on the impact of these developments on equity and quality of student outcomes.

Targeting early tracking: Early tracking systems are those which track students at early ages into different education options. On average, across OECD education systems, the first age of selection is 14, which often coincides with lower secondary education (OECD, 2013b). In Austria, students are tracked from age 10 into two different pathways, the general lower secondary school (*Hauptschule*) or the AHS, academic secondary school (*Allgemeinbildende Höhere Schule*). To raise the age of early tracking, the new Secondary Schools (*Neue Mittelschule*, 2007-08) provide comprehensive education and aim to merge the two pathways and use innovative teaching methods. They were piloted from 2008 and will be mainstreamed by 2018-19.

Reducing grade repetition: On average, 12.4% of students across OECD countries have repeated a grade in primary, lower secondary or upper secondary school, and in countries such as Belgium, Luxembourg and Portugal, almost one in three students reported having repeated a grade in secondary education (OECD, 2013a). Grade repetition aims to raise student outcomes, but evidence suggests it does not improve results and is costly. Preventive policies to reduce grade repetition have been introduced in a few countries. Between 2003 and 2012, France, decreased its repetition rates by 11.1 percentage points to 28.4% (OECD, 2013a), and it aims to continue to reduce grade repetition by using it only in exceptional cases and implementing assessments at the end of a learning cycle rather than at the end of each school year (Amendment to the Reform of the Republic's School, 2014). In Belgium (French Community), the Take-off project (2012) targets reducing repetition by providing remedial pedagogical tools for schools.

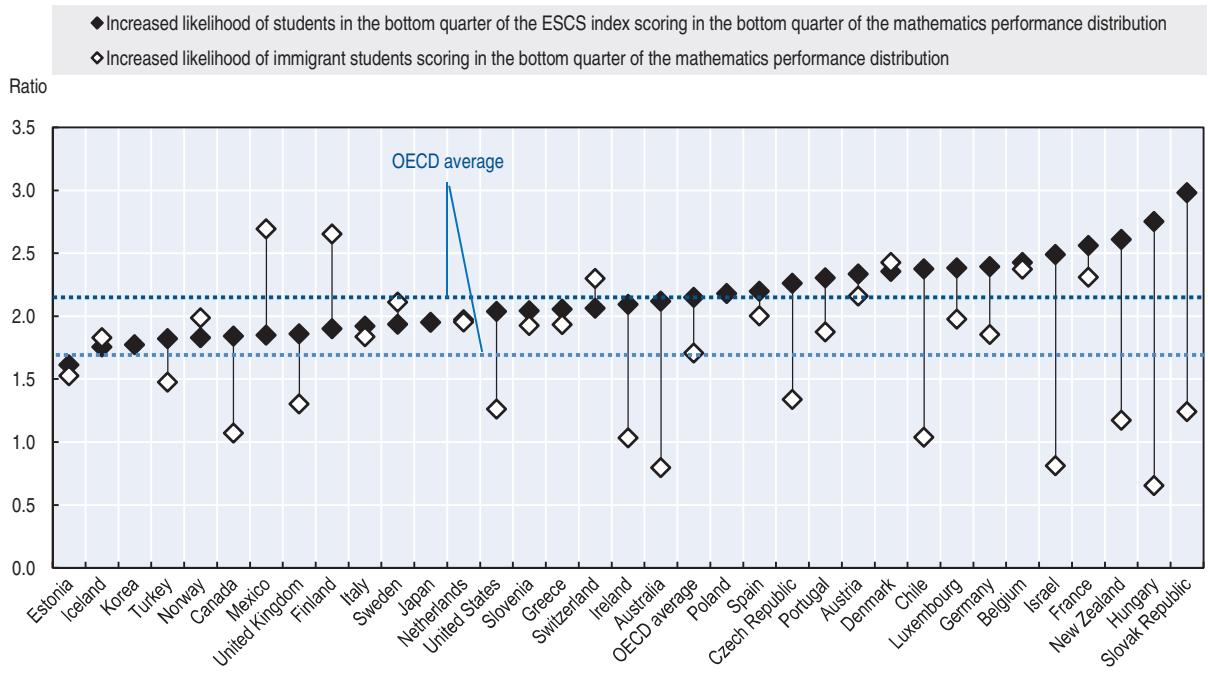
Supporting disadvantaged students or schools

Education systems must not only provide access to equivalent opportunities, but also aim to promote successful educational outcomes for all students by responding to different student needs. Supporting disadvantaged students and schools with higher proportions of disadvantaged students can help improve outcomes for all. In many OECD countries,

student attainment and performance are lower in schools with larger concentrations of students from disadvantaged backgrounds, and these schools tend to reinforce students' socio-economic inequalities more in some countries than others. Disadvantaged students are also at risk of suffering social and economic problems inhibiting their learning, which can also affect schools' effectiveness. These schools may have fewer or lower quality resources, although disadvantaged students require more support (OECD, 2012a).

Moreover, specific student populations, such as those from low socio-economic background or specific ethnic groups also have higher risks of low performance. On average in OECD countries, students from low socio-economic backgrounds tend to have a greater probability of being low performers in mathematics (2.15), as do students from immigrant backgrounds (1.71) (Figure 2.3). Across OECD countries, students' background accounts for 14.8% of the variance in mathematics performance of 15-year-olds, according to the PISA index of economic, social and cultural status, with variations that range from 7.4% in Norway to 24.6% in the Slovak Republic (2012) (Chapter 1, Figure 1.3). Many education systems also struggle to provide quality education to groups that are difficult to reach (e.g. Roma, Travellers, Aboriginals and Torres Strait Islander People, or Indigenous communities).

Figure 2.3. **Relative risk of being a low performer depending on personal circumstances (2012)**



Source: OECD, *PISA 2012 Database*, Table II.2.4a and Table II.3.4a.

StatLink http://dx.doi.org/10.1787/888933171410

Among the challenges countries face is the need to improve outcomes of disadvantaged students and schools, which may require multidimensional responses to ensure that schools and their staff are capable of responding to the specific needs of these groups and to respond to diversity more generally. Different approaches aim to respond to this challenge, and country policies and evidence show a range of interventions which can be effective when they are well-targeted to their particular context. Many countries have

adopted some kind of policy to focus on disadvantaged students, either through comprehensive general strategies or policies specifically targeted to groups that require more attention (Table 2.3).

Table 2.3. **Policies to support disadvantaged students and schools, 2008-14**

Comprehensive policies	Targeted policies	
GENERAL STRATEGY	**STUDENTS FROM IMMIGRANT BACKGROUNDS**	**STUDENTS FROM SPECIFIC POPULATION GROUPS**
Australia: Smarter Schools National Partnership on Low Socio-economic Status School Communities (2008-13) **Belgium (Flemish Community):** Funding based on socio-economic background of school and students as part of the Parliamentary Act for primary and secondary education (2008) **Belgium (French Community):** Differentiated Management System (2009) **Canada (Nova Scotia):** SchoolsPlus programme (2008) **Chile:** Law on Preferential Subsidies (2008) **Finland:** An Action Programme for Equal Opportunities in Education (2013) **France:** Primary and Secondary Schools for Ambition, Innovation and Success programs (ÉCLAIR, 2011); Priority Education Networks (2014) **Germany:** Education Alliances (2012) supports out-of-school programmes. **Greece:** Under the Law on Development of Lifelong Learning, Zones of Education Priority (2010) **Norway:** Homework assistance programme (2010) **Portugal:** Third Generation of the Education Territories of Priority Intervention Programme (2012) **Slovenia:** Liven Up the School initiative (2011-14) **Spain:** Programmes for Reinforcement, Guidance and Support (2010) **Turkey:** International Inspiration project (2011) **United Kingdom (England):** Pupil Premium (2011)	**Finland:** National Core Curriculum for Instruction Preparing Immigrants for Basic Education (2009) **Germany:** National Action Plan on Integration (2011) **Ireland:** Intercultural Education Strategy (2010) **Slovenia:** Measures and Guidelines for the integration of immigrant children in kindergartens and schools (2012); Programme of Education for Professionals' Skills Improvement for the Successful Integration of Immigrant Students in Education (2013)	**Australia:** Closing the Gap: Indigenous Early Childhood Development (2008); Aboriginal and Torres Strait Islander Education Action Plan (2010-14) **Czech Republic:** Inclusive Education Support Centres (2009-10); National Action Plan for Inclusive Education (2010) **New Zealand:** *Tataiko*: Cultural Competencies for Teachers of Māori Learners (2012); *Ka Hikitia* – Accelerating the Success: Education Strategy (2013-17) previously *Ka Hikitia* – Managing for Success: the Māori Education Strategy (2008-12); The Pasifika Education Plan (2013-17) **Slovenia:** Projects for the Successful Integration of Roma Students in Schools (2008-15); Raising the social and cultural capital in areas inhabited by members of the Roma community project (2011-13) **Turkey:** Project for Increasing Enrolment Rates Especially for Girls (2011-13); Education Transport Programme (2011-13)

Source: Education Policy Country Snapshots (Part III) and Education Policy Outlook Country Profiles, *www.oecd.org/edu/profiles.htm*.

General equity strategies: Comprehensive policies to support disadvantaged students and schools have been introduced in a number of countries in various ways:

- Like France and Greece, Portugal has introduced the concept of priority educational regions where targeted multidimensional interventions support groups of low socio-economic background schools. The Third Generation of the Education Territories of Priority Intervention Programme (2012) encompasses about 16% of Portuguese schools. It targets socio-economically disadvantaged areas and areas with above-average early school-leaving rates. It aims to support schools by promoting student success and better

learning quality, by tackling disciplinary issues and early school leaving, among other areas.

- Some countries have introduced school support strategies, often by way of funding. Chile targeted struggling primary schools (2008) and secondary schools (2011) through the Law on Preferential Subsidies (2008), which focused on pedagogical and technical support. This has resulted in important changes to the Chilean school system. Although the programme is voluntary, around 85% of the 9 000 eligible schools participated in 2011. Moreover, all municipal schools and about 66% of private subsidised schools are actively engaged.
- Similarly in England (United Kingdom), the Pupil Premium (2011), which provides additional funding to schools to raise the attainment of disadvantaged pupils, has demonstrated positive impact. The Pupil Premium targets students who have received free school meals at any point in the past six years. A recent review of the programme indicates that the Pupil Premium is being used more effectively in schools and shows some positive signs among the target student population (Ofsted, 2014).

Targeting students of immigrant background: Increasing migration towards high-income countries is resulting in changes in the composition of schools in some countries (OECD, 2013c). For example, Ireland, Finland, Germany have experienced increases in the share of international migrants as a percentage of their total population and have recently made targeted efforts to respond to the needs of migrant students and raise their attainment:

- In Finland, the National Core Curriculum for Instruction Preparing Immigrants for Basic Education (2009) was introduced to support students with immigrant background who are not proficient in the Finnish or Swedish language and/or other abilities so that they can attend basic education. The curriculum is differentiated according to age, learning capabilities and background to support students' balanced development and integration into society. The national core curricula for VET and for Preparatory Education for General Upper Secondary Education (2014) also aim to support migrants and foreign-language speakers.
- In Ireland, the Intercultural Education Strategy (2010-15) was introduced to promote inclusive and intercultural learning environments for migrant students by developing leadership and teaching quality, instructional language knowledge, mainstreaming, rights and responsibilities and setting high expectations, among other features.
- In 2011, Germany transformed its National Integration Plan (2007) into the National Action Plan on Integration (NAP-I). It sets goals in education, training and continued education to increase the participation and success of students from immigrant backgrounds.

Supporting students from specific population groups: Across OECD countries, targeted policies have been introduced to support ethnic minorities or hard-to-reach populations. For example, in New Zealand and Slovenia, special measures have been introduced to support national population sub-groups that may be at risk of underperformance:

- In New Zealand, where the Māori population will reach up to 25% of total population, education strategies have included developing Māori-medium education. *Ka Hikitia* – Managing for Success: the Māori Education Strategy (2008-12) has been recently updated to *Ka Hikitia* – Accelerating the Success: the Education Strategy (2013-17). Among its components are the "young people engaged in learning" initiative to engage 14-18 year-old

students in education and *Tātaiako*: Cultural Competencies for Teachers of Māori Learners (2012), a resource to improve teaching by developing cultural competences for teachers in ECE, primary and secondary schools. In addition, a concrete Pasifika Education Plan (2013-17) sets out the government's strategic direction for Pasifika Islanders' education. It seeks to increase accountability for Pasifika students' success and make improvements in practice, by focusing on the use of achievement information and more effective community engagement to address underperformance.

- Slovenia launched various projects to promote successful integration of Roma students in schools, by providing specific training to school assistants and teachers and involving Roma parents in their children's education (2008-15). Most recently, the project on Raising the social and cultural capital in areas inhabited by members of the Roma community (2011-13) aims to work with Roma children, youth and parents in Roma settlements to increase the participation and success of Roma children in education.

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PART I

Chapter 3

Preparing students for the future

What kinds of policy options do policy makers have to prepare students for the future? This chapter discusses the context, main issues and policies adopted across OECD countries to promote development of skills required for post-secondary education or for entering the labour market. The policies examined comprise those ensuring effective completion of upper secondary education, delivering quality vocational education and training (VET), improving the quality of tertiary education, and strengthening and facilitating transitions across education pathways and into the labour market.

The chapter reviews policies adopted across OECD countries between 2008 and 2014 in a comparative approach, drawing mainly from the Education Policy Country Snapshots (Part III), Education Policy Outlook Country Profiles, and OECD comparative and country-specific analysis. The reforms vary across countries, as they are influenced by context, traditions, institutional settings and specific national and regional challenges. They have been grouped according to the different policy options and their scope.

Key findings

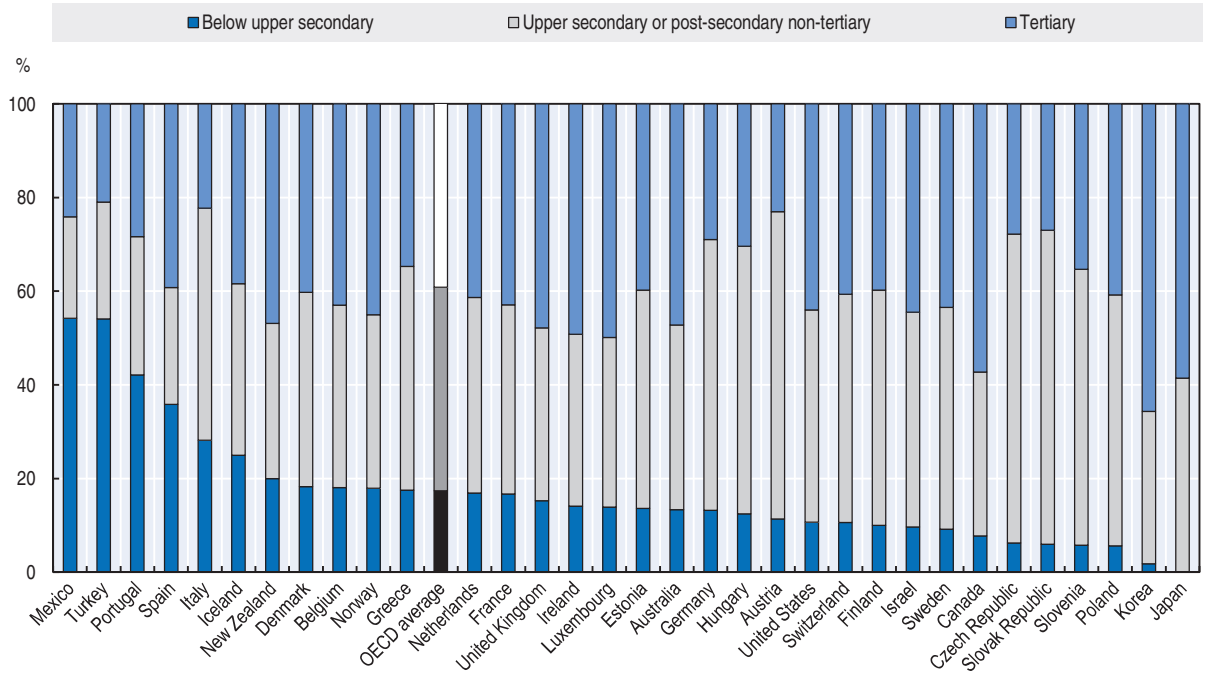
- OECD countries are preparing students for the future, as indicated by increasing attainment rates in education. On average, 82% of 25-34 year-olds have attained at least upper secondary level in comparison to 64% of 55-64 year-olds. However, dropout remains high in some countries; labour market perspectives of young people remain challenging, and many education and VET programmes do not have strong links to the labour market. To respond to these challenges, there is a wide range of policy options to strengthen transitions across education levels and into the labour market.
- To achieve higher completion rates and provide more professional pathways into the labour market, vocational education and training (VET) has become a priority. Many countries have focused efforts in recent years on improving the quality of VET programmes and expanding work-based training or apprenticeships. Some countries have adopted comprehensive strategies, as in Portugal with a national VET strategy that introduced new VET programmes, and in Denmark and Sweden which have reformed their VET systems. Countries have also introduced new qualifications or provided more flexibility in their VET systems to ensure that students have access to higher education. Quality assurance has also been targeted, such as with Austria's Quality Management System.
- To prevent dropout and make upper secondary education more relevant to student and labour market needs, policies have focused mainly on improving curricula and supporting students at risk. For example, Poland introduced a new core curriculum listing the skills that upper-secondary students should develop, notably skills adapted to our fast-changing and technology-intensive economies. Mexico introduced a new system of upper secondary education with a new curricular framework, monitoring system and academic guidance.
- To enhance the effectiveness of tertiary education, a major driver of economic competitiveness, policies have focused on relevance to the labour market and quality control. Comprehensive strategies introduced in different countries aim to raise the quality of tertiary education provision. For example, Ireland and New Zealand introduced general strategies to set direction and priorities, while in Flanders (Belgium) and Hungary they introduced new short-degree cycles. Targeted policies aim to increase access or to improve quality assurance, as in the Netherlands.
- Many countries have adopted policies to support effective student transitions across education or into the labour market through either national strategies, youth guarantee policies or the development of Qualifications Frameworks. Australia, for example, has introduced different strategies, such as the National Partnership on Youth Attainment and Transitions and a national qualifications framework. European Union member countries have particularly co-operated in this area.

Education systems need to better prepare students for future challenges

In today's knowledge-based economies, it is important for individuals and society to ensure that students have the skills required to continue to further education and enter the labour market. According to the Survey of Adult Skills (OECD 2013a), the demand for skills continues to shift towards more sophisticated tasks, as jobs increasingly involve analysing and communicating information and technology pervades all aspects of life. Moreover, individuals require skills to help them navigate the constantly changing economy and contribute to shape its future. Across all OECD countries, it pays to prepare students for the future with upper secondary education or beyond. Salaries and employment opportunities generally rise with the education level: on average, adults with tertiary-level education earn most and have higher levels of literacy and numeracy skills, which usually also translate into better health and more active participation in society (OECD, 2013a; OECD, 2014a).

Across the OECD, young adults have higher levels of enrolment and education, as well as higher levels of key skills, such as literacy and numeracy. Since 2000, enrolment and attainment rates have increased in upper secondary education or tertiary education (OECD, 2014a). On average across OECD countries, 82% of 25-34 year-olds have attained at least upper secondary education in 2012, in comparison to 64% of 55-64 year-olds (Chapter 1, Figure 1.2). In addition, literacy and numeracy scores on the Survey of Adult Skills also indicate that young adults (16-24 year-olds) have higher levels of skills proficiency than 25-64 year-olds in most OECD countries (OECD, 2013a) (Chapter 1, Figure 1.5).

Figure 3.1. **Education attainment of 25-34 year-olds (2012)**



Source: OECD (2014), *Education at a Glance 2014: OECD Indicators*, OECD Publishing, Paris, Table A1.4a.

StatLink http://dx.doi.org/10.1787/888933171424

Despite increasingly positive outcomes, education challenges persist in many OECD countries, particularly in terms of ensuring access and attainment, reducing dropout and designing pathways that ensure smooth transitions and contribute to improved youth employment prospects. Among the younger population, 17% of 25-34 year-olds have not attained an upper secondary education on average across OECD countries (Figure 3.1). Labour market perspectives for 25-34 year-olds are also less than positive, as employment rates have decreased across all levels of educational attainment between 2005 and 2012, and youth unemployment remains high. In 2012, 15.0% of 15-29 year-olds were neither employed nor in education or training (NEET), ranging from 6.7% of 15-29 year-olds in the Netherlands to 29.2% in Turkey. Education and training policies will be important to effectively address the challenges countries face in preparing students for the future (OECD, 2011).

Policy options to prepare students for the future

Upper secondary education, vocational education and training (VET) and tertiary education are key education levels in which policies can be levered to prepare students for the future. After lower secondary education, in most cases students enter more complex and differentiated study programmes as they progress through secondary education and post-secondary education towards the labour market. The main objectives of these education levels and programmes are to develop citizens and foster skills that can be used in post-secondary education and to enter the labour market. Policies to improve provision, such as ensuring relevance of the curriculum, strengthening transitions between pathways and improving links to the labour market, are among the different approaches to improving student outcomes.

Policies adopted between 2008 and 2014 across OECD countries, as reported for this publication, show that countries use a variety of approaches to help prepare students for the future, in upper secondary and tertiary education and general and VET programmes. Reforms in upper secondary education mainly aim to support students who are at risk of dropping out or did not complete this level. Among the policies analysed, policies targeting VET have been most prominent, either with comprehensive strategies or with new curriculum and qualifications. Tertiary education policies aim to raise the quality of provision with new programmes and targeted policies to increase access or to improve quality assurance. In addition, this chapter analyses transversal policies which aim to support students' transitions across these education levels and into the labour market.

Overall, the analysis of policies implemented in these areas of education highlights common patterns: strategies have been developed to introduce new and more relevant qualifications or clearer qualifications structures and to improve the quality of institutions. At the same time, the types of policies adopted depend on many factors, including the structure of the education system and the specific challenges faced by different countries. European Union member states have benefitted from EU co-operation in the field of education and training to address common challenges.

Ensuring effective completion of upper secondary education

Upper secondary education plays a crucial role in education systems as it is where the great majority of youth today are enrolled (OECD, 2004). In the past, upper secondary schools were mainly designed to prepare an elite for accessing university studies, but nowadays they play a key role in ensuring that young people leave the educational system

with the basic qualifications and skills required for employability and successful functioning in society (Capsada, 2014). The OECD's annual indicators on education and associated labour market outcomes suggest that completion of upper secondary education marks the minimum threshold for successful labour market entry and continued employability. Furthermore, it is the stepping stone to opportunities in further education.

Lying between the foundation of basic education and preparation for more complex education or entrance into the labour market, upper secondary education is a pivotal stage for young people, and ensuring completion is a challenge. Building on the knowledge and skills acquired in basic education (ISCED 2), upper secondary programmes are designed to offer students more varied and specialised education through two main paths: academically-oriented programmes (ISCED 3A) and vocationally-oriented programmes (ISCED 3B). While the full upper secondary cycle is compulsory in only eight OECD countries, around 90% of the population enrols in at least one year of upper secondary education in 31 OECD countries. While attainment rates have increased in recent years, on average at least 17% of young adults across OECD have not attained upper secondary education in 2012, and in some countries, the proportion is much higher (Figure 3.1).

Among the main challenges identified by the OECD for upper secondary education is delivering relevant education that addresses varied students' needs and supports effective transitions by preparing young adults for work or further education. The OECD Skills Strategy (OECD, 2012) has recognised the need for education systems to ensure that students complete their compulsory education and that their skills (cognitive skills, interpersonal skills and higher level skills more generally) respond to the needs of the labour market (OECD, 2012).

Across the OECD, countries are adopting a range of policies to enhance quality and ensure completion of upper secondary education. Comprehensive policies involve broad strategies to reform upper secondary education in general, and content policies deal specifically with curriculum and qualifications. Targeted policies respond to the challenge of engaging students and reducing dropout from the education system (Table 3.1).

Governance and general strategies in upper secondary education have been introduced in a limited number of countries to reform the full upper secondary education system:

- Italy has taken steps to reform upper secondary education (2010) by updating, reorganising and simplifying the numerous pathways which have increased over past decades, including reviewing the curriculum. The reform limits and anchors the types of paths to identified needs, both on a national and on a regional/local level to deliver key competencies, knowledge and skills, and define the learning outcomes for each track (Ministry of Education, Universities and Research, 2014). Upper secondary education in Italy lasts five years (the first two years are compulsory schooling) and is organised into general and technical/vocational upper secondary schooling, and vocational education and training paths.
- Mexico, which has among the lowest proportion among OECD countries of population with an upper secondary education, introduced and has begun implementing a National System of Upper Secondary Education (2009) with a common curricular framework, a monitoring system, academic guidance and other educational services, and scholarships to improve access. A review by the World Bank (2013) regarding the loan awarded for this reform indicates some promising results, including implementation of a skills-based curriculum, accreditation of 658 schools as part of the network of the

Table 3.1. **Policies to increase completion of upper secondary education, 2008-14**

Comprehensive policies	Content	Targeted policies
GOVERNANCE AND GENERAL STRATEGY	**CURRICULUM AND QUALIFICATIONS**	**STUDENT DROPOUT**
Estonia: Amendment to the Basic School and Upper Secondary School Act (2013)	**Iceland:** National curriculum guidelines in upper secondary education (2011)	**Austria:** National Strategy against Early School Leaving (2012)
Italy: Reform of upper secondary education (2010-15)	**Japan:** Course of study in upper secondary education (2009)	**Belgium (Flemish community):** Action Plan on Early School Leaving (2013)
Mexico: National System of Upper Secondary Education (2009); Compulsory upper secondary education (2012)	**New Zealand:** National Certificate of Educational Achievement (NCEA) (2009)	**Canada (Quebec):** I Care About School strategy (2009)
	Poland: Curriculum reform – general and VET (2008)	**Germany:** Educational Chains Initiative (2010) for career support; VerA programme (2010)
	Slovenia: Updated subject curricula (2008)	**Mexico:** Constructing Yourself (2008)
	Sweden: A new curriculum for upper secondary education (2011)	**New Zealand:** Achievement Retention Transitions programme (2013) within the Youth Guarantee (2010)
	United Kingdom: (Northern Ireland) Entitlement Framework (2013); **(Wales)** Review of Qualifications for 14-19 year-olds (2011)	**Norway:** New Possibilities-Ny GIV- initiative (2010-13)
		Portugal: Programme to Combat School Failure and Early School Leaving (2012)
		Spain: Programme to Reduce Early Dropout in Education and Training (2008); National Reform Programme (2012)

Source: Education Policy Country Snapshots (Part III) and Education Policy Outlook Country Profiles, *www.oecd.org/edu/profiles.htm*.

National Upper Secondary Education System, and implementation of programmes to reduce student dropout. In addition, Mexico has made upper secondary education compulsory (2012).

Revising curriculum and qualifications: While some countries have introduced broad curriculum reforms that also included upper secondary education (Chapter 4) others focused on revising the content that guides upper secondary education, focusing on key competences to respond to student and labour market needs:

- Poland introduced a modification of the national core curriculum for general education and school vocational training programmes (2008), to be implemented from 2012 to 2015. Designed to help students acquire and develop concrete skills during their upper secondary education (3-4 years), the new curriculum includes reading, mathematical thinking, scientific thinking, communication skills, use of ICT, and critical thinking, as well as problem-solving skills, self-assessment and teamwork. School principals have autonomy to manage instruction time for subjects in the curriculum framework and to ensure skills attainment.
- New Zealand reformed its upper secondary school-leaving certificate, the National Certificate of Educational Achievement (NCEA, 2009), to better align it to the national curriculum. In post-compulsory upper secondary education, the NCEA corresponds to three levels attained by completing a certain number of credits in particular subjects. In 2013, about 70% of students in Year 11 achieved NCEA Level 1 and the same share of Year 12 students achieved NCEA Level 2. In their final year (Year 13), 57% of students achieved NCEA Level 3 (New Zealand Qualifications Authority, 2014).

Preventing student dropout: Student dropout is a complex process of disengagement that can be explained by a variety of factors, such as academic performance, students' personal and family background, system-level policies and labour market conditions (OECD, 2012). Examples of policies adopted to prevent students from leaving the education system and dropping out before attaining a minimum level of education include:

- A common objective among European countries under the European 2020 Strategy (2010) is to reduce rates of early school leaving to below 10% by 2020 (a goal for the whole of the European Union) (EC, 2014a). Early school-leavers refer to 18-24 year-olds who have left education and training with a lower secondary education or less and are no longer in education or training (EC, 2013). Each European country has translated this target to reflect its specific context (EC, 2014b).
- The Austrian National Strategy against Early School Leaving (2012) was implemented to further reduce the proportion early school leavers. While this proportion is low in Austria (7.6%) compared to other countries, the strategy aims to prevent early school leavers at the system level through structural improvements to the education system, at the school level through improvements of the teaching and learning environment, and at the student level by supporting students at risk, through initiatives such as youth coaching (EC, 2013).
- Spain's National Reform Plan (2012) laid out objectives to meet the European Union 2020 strategy and reduce dropout rates to 15% by 2020. Between 2009 and 2012, Spain decreased early school leaving rates by 6.3 percentage points to 24.9% and will aim to reduce it further to achieve its targets (EC, 2013). In the past, Spain also introduced the Programme to reduce early dropout in education and training (*Programa para la reducción del abandono temprano de la educación y la formación*, 2008) which provided funding for preventive measures and has shown a small impact on reducing dropout. More recently, the LOMCE reform (2013) also aims to reduce drop out.
- Norway's national New Possibilities-Ny GIV initiative (2010-13) aimed to boost the upper secondary completion rate from 70% to 75% by 2015 with specific measures for low-performing students and to re-engage in education 16-21 year-olds who are neither in school nor in employment. Key measures include support for students in the final year of lower secondary education and in upper secondary education, training and support for teachers to improve the quality of teaching, common indicators to have comparable statistics, improved collaboration between relevant government authorities, and engaging stakeholders. This reform also introduced some VET initiatives, such as the Certificate of Practice Scheme.

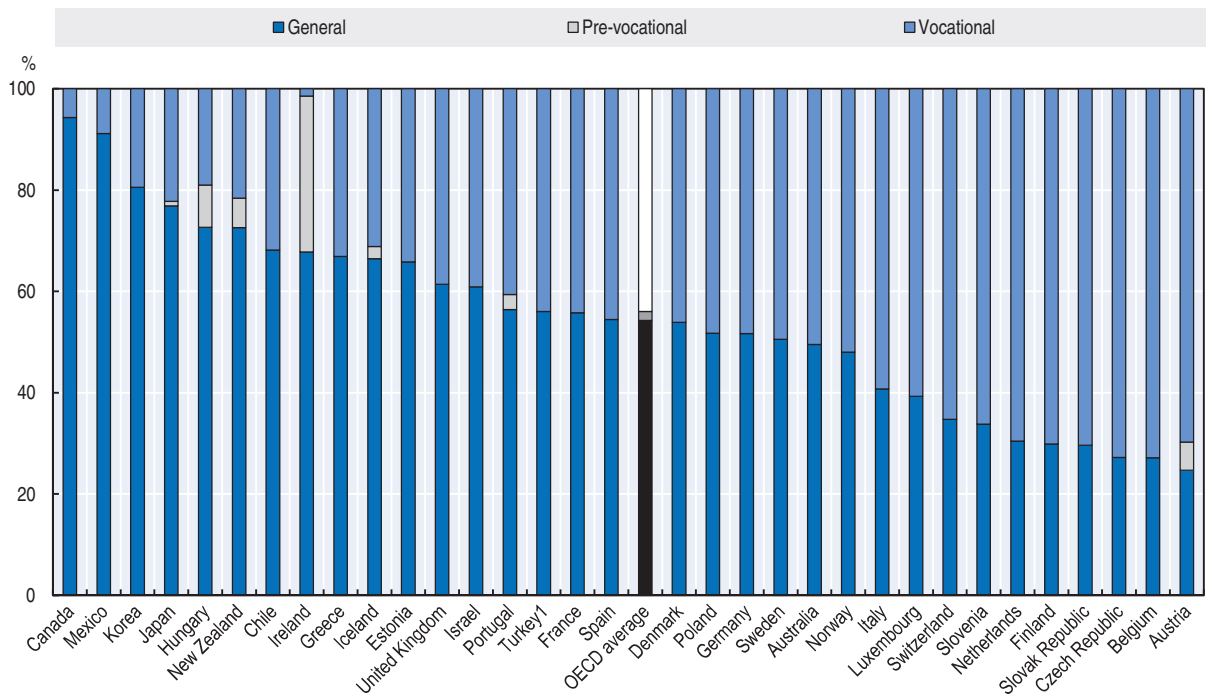
Delivering quality vocational education and training (VET)

VET programmes in upper secondary and tertiary education can play a central role in preparing students for work and responding to labour market needs (OECD, 2010a).VET programmes have sometimes been perceived by students and the general public as having second class status (OECD, 2010a), and directed at low performing students, rather than being considered equivalent to general academic programmes. However, VET increasingly plays a central role in preparing students for the future by combining academic and more relevant training to develop skills needed in the labour market. VET programmes can also prepare students for further education, and many countries are increasingly recognising

that the quality of initial VET can make a major contribution to economic competitiveness (OECD, 2012).

VET refers to education and training programmes at upper secondary (initial) or post-secondary level that generally lead to a recognised qualification and a specific career or type of job (OECD, 2010a). It combines learning relevant theory with practical training, with a special focus on the latter. One of the elements that often differentiates VET from other educational pathways is the importance of workplace training, with the proportion of time spent at a workplace varying by programme (OECD, 2010a). At least 70% of upper secondary students in Austria, Belgium, the Czech Republic, Finland and the Slovak Republic are enrolled in pre-vocational or vocational programmes, while in Greece, Japan, Korea, New Zealand and the United Kingdom, it is less than 30% (Figure 3.2). In most countries, more tertiary students enter tertiary type-A programmes (theory-based programmes) although in Belgium, Chile, Korea, and New Zealand, entry rates for tertiary-type B programmes (technical programmes) are more than 35% compared to the OECD average of 18% (OECD, 2014a).

Figure 3.2. **Students enrolled in upper secondary general and vocational programmes (2012)**



Note: Different duration of upper secondary programmes between countries must be taken into account when comparing enrolment rates at this level of education.

1. Excludes ISCED 3C.

Source: OECD (2014), *Education at a Glance 2014: OECD Indicators*, OECD Publishing, Paris, Table C1.3.

StatLink http://dx.doi.org/10.1787/888933171438

To prepare students for the future, VET programmes need t o ensure that they have the skills needed to successfully enter the labour market as well as continue to further learning. But achieving this is challenging. The Survey of Adult Skills indicates that adults with VET qualifications have, on average, lower literacy and numeracy scores than those in

general programmes, although these data may reflect selected effects (OECD, 2013a). VET programmes face many challenges including balancing students' preferences with employers' needs, determining which mix of skills VET programmes should provide, engaging employers in VET programmes, and developing and providing adequate career guidance (OECD, 2010a). With increasing specialisation and horizontal differentiation in VET, programmes offer students more learning and working options. This wide range of opportunities makes decisions harder and career perspectives more complex (OECD, 2010a).

The analysis of recent policies shows that countries have been extremely active in response to their challenges to strengthen the delivery of VET. Countries have mainly introduced comprehensive general strategies and curriculum-related reforms, with some focusing on quality assurance (Table 3.2).

Table 3.2. **Policies to develop quality vocational education and training, 2008-14**

Comprehensive policies	Content	Targeted policies
GENERAL STRATEGY AND STRUCTURE	**CURRICULUM AND QUALIFICATIONS**	**QUALITY ASSURANCE**
Denmark: Reform of system structure (2008-09); Better and more attractive VET programmes (2014)	**Austria:** Apprenticeships and upper secondary certificate (2008)	**Australia:** Skills Quality Authority (2011)
Estonia: Vocational Educational Institution Act (2013)	**Belgium (French Community):** Reorganisation of curriculum by units of study (2010)	**Austria:** Quality Management System – QIBB (2012)
Germany: Information campaign (2011)	**Denmark:** VET programme with academic examination (2010)	**Slovenia:** Central Register of Participants in Education Institutions (CEUVIZ) (2011), Higher Vocational Education Database.
Hungary: System-level reforms (2011-13)	**Estonia:** Vocational Education Standards (2013)	**Sweden:** Swedish National Agency for Higher Vocational Education (NAHVE, 2009)
Ireland: Education and Training Boards Act – Education and Training Boards (2013); SOLAS – New National Education and Training Authority (2013)	**France:** Reforms of VET at upper secondary levels (2009)	
Italy: Agreement between the State and Regions (2010); Higher Technical Institutes (2011)	**Germany:** New regulations (2009)	
Japan: Guidelines for developing VET education (2011)	**Luxembourg:** The Vocational Training Reform (2008)	
Netherlands: Vocational professionalism agenda (2011)	**New Zealand:** Secondary-Tertiary Programmes (Trades Academies, 2009); Service Academies (2009); Vocational pathways as part of the Youth Guarantee (2010)	
Portugal: Vocational Reference Schools (2012); National integrated strategy (2012-14), including Centres for Qualification and Vocational Education (2013)	**Norway:** Certificate of Practice Scheme (2008); Working Life Course for lower secondary students (2009)	
Spain: Introduction of dual VET (2012)	**Poland:** Curriculum reform – general and VET (2008)	
Sweden: New upper secondary VET system, including apprenticeships (2011)	**Portugal:** Specific Vocational Programmes (2012); VET upper secondary syllabi (2013)	
Turkey: Specialised Vocational Training Centres Project (2010-15); Vocational and Technical Education Strategy Paper and Action Plan (2013-17)	**Slovenia:** Competence-based approach in VET curricula (2008-11)	
	Spain: Under LOMCE (2013), optional vocational pathways and new VET diploma.	
	Turkey: Vocational Education Project for Employment (2009); New Trends in Illumination Project (2009) and Railway Operation in European Credit System (2011-13)	

Source: Education Policy Country Snapshots (Part III) and Education Policy Outlook Country Profiles, *www.oecd.org/edu/profiles.htm*.

Introducing general strategies or modifying the structure: The main objectives of comprehensive VET policies are to introduce guiding principles for the development of VET and to change the structure of VET programmes and/or governance. Some examples:

- Denmark has actively reformed VET. In 2008, the government reformed the structure of VET to reduce student dropout among VET students by redefining the system structure into 12 main study areas. In 2014, the Better and More Attractive VET Programmes (2014) Agreement intends to improve the supply of VET programmes. Targets for 2020 include increasing the share of students entering and completing upper secondary VET; providing professional development for teachers; enhancing guidance counselling and transition to the labour market or higher education; and increasing engagement of stakeholders.
- Portugal has made multiple efforts to improve VET through different related measures brought together under a national integrated strategy (2012-14). It includes multiple actions to increase the number of youth enrolled in VET, improve co-ordination and links to the labour market, and strengthen guidance counselling. Portugal has reformulated the VET upper secondary syllabi (2013) and introduced Vocational Reference Schools (EREP, 2012) and a network of Centres for Qualification and Vocational Education (CQEP, 2013). EREP schools target a particular economic activity in a region while CQEPs provide guidance and counselling to students and adults. Portugal is also piloting new VET programmes (2012) in primary education and lower secondary education (starting at age 13).
- Following recommendations from the Central Council of Education, Japan also aims to improve the quality of VET education with the introduction of guidelines for enhancing VET provision at different levels of the education system.
- Italy has reformed its VET governance structure (2010) to ensure coherence between VET provision offered by the state and by the regions. The state VET system lasts five years and is offered by technical and vocational institutes, while the regional VET system is provided by agencies and institutes accredited by the regions and can last three to four years (Eurypedia, 2013). Further VET qualifications can be obtained in post-secondary non-tertiary education through higher technical education and training pathways or through courses organised by regional VET systems. Additionally, in 2011, Italy introduced post-secondary non-tertiary Higher Technical Institutes offering 2-3 year programmes, which are managed by foundations involving VET schools, accredited training centres, universities and research centres, enterprises and their associations. Curricula are designed in partnership with sectors and companies.

Reforming VET curriculum and qualifications: Policies have been introduced in a number of OECD countries to introduce or reform curricula, define qualifications or improve flexibility between pathways. Some examples:

- According to an OECD review of post-secondary VET, work-based learning can provide a strong learning environment, facilitate recruitment and respond directly to employers' needs (OECD, 2014b). Slovenia introduced a competence-based approach with a modular structure in VET curricula (2008-11), and increased the share of practical training. Evidence suggests that practical training in the work place increased, and 20% of the curriculum is now designed in co-operation with social partners, particularly local companies. In Norway's pilot programme, the Certificate of Practice (2008) allowed students at risk to opt for a two-year training programme, which combined both school-

based education (one day per week) and workplace training (four days per week). A summative evaluation of this programme indicated positive results (CEDEFOP, 2011).

- In Germany, where there is a well-developed VET system and strong co-operation between educational institutions, employers and other social partners, reforms to introduce more flexibility in VET have aimed to facilitate access to higher education for youth who have an advanced VET degree but do not have a general higher education access qualification.
- To further engage students in education and provide vocational skills, New Zealand introduced the Trades Academies (2009) to target upper secondary students interested in careers in trades or technology. The initiative aims for collaboration between schools, tertiary institutions, industry training organisations and employers. New Zealand also created six vocational pathways to provide upper secondary students with more choice and to better integrate core curriculum subjects with industry-recognised pathways.
- As a way to align education and labour market needs, countries have engaged stakeholders in the design of curricula and developed provision through apprenticeships (OECD, 2010a; OECD, 2014b). In Luxembourg, the state co-operates with employers' and employees' chambers in the Committee for Vocational Training to adapt orientations of the training programmes to job market developments and skills needs. The six chambers consist of three for employers (Chamber of Industry and Commerce, Chamber of Craft Trades and Chamber of Agriculture) and three for employees (Chamber of Labour, Chamber of White-Collar Workers and Chamber of Civil Servants and Public Servants). They each represent their respective occupation and supervise VET. Curricula are set by National Training Commissions, which include representatives of each secondary school concerned as well as professionals.

Strengthening quality assurance: Quality assurance is challenging, as VET delivery is complex, with many providers and different types of qualifications and governance structures (OECD, 2013b). Some examples of countries working to strengthen VET quality assurance:

- Under the National Vocational Education and Training Regulator Act of 2011, the Australian Skills Quality Authority (ASQA, 2011) seeks greater national consistency and increased rigour in registering training providers, accrediting courses and monitoring system quality, by using the VET Quality Framework and the Standards for VET Accredited Courses.
- The Swedish National Agency for Higher Vocational Education (NAHVE, 2009) covers higher education VET, analyses labour market demands, decides which vocational programmes are provided as higher vocational education and allocates public funding to education providers. It monitors and audits education quality and outcomes. It is also responsible for co-ordinating a national framework for prior learning and validation and serving as the national co-ordination point for the European Qualifications Framework, which is designed to facilitate comparability of qualifications within the European Union.

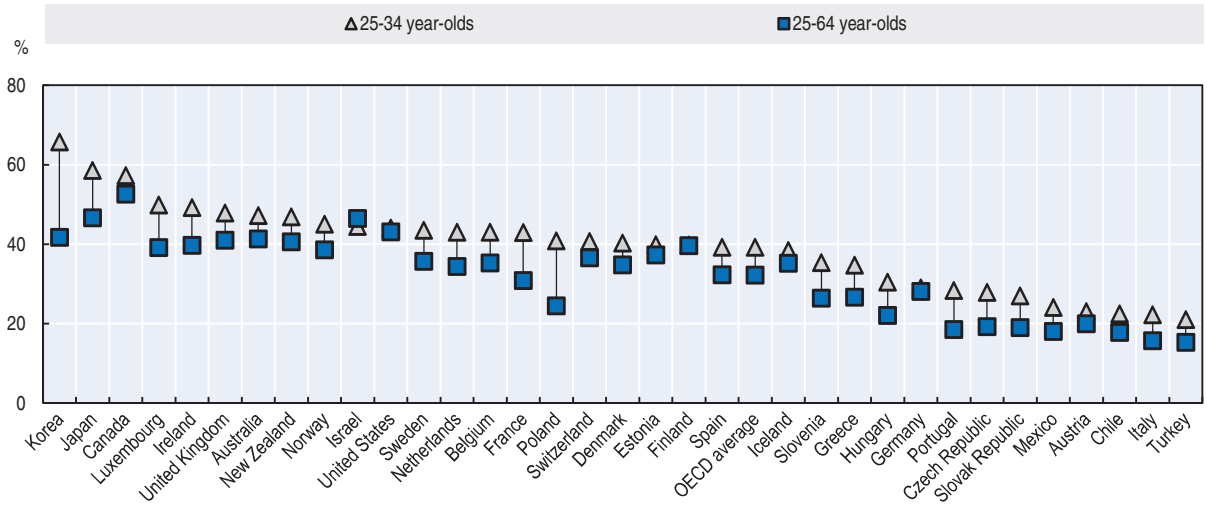
Supporting the development of tertiary education

In our knowledge-driven economies, access to quality tertiary education has become more important than ever before to foster economic competitiveness (OECD, 2008). Tertiary education includes both academic-oriented programmes, traditionally referred to as

higher education (tertiary-type A programmes) and vocational or professional programmes delivered by polytechnics, university colleges or technological institutions (tertiary-type B programmes). The expansion of tertiary education has led to a greater diversification of study programmes aiming to better address the connection between education and the labour market, improve social and geographical access to education and cater to practical training needs (OECD, 2008).

Both participation and attainment have expanded in tertiary education. Since 2000, entry rates of tertiary type-A programmes have increased over 10 percentage points on average to 58%, while entry rates of tertiary-type B programmes have increased at a slower pace, 2 percentage points to 18%. Higher participation rates are reflected in higher attainment rates: 39% among 25-34 year-olds compared to 24% among older adults (55-64 year-olds) on average across OECD countries (Figure 3.3).

Figure 3.3. **Percentage of population that has attained tertiary education, by age group (2012)**



Source: OECD (2014), *Education at a Glance 2014: OECD Indicators*, OECD Publishing, Paris, Table A1.3a.

StatLink http://dx.doi.org/10.1787/888933171448

Given increased access and attainment in tertiary education, key challenges remain for all countries. These include assuring and improving quality and equity in tertiary education in a context of increased decentralisation and institutional autonomy; promoting internationalisation; and ensuring greater relevance to the needs of the labour market. This requires more actively involving labour market actors, to ensure that institutions are responsive to employer demands and students achieve positive labour market outcomes (OECD, 2008).

Among the diverse range of policies adopted to improve the quality of tertiary education, OECD countries have developed broad comprehensive reforms, more specific qualifications reforms, and targeted policies on access, quality assurance and internationalisation (Table 3.3). Countries have also aimed to improve tertiary education through funding policies (Chapter 6).

Introducing general strategies or modifying the structure: In a number of countries, comprehensive policies serve to set the national agenda to guide tertiary reforms in the coming years. In decentralised environments, where tertiary education institutions may be

Table 3.3. **Policies to strengthen quality and access in tertiary education, 2008-14**

Comprehensive policies	Content	Targeted policies	
GENERAL STRATEGY	**QUALIFICATIONS**	**ACCESS**	**QUALITY ASSURANCE**
Austria: Mapping Process for the Austrian Higher Education System (2011) **Belgium (French Community):** Landscape Decree (2014) **Czech Republic:** Strategic Plan for the Scholarly, Scientific, Research, Development, Innovation, Artistic and other Creative Activities of Higher Education institutions (2011) **France:** University Communities (2013) **Ireland:** National Strategy for Higher Education to 2030 (2011) **Italy:** University Reform – Law No. 240 (2010) **New Zealand:** Tertiary Education Strategy (2010-15; 2014-19) **Spain:** Proposals for reform and improvement of quality and efficiency of the Spanish university system (2013)	**Belgium (Flemish community):** A national qualifications' structure (2009-13) **Norway:** National Qualifications Framework for Higher Education (2009) **Turkey:** National Qualifications Framework for Higher Education (2010)	**Australia:** Higher Education Participation and Partnerships Program (2010) **Austria:** Additional places in universities of applied sciences (2012-15) **Finland:** Reform of student admissions and the central government transfer system (2011) **Greece:** Law on the Structure, Operation, Quality-Assurance of Studies and Internationalisation of Higher Education Institutions (2011) **Hungary:** Decree on the Admission Procedure in Higher Education (2012); Decree on National Higher Education Excellence (2013) **Netherlands:** Quality in Diversity in Higher Education law: student guidance (2013) **Turkey:** Two-stage university exams (2010)	**Australia:** Tertiary Education Quality and Standards Agency (2011); MyUniversity website (2011); Advancing Quality in Higher Education (2012) Quality Indicators for Learning and Teaching measures (2014) **Belgium (Flemish Community):** Parliamentary Act (2012) **Chile:** Superintendent of Higher Education (2011) **Denmark:** Revision of tertiary standards (2009) **Iceland**: Quality Council for Universities (2010) **Netherlands:** Performance agreements (2012-15) **Slovenia:** Quality Assurance Agency for Higher Education (2010); Electronic higher education information system (2012)
STRUCTURE **Belgium (Flemish Community):** Short-cycle tertiary education as part of the national qualifications process (2009) **Hungary:** National Higher Education Act (2011) **Turkey:** Consultation on restructure and redesign of tertiary education system (2012) **GOVERNANCE** **Finland:** Universities Act (2009); Polytechnics reform (2011-14) **Slovak Republic:** Amendment to the Higher Education Act (2012)		**INTERNATIONALISATION** **Australia:** New Colombo Plan (2013) **Finland:** Strategy for the Internationalisation of Higher Education Institutions (2009-15) **Japan:** International Students Plan (2008); Revitalisation Strategy (2010); Go Global Japan (2012); Initiative for Emerging Global University (2014)	

Source: Education Policy Country Snapshots (Part III) and Education Policy Outlook Country Profiles, *www.oecd.org/edu/profiles.htm*.

autonomous or guided by local or regional governments, broad general strategies can provide overall coherence and clarity (OECD, 2008). Other comprehensive policies aim to reform tertiary programmes or governance structures, for example:

- The French Community of Belgium has introduced the *Landscape Decree* (2014) which aims to define the higher education system and academic organisation of schooling to harmonise students' school trajectories from all types of higher education institutions. The policy also sets up the Higher Education and Research Academy (ARES) to enable co-ordination of the higher education system and serve as a platform for dialogue.

- New Zealand has introduced the Tertiary Education Strategy (TES) for 2014-19, a follow-up to its 2010-15 strategy. The TES sets the government's five-year direction and priorities in tertiary education, and aims to promote a more outward-looking and engaged tertiary education system. It also aims to improve funding, research and internationalisation. A TES progress report provides updates on achievements regarding the objectives of these higher education strategies.
- To better meet the demands of the labour market, Hungary's National Higher Education Act (2011) has introduced short degree cycles (associate degrees) into the tertiary education system. In addition, Hungary also aims to strengthen the partnership between tertiary education institutions and the industrial sector through practical training.
- Italy has undergone a comprehensive reform of tertiary education. Under the University Reform Law n°240/2010, Italy introduced new requirements for all Italian universities, such as strengthening institutional autonomy, offering student welfare services, and introducing a new quality assurance and accreditation system. This new system includes periodical evaluation as well as standards and criteria for institutions to establish doctoral programmes.

Strengthening qualifications systems: National qualifications frameworks can be instrumental in providing coherent links between the various programmes and qualifications offered by different higher education institutions (OECD, 2008). Qualifications frameworks for higher education have been introduced in Norway and Turkey as part of the 2005 Bologna Process, which aims for countries to adopt a qualifications framework to support transferability of credits and student mobility in the European Higher Education Area (EHEA).

Ensuring access to tertiary education institutions: Despite growing participation in many OECD countries, access to tertiary education is still a challenge some countries are trying to address.

- In Austria, additional places (approximately 4 000 by the end of 2015) will be added in the Universities of Applied Sciences to meet the needs of technical and business professions. National reports have shown an increase in the overall student body from 16 782 in 2011/12 to 17 956 in 2012/13.
- Hungary has reformed admissions to university study programmes. As part of the Decree on the Admission Procedure in Higher Education (2012), Hungary is gradually raising minimum university admission requirements by increasing the score required between 2013 and 2016. Additionally, under the Decree on National Higher Education Excellence (2013), the quota system for selection of applicants was replaced by minimum score requirements per study programme and admission based on programme capacities. These policies aim to increase the quality of candidates entering tertiary education.

Strengthening quality assurance: In a context of decentralisation and institutional autonomy, quality assurance has been increasingly introduced to hold institutions and stakeholders accountable.

- Many countries, including Chile and Iceland, have introduced or reformed quality assurance agencies, which evidence suggests can help ensure institutions are providing quality education that is relevant to labour market needs (OECD, 2008). Iceland has the Quality Council for Universities, an independent institution made up of the heads of the higher education institutions in Iceland, students and members of the Science and

Technology Committee. The Superintendent of Higher Education bill in Chile, introduced in 2011 and passed in 2013, supports quality assurance in tertiary education, aiming to increase monitoring and promote quality in higher education.

- Under the Parliamentary Act (2012), the Flemish Community (Belgium) introduced quality assurance reviews in line with accreditation processes of tertiary education programmes.

Internationalising tertiary education: Countries are also aiming to promote internationalisation of tertiary education with different objectives, such as to attract international students to enhance the pool of skilled workers, attract skilled workers, generate revenue, foster exchange and co-operation, or support access to foreign-based study programmes as a cost-effective alternative to domestic provision (OECD, 2008). Across the OECD, approximately 8% of all students in tertiary education are international students. In Japan, 4% of students in tertiary education are international (OECD, 2014a), and various efforts are being made to increase the number of international students in Japan through the International Students Plan (2008). The Japan Revitalisation Strategy (2010) aims to double the number of Japanese students overseas by 2020. Other policies, such as Go Global Japan (2012), aim to support the capacity of universities to develop foreign languages.

Facilitating transitions across education pathways and the labour market

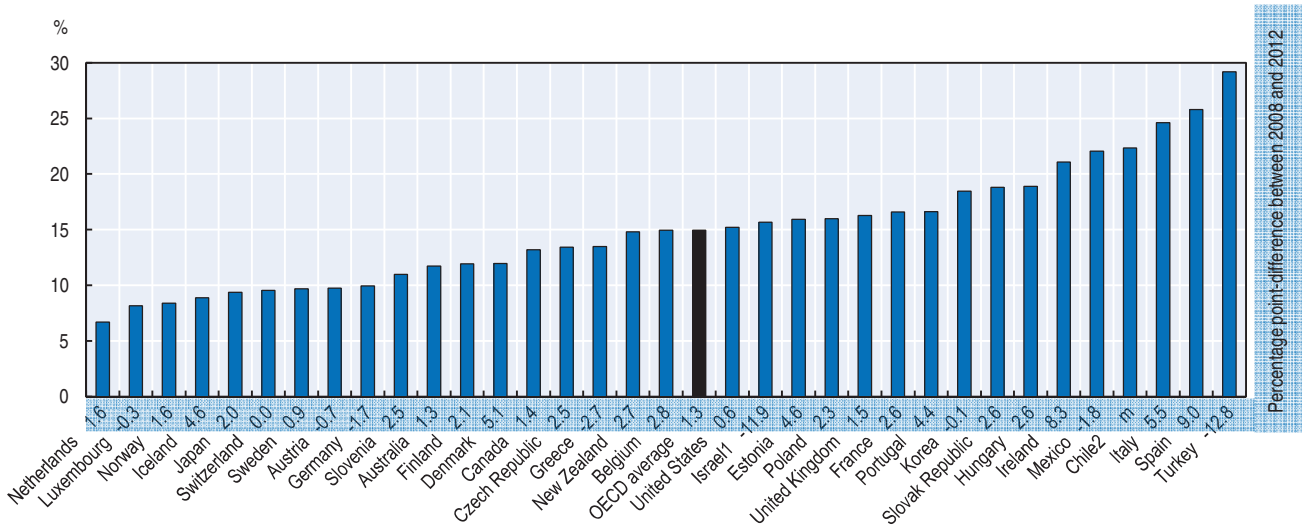
Securing smooth transitions across upper secondary and tertiary pathways and into the labour market have been an issue for OECD countries, to ensure effective completion and youth employment (OECD, 2010b). As OECD economies have become more knowledge-based, young people are expected to have solid basic skills to participate actively in society and in the labour market. Education systems have to ensure that youth can attain a minimum level of skills that are transferable and useful, not only across occupations and jobs, but also to other spheres, such as family and social life. Yet, across OECD countries, young people drop out and do not benefit from available education opportunities or enter the labour market (OECD, 2010b).

Challenges remain in helping students to make transitions through the various education levels and into the labour market. Across OECD countries on average in 2012, 15% of individuals from age 15-29 were considered neither employed nor in education or training (NEET) (Figure 3.4). Since 2008 the share of NEET population has increased by 1.3 percentage points among 15-29 year-olds but has decreased for younger cohorts, from 7.8% to 7.2% for 15-19 year-olds in 2012 (OECD, 2014a). In some countries, the proportion of NEET population in 2012 was low (6.7% in the Netherlands, 8.2% in Luxembourg and 8.4% in Norway), while in others, the proportion was much higher than average among 15-29 year-olds (29.2% in Turkey, 25.8% in Spain and 24.6% in Italy) (Figure 3.4). Furthermore, students face other challenges such as transferability of diplomas across different education pathways and across countries, and securing effective transitions into the labour market, especially for more disadvantaged youth

To improve transitions, prevent dropout and increase the share of youth in education and employment, OECD countries are adopting a range of policies that are transversal in nature. Countries have introduced broad comprehensive strategies, which aim to engage students and help them in their transitions, and defined qualifications frameworks (Table 3.4). It is important to note that specific policies in upper secondary education and VET can also help facilitate transitions across education pathways and the labour market (Tables 3.1 and 3.2).

Figure 3.4. **Young adults not in education or employed (2012)**

NEET population among 15-29 year-olds and change between 2008 and 2012



Note: Countries are ranked in ascending order of the 2012 percentage of NEET population among 15-29 year-olds with upper secondary or post-secondary non-tertiary education.

1. 2011 and 2012 data are not comparable. See Methodology section.
2. Year of reference 2011.

Source: OECD (2014), *Education at a Glance 2014: OECD Indicators*, OECD publishing, Paris, Table C5.3d, available online (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933171451

Table 3.4. **Policies to improve transitions between education and the labour market, 2008-14**

Comprehensive policies	Content
GENERAL STRATEGY	**QUALIFICATIONS FRAMEWORK**
Australia: National Agreement for Skills and Workforce Development (2009); National Partnership on Youth Attainment and Transitions (2009-13); National Partnership Agreement on Skills Reform (2012)	**Australia:** Australian Qualifications Framework (2011)
Belgium (Flemish Community): An Agreement between the Flemish Government and the Social Partners on Professional Careers (2012)	**Czech Republic:** National System of Occupations (NSO) and National Qualifications System (NQS) (2011)
Canada (New Brunswick): Labour Force and Skills Development Strategy (2013)	**Finland:** National Framework for Qualifications and Other Learning (2012)
France: Law of 22 July 2013 to promote integration in the labour market	**Germany:** Recognition Act (2012); German Qualifications Framework (DQR, 2013); *Länder* Recognition Acts (2014)
Ireland: Springboard programme (2011); Action Plan for Jobs (2012)	**Greece:** Law on Organisation and Operation of the Institute of Youth and Lifelong Learning and of the National Organisation for the Certification of Qualifications and Vocational Guidance and Other Provisions – accreditation of non-formal learning (2013)
YOUTH GUARANTEE	**Korea:** Learning Accounts (2009); The National Competency Standards (2013)
Finland: Youth Guarantee (2013)	**New Zealand:** Qualifications Framework (2010)
New Zealand: Youth Guarantee (2010)	**Norway:** National Qualifications Framework for Lifelong Learning (2011)
Slovenia: Youth Guarantee (2014)	**Slovenia:** Slovenian Qualification Framework under adoption (2013)

Source: Education Policy Country Snapshots (Part III) and Education Policy Outlook Country Profiles, *www.oecd.org/edu/profiles.htm*.

Introducing general and youth guarantee strategies: Some countries aim to improve transitions between education and employment through overarching strategies, for example:

- To ease transitions between education and the labour market, Australia has implemented multiple national partnerships involving the Australian state and territory governments agreeing to structural reforms to improve the training system in exchange for funds. In particular, the National Partnership on Youth Attainment and Transitions (2009-13) aimed to retain 15-24 year-olds in education and improve their transition to further education, training or employment through school partnerships with training organisations. Evaluation of the policy suggests that there have been improvements in participation and attainment (Dandolopartners, 2014).
- New Brunswick (Canada) launched the Labour Force and Skills Development Strategy (2013) to strengthen student pathways, support learning and skills development, and retain/attract skilled individuals to participate in the New Brunswick labour market. In part, the strategy aims to align K-12 and post-secondary education with labour-market needs so that students can gain the knowledge and skills needed to transition more easily into the workforce.
- Ireland's Springboard programme (2010) has improved access for individuals by providing free higher education courses of up to 12 months to people who recently became unemployed, with a particular focus on skills requirements in the manufacturing sector, ICT and international financial services. The programme has been running since 2011, with over 10 000 people enrolled in courses to date and 40% of participants back in work six months after their course. Additionally, the Further Education and Training (FET) Sector in Ireland is undergoing significant reform, including introducing a new National Education and Training Authority (SOLAS, 2013) and 16 Educational and Training Boards (ETBs, 2013).
- To support transitions for young people, the European Union introduced the Youth Guarantee (2013) as a recommendation to EU members to provide young people under age 25 with access to employment, apprenticeship or traineeship within four months of leaving education or becoming unemployed (EC, 2013). Many EU countries have introduced Youth Guarantee strategies (EC, 2014c). For example, Finland's Youth Guarantee provides everyone under age 25 and recent graduates under age 30 either a job, a traineeship, a study place, or a workshop within three months of becoming unemployed. Slovenia's Youth Guarantee (2014) guarantees a job, formal education or a training opportunity to any 15-29 year-old who is currently unemployed, as well as to the 37 000 people in that age range who annually register in the employment service.

Introducing qualifications frameworks: Transitioning between education levels and the labour market can be facilitated by well-functioning qualification frameworks, which provide a reference for the competencies students should attain in formal education and training, employers' demands for skills and employment, and programme offerings of educational institutions (OECD, 2008). Qualifications frameworks can help clarify the level of competencies that should be associated with different qualifications (diplomas or awards) and how different qualifications relate to one another, and also improve flexibility between the multiple programmes (OECD, 2013b). However, creating coherent national

qualifications frameworks requires a high level of collaboration and co-ordination among institutions and employers (OECD, 2008).

- The development of the European Qualifications Framework for lifelong learning (EQF, 2008) has been a catalyst for development of national qualifications frameworks (NQFs) in European countries (CEDEFOP, 2013). Each country's NQF is contextualised within the national environment and is comparable across Europe through the use of the EQF as a reference. For example, in the Czech Republic, NQFs (2011) developed for vocational qualifications and for higher education qualifications are linked to the EQF and aim to respond to the qualifications demanded in the labour market. In Ireland, as in other European countries, qualifications frameworks aim to increase the balance in perceived quality between VET and tertiary education qualifications awarded at the same NQF levels.
- Through the Recognition Act (2012) and the *Länder* Recognition Acts (2014), Germany has introduced a qualifications framework for both those who have obtained qualifications in Germany and foreigners who have gained qualifications abroad. In addition, Germany's Qualifications Framework is linked to the EQF.
- Korea's Learning Account system (2009) allows individuals to accumulate and manage their learning experiences, providing credits and qualifications for career development.

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PART I

Chapter 4

School improvement

What kinds of policy options do policy makers have to enhance the quality and delivery of education in schools? This chapter discusses the context, main issues and policies adopted across OECD countries to promote school improvement. School improvement policies refer to those that strengthen the delivery of education in schools to positively influence student achievement. They comprise policies to promote the development of adequate learning environments and relevant curriculum, effective school leaders and high-quality teachers.

The chapter reviews policies adopted across OECD countries between 2008 and 2014 in a comparative approach, drawing mainly from the Education Policy Country Snapshots (Part III), Education Policy Outlook Country Profiles, and OECD comparative and country-specific analysis on education systems. The reforms vary across countries, as they are influenced by context, traditions, institutional settings and specific national and regional challenges. These policies all aim to improve the quality of schools and instruction and have been grouped according to the different policy options and their scope.

Key findings

- Supporting schools to raise the quality of teaching and learning requires developing conducive learning environments and ensuring high-quality school leaders and teachers. A majority of 15-year-olds across OECD countries find that their classrooms are conducive to learning, but there are challenges across schools in some countries, including lack of student motivation, lack of relevant curriculum, difficulties in attracting and retaining qualified staff, lack of teacher collaboration and lack of professionalisation of school leadership. Most OECD countries have been introducing policies to respond to these challenges.
- As the quality of teachers is key for effective learning, OECD countries have made this a policy priority, adopting broad strategies, defined standards or more targeted approaches to develop the teaching profession as Mexico has done. France, for example, has focused on reforming the content and structure of its teacher-training programmes through the creation of new schools combining practical and theoretical training, while in 2008 the United States introduced an incentive-based policy offering federal grants to institutions upgrading their programmes. Finland introduced systematic professional development for school staff, including school leaders, through the OSAAVA Programme and increased government funding.
- To support the increased professionalisation of school leadership, countries have introduced comprehensive strategies, set standards of practice and/or developed initial training programmes. Portugal has developed a comprehensive strategy and introduced initial school leadership training. Australia introduced the Australian Institute for Teaching and School Leadership.
- To develop more conducive learning environments that motivate students and ensure higher levels of skills, countries have introduced comprehensive curricular reforms, such as in Scotland (United Kingdom), with the broad Curriculum for Excellence, or in Japan, where curriculum guidelines for elementary and lower secondary schools have been revised and focused on core competencies, well-being and communication skills. Some reforms of curriculum and instruction also include capacity-building for school leaders and teachers.

Schools and learning environments – room for improvement

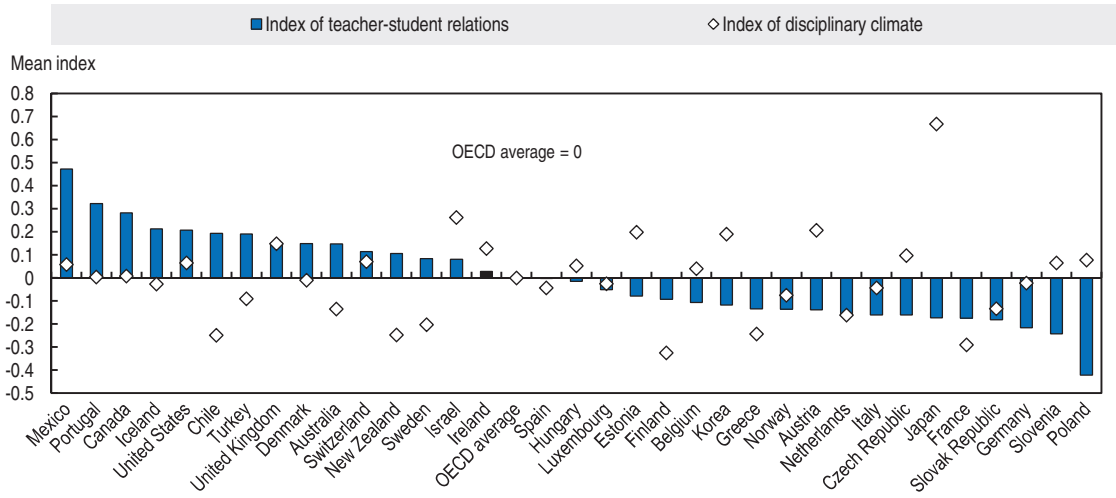
As learning environments, schools are the basic educational institutions where teachers and school leaders deliver education, where students have access to education and acquire basic and specialised skills and competencies. Teachers have the most direct influence on student performance and on improving learning outcomes (OECD, 2005; Schleicher, 2012). School leaders also play a pivotal role. They are responsible for creating the conditions within schools for effective teaching and learning, and their role has become progressively more complex with increased autonomy and accountability (Pont, Nusche and Moorman, 2008; Schleicher, 2012). In addition, learning environment

conditions can affect the way in which students and education staff interact and learn (Dumont, Istance and Benavides, 2010), and they are affected by the quality of teaching and school leadership as well as the learning delivered through the curriculum.

Evidence on effective schools indicates that having an orderly environment within the classroom is important for learning (OECD, 2013a). At the same time, evidence from TALIS on lower secondary education shows that the relationships between teachers, their leaders and their students is crucial for teachers' overall job satisfaction and self-efficacy (OECD, 2014a). Between 2003 and 2012, on average across the OECD, students reported positive teacher-student relations and positive disciplinary climates in their secondary education environments (OECD, 2013a): 82% of 15-year-olds across OECD agreed or strongly agreed that they get along with most of their teachers, while 68% stated that they never or only in some lessons do not listen to what the teacher says and that there is never or only in some lessons noise and disorder (Figure 4.1). A majority of school leaders report positive disciplinary climate in their schools, with 68% reporting that students disrupting classes hinders learning in their schools very little or not at all (OECD, 2013a).

Figure 4.1. **The learning environment (2012)**

Students' reports of teacher-student relations and classrooms conduciveness to learning



Source: OECD, *PISA 2012 Database*, Table IV.5.5 and Table IV.5.6.

StatLink http://dx.doi.org/10.1787/888933171468

While school environments appear positive, PISA results show that many schools and education systems can deliver higher performance in their schools. Almost 40% of school leaders in the TALIS survey suggested that a shortage of qualified or well performing teachers hindered schools' capacity for quality instruction. Moreover, collaboration between teachers appears limited. More than four in ten teachers participating in TALIS 2013 reported never observing other teachers' classes to provide feedback or never teaching jointly (OECD, 2014a). A large proportion of teachers reported never engaging in collaboration with other teachers, with more than 40% never engaging in discussions about learning development of specific students, or never exchanging teaching materials with colleagues.

To respond to these challenges, policy makers need to focus on enhancing the quality of schools by improving teaching and leadership practices and promoting adequate learning environments.

Policy options to support school improvement

To support the effective delivery of education, school improvement programmes and policies are designed across OECD countries to raise the quality of educational institutions and promote better learning. These are defined in the literature as plans or strategies to improve learning and schools' capacity to manage change (Skalde and Pont, 2013; Hopkins, Ainscow and West, 1994). Among key strategies for school improvement are strengthening learning environments and raising the quality of school leadership and the teaching profession.

Learning environment policies can strengthen the conditions in which the teaching and learning process occurs by addressing factors such as instruction and learning time, curriculum, or resources available to support student learning. Raising student outcomes through school leadership policies involves defining, developing and supporting school leaders and their profession, to ensure that it can attract and retain high-quality candidates. Similarly, teacher policies can contribute to attracting, developing and retaining high-quality teachers in schools through effective recruitment processes, positive working conditions, and availability of professional development, appraisal, and career opportunities.

Policy options adopted between 2008 and 2014 across OECD countries, as reported for this publication, show that countries introduced either different complementary policy options to drive school improvement in primary and lower secondary education or overarching school improvement strategies of the education system. Policies to foster conducive learning environments include general strategies and structural reorganisation of learning time, as well as content-related policies that redefine the curriculum. School leadership and teacher policy approaches introduced either comprehensive strategies or new governance structures to guide the profession or measures targeted to specific aspects, such as strengthening initial education and professional development, setting quality standards, or making the profession more attractive through recruitment or modified working conditions.

In school improvement, there is a certain degree of overlap. For example, curricular reforms may require school leadership and teacher training to support implementation, and teachers and school leaders have similar career structures and incentives. In addition, a review of school improvement policies indicate some common factors in the design and implementation of these reforms that contribute to success (Chapter 9).

Promoting positive learning environments

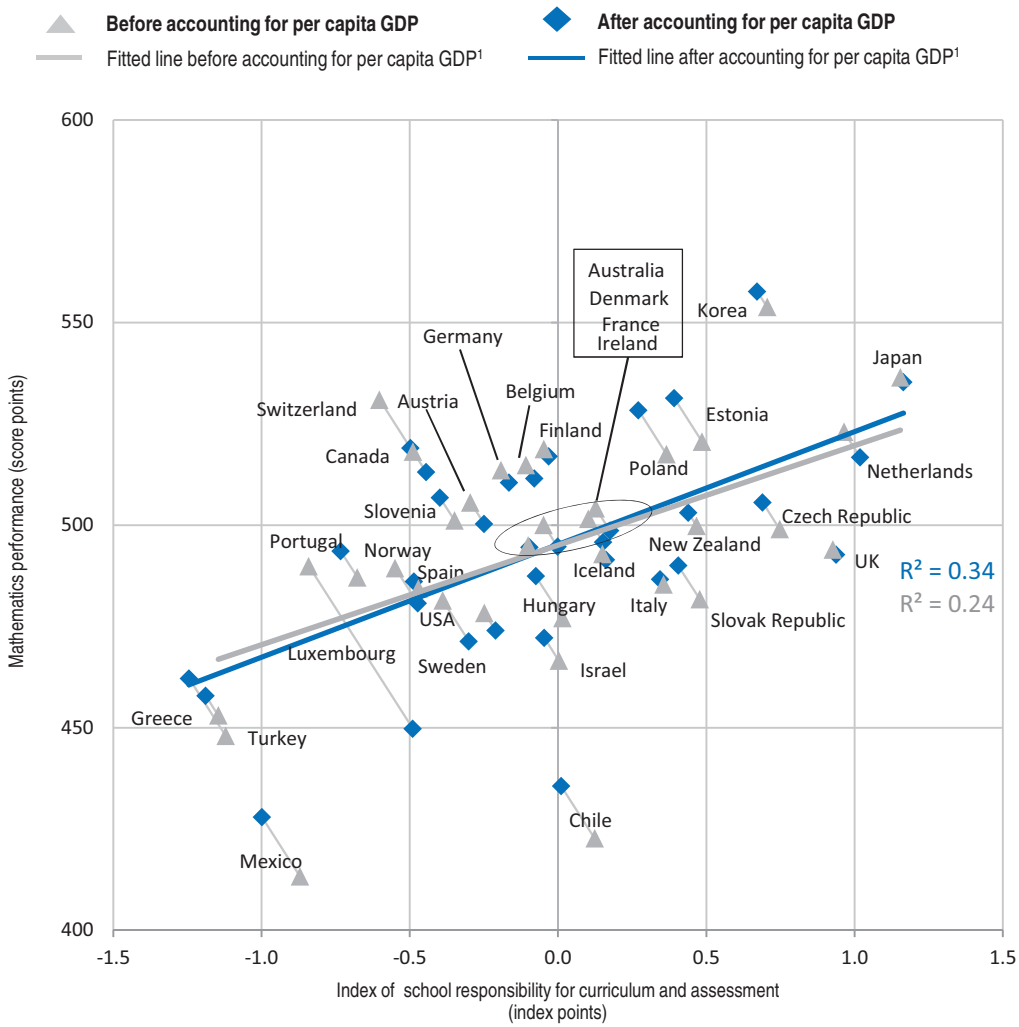
One of the main questions facing policy makers is how to organise the learning environment to enhance learners' outcomes. An OECD study on the learning environment defines four components it calls the "pedagogical cores": learners, educators, content and resources. Learners are seen as the centrepiece of learning environments: Research suggests the content of an effective learning environment meets student needs and motivates them, setting high expectations without overload (OECD, 2013b). In addition, the educational resources available in a school tend to be related to a system's overall performance (OECD, 2013a).

PISA indicates various factors which can affect the adequacy of learning environments. In PISA 2012, about 33% of the variation in mathematics performance can be explained by school principals' reports on the adequacy of instructional materials and

availability of computers, software, Internet and library materials for instruction. Time is also a resource on which policy makers can intervene. The average learning time in regular mathematics lessons is positively related to students' performance at the school level, and schools whose students spend more hours on homework and other study time set by teachers tend to perform better in PISA 2012 (OECD, 2013a). In addition, there is evidence of a positive correlation between autonomy over curriculum and assessment and students' performance in PISA 2012, aligned with an increasing trend towards more school-level autonomy over learning, the use of the curriculum and pedagogical resources (Figure 4.2).

Figure 4.2. **School autonomy over curriculum and assessment and mathematics performance across OECD countries (2012)**

Results based on school principals' report and performance of 15-year-olds on PISA 2012



1. A significant relationship ($p < 0.10$) is shown by a the solid line.

Source: OECD, *PISA 2012 Database*, Data_Figure IV.1.15.

StatLink http://dx.doi.org/10.1787/888933171473

Learning environments across OECD countries are positive, with some variations. On average in PISA 2012, around 80% of students are in schools whose school principal reported having adequate instructional materials, Internet connectivity or library

materials. The ratio of students to teaching staff is on average 13.5 in lower secondary schools in OECD countries, with a minimum of 7.9 in Slovenia and a maximum of 32 in Mexico. In terms of content, more and more countries tend to use the concept of 21st century competencies as part of curriculum design, referring to core skills in numeracy, literacy and problem-solving as well as communication and social skills that enable students to work and adapt to rapidly changing environments (OECD, 2013b). Furthermore, 40% of students are in schools whose school principal reported that course content is determined by the principal and/or the teachers, and 65% of students are in schools whose principal reported that the schools can select their textbooks (OECD, 2013a).

Recent policies focus especially on what and how students learn. In a context of increased autonomy for schools in decisions on pedagogical resources and the curriculum, policies to guide and foster schools' capacity to provide an adequate learning environment and set high expectations for all with relevant curricula are a concern of OECD countries. To achieve improvement in learning environments, OECD countries have introduced comprehensive school improvement policies or strategies, as well as policies introducing new curricula or new skills, and others targeted to delivering concrete support for learning (Table 4.1).

Table 4.1. **Policies to develop positive learning environments, 2008-14**

Comprehensive policies	Content	Targeted policies
GENERAL STRATEGY	**CURRICULUM**	**LEARNING SUPPORT AND INNOVATIVE TOOLS**
Australia: Students First (2014)	**Denmark:** The National Common Objectives for Compulsory Education (2009)	**Finland:** Web-based service for learning difficulties in reading and mathematics, LukiMat (2008)
Austria: School Quality in General Education (SQA, 2012)	**Finland:** Curriculum reform for pre-primary to upper secondary education for 2016 (2014)	**Hungary:** Act on Textbook Provision of National Public Education (2013)
Ireland: National Strategy to improve Literacy and Numeracy among children and young people 2011-20 (2011)	**Hungary:** Decree on the National Core Curriculum (2012)	**Ireland:** Project Maths (2010)
Mexico: Comprehensive Strategy to Improve Education Achievement (2009); Quality Schools Programme, PEC (2010-13)	**Iceland:** National curriculum guidelines from pre-primary to upper secondary (2011)	**New Zealand:** Positive Behaviour for Learning (2009)
New Zealand: Student Achievement Function (2010)	**Italy:** National curriculum guidelines (Ministerial Decree no. 254/2012 (2012)	**Norway:** The Advisory Team Programme (2009)
Norway: Better learning environment (2009-14); Action plan to raise performance in lower secondary education (2012)	**Japan:** Course of Study (2008)	**Spain:** Information and communication technology (ICT) plan for schools (2012)
United Kingdom: (Northern Ireland) Every School a Good School (ESaGS) (2009); **(Wales)** Improving schools Plan (2012); **(Scotland)** Curriculum for Excellence (2010)	**Slovenia:** Updated curricula in basic schools (2012)	
	Sweden: A new curriculum for compulsory education (2011)	
	United Kingdom: (Wales) National Literacy and Numeracy Framework (2013)	
STRUCTURE		
Austria: Whole-day schooling offers (2013)		
France: Redistribution of learning time under the Reform of the Republic's School (2013)		
Ireland: Increase in reading instruction (2011); Framework for Junior Cycle (2014)		
Korea: After-school childcare (2014)		
Luxembourg: Compulsory Education Reform (2009) school administration in partnership		
Mexico: Full-time Schools Programme (2009-12)		

Source: Education Policy Country Snapshots (Part III) and Education Policy Outlook Country Profiles, *www.oecd.org/edu/profiles.htm*.

Introducing general strategies and structure: Comprehensive strategies and structural policies which change the structure of learning environments have been introduced in a number of countries, for example:

- Comprehensive school improvement strategies have been introduced in the United Kingdom. Northern Ireland introduced Every School a Good School (2009), to enable schools to raise standards and address barriers to student learning for better outcomes. An implementation plan published with the policy set out the key actions, targets and timescales (Department of Education, 2009). Scotland introduced Curriculum for Excellence (2010), which includes a wide-ranging curricular reform and complementary aspects to support school improvement. Wales developed the Improving Schools Plan (2012), to improve literacy, numeracy and equity in schools for children from 3-16 years old. As is the trend in many OECD countries, these reforms aim to provide schools with more autonomy and to involve multiple stakeholders across different levels of governance to drive improvements.
- Both Mexico and France modified the length of time spent in school and breadth of instruction. Mexico has promoted full-time schools by gradually increasing the length of the school day and has widened the curriculum to include additional ICT and language courses (Full-time Schools Programme, PETC, 2007/08). In France, redistribution of learning time under the Reform of the Republic's School (2013) added half a day of schooling per week in primary education, redistributed learning time across the week and introduced additional pedagogical activities and individualised learning time in schools (2013).
- Austria developed a quality in general schools framework (SQA) to improve the quality of teaching and leadership, and also introduced quality management as part of the responsibilities of school leadership.

Modifying curriculum: The curriculum or content of learning refers to the knowledge, competencies, abilities and values students develop in their learning environment (OECD, 2013b). Policies reforming instructional content vary in approach and the extent to which the curriculum has been changed. In many countries, curriculum guidelines focus primarily on developing core educational competencies in numeracy and literacy, while other curriculum guidelines are broader. Curriculum reforms specific to ECEC or upper secondary education are reviewed in previous sections (Tables 2.1, 3.1 and 3.2). Examples of broad curriculum reforms include:

- Finland (2012-16) introduced a curriculum reform from pre-primary education through to upper secondary education which includes objectives, lesson time distribution, National Core Curricula and local curricula. Development of the core curriculum document is to be done in co-operation with key stakeholders and implemented in all grades by 2016 (Finnish National Board of Education, 2013).
- Hungary and Japan introduced curriculum reforms with broader scopes. Hungary's Decree on National Core Curriculum defines the values that the curriculum should convey, including communication skills, student well-being, volunteering and digital literacy. It also develops curricular regulatory instruments. In Japan, the revision of the Course of Study (2008) – the curriculum for elementary and lower secondary schools – provides guidelines in core competencies, well-being and communication skills.

Introducing or developing learning supports: A number of OECD countries introduced new pedagogical tools and resources to support learning, many of which rely on new technologies. Ireland developed an initiative, Project Maths (2010), to support

secondary teachers, implement a mathematics syllabus and improve student learning by providing online courses and resources.

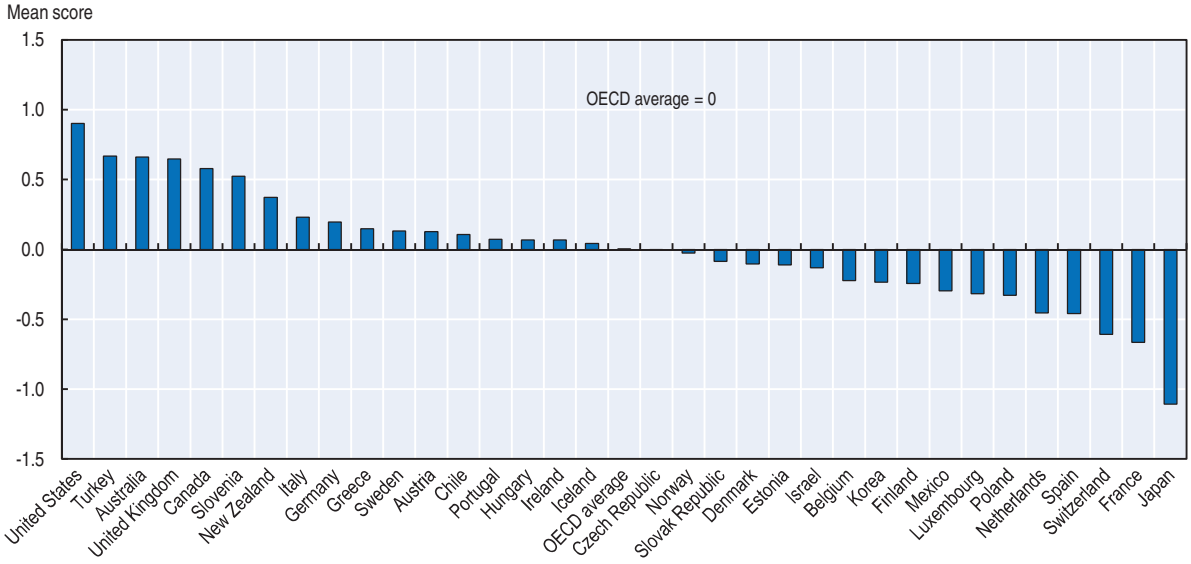
Developing effective school leadership

Effective school leaders are essential for school improvement. They have the capacity to develop learning environments and promote effective teaching and learning. Their key responsibility as instructional leaders is to prioritise a more pedagogical role, working to support and develop teachers and other staff, setting clear goals and ensuring that schools are delivering high-quality education (Pont, Nusche and Moorman, 2008; Schleicher, 2012). With the increasing trend towards decentralisation, school autonomy and accountability, school leaders have gained new areas of competence and their tasks have become more complex, requiring policies to redefine their role and further develop the profession.

The role of school leadership across OECD countries includes not only financial and resource management, but also leadership of learning (instructional leadership), with some variations by country. On average, school leaders reported in TALIS 2013 that they spend most of their time (41%) performing administrative tasks (managing human resources, planning, reporting and adhering to regulations), 33% of their time interacting with students, parents and guardians, and education authorities and 21% of their time working on pedagogical activities, such as curriculum, teaching-related tasks and meetings (OECD, 2014a). School leaders' involvement in instructional leadership also varies across OECD countries, with school leaders in Australia, Canada, Turkey, the United Kingdom and the United States reporting higher levels of instructional leadership, while France, Japan and Switzerland reported some of the lowest levels (Figure 4.3).

Figure 4.3. **Index of instructional leadership (2012)**

Results based on school principals' reports



Source: OECD, *PISA 2012 Database*, Table IV.4.14 (available online).

StatLink http://dx.doi.org/10.1787/888933171480

Given the increasingly demanding and complex role of school leaders, there is a need for more initial preparation, collaboration and distributed leadership. The average age of

lower secondary school leaders participating in the TALIS 2013 survey is 50, and fewer than 8% are under age 40. This is due in part to the fact that many school leaders start their career as teachers before transitioning to school leadership positions. In addition to an ageing population of school leaders, there are difficulties in selected countries in recruiting new candidates and ensuring they are prepared to carry out the duties of the post. Education systems face a challenge in attracting and recruiting quality candidates to the school leadership profession, due to heavy workloads, insufficient preparation and inadequate support (Pont, Nusche and Moorman, 2008).

Despite its importance, policies on school leadership are less prioritised by countries. Among the policies analysed, some countries have adopted a comprehensive approach to the profession while others target specific aspects such as defining quality standards, initial education, career progression, recruitment and working conditions (Table 4.2).

Table 4.2. **Policies to develop school leadership, 2008-14**

Comprehensive policies	Content	Targeted policies	
GENERAL STRATEGY	**STANDARDS**	**INITIAL EDUCATION**	**CAREER PROGRESSION**
Chile: Law of Quality and Equity in Education (2011) **Portugal:** The Reform of School Leadership (2008)	**Australia:** Australian Professional Standards for Principals (2011)	**Chile:** School leaders' training plan (2011-13) **Italy**: Initial training provided by the National School of Administration (2013) **Norway:** Leadership training and development programme (2009) **Portugal:** Specialised mandatory training for school leaders (2012) **Spain**: Recruitment processes for school leaders (2013)	**SELECTION AND QUALITY INCENTIVES:** **Czech Republic:** Amendment to Education Action Appointment and Dismissal (2012) **PROFESSIONAL DEVELOPMENT:** **Australia:** Australian Charter for the Professional Learning of Teachers and School Leaders (2013) **Finland:** Advisory Board for Professional Development of Education Personnel (2008) **Ireland:** Professional development for teachers and school leaders (2011) **Mexico:** Teacher Professional Service (2013) **Turkey:** Teaching, Entrepreneurship and Leadership Training Cooperation Protocol for Managers and Teachers in Vocational and Technical Schools and Institutions (2012)

Source: Education Policy Country Snapshots (Part III) and Education Policy Outlook Country Profiles, *www.oecd.org/edu/profiles.htm*.

Introducing general strategies: Some countries have introduced general strategies to develop school leadership. Chile and Portugal, for example, introduced general strategies on school leadership:

- In Chile, the Law of Quality and Equity in Education (2011) aimed to professionalise school leadership by introducing a competitive and open examination, increasing school leaders' salaries, providing school leaders with autonomy over staffing in schools, and

introducing appraisal and professional assistance for professional development. In 2013, a third of the positions created under the new policy remained vacant after the first call.

- In Portugal, the Reform of School Leadership (2008) modified selection processes and responsibilities by giving school principals greater autonomy. The reform also introduced specialised mandatory training to exercise the profession (2012).

Setting quality standards for school leadership: Countries have set leadership standards or frameworks to define the scope and types of responsibilities school leaders are expected to fulfil, for example:

- Australia introduced the Australian Professional Standards for Principals (2011), which aim to define the profession, describe the practice and identify the role of school leadership in raising quality in the 21st century. The standards clarify the role by stating what principals should know, understand and be able to achieve in their profession and are to be used as a framework for professional development, self-reflection and communication of the role of a school leader. The standards were developed in consultation with education stakeholders (AITSL, 2014).

Providing initial school leadership education: School principals have high levels of qualification, with 92% of school leaders of lower secondary schools participating in the TALIS 2013 survey having attained tertiary education (ISCED 5A) (OECD, 2014a), but they are not necessarily focused on the exercise of school leadership. A number of countries have made initial or continuing training available or mandatory for principals to ensure they have the skills required to take up their role.

- Chile's school leaders' training plan (2011-13) is an incentive-based policy that aims to train a pool of excellent future leaders. The Ministry of Education covers 90% of enrolment and living costs for selected candidates who can choose from a list of courses and institutions. More than 1 500 school principals and teachers have participated in this programme since its inception.
- Norway introduced a leadership training and development programme (2009) to improve the effectiveness of school leaders, with priority for new school leaders (with less than two years in their position). Evaluation of the programme indicates positive reviews based on content and relevance to school leadership.

Investing in school leaders' career progression: To ensure the professionalisation of school leadership, countries are investing in policies that promote professional development for school leaders and improved selection processes, for example:

- The Czech Republic introduced the amendment to the Education Act on Appointment and Dismissal (2012) which introduces a six-year term of office for school leaders and modifies the appointment and dismissal process.
- Some countries, including Ireland, introduced professional development programmes for school leaders along with policies on professional development for teachers.

Recruiting, developing and retaining high-quality teachers

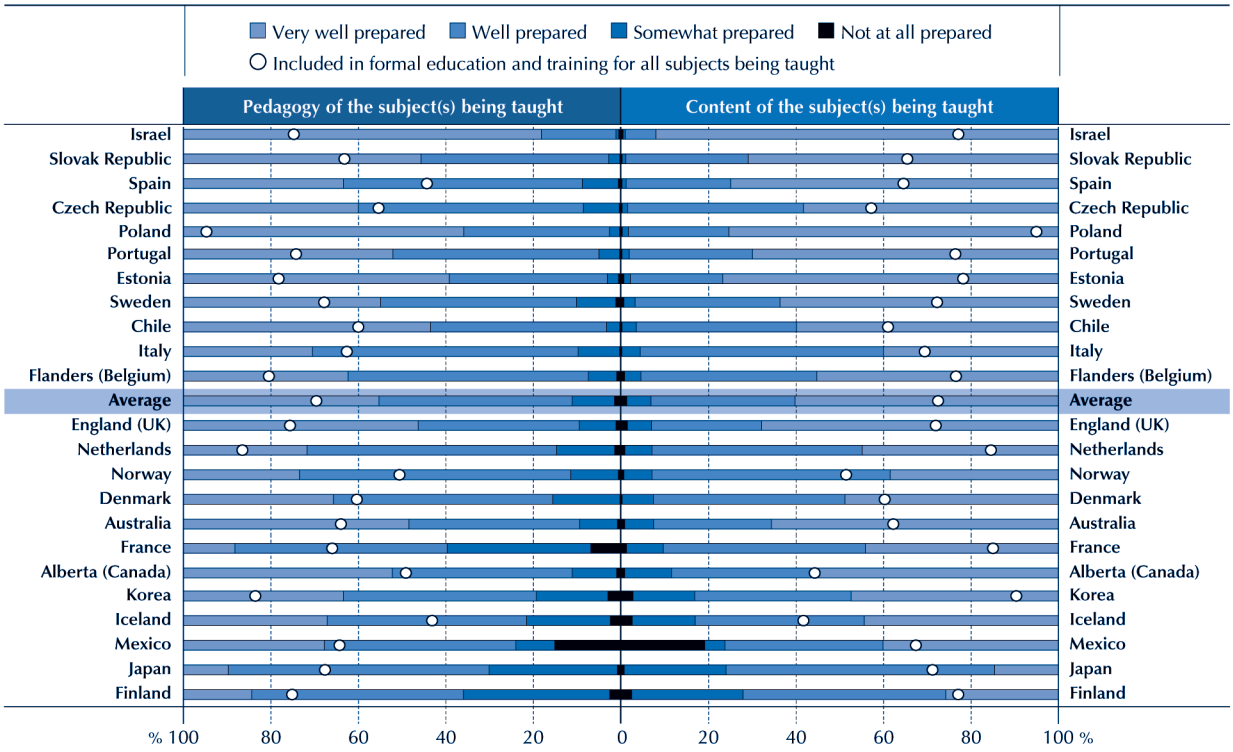
High-quality teachers are key to school improvement, which underlines the importance of the way in which education systems recruit, develop and retain teachers (OECD, 2005; Schleicher, 2012). Teachers have a direct effect on students' learning, and there is consensus in the literature that teacher quality is the most important school variable influencing student achievement (OECD 2005; OECD 2013a). In addition, teaching

is the largest single employer of graduate labour, and a large share of school expenditure is attributed to teachers' compensation (OECD, 2005). Thus, the quality of teaching and the attractiveness of the profession are important policy areas in ensuring high-quality teachers.

On average across OECD countries, teachers report having high levels of qualification and feeling well prepared to teach at the beginning and during their career (Figure 4.4). The length of pre-service teacher training requirements in 2013 varies from 3 to 6.5 years across OECD countries, with an average level of qualification of tertiary education (ISCED 5A) (OECD, 2014b). Almost 90% of lower secondary teachers in countries participating in TALIS 2013 report completing a teacher education or training programme: 69% reported that their formal education covered pedagogy for the subjects they teach, and 67.1% reported that their pre-service training included a teaching practicum. Teachers in general feel well prepared for teaching, with around 90% reporting feeling well or very well prepared by their formal training in terms of subject knowledge and pedagogy. In addition, an average of 88% of teachers participate in continuous professional development, with the highest need for professional development being special education needs (SEN) and the use of ICT for around 20% of teachers, according to TALIS 2013 (OECD, 2014a).

Figure 4.4. **Teacher's feeling of preparedness for teaching (2013)**

Percentage of lower secondary education teachers who feel "very well prepared", "well prepared", "somewhat prepared" or "not at all prepared" for the content and the pedagogy of the subject(s) they teach and whether these were included in their formal education and training



Note: Countries are ranked in ascending order, based on the percentage of teachers who feel "not at all prepared" or "somewhat prepared" for the content of the subject(s) being taught.
Source: OECD, *TALIS 2013 Database*, Tables 2.3 and 2.4.

StatLink http://dx.doi.org/10.1787/888933041136

The teaching profession faces a number of challenges, including an ageing population, variable working conditions and negative views of the profession. With an average age of 43, only 12% of teachers across the OECD are under the age of 30, and 30% are over 50 (OECD, 2014a). In some countries, a large proportion of the teaching profession will be reaching retirement within the next decade, which will require incentive structures to attract qualified new entrants (Schleicher, 2011). Teachers' working conditions also vary between countries, but on average, teachers' salaries in lower secondary education in OECD countries are lower than the earnings of the average full-time, full-year worker with tertiary education (ratio of 0.88) (OECD, 2014b). The salary ratio is 0.43 in Slovak Republic and 0.53 in Hungary, the two lowest rates in OECD countries, while the ratio is 1.36 in Korea and 1.32 in Spain, the two highest rates (OECD, 2014b). Moreover, while most teachers report being satisfied with their profession (91.2%) and do not regret choosing teaching as a career (77.6%), only 30% of teachers believe that the teaching profession is valued by society. In France, the Slovak Republic and Sweden, less than 5% of the teachers surveyed feel that their profession is valued by society, while 66.5% of Korean teachers and 58.6% of Finnish teachers feel that their profession is valued by society – the highest levels in the OECD (OECD, 2014a).

Teacher policy is the area in which most countries have introduced reforms between 2008 and 2014. In most cases, countries have implemented targeted policies to respond to concrete issues, while some countries have introduced or reformed initial teacher education and others have used comprehensive strategies to reform the teaching profession more generally (Table 4.3).

Introducing general strategies: Comprehensive policies refer to strategies to reform several areas of teacher policy maintaining a coherent perspective and approach for example:

- Australia, like other OECD countries, has introduced a policy which addresses both school leaders and teachers (Tables 4.2 and 4.3). Australia introduced a new institution to steer both school leadership and teaching. The Australian Institute for Teaching and School Leadership (AITSL) (2010) aims to develop national policies and support Australian educators to become expert practitioners and to foster excellence in teaching and school leadership. AITSL was an important driver in many policies for teaching, including the Accreditation of Initial Teacher Education Programmes (2013) to ensure the quality of programmes across the country, and the Australian Professional Standards for Teachers (2013) to provide guidance of teacher quality.
- Hungary introduced the National Public Education Act (2011), an overarching policy which aims to induce systemic change in teaching quality and teaching conditions. It modified the governance structure for teachers by transferring employment responsibilities to the central state and defining national teaching standards. By transferring responsibility to the central level, Hungary aims to create consistency in teaching practices and teaching conditions and to unify the variety of local policies which have proved to be effective.
- The Netherlands introduced the Teachers' Programme 2013-20 (*Lerarenagenda*) to improve the teaching profession and promote excellence in education. The main points of the programme are: 1) attracting high performing students into teacher training programmes; 2) improving teacher pre-service programmes; 3) providing development pathways; 4) developing support for teachers at the start of their careers; 5) developing

Table 4.3. **Policy targeting the teaching profession, 2008-14**

Comprehensive policies	Content	Targeted policies	
GENERAL STRATEGY	**STANDARDS**	**INITIAL EDUCATION**	**CAREER PROGRESSION**
Australia: National Partnership on Improving Teacher Quality (2009-13) **Germany:** Quality Offensive in Teacher Training (2013) **Hungary:** National Public Education Act (2011) **Mexico:** Teacher Professional Service (2013) **Netherlands:** Teachers' programme 2013-20 (2013) **Slovak Republic:** Pedagogical and Specialised Employees Act (2009) **United Kingdom (Scotland):** Teaching Scotland's Future (2011) **GOVERNANCE** **Australia:** Australian Institute for Teaching and School Leadership (2010) **New Zealand:** Proposed Education Council of Aotearoa New Zealand – EDUCANZ (2013)	**Australia:** Australian Professional Standards for Teachers (2013) **Austria:** Quality Management System for teachers and school leaders – general and VET (2012) **Chile:** Good Teaching Framework (2008) **New Zealand:** Registered Teacher Criteria (2010-13) **Sweden:** Teacher registration system (2013)	**Australia:** Accreditation of Initial Teacher Education Programmes (2013); Teacher Education Ministerial Advisory Group (2014) **Austria:** Reforms of teacher training (2013) **Chile:** *Prueba INICIA* (2008); Grant for teaching profession (2012) **Denmark**: Reform of teacher education in Denmark (2012); Bachelor of Education Programme (2013) **France:** Reform of teacher training (2013) **Germany:** Recommendations for students' suitability (2013) **Hungary:** Decree on Teacher Training System (2012) **Iceland:** Council for Teachers' Education and Professional Development (2012) **Ireland:** Initial Teacher Education Criteria and Guidelines for Programme Providers (2011) from Teaching Council. **Italy**: Ministerial Decree 249/2010 on initial teacher education (2010) **Norway:** National Guidelines for Differentiated Primary and Lower Secondary Teacher Education Programme for Years 1-7 and Years 5-10 (2010 and 2013) **Portugal:** Reinforcing the scientific curricula in Teachers Education Programmes (2014) **Sweden:** New teacher education programmes (2011); Teaching practice in specialised training schools (2014); Requirements for admission in teacher education. **Turkey:** Teacher training programmes of education faculties (2008); New Teacher programme (2011) **United States:** Teacher Quality Partnership Program (2012)	***SELECTION AND QUALITY INCENTIVES*** **Germany:** Common guidelines to meet the demand for teachers (2009) **Ireland:** Procedures for Induction and Procedures and Criteria for Probation (2013-14) **Israel:** Academics for Teaching (2008); Outstanding Achievers for Education (2009); Teach First (2010) **Mexico:** Incentives Programme for Teacher Quality (2008-09) **Norway:** GNIST (spark) initiative (2009-14) **Portugal:** More stringent admission conditions in Teachers Education Programmes (2014) **United States:** Teacher Incentive Fund programme (2012) ***CAREER PATHS AND REMUNERATION*** **Estonia:** Increasing teachers' salaries (2013) **Germany:** Rules and proceedings for more mobility and quality for teachers (2013) **Slovak Republic:** Increasing teachers' salaries (2011) **Sweden:** Career Development Reform (2013) ***TEACHER APPRAISAL*** **Australia:** Australian Teacher Performance and Development Framework (2013) **Greece:** Presidential Decree 152/2013 on Teacher Appraisal (2013) **Portugal:** Evaluation exam for teachers (2013) ***PROFESSIONAL DEVELOPMENT*** **Australia:** Australian Charter for the Professional Learning of Teachers and School Leaders (2013) **Estonia:** Working group to develop teacher professional development (expected in 2015) **Finland:** Advisory Board for Professional Development of Education Personnel (2008); OSAAVA programme (2010-16) **Greece:** In-service Education and Training of Teachers (INSET) (2012) **Korea:** National Teacher Professional Development and Evaluation System (NTPDES) (2010) **Portugal:** Teacher's lifelong training framework (2014) **Sweden:** Access to in-service training (2014) **Turkey:** Teaching, Entrepreneurship and Leadership Training Cooperation Protocol for Managers and Teachers in Vocational and Technical Schools and Institutions (2012)

Source: Education Policy Country Snapshots (Part III) and Education Policy Outlook Country Profiles, *www.oecd.org/edu/profiles.htm*.

schools as learning organisations; 6) helping teachers maintain and develop their skills and qualifications; and 7) sustaining a teachers' professional organisation.

Defining quality standards for teachers: A number of countries have introduced standards for teachers to provide a framework for what is considered quality teaching and set a coherent learning and development system for teachers (OECD, 2005), for example:

- New Zealand introduced teacher standards to set skills and competencies to assure a clear understanding of what quality teachers are expected to know and be able to do – from initial education through to experienced teachers. Both beginning and experienced teachers must register through the Registered Teacher Criteria (2010-13) to demonstrate that they have met the standards and are continuing their professional development. Initiatives under these criteria also include collaboration with colleagues and students and an alignment with student learning objectives.

Strengthening initial education: Almost half of OECD countries have introduced policies to improve teachers' pre-service training. Most policies have focused on raising quality, and some countries have introduced new courses, new programmes, or accreditation of programmes for quality control. Some examples:

- To reform teacher education (2012), Denmark developed the Bachelor of Education programme, starting in 2013. This programme is guided by competency objectives for each teaching practice and is constructed around modules. To enable the development of these programmes, the University Colleges (*Professionshøjskoler*) are granted more autonomy in setting programme structures and determining the content of modules for development of different teacher profiles.
- In France, teachers are required to have a master's degree. While university training institutes for teachers (IUFM) have existed, the reform of teacher training (2013) has introduced centres for pre-service and continuing training, the Higher Education Schools for Teachers and Education (*Écoles Supérieures du Professorat et de l'Éducation*, ESPE), which combine theoretical and practical training. The ESPEs will also participate in continuing training for teachers and aim to develop innovative methods of teaching.
- The United States delivers an incentive-based national policy to promote quality in teacher training. The Teacher Quality Partnership Program (2008) is a federal grant that aims to improve quality of teacher training and hold higher education institutions accountable for the quality of their programmes.

Teachers' career progression: Investing in teachers' careers from the moment they are recruited and through their careers can help improve the quality of teaching and job satisfaction. Targeted policies to promote teachers' selection and career development using a number of different approaches:

- Norway and Israel aim to attract quality students into the teaching profession. Norway introduced the GNIST ("spark" in Norwegian) initiative (2009-14), a teacher recruitment campaign using short films and a website, which evidence suggests helped increase recruitment by almost 60% between 2008 and 2013. Israel introduced several programmes to attract high achieving individuals into the teaching profession, including Academics for Teaching (2008), which targets individuals with a minimum of five years' work experience. It provides them with free teacher training and the possibility of free enrolment in a master's programme after three years of teaching.
- Through a career development reform (2013), Sweden created advancement stages and provided salary increases for professionally skilled teachers in compulsory and upper secondary school. Two new career categories for teachers were created: senior master and lead teacher. Approximately one in six teachers qualify for one of these positions.

Portugal has introduced a teachers' lifelong learning framework (2014), which links career progression and professional development.

- Estonia, where salary levels were below the OECD average in 2011, is increasing teachers' salaries (2013) by changing the base of calculation from contractual hours to pay for full-time employment. Additionally, the Slovak government increased teachers' salaries between 2011 and 2013 by decree.
- Teacher appraisals can also help assess teachers' capacity, provide targeted feedback for improvement and hold teachers accountable for student learning. To achieve these goals, as part of greater efforts to promote quality assurance in primary and secondary education, Greece introduced the Decree on Teacher Appraisal (Presidential Decree 152/2013) which defines the bodies, procedures and criteria for teacher appraisals and promotion. One of the components of Mexico's Teacher Professional Service (2013) which introduces new selection, recruitment and training, also establishes guidelines for teacher appraisal.
- Professional development is also an important factor for efficient career progression. In Finland, the OSAAVA Programme (2010-16), in addition to other government-funded professional development measures, aims to ensure systematic professional development of staff by supporting education providers. Since the introduction of OSAAVA in 2010, more than double the number of staff have participated.

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PART I

Chapter 5

Evaluation and assessment to improve student outcomes

What kinds of policy options do policy makers have to enhance evaluation and assessment to improve student outcomes? This chapter discusses the context, main issues and policy options adopted across OECD countries to develop better evaluation and assessment policies. Evaluation and assessment policies can contribute to raising the quality of institutions by providing detailed information and identifying areas for improvement. They comprise policies which seek to measure performance and understand improvement for better school and student outcomes through system evaluation, internal and external school evaluation, and student assessments.

The chapter reviews policies adopted across OECD countries between 2008 and 2014 in a comparative approach, drawing mainly from the Education Policy Country Snapshots (Part III), Education Policy Outlook Country Profiles, and OECD comparative and country-specific analysis on education systems. The reforms vary across countries, as they are influenced by context, traditions, institutional settings and specific national and regional challenges. The policies all aim to improve the quality of schools and student performance and have been grouped according to the different policy options and their scope.

Key findings

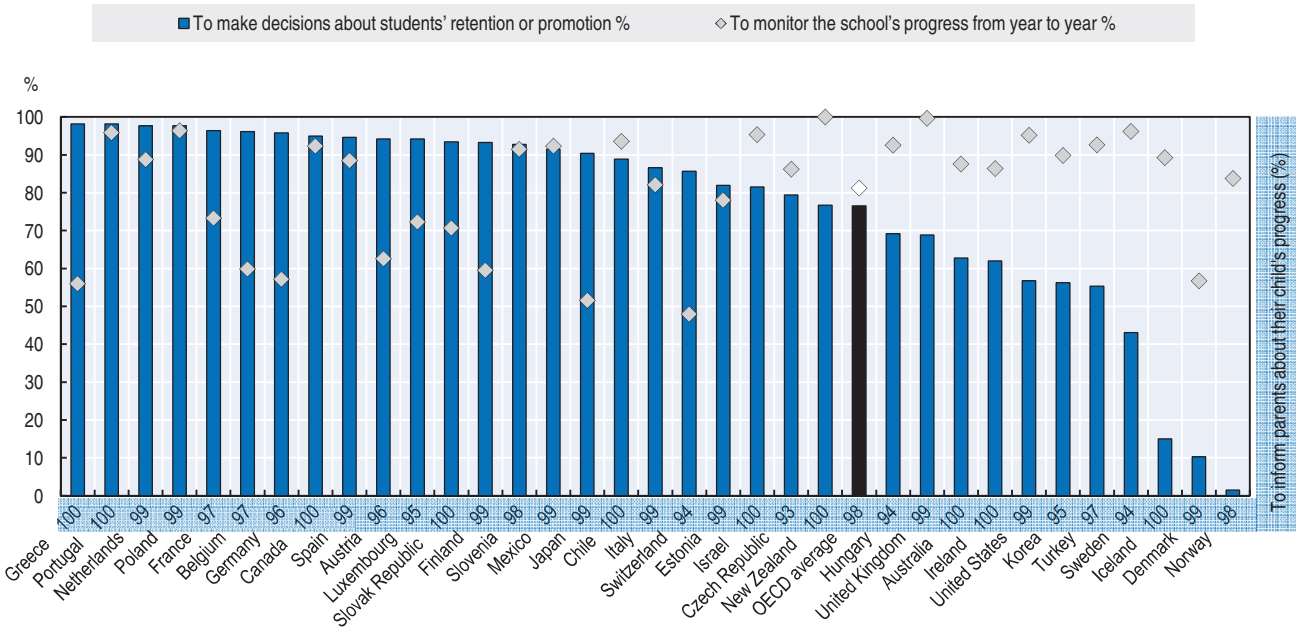
- The use of evaluation and assessment is increasing across OECD countries. According to PISA, student assessments have increasingly been used across OECD countries between 2003 and 2012 to monitor schools' progress, as well as to identify aspects of the curriculum to be improved. In using data to guide improvement, countries face two challenges: balancing accountability and improvement, and ensuring the capacity of education stakeholders to develop and use evaluation.
- Policies for system-level evaluation aim to strengthen schools, and guide evaluation and assessment of the education system through comprehensive or targeted policies, such as public reporting of data. Chile has introduced a Quality of Education Agency to evaluate system performance at different levels (students, teachers and schools) and to help schools that have lower results. Central institutions or agencies, often autonomous, can help guide improvement and increase coherence and independence of evaluation and assessment.
- School evaluation policies have aimed to improve evaluation criteria or to develop internal and external evaluation tools and processes. For example, Italy expanded its pilot project (VALES) for schools to participate in an internal and external evaluation process. After a self-evaluation led by a school team and co-ordinated by the school leader, an external evaluation team points out and publishes the suggested areas of improvement for the school.
- Policies for student assessment have introduced national standards and standardised assessments at different grade levels for student improvement and accountability of school and student outcomes. Australia launched the National Assessment Program – Literacy and Numeracy (NAPLAN) to introduce yearly student assessments at four different levels. This programme aims to engage the different stakeholders in student learning, mostly to hold teachers and principals accountable and inform parents. Using student assessments for both accountability and improvement is a challenge across countries.

Evaluation and assessment contribute to raise education quality

Evaluation and assessment in education have become a key policy issue as OECD countries aim to improve student outcomes and their school systems. Recent developments leading to an increased need for evaluation and assessment include greater decentralisation, more school autonomy, and rising expectations for better results and student outcomes (OECD, 2013a). These drivers, together with an increase in data management capacity, have led OECD countries to introduce policies which aim to measure and assess the performance of the school system, including students, teachers, school leaders and educational administration, and also to provide feedback on how the school system and its various components can improve.

Countries are seeking to increase transparency and use evaluation and assessment information to serve two key purposes: accountability and improvement. Across the OECD, a majority of 15-year-old students are in schools where the principal reported that assessment results are used to inform parents on their child's progress, to monitor schools' progress and to identify areas of the curriculum to improve, although this varies by country. In Nordic countries (Iceland, Denmark and Norway), less than 20% of students are in schools where student assessments are used for decisions about student retention or promotion. Furthermore, between PISA 2003 and PISA 2012, student assessments have increasingly been used across OECD countries to monitor schools' progress as well as to improve instruction or the curriculum. The percentage of students in schools where principals reported using student assessments to monitor school progress has increased by over 10 percentage points to 79.6% (Figure 5.1).

Figure 5.1. **Most common uses of student assessments according to school principals (2012)**



Source: OECD, *PISA 2012 Database*, Table IV.4.30.

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Evaluation and assessment policies can pose two key challenges: balancing accountability and improvement and ensuring the capacity of education stakeholders to develop and use evaluation. OECD countries tend to focus either on accountability or on improving results and the teaching and learning environment. A lack of balance between accountability and improvement can distort the goal of enhancing student outcomes (OECD, 2013a). In terms of capacity-building, the challenge includes developing the professional capital of teachers and school leaders and also assessing and creating the knowledge-base and guidelines to implement effective evaluation and assessment tools (OECD, 2013a). In addition, to improve coherence across the system, it is necessary to develop a broad understanding of educational goals and the purpose of evaluation and assessment tools at all levels.

Evaluation and assessment policy options to improve student outcomes

Across the OECD, countries have implemented different evaluation and assessment tools to help drive school improvement at the system, school and student level, and ultimately to enhance student outcomes. These tools seek to achieve three objectives: 1) measure student progress; 2) evaluate performance of the key factors that improve student outcomes; and 3) provide evidence-based feedback on how to move forward. Traditionally, evaluation and assessment have been limited to a focus on student assessments, but countries have now introduced other tools to collect educational data. At the student level, both summative and formative assessments are used to provide feedback to students and teachers. At the school level, evaluation tools include external evaluations which can be conducted by national or sub-national authorities. Schools are also asked to self-evaluate, using information from student assessments as well as from teacher and school leadership appraisals (Chapter 4). At the system level, varied measurements of performance data are collected and used to generate a current analysis of the education system (OECD, 2013a).

Evaluation and assessment policies introduced between 2008 and 2014 across OECD countries, as reported for this publication, indicate a continued effort to expand and broaden tools to evaluate the education system on three key levels. System-level policies aim to guide evaluation and assessment of the education system, through the creation of central institutions or agencies or by enhancing accountability through public reporting of data. Policies for school evaluation, introduced in a number of OECD countries, have proceeded by developing guidelines or promoting the use of internal or external school evaluations. Student assessment policies have focused on developing standardised assessments for student improvement and accountability of school and student outcomes.

Countries at different stages in development of their evaluation and assessment system will vary in the type of evaluation and assessment policies introduced. Policies are also influenced by the cultural context of the country and/or the policy agenda. A review of evaluation and assessment in 28 OECD countries concluded that there is no right or wrong way to develop an evaluation and assessment system. However, policy options should aim to provide accurate and authentic information to know the state of education and to be used as feedback for improvement (OECD, 2013a). In addition, the OECD review indicates common factors in the design and implementation of evaluation and assessment reforms that contribute to successful evaluation and assessment policies (Chapter 7).

Guiding improvement with system-level evaluation and assessment

Education systems have introduced different tools to guide the evaluation and assessment process at the system level. National quality assurance agencies can support and help articulate an integrated and aligned evaluation and assessment system, while also aiming to improve the education system and hold the various elements of the system accountable (OECD, 2013a). To monitor both inputs and outcomes of the education system, OECD countries gather performance data using set indicators, such as educational goals and targets, student learning standards and other criteria.

The increased use of system-level assessment raises challenges for countries and stakeholders. Ministries, policy makers, the public and parents have increased pressure for results of the education system. At the same time, the education system, including school leaders and teachers, is asked to improve teaching and learning and provide results. Across

OECD countries, there is now more data available, including qualitative information, international assessments and contextual information (OECD, 2013a), and this information is publicly available. Between PISA 2003 and PISA 2012, the number of 15-year-olds in schools where principals reported that assessment results were used to compare with other schools increased by 12.9%, and comparisons to national or regional performance increased by 15.5% (OECD, 2013b). Schools, their teachers and leaders, as well as policy makers, need to be able to use this information for improvement.

OECD countries have introduced policies to enhance the education system and its institutions through system-level evaluation and assessment. Comprehensive policies include the establishment of central agencies, and targeted policies focus on better collection of data (Table 5.1).

Table 5.1. **Policies to guide evaluation and assessment at the system level, 2008-14**

Comprehensive	Targeted policies
GOVERNANCE	**COLLECTION AND USE OF DATA**
Chile: Quality of Education Agency (2012); The Education Superintendence (2012); New accountability system (2012)	**Australia:** My School website, My Skills and My University website (2010)
Finland: Finnish Education Evaluation Centre (2014)	**Ireland:** The Survey on Life skills in Primary and Post-Primary schools (2009 and 2012)
France: National Council for the Evaluation of the School System (2013)	**New Zealand:** National Monitoring Study of Student Achievement (2012); Public Achievement Information for the public (2012)
Germany: Centre for International Student Assessment (2010); Leibniz Institute for Educational Trajectories (2014)	**Slovenia:** Central Register of Participants in Education Institutions (CEUVIZ) (2011)
Greece: Institute of Educational Policy (2011); Authority for Quality Assurance (2013)	**Turkey:** E-State Project (2009)
Iceland: Formal cooperation agreement on the financing and execution of external evaluation in compulsory education (2011)	
Korea: Broadening of the evaluation and assessment framework for the whole education system (2010)	
Mexico: Autonomy to National Institute for Educational Assessment and Evaluation (INEE) (2013)	

Source: Education Policy Country Snapshots (Part III) and Education Policy Outlook Country Profiles, *www.oecd.org/edu/profiles.htm*.

Establishing a central agency: A number of countries have changed the way in which evaluation and assessment arrangements are governed at the system level. Central agencies can provide capacity for the education system to improve and hold the various stakeholders accountable. Many central agencies have been introduced to co-ordinate complex systems of evaluation and assessment. With many set up as independent agencies to ensure autonomy in evaluation, their tasks include organising the design and operation of evaluation activities, providing technical expertise and support, and monitoring education, for example:

- Chile's Law of Quality Assurance introduced the National Quality of Education Agency in 2012. It designs the national assessment system and also evaluates students, teachers and schools using efficiency criteria, such as learning standards, and school visits to evaluate school performance. It also supervises and supports low-performing schools (OECD, 2013a).

- France introduced the National Council for the Evaluation of the School System (2013) as an independent body with the aim of providing evaluations and evaluation summaries in an international perspective, providing expertise on methodology and evaluations, and promoting an evaluation culture for education professionals and the general public.
- In Mexico, the National Institute for Educational Assessment and Evaluation was granted autonomy in 2013 to develop a strategic and unified vision of assessment and evaluation. As an autonomous body, it will define the process for teacher evaluation and student evaluation, and will collaborate with the Secretariat of Public Education and decentralised bodies to strengthen evaluation.

Collecting data: A number of OECD countries have introduced policies to collect educational data and make it more accessible. With the increased use of technology, public availability of data not only holds various components accountable for performance, but can also be used to share data across schools, teachers and students to take action for accountability and improvement (OECD, 2013a).

- New Zealand introduced the National Monitoring Study of Student Achievement (2012), as an analysis of student achievement in all the learning areas covered in the curriculum to provide data on student performance and outcomes as related to the national curriculum on a four-year cycle.
- In 2009 and 2012, Ireland undertook a life skills survey to gather information on school policies and practices related to student well-being in both primary and secondary education.
- Online data systems, such as Australia's My School website (2010), provide performance and other contextual data on schools. The data, to be updated annually, includes information on school funding, four-year results of student performance in literacy and numeracy in the National Assessment Program – Literacy and Numeracy, and information on enrolment and completion of vocational education and training (for secondary schools) by level and industry area. In 2012, Australia launched My Skills, which provides information to connect individuals and employers with training organisations, and My University, which provides students with information about higher education providers.
- Slovenia's online data system, the Central Register of Participants in Education Institutions (CEUVIZ, 2011), uses data on students from pre-primary to short-cycle higher vocational education as well as adult education to monitor educational goals and objectives and make decisions on public funding. Higher education data are included in the electronic higher education information system (eVŠ, 2012) (Chapter 3).

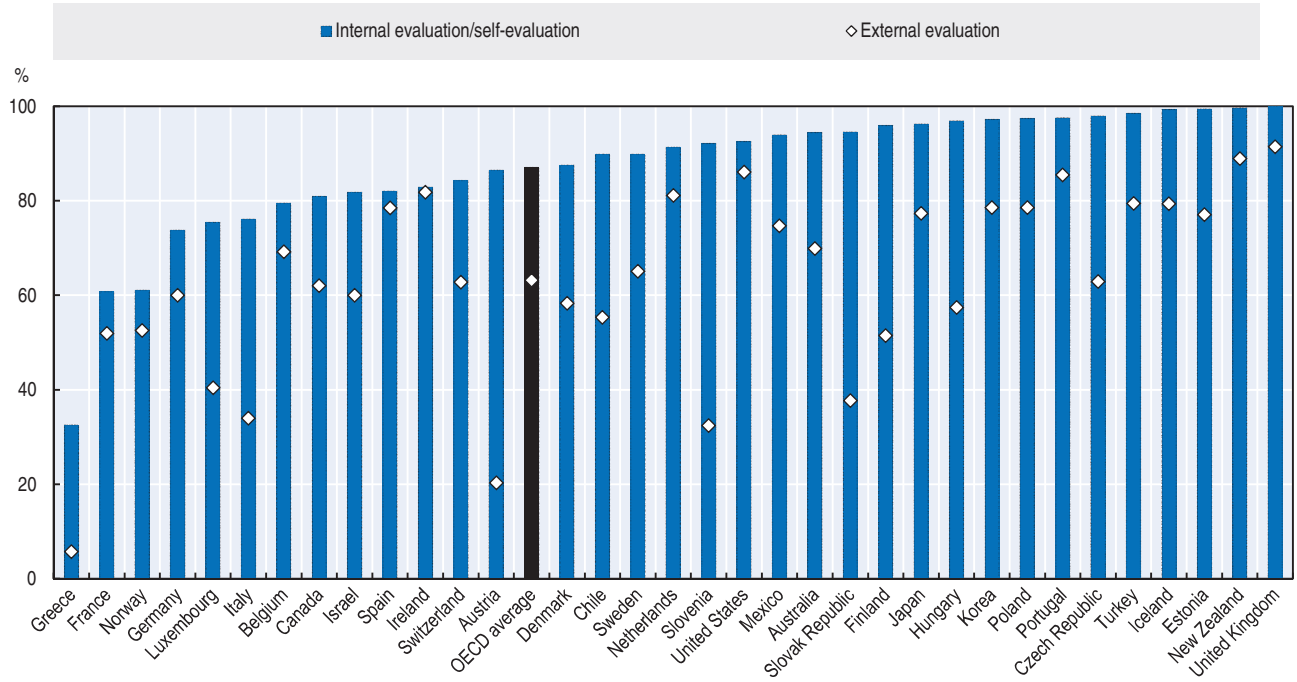
Ensuring quality with internal and external school evaluations

School evaluations play a central role in improving teaching, learning and student outcomes within schools and across the education system. Schools are organisations with increased autonomy to make decisions and greater pressure to show results for student outcomes. In this context, school evaluations can be used to hold schools accountable for their performance, as well as to provide feedback on how they can be improved. School evaluations can also provide transparency in the education system, as policy makers, parents and other key stakeholders demand results and data on school progress and student achievement. Moreover, school evaluations can help understand the structures

and processes within the school, how effectively policies and regulations are implemented, the quality of student learning and the capacity for school improvement (OECD, 2013a).

School evaluation assesses key aspects of schools as organisations, including teaching and learning, school leadership, educational administration, school environment and resources management (OECD, 2013a). This is done with two main tools: internal school evaluation (school self-evaluation) and external school evaluation (school reviews and school inspections, in some cases by a national quality assurance agency). According to PISA 2012, internal evaluations are more common across countries, particularly in education systems with a high level of school autonomy. On average, 87.1% of 15-year-olds are in schools where the principal reported that internal evaluations or self-evaluations are conducted, while 63.2% of students are in schools where principals reported that external evaluations are used for quality assurance and improvement (Figure 5.2). School evaluations can take into account other components of evaluation and assessment, such as school leadership and teacher appraisal, and can include performance measurements, such as student assessments, funding of the school and staff and demographic data.

Figure 5.2. **School evaluation for quality assurance and school improvement (2012)**



Source: OECD, *PISA 2012 Database*, Table IV.4.32.

StatLink http://dx.doi.org/10.1787/888933171503

Across OECD, countries face the challenge of ensuring that school evaluations balance accountability and compliance with improvement (OECD, 2013a). In addition, the different stakeholders involved in implementing school evaluations, such as national or sub-national quality assurance bodies, school leaders and teachers, should have the expertise and capacity to help ensure alignment across the whole system, to engage and support educational actors and to maintain school improvement as the priority (OECD, 2013a). Moreover, the increased demand for evaluation data risks overburdening schools with all the activities that must be completed for internal and external school evaluations.

A number of OECD countries have recently implemented guidelines for how school evaluations can be conducted or introduced, using either internal evaluation or external evaluation tools (Table 5.2).

Table 5.2. **Policies for school evaluation, 2008-14**

Content	Targeted policies	
GUIDELINES	**INTERNAL EVALUATION**	**EXTERNAL EVALUATION**
Finland: Quality Criteria for Basic Education (2009) **Italy:** Decree regulating the national evaluation system (2013) **Norway:** Modification of the Education Act – Quality report requirement for schools and municipalities (2009) **Poland:** Redefining the functions of the school inspection (2009) **Turkey:** Standards for Primary Education (2011-12)	**Greece:** Evaluation of Education Practice (EEP) Ministerial Decision 3 0972/G1/5-3-2013 (2013) **Ireland:** School self-evaluation: guidelines for primary schools (2012) and post-primary schools (2012) **Norway:** Assessment for Learning (2010)	**Czech Republic:** Czech School Inspection (ČŠI) Strategy 2014-20 (2014) **Italy:** Expansion of pilot project – VALES – voluntary school evaluation (2013) **Sweden:** Swedish School Inspectorate (2008)

Source: Education Policy Country Snapshots (Part III) and Education Policy Outlook Country Profiles, *www.oecd.org/edu/profiles.htm*.

Strengthening school evaluation guidelines: Content policies related to school evaluation set criteria which can help clarify the purpose and key elements necessary to ensure alignment across the school system, for example:

- Poland redefined the functions of school inspections (2009). External and internal school evaluations include three aspects: evaluation, such as self-evaluation in the case of internal evaluations; compliance of schools with legislation; and support (i.e. professional development of staff). External evaluations are carried out by the Minister of National Education and Heads of the Regional Education Authorities, while internal school evaluations are led by the head of the school. Both are carried out yearly, but their scope may vary depending on school needs, and institutions' external evaluations may also vary (Eurypedia, 2013).

Introducing school evaluation: Targeted policies focus on defining internal and external school evaluation approaches:

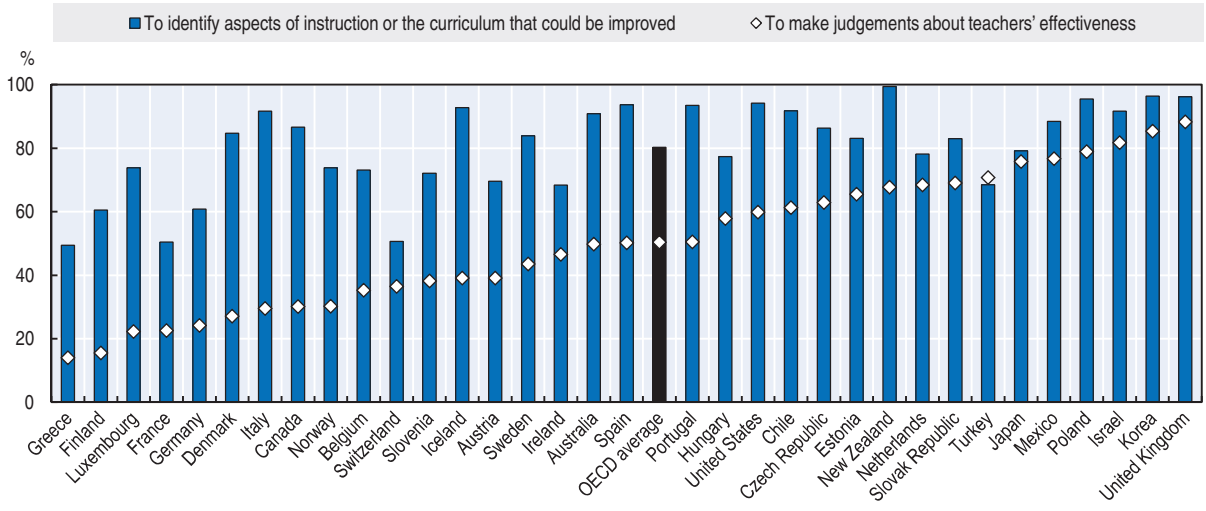
- Given the autonomy of Norwegian schools, the Education Act was modified (2009) to include requirements for schools/municipalities to create a quality report using data from the national quality assessment system. Guidance materials and a template were developed to help municipalities prepare the quality report and better analyse schools. Moreover, in 2010, Norway introduced Assessment for Learning, a four-year national programme for municipalities to improve formative assessments, which is intended to be prolonged until 2017. More than 40% of municipalities participate in this programme, which aims to support systematic reflection about schools, development of assessment practices, networking of schools, and professional development. A preliminary study for an OECD review found that success in implementation was often due to clear objectives, good communication and trust among those involved, as well as capacity building for smaller municipalities.

- Italy's Decree regulating the national evaluation system (2013) has built following the success of the VALES pilot project, which gave schools the choice of participating in an evaluation process of school leadership and performance. The school evaluation process involves a self-evaluation completed by the school leader and a co-ordinated team that is then given to an external evaluating team. The school's external evaluation is used to develop the school improvement plan and targets as well as to evaluate school leaders. Information from the evaluation process is published.

Using formative and summative student assessments

Student assessment policies can contribute to improving student outcomes and, consequently, the quality and equity of the education system. Student assessments focused on the learner and aligned with learning objectives and standards can lead to improvement (OECD, 2013a). On average across the OECD, approximately, 80.3% of 15-year-olds are in schools where results are used to improve curriculum or instruction (Figure 5.3) and to monitor teacher practice in mathematics (OECD, 2013b). Student assessments can also provide stakeholders at both the system and school level (students, parents, teachers and policy makers) with information on what students know and should know and steps for further learning and improvement. Almost all students across OECD countries are in schools where assessments are used to communicate with parents on their child's progress (OECD, 2013b). Additionally, student assessments are increasingly used to enable comparability across the education system and across schools. More than half of 15-year-olds are in schools where the principal reported that student assessment results are compared to district and national performance (62.6%) and compared with other schools (52.9%) (OECD, 2013b).

Figure 5.3. **Use of assessment practices to identify aspects of instruction or the curriculum that could be improved (2012)**



Source: OECD, *PISA 2012 Database*, Table IV.4.30.

StatLink http://dx.doi.org/10.1787/888933171512

According to an OECD review of 28 countries and their evaluation and assessment systems, student assessments have two key purposes: a formative tool used to learn from and/or a summative tool to indicate what has already been learned. Formative student

assessments can be implemented throughout the year and be embedded in the day-to-day teaching and learning environment. The information can be used to provide feedback or as a diagnostic of student learning needs to drive further learning (OECD, 2013a). On the other hand, summative student assessments make judgements on a student's performance at the end of a unit, term or year. They can be implemented internally by the school or the teacher or externally at the national level. In some cases, assessments, particularly those which are nationally standardised, can be used as both formative and summative.

Across the OECD, trying to find a balance between assessments for formative and summative purposes can be a challenge (OECD, 2013a). Tensions can also arise when assessments for formative purposes that are intended for improvement of the system are also intended for accountability purposes (OECD, 2013a). Pressure for results from the public, policy makers and parents result in a need for summative results and data to demonstrate student and school performance. This can have a negative impact and undermine the formative purpose of results – to provide feedback for further learning (OECD, 2013a). Student assessment data is used not only at the student level but also at the system level.

Countries have introduced or reviewed learning standards, either by defining them in national documents or by setting national standardised assessments to guide student outcomes at different stages of a student's education (Table 5.3).

Table 5.3. **Policies for student assessment, 2008-14**

Content	Targeted policies
STANDARDS	**NATIONAL STANDARDISED ASSESSMENTS**
Austria: Educational standards for Mathematics, German and English in grades 4 and 8 (2012)	**Australia:** National Assessment Program – Literacy and Numeracy (2008)
Denmark: National Common Objectives for Compulsory Education (2009)	**Austria:** Assessment in nationwide tests in grades 4 and 8 (2012)
Germany: Guidelines on the use of selected educational standards for teachers (2009); Educational standards for the *Allgemeine Hochschulreife* in German, mathematics and English/French (2012)	**Canada (Alberta):** Student Learning Assessments (SLAs) replaced the existing Provincial Achievement Tests (2013)
New Zealand: National standards for literacy and numeracy (2010)	**Czech Republic:** Standardised tests in grades 5 and 9 (2011); School leaving examinations (2011)
United States: Common Core State Standards Initiative (2009)	**Denmark:** National tests for years 2 to 8 (2010)
	Ireland: Standardised assessment in literacy and numeracy (2012)
	Italy: National standardised tests in primary and lower secondary education as part of the National Assessment System (2008); Suspension of standardised testing in Grade 6 and no implementation in Grade 13 (2013)
	Korea: Test-free semesters (2013)
	Spain: Under LOMCE standardised end of grade 3, 6, 10 and 12 (2013); PISA for Schools (2014)
	Sweden: A new grading scale (2011); National tests in grades 3, 6 and 9 and two additional tests in grades 6 and 9 (2011)
	United Kingdom (Wales): National reading and numerical procedure tests (2013)
	OTHER ASSESSMENTS
	Luxembourg: Evaluation reform under the Compulsory Education Reform: student portfolios (2009)

Source: Education Policy Country Snapshots (Part III) and Education Policy Outlook Country Profiles, *www.oecd.org/edu/profiles.htm*.

Setting standards: Some OECD countries have introduced new standards or reviewed their existing standards. Standards can serve as a common point of reference to guide improvement, as well as to hold educational stakeholders accountable for delivering them. Learning standards can help measure progress of student performance as well as set expectations for an understanding across the system of what students should learn.

- New Zealand introduced learning standards in literacy and numeracy which are also linked to the curriculum. New Zealand's Ministry of Education also implemented a monitoring and evaluation framework (2010) using a school sample to review implementation and outcomes of the National Standards.
- To raise student outcomes, many states in the United States introduced the Common Core (2009), a set of academic standards in mathematics and English language arts/literacy. In the United States, academic standards vary from state to state. In 2014, 43 states have agreed to share common learning goals outlining what a student should know and be able to do at the end of each grade.

Setting national standardised assessments: Countries which introduced these types of assessment policies have done so nationwide or within specific regions, but not necessarily for all grades. The challenge remains of managing over-reliance on standardised assessments and establishing safeguards, such as using varied forms of student assessments to monitor student learning (OECD, 2013a).

- In Australia, the National Assessment Program – Literacy and Numeracy (NAPLAN, 2008) introduced yearly assessments for students in Years 3, 5, 7 and 9 in reading, writing, language conventions and numeracy for both formative and summative purposes. The NAPLAN assessments aim to provide stakeholders with information on student learning over time to guide improvement. Critics of the policy suggest a narrowing of the curriculum, as some schools and classrooms put greater emphasis on preparing students for these assessments.
- In 2013, the Ministry of Education of the province of Alberta (Canada) replaced the existing Provincial Achievement Tests with Student Learning Assessments (SLAs). The SLAs aim to be student-friendly assessments and a tool for teachers to help students succeed. They will be used to generate a report delivered to students, teachers and parents at the beginning of the school year on the student's strengths and areas for improvement relative to provincial standards.
- The Czech Republic introduced school leaving examinations (2011) to assess students' learning at the end of their education, and a standardised portion of the exam allows results to be compared across schools.
- Korea has introduced test-free semesters (2013) for lower secondary students by 2016. The objective is to reduce students' stress and help them engage in various activities, including career search, and to acquire life values. Korea defined 42 schools with test-free semesters by the end of 2013. In 2014/15, any school can adopt test-free semesters, and by 2016 they will be required for all middle schools. In addition, lower secondary schools will have three national test subjects (Korean/Literature, English, mathematics), and elementary schools will no longer have achievement tests.
- As part of the Organic Law for the Improvement of Educational Quality (LOMCE, 2013), Spain aims to support greater accountability by among other initiatives, introducing standardised student assessments in Grades 3, 6, 10 and 12.

Introducing performance-based assessments: Performance-based assessments aim to more accurately capture student achievement and complex competencies through open-ended tasks, such as essays, presentations, collaborative tasks and portfolios, as well as other innovative practices (OECD, 2013a). As part of its Compulsory Education Reform (2009), Luxembourg introduced student portfolios which aim to give a deeper understanding of student learning. The portfolio includes: 1) formative evaluation during the school cycle to help students and parents become aware of the student's progress and the steps for further learning to achieve set learning goals; and 2) summative evaluation, which evaluates the student's knowledge and capacity against the learning objectives set by the curriculum and determines the student's promotion to the next education level. The portfolio helps the teacher prepare an assessment report, which helps parents understand their child's progress and students become more aware of their progress.

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PART I

Chapter 6

Steering education systems

What kinds of options do policy makers have to steer education systems effectively? This chapter discusses the context, main issues and policies adopted across OECD countries to steer education systems. They comprise governance and funding policies and approaches that ensure effective and efficient delivery of education systems.

The chapter reviews policies adopted across OECD countries between 2008 and 2014 in a comparative approach, drawing mainly from Education Policy Country Snapshots (Part III), Education Policy Outlook Country Profiles, and OECD comparative and country-specific analysis on education systems. Reforms vary across countries, as they are influenced by context, traditions, institutional settings and specific and regional challenges. The policies all aim to improve the governance and funding of the education system and have been grouped according to the different policy options and their scope.

Key findings

- Steering education systems is a significant challenge for education policy makers. Education policy-making environments have become increasingly complex, due to increased decentralisation and institutional autonomy, greater accountability, and reduced public budgets. Furthermore, educational contexts and institutional and policy approaches vary depending on each country's historical development and political and institutional frameworks, as do distribution and approaches to education funding.
- Governance refers to the institutions and dynamics through which policy is defined and priorities are determined. Depending on their context, OECD countries are reforming governance by defining broad education strategies, setting clear policy priorities with concrete objectives, or reorganising the distribution of roles and responsibilities. For example, the Danish *Folkeskole* reform was designed to raise standards for public schools, simplify the Danish Common Objectives, modify the distribution of learning opportunities and open up schools to their communities. Japan's Basic Plan for the Promotion of Education set the priorities and course of action for the Ministry. At the local level, some countries have reorganised school networks or local governance arrangements, as in Estonia.
- Funding reforms have been widespread across countries, either with system-level funding changes, targeted institution-level funding to different education levels, or funding approaches focused on students (such as grants or different student aid mechanisms). At the system level, following the economic crisis, Greece and Spain have made efforts to improve efficiency in education investment. At the student level, many countries, such as Estonia, New Zealand or the United States, have introduced grants and financial support for students.

Governance and funding to steer education systems

Governance and funding approaches can steer education systems towards higher performance. High performing countries build on their institutions and take into account the different governance levels, their dynamics and resources to drive improvement across the system and schools (OECD, 2010). They set clear objectives for their education system, ensure that there are the right institutions to deliver, engage stakeholders in the process, and find the right balance between central and local direction, while at the same time ensuring that financial, material and human resources are aligned to the objectives (OECD, 2011). To achieve higher education performance, governance strategies and funding need to be aligned.

Understanding better how to optimise governance and funding to achieve clear results is important in the current context. Decision-making is increasingly shared among different stakeholders: evidence on decision-making in lower secondary schools shows that most decisions are made at the school level in a majority of countries, although this might vary depending on whether the decision is related to curriculum, personnel or other

aspects of the education system (OECD, 2012a). PISA data on autonomy shows that schools with more autonomy to make decisions on curriculum and instruction had better performance than those that did not, but school systems where schools had more autonomy regarding managing resources did not perform better (OECD, 2013). There is also more accountability and demand for results across the different levels of education systems to deliver good quality education.

Moreover, the economic crisis has added financial pressures to many education budgets while countries and policy makers are being asked to increase transparency and optimise resources. From 2005 to 2011, expenditure per student in primary, secondary and post-secondary non-tertiary educational institutions increased by 17 percentage points on average across OECD countries, but between 2009 and 2011, investment in education fell in nearly one-third of OECD countries as a result of the economic crisis, resulting in a decrease of expenditure per student in a few countries. Evidence on student performance shows that efficient investment and distribution of resources, according to countries' needs, priorities and capacities, is important at both system and institutional level (OECD, 2012b; OECD, 2012c; OECD, 2013). The clear allocation of resources is particularly important and an often neglected element in the policy-making process (Grubb, 2009).

These factors make the way in which education systems are steered towards higher performance more complex. Policy makers are faced with the challenges of guiding and funding education for effectiveness and efficiency. More concretely, within education systems increasingly decentralised to regional or local levels and given increased demand for accountability for outcomes, a key challenge for countries is assuring alignment and consistency in governance approaches to guide their entire systems towards improving outcomes. Policy makers must also ensure capacity at the local level to implement reforms. Countries indicate that their main challenges in funding include lack of transparency and consistency in funding, as well as the need to optimise resources to allocate funds where they can make the most difference.

Policy options to steer education systems

Governance and funding approaches vary across OECD countries, and there is no one model for making decisions or optimising resources, given varying contexts, cultures and traditions. Governance approaches address how means, processes and resources all come together for a country's policy making. Governance refers not only to the formal structures and institutions in place in a system, but also to how governments set priorities, and how interactions among the different players contribute to shape the success of policy making (World Bank, 1994; Hewitt de Alcántara, 1998). Similarly, funding approaches refer to how countries invest economic resources in their education systems and how those resources are effectively used and distributed in education institutions to best meet the needs, priorities and capacities of the education systems.

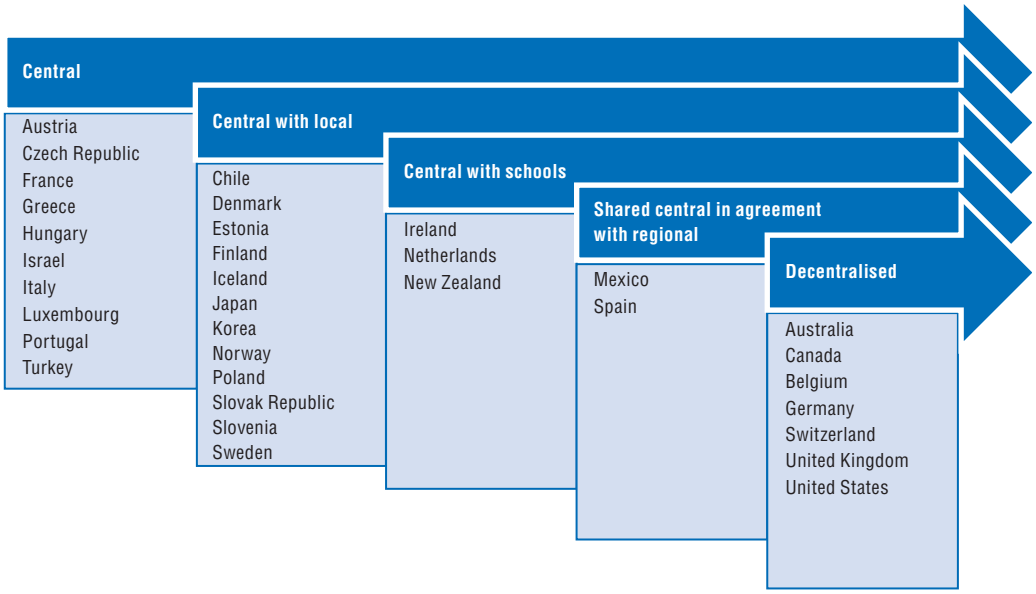
Overall, the analysis of policies in place shows that OECD countries have implemented governance and funding policies at the system level as well as across the different levels of education. Policy options adopted between 2008 and 2014 across OECD countries, as reported for this publication, show that countries have taken a variety of approaches, including comprehensive governance approaches that define and aim to guide those involved towards improvement by setting priorities or clear mandates, and ensuring transparency and stability in funding to respond to needs. Countries with different

institutional arrangements and dynamics will introduce varied types of governance and funding policies.

Governing education systems effectively

Governance approaches refer to measures that ensure effective planning, implementation and delivery of education. A continuum of education governance arrangements exists across OECD countries, from centralised policy making by countries and their ministries of education to completely decentralised approaches, with autonomy at the regional level (Figure 6.1). In the middle of this continuum lie complex arrangements, from central guidance with strong local participation, to central guidance with strong school autonomy, shared national priorities agreed with regional governments, and regional governance with different degrees of national co-ordination. It is within these different arrangements that education objectives are set and the dynamics that drive the policy making process are established.

Figure 6.1. **An overview of governance arrangements across OECD countries**



Source: OECD, adapted from *Education at a Glance* data.

Central: In centralised systems, either the Ministry of Education (which may have responsibilities for tertiary education, science, culture or sports) guides policy and defines policy, or general priorities are set by the state and the ministry delivers policy. Austria, France and Luxembourg represent examples of this approach. Often, national ministries have regional education offices that deliver education policy. Within this centralised approach, there is also the tendency to decentralise some responsibilities towards the local level or schools. In Italy, for example, some responsibilities, such as vocational education and training, are shared between central and regional authorities, and agreements are required.

Central with local: A group of countries have a central ministry of education which guides the education system, with education delivered by municipalities or municipal level

authorities. Local authorities might have either large responsibility for delivering education services, or overall responsibility, as in Nordic countries (Denmark, Finland, Iceland, Norway and Sweden). The number of municipalities ranges from 98 in Denmark (reduced from 271 in 2007) to 320 in Estonia and Finland.

Central with schools: Another group of countries has a guiding national ministry, with decentralised administration and school autonomy. In New Zealand, one of the most autonomous systems, boards of trustees guide and manage schools. In the Netherlands, the ministry establishes norms and policies and supervises, while schools are highly autonomous.

Shared central in agreement with regional: Another group of countries has a relatively decentralised system, with the central government designing the legal framework and regulating principles, objectives and content. Regional governments deliver education with different degrees of autonomy and with the support of co-ordinating institutions.

- Mexico: The National Council of Educational Authorities (*Consejo Nacional de Autoridades Educativas*, CONAEDU) brings together the Federal Government and representatives of the 31 states with an advisory role.
- Spain: The Education Sector Conference (*Conferencia Sectorial de Educación*) brings together the Ministry of Education and representatives of the 17 regional authorities to develop education policy for a coherent and inclusive education system.

Decentralised: In decentralised environments, different institutions support policy making, bringing together regional education institutions or ministries.

- In Germany, education is mainly the responsibility of the 16 *Länder*, and responsibilities are also shared with the Federation and local authorities. Germany also has the Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* in the Federal Republic of Germany (KMK), which defines agreements and reviews and shares information.
- In Australia, with six states and two territories in charge of delivering school and vocational education, the Council of Australian Governments (COAG) and its Councils on Education and Industry and Skills work to develop a shared national policy framework.
- In Canada, the 13 provincial and territorial ministers of education collaborate on pan-Canadian educational priorities under the Council of Ministers of Education (CMEC), an intergovernmental body established in 1967 to discuss policy issues, undertake activities, liaise with the federal government, and represent Canadian education internationally on matters of common interest.
- In Switzerland, all heads of the 26 education cantons come together under the Swiss Conference of Cantonal Ministers of Education (EDK), which plays a role in discussing and co-ordinating education policy.
- In the United States, where education is a state-level responsibility under the authority of the 50 states and the District of Columbia, the Department of Education has a remit on financial aid, and the Council of Chief State School Officers (a non-profit organisation) brings together officials who head departments of elementary and secondary education in the states to provide leadership, advocacy, technical assistance and seek consensus on major educational issues.

In some countries where education is decentralised to regional jurisdictions, no co-ordinating institution exists.

- In the United Kingdom, four countries (England, Scotland, Wales and Northern Ireland) have separate policy-making structures, and a small part of education policy decisions is taken at United Kingdom level. Intergovernmental arrangements and co-operation exist, while sovereignty is maintained.
- In Belgium, the three linguistic communities (French Community, Flemish Community and German-speaking Community), have their own autonomous education systems and separately decide on policy. At the federal level, responsibilities are limited to broad education issues, such as age of compulsory education.

Policy making needs to a) be aligned to its governance structure and b) take into account the respective responsibilities of different actors (Fazekas and Burns, 2012). Federal systems may look for different options to steer the system, as states or provinces have responsibility for delivering education and therefore require different types of policies or institutional arrangements for their education systems to progress. Because context is key in the process of policy design and implementation, results may vary from one education system to another, and a specific policy from one country might not have similar results in another.

The degree of decentralisation in decision-making across systems and the greater complexity in the policy making process have become key issues in governance. Across many countries, greater decentralisation has devolved responsibilities to regional or local authorities, and schools and ministries of education and their related institutions have taken on a guiding and support role. This has affected policy-making dynamics and incentives for regional and local governments. In these systems, consistency, capacity and leadership at the municipality level are crucial. More centralised countries face the challenge of providing increased autonomy to adapt to local needs and ensuring effective co-ordination between local, regional and national policy makers. At the same time, with more accountability for education outcomes, national institutions need to find the most suitable approaches to guide policy in either complex or decentralised environments.

Between 2008 and 2014, countries have adopted different approaches to steer education systems and engage stakeholders in more effective ways. Overall, the analysis shows that countries are active in defining policy and prioritising, and are taking up governance reforms of different types. Some countries have developed education strategies that aim for general education improvement, while others define priorities or goals to guide their education systems towards concrete objectives, and a number of countries have introduced targeted policies which aim to reorganise the distribution of roles and responsibilities for more effective delivery of education, either by creating new institutions or developing local level capacity (Table 6.1).

Defining national strategies according to need: Education policy-making can be approached in different ways. One of the approaches frequently adopted is to develop general education-system strategies based on a concrete analysis, situation or need. These general strategies are often the result of changes in political cycles, with the entry of new governments that set new priorities and actions to follow. There are several examples of large-scale reforms that have resulted from political agreements.

- In Denmark, a platform emphasising education, A Denmark that Stands Together (2011), established the key education priorities for Denmark, such as strengthening early

Table 6.1. **Policies targeting governance, 2008-14**

Comprehensive	Content	Targeted policies
GENERAL STRATEGY	**EDUCATION PRIORITIES**	**RE-ORGANISATION OF DECISION-MAKING**
Canada: *Learn Canada 2020* (2008) **Chile:** General Education Law (2009) **Czech Republic:** Long-term Plan for Education and Development (2011-15); Education Policy Strategy of the Czech Republic for 2020 (2014) **Denmark:** A Denmark that Stands Together platform (2011); Public School (*Folkeskole*) reform (2013) **Estonia:** Lifelong Learning Strategy 2020 (2014) **Iceland:** Government 2020 Moving Iceland Forward Initiative (2010) **Luxembourg**: Compulsory Education Reform (2009) **Mexico:** Pact for México (2012); Constitutional Reform (2013) **Netherlands:** National Agreement on Education (2013) **Poland:** Amendment of School Education Act (2013) **Slovak Republic:** Education Act (2008) **Spain:** LOMCE (2013) **Sweden:** Education Act (2011) **Turkey:** Strategic Plan for Ministry of National Education(2010-14); Lifelong Learning Strategy Document and Action Plan (2009-13; 2014-18)	**Australia:** Melbourne Declaration for Educational Goals for Young Australians (2008-18); National Education Agreement (2009) **Canada:** Ministers agreement that numeracy is a priority (2013) **Czech Republic:** Operational Programme Research, Development and Education 2014-2020 (2014) **Finland:** Education and Research Development Plan (2011-16) **Japan:** Basic Plan for the Promotion of Education (2013) **New Zealand**: Better Public Service Programme (2012); Ministry Statement of Intent (2012-17) **United States:** ESEA Flexibility programme (2011)	**Czech Republic:** National Institute of Education (NUV, 2011) **Finland:** Municipal Reform (2013) **Germany:** Local Learning (2009) **Hungary:** Central state responsibility for maintenance of educational institutions: Decree on the Klebelsberg Institution Maintenance Centre (2012) **Mexico:** Creation of school councils of social participation (2009) **New Zealand:** Reinforce role of school boards in student achievement under the Education Amendment Act (2012) **Portugal:** Autonomy agreements (2008); Agreement on the Reorganisation of the School Network (2010); Effort of rationalisation of public services (PREMAC) (2011) **United Kingdom (England):** Increase the number of Academies and free schools (2013); **(Scotland)** Education Scotland (2011)

Source: Education Policy Country Snapshots (Part III) and Education Policy Outlook Country Profiles, *www.oecd.org/edu/profiles.htm*.

childhood education and care, and reforming primary and lower secondary schools and the delivery of education, in collaboration with teachers and parents. It set concrete targets to be met by 2020 in terms of proportions of cohorts to complete upper secondary (25%), tertiary (60%) and long tertiary education (25%). This was followed by the Danish public school (*Folkeskole*) reform (2013), agreed by all political parties, to raise standards for public schools and to simplify the Danish Common Objectives, modify the distribution of learning opportunities, and open up schools to their communities, collaborating with associations for selected activities.

- Estonia's Lifelong Learning Strategy for 2014-20 proposes strategic measures in five areas: 1) changing the approach to learning and teaching; 2) raising the status of the teaching profession and developing school leadership; 3) improving the concordance of lifelong learning opportunities with the needs of the labour market; 4) applying modern digital technology in learning processes; and 5) creating equal opportunities for lifelong learning for everyone.
- In Mexico, the Federal Government signed the Pact for Mexico (2012), an agreement between the most important political parties and the Federal Government, which was followed by changes to the Constitution and new laws to support implementation. It sets out clear commitments on education, such as increasing education coverage in upper

secondary and tertiary education; improving teaching and learning conditions at schools and establishing full-time schools; creating a Teacher Professional Service (2013); and promoting system improvement with more transparency and with autonomy to the evaluation authority (INEE).

- In the Netherlands, the government started a new way of developing policy, by agreements with stakeholders. An example is the recently concluded National Agreement on Education (2013), which comprises common goals on quality improvement that are worked out in specific sub-agreements. The introduction of differentiated supervision aims to enhance its effectiveness in strengthening individual schools.

Setting priorities to guide the system: Key to guiding education policy improvement is to establish a small number of clear, prioritised and measurable goals that can drive the system for all those involved (OECD, 2010). Setting clear national expectations in the form of goals, policies, curriculum, standards or accountability mechanisms can guide towards higher performance levels. The analysis of actions taken shows that a group of countries govern by establishing clear and transparent plans of an annual or longer nature in a transparent and systematic way, for example:

- In Canada, the Learn Canada 2020 (2008) framework is a joint declaration by provincial and territorial ministers of education to enhance Canada's education systems, learning opportunities, and overall education outcomes. The framework builds on what are considered the four pillars of lifelong learning: Early Childhood Learning and Development; Elementary to High School Systems; Post-secondary Education; and Adult Learning and Skills Development.
- Japan sets a national plan, the Basic Plan for the Promotion of Education (2013), which includes direction for education investments, targets and reforms. Local governments formulate their own basic plan based on their own needs, using the national plan as a framework.
- In New Zealand, the ministry sets objectives in an annual statement of intent, a planning and accountability document with a five-year horizon. In addition, the Better Public Service Programme (2011) has three clear education targets: 1) participation of 98% in early childhood education in 2016; 2) about 85% of 18-year-olds achieving a national certificate Level 2 or equivalent in 2017; and 3) increasing attainment of advanced trade qualifications, diplomas or degrees for 25-34 year-olds. These targets provide a focus and are used in budget and strategic planning processes and in monitoring progress, with the expectation that they will lead to long-term sustainable improvements to student achievement as new practices are developed and adopted across the education system.

Reorganising decision making and strengthening local capacity: Education systems should have capacity at the ministry level and support at regional and local levels to drive large-scale improvements (OECD, 2010; OECD, 2013). To this end, different types of policy options have been introduced across countries: creating more efficient organisation in the delivery of education, developing new institutions in charge of school improvement, and enhancing school autonomy as part of broader reform frameworks.

- Some countries with strong municipal or local engagement in education delivery, such as the Netherlands and Germany, have introduced reforms to their governance arrangements. Efforts have been undertaken in the Netherlands to reform boards of trustees to improve their capacities through the National Agreement on Education

(2013). In Germany, 35 local authorities established educational management structures, including a monitoring system for collecting and analysing data concerning lifelong learning. A national programme, Local Learning (2009), aims to increase transparency and efficiency.

- Finland has reformed local-level arrangements. A municipal reform (2013) aims to strengthen municipal and service structures and will reconsider the distribution of tasks between municipalities and the state. Education funding will also be reviewed in 2015.
- With the trend towards decentralisation, there has also been a transfer of responsibilities to local or school level in some countries. Through Portugal's Agreement on the Reorganisation of the School Network (2010), schools have been reorganised into school clusters for efficiency and effectiveness, with the possibility of closing underperforming or small schools. Schools have been given the opportunity to sign autonomy agreements (2008), which has been taken up by 26% of school clusters since this measure was implemented. In 2008, along with their curricular reform, Poland also strengthened school autonomy to develop their own sets of programmes. School principals also have more autonomy.

Funding education systems

The economic crisis, along with the growing importance of transparency, accountability and better education outcomes, confirms the challenge that countries face to do more with fewer financial resources. Funding approaches should ensure effective and efficient investment in education systems. The way in which available resources are used is considered a key policy lever to influence outcomes. Efficient investment and distribution of resources, according to countries' needs, priorities and capacities, are important across the education system and schools (OECD, 2012b; OECD, 2012c; OECD, 2013).

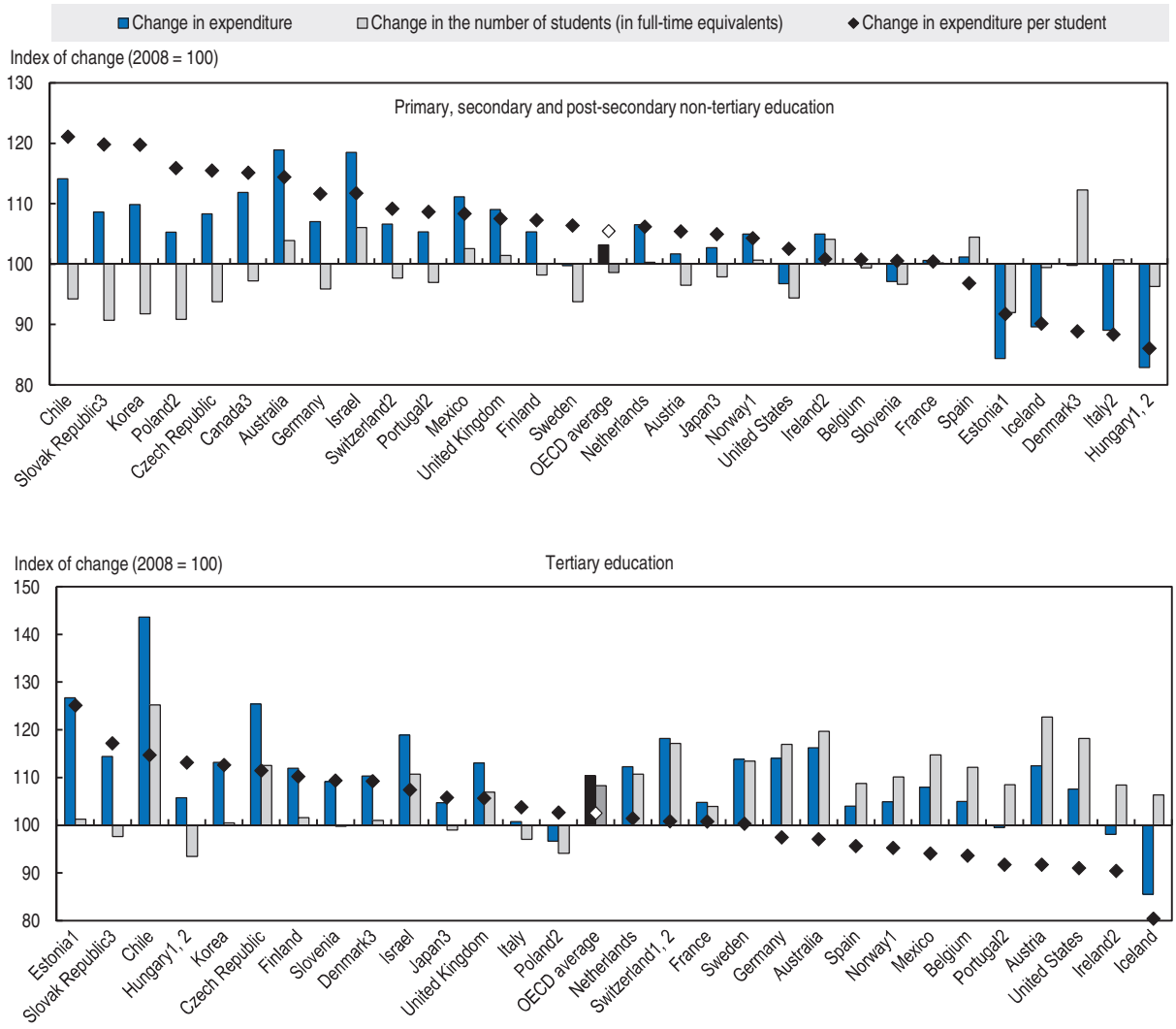
Countries' degree of investment in education (in terms of GDP, share by education levels and educational institutions, and participation of private sources) provides a picture of how the system operates and where priorities are set. In 2011, OECD countries spent an average of 6.1% of their GDP on educational institutions, accounting for 12.9% of total public spending (OECD, 2014). Public funding accounted for 83.9% of all funds for educational institutions on average across OECD countries, with very high levels (91.4%) for primary, secondary and post-secondary non-tertiary institutions (OECD, 2014). The largest shares of private funds are found in tertiary (30.8%) and pre-primary institutions (18.7%) (OECD, 2014). Public investment increased between 2000 and 2011 in all countries for which comparable data are available, and private funding increased at an even greater rate in more than three-quarters of countries. A high share of public spending implies the necessity for efficient resource allocation, as available resources and the way they are spent influence students' learning opportunities.

Across education levels, countries spend more per student on tertiary students than on those in primary or secondary education, although this varies from country to country. In 2011, expenditure per student on average across OECD countries was USD 9 487 per student per year from primary through tertiary education (USD 8 296 per primary student, USD 9 280 per secondary student and USD 13 958 per tertiary student). In pre-primary education, the average per student was USD 7 428. Expenditure per student is largely influenced by costs of teachers, teaching materials and facilities, the programme provided (general or vocational), and the number of students enrolled in the education system. The

amount of private funding can also influence the amount spent per student. A comparative review of trends in expenditure per student by educational institutions shows that in many OECD countries, expenditure has not kept up with expanding enrolments, particularly at the tertiary level (Figure 6.2).

Figure 6.2. **Change in expenditure per student by educational institutions, by level of education (2011)**

Index of change between 2008 and 2011 (2008 = 100, 2010 constant prices)



Methodological note:

1. Public expenditure only.
2. Public institutions only.
3. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.

Countries are ranked in descending order of change in expenditure per student by educational institutions.

Year of reference for Canada is 2010 instead of 2011.

Source: OECD (2014), *Education at a Glance 2014: OECD Indicators*, OECD Publishing, Paris, Tables B1.5a and B1.5b.

StatLink http://dx.doi.org/10.1787/888933171528

Among the different funding challenges are ensuring availability and transparency of funding arrangements and allocating resources more equitably across socio-economically advantaged and disadvantaged schools (OECD, 2013). This includes keeping pre-primary and tertiary education (with their relatively high levels of private funds) affordable for students and families. Moreover, effective use of funding also requires providing and investing in human and material resources as well as infrastructure. Financial resources can be allocated to salaries for teachers and other staff, maintenance or construction of buildings and infrastructure, and operational costs, such as transportation and meals for students (OECD, 2013). Public funding instruments may also help to counter individuals' or employers' tendencies to underinvest in skills development (OECD, 2012d). Using financial strategies for students or schools, taking into consideration student intake and particular needs (such as socio-economic level) can support efforts to improve equity and quality (OECD, 2012b).

The analysis of funding reforms adopted between 2008 and 2014 shows that OECD countries are adopting different and complementary approaches. Countries are reorganising and rethinking the use of system resources as well as investing in their educational institutions and students to improve quality of education and levels of attainment (Table 6.2).

Using system resources efficiently: Countries are using funding strategies to support education investments and to respond to the crisis:

- The United States and other federal countries are developing funding policies to incentivise and reward reforms at regional and local governance levels. In 2009, the United States Department of Education introduced the Race to The Top program (RTT), a competitive grant programme for states designed to incentivise reforms and innovations in education. Four-year grants are given to states based on their planned reform programmes and past successes in areas such as standards, quality of teaching staff, student and school performance, and information and data management. The Department of Education also created RTT-Early Learning Challenge, RTT-Assessment and RTT-District to support states and districts to put in place comprehensive reforms in other key areas.
- Within the framework of Germany's *Konjunkturpaket* II (2009) aiming to stimulate economic activity during the financial crisis, the Investing in the Future Act (2009) was adopted. Between 2009 and 2011, the federal government supported state and communal investments. EUR 8.7 billion were made available for all areas of education, including early childhood education, school and university infrastructure, local facilities for further learning, and research.
- Greece and Spain adopted measures to improve efficiency in education investment in response to the economic crisis. Greece established a central Directorate of Economic Affairs in the Ministry of Education to explore the most effective and efficient use of the budget allocated to education. Spain introduced measures to address the rational use of resources in education, such as increasing teaching hours and reviewing class size, adjusting education to demand, and reviewing university fees, as part of the Decree-law 14/2012 (2012).

Funding educational institutions: Countries are investing in their educational institutions to improve provision and infrastructure and ensure that funding meets the

Table 6.2. **Policies targeting funding, 2008-14**

Comprehensive	Targeted policies	
SYSTEM RESOURCES (PUBLIC AND PRIVATE FUNDING)	**INSTITUTION-LEVEL FUNDING**	**STUDENT-CENTERED FUNDING**
Australia: National Partnership Agreements (2008, 2009); Intergovernmental Agreement on Federal Financial Relations (2009)	**ECEC FUNDING**	**Canada:** Scholarships for innovation and research (2013) for tertiary education students
Finland: Structural Policy Programme (2013)	**Norway:** Change in ECEC funding (2011)	**Chile:** Scholarship for tertiary education and subsidies for private student loans (2012)
Germany: Investing in the Future Act (2009)	**Poland:** Amendment of the School Education Act (2013), earmarked grants to state government for ECEC costs	**Estonia:** Higher education reform: means-tested financial support for students, free education (2013)
Greece: Directorate of Economic Affairs in the Ministry of Education (Ministerial Decision No. 110101/2013)	**United States:** Race to the Top – Early Learning Challenge (2011)	**Finland:** Student financial aid reform (2014)
Ireland: Investing in education infrastructure (2012)	**SCHOOL FUNDING**	**Germany:** Student Aid Programme (BAföG) (amended 2010)
Japan: Basic Plan for the Promotion of Education (2013)	**Australia:** Review of Funding (2011); Australian Education Act (2013)	**Hungary:** Tied Students Loan (2012)
Spain: Measure to respond to economic crisis as part of the Decree-law 14/2012 (2012)	**Belgium (Flemish Community):** Parliamentary Act of 2008 operational budget (2008); Public-private funding partnership (2011)	**Ireland:** Higher education reforms including a gradual increase in student tuition fees in tertiary (2011-15) with grants; Third Level Bursary Scheme – scholarship scheme (2012)
United States: Race To the Top programme (2009)	**Belgium (French Community):** Funding additional spots for students in primary and secondary (2014)	**Japan:** Scholarship loan programme (2012)
	Czech Republic: Amendment to Education Act (2011): school funding formulas	**Mexico:** Cash transfer programmes for upper secondary and tertiary disadvantaged students (2008-12)
	Mexico: Dignified Schools Programme (2013)	**New Zealand:** Aspire Scholarship (2009)
	Slovak Republic: Annual increase in public funding of primary and secondary education (2011)	**Portugal:** Graduate Studies Grant Programme (2013)
	Turkey: Private Teaching Institutions Law: support for VET (2013)	**Turkey:** Funding support for foreign students (2012)
	UNIVERSITY FUNDING	**United States:** Increase of Federal Pell Grant (2008); American Opportunity Tax Credit (2009); Model financial aid disclosure form (2011); College Scorecard (2013); Pay as You Earn Plan (2013)
	Austria: University structural funds ordinance (2012)	
	Estonia: Performance-based funding for Higher Education Institutions (2013)	
	Finland: Funding reform as part of the Universities Act (2009)	
	Germany: Quality Pact for Teaching (2010); Higher Education Pact 2020 (2013)	
	Hungary: National Higher Education Act (2011)	
	Italy: Operating Fund (2010); Multiannual Planning Fund (2010)	
	Portugal: Cost revision measures and criteria (2014)	

Source: Education Policy Country Snapshots (Part III) and Education Policy Outlook Country Profiles, *www.oecd.org/edu/profiles.htm*.

needs of institutions. Policies have been introduced in early childhood education and care (ECEC), primary and secondary, and tertiary levels.

- Norway changed the way national funding for ECEC is allocated, moving from earmarked funding for kindergarten towards funding included in the block grant provided to municipalities (2011). This policy enabled more flexibility at the local level in resources redistribution, but defined financial rules to ensure that non-municipal kindergartens are treated equally with regard to public grants.

- Belgium (Flemish Community) and Mexico are investing in school infrastructure. In Belgium (Flemish Community), a public-private funding partnership was set up to create a DBFM (Design Build Finance Maintain) company (2011) to improve school infrastructure and build 211 schools. Mexico on the other hand, introduced the Dignified Schools Programme (2013) to improve school infrastructure in terms of safety, sanitary measures and adequacy of furniture and equipment.
- Australia is one of the few countries that considered rethinking the organisation of school funding. Australia undertook a comprehensive and independent review of funding for schooling (2010-11) which reported that arrangements for funding, accountability and transparency in Australian schools were not supporting quality outcomes for all students, and that some schools faced resources shortages. To answer these challenges, as part of the Australian Education Act (2013), Australia developed, a recurrent funding scheme delivered to schools on a needs basis.
- At the tertiary level, countries are introducing funding policies to make investment in tertiary institutions contingent on their quality. Estonia (2013) and Italy (2010) are developing performance-based investments using different types of criteria. In Estonia, the criteria are the level of internationalisation and overall quality, while in Italy, the criteria are research and development and regular on-time student enrolment (Italy's Operating Fund and Multiannual Planning Fund, 2010).

Investing in students: Countries are providing grants and loans with low-interest rates to help improve students' access to secondary and tertiary education and alleviate obstacles related to financial resources.

- A majority of OECD countries are providing mean-tested grants and scholarships to improve students' access to tertiary education, as Chile and Ireland have done. The Scholarship for Tertiary Education Programme in Chile (2012) expanded scholarships to cover full or partial tuition costs for all students with satisfactory educational performance in the lowest 60% of household income distribution, in order to reduce inequalities in access to higher education. In Ireland, where tuition fees of tertiary institutions have been increased and are expected to reach EUR 3 000 by 2015, the Third-Level Bursary Scheme (2012) has been introduced to improve access for students from disadvantaged backgrounds. The scholarship is awarded regionally to students from low socio-economic background, based on the results of upper secondary leaving certification.
- Some countries are also providing loans at low interest rate for tertiary level students who do not have access to full scholarships or grants. Hungary introduced the Tied Student Loan programme (2012) that provides loans with a fixed low interest rate of 2% to students not eligible for grants, and Japan introduced the Scholarship Loan Programme (2012) that provides loans with no interest and an income-contingent repayment scheme to students in higher education. In the United States, the Pay as You Earn plan (2013) caps repayment of student loans to 10% of monthly income. All these programmes aim to ensure that students have access to financial resources that will allow them to pursue tertiary education while limiting the weight of future debt.

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PART II

A special focus on reforms

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PART II

Chapter 7

Evaluation and assessment reforms in schooling

Which factors do policy makers need to keep in mind when designing and implementing evaluation and assessment policies? This chapter presents common factors across OECD education systems that contribute to successful evaluation and assessment policies, as identified from the research literature and from programmes implemented in recent years. Reviewing past evaluation and assessment reform experiences can help policy makers seeking to design and implement reforms in this area.

The chapter focuses on policy making and implementation in three policy areas: student assessment for learning, school self-evaluation and system evaluation. Each area reviews the main purposes and contextual features of evaluation and assessment, identifies key elements of successful policy design and explains, through the analysis of past reform experiences, which practices and factors can contribute to efficient policy implementation.

Key findings

- There is widespread recognition that evaluation and assessment arrangements are crucial to improve educational practices and student learning, to recognise the work of educational practitioners and to certify students' achievements. The challenges faced by countries include designing a coherent framework for evaluation and assessment policies, targeting better classroom practices and better student outcomes, and building capacity at all levels. To respond to these challenges, it is important to understand what are the key elements and processes for successful design and implementation of evaluation and assessment policies at the student, school and system levels.
- Evaluation and assessment policies aim to actively engage students in their own learning, foster schools' self-evaluation and give comprehensive accountability information to the public. They should provide school staff with a deep understanding of the purposes of assessment and build their capacity to use evaluation tools. In order to guarantee the success of evaluation practices, reforms must also develop staff evaluation skills and ensure a degree of externality in the process (e.g. an external evaluator to the school, a standardised national benchmarking tool). At the education system level, policies should go beyond measurement in order to map out evaluation results against system objectives.
- For effective policy implementation, each evaluation format has to be aligned to specific and explicit purposes, to permit efficient engagement of school staff and students. This engagement requires capacity building and collaborative work between schools and external evaluators. Beyond stakeholder mobilisation, policy implementation also has to guarantee coherence through well-distributed responsibilities and impartiality, and to measure impact through regular and easily-accessible reporting.

Challenges in evaluation and assessment reforms

Across the OECD, many countries have launched ambitious school reform programmes which include a strong element of evaluation and assessment. There is widespread recognition that evaluation and assessment arrangements are key to improving educational practices and student learning. They are also instrumental in recognising and rewarding the work of educational practitioners and in certifying the achievements of students. Promoting evaluation and assessment is clearly in the interest of students and their families, educational practitioners and school systems.

The OECD Review on Evaluation and Assessment Frameworks for Improving School Outcomes* analyses policies and practices in 28 countries and provides policy advice to

* The OECD conducted a three-year review of evaluation and assessment policies and practices in 28 countries and published its findings in *Synergies for Better Learning: An International Perspective on Evaluation and Assessment Review* (OECD, 2013), *http://dx.doi.org/10.1787/9789264190658-en*. In addition to this international synthesis report, the review generated 25 reports by participating countries, 15 reports by external review teams and several research papers.

countries on how evaluation and assessment arrangements can be embedded within a consistent framework to bring about real gains in performance across school systems. The review found that countries have different traditions in evaluation and assessment and take different approaches. Nevertheless, in designing effective evaluation and assessment frameworks, all countries face a number of common challenges. There is a need to:

- **Take a comprehensive approach:** Most countries have a whole range of provisions for student assessment, teacher appraisal and school evaluation that have developed quite independently of each other. A key concern is to bring all these pieces together in a coherent framework. This will create synergies for learning by avoiding duplication of tasks and inconsistencies across different evaluation and assessment efforts.
- **Focus on improving classroom practices and place students at the centre:** The strength of evaluation and assessment is the potential to improve what is at the heart of education – student learning. Policy makers should promote the regular use of evaluation and assessment results for improvements in the classroom. Students should be fully engaged with their learning and empowered to assess their own progress. The development of critical thinking and social competencies should also be monitored.
- **Build capacity at all levels:** Creating an effective evaluation and assessment framework requires capacity development at all levels of the education system. For example, teachers may need training in the use of formative assessment, school officials may need to upgrade their skills in managing data, and principals (who often focus mainly on administrative tasks) may need to reinforce their pedagogical leadership skills and evaluation capacity. In addition, a centralised effort may be required to develop a knowledge base, tools and guidelines to assist evaluation and assessment activities.

Drawing on the OECD Review of Evaluation and Assessment Frameworks for Improving School Outcomes, this chapter illustrates how countries address these challenges to implement policies in three areas: student assessment for learning, school self-evaluation and system evaluation. Each section provides analysis of the main policy objectives, relevant contextual factors, key elements of reforms to consider, and key processes for effective implementation, as well as examples of reform in different countries.

Using student assessment to improve learning

Student assessment results should be used to improve student learning. A large amount of research has been conducted around the world regarding the impact of using student assessment to improve teaching and learning, with some researchers concluding that the achievement gains associated with assessment for learning (also known as formative assessment) are among the largest ever reported for educational interventions.

Current policy and practice in many countries emphasises the importance of assessment for learning (or formative assessment), which should occur as an integrated part of day-to-day classroom interactions. Traditionally assessment has been thought of as separate from the teaching and learning process, for example as a test or examination at the end of a study unit. However, classrooms across OECD countries are becoming more diverse in terms of student backgrounds and prior learning, and teachers are increasingly expected to identify what students already know and can do in order to respond to their individual learning needs. This is to be done on the basis of ongoing assessment activities in the classroom. In this context, thinking about the purposes of assessment has evolved considerably over the past decades.

Given the widely reported benefits of using assessment to improve teaching and learning, many OECD education systems have developed policy frameworks (national or state laws or regulations) to promote and support assessment for learning (or formative assessment) practice in the classroom. Several countries have also introduced standardised assessments for formative use at the school level. The main objectives of such reforms are:

- to identify student learning difficulties, diagnose learning needs and differentiate teaching accordingly
- to provide timely feedback to students, which they can integrate into their learning process
- to help students take risks and make mistakes in the classroom, so that they feel safe to reveal what they do not understand and are able to learn more effectively
- to actively engage students in their own learning and assessment
- to allow students and teachers to reflect on the learning process.

Relevant contextual factors

Several relevant contextual factors underlie decisions on the implementation of formative assessment reforms. Formative assessment is typically only one element of broader student assessment frameworks and needs to be carefully implemented alongside summative assessments that are conducted to judge and certify student achievements at particular points in time. In addition, many countries use student assessment results for a range of different purposes, such as holding teachers and schools accountable and monitoring the quality of the education system. There are often tensions between a stated commitment to formative assessment and public, parental and political pressure for accountability in the form of scores and rankings. Education systems also have different traditions regarding the role of external standardised assessment in schools. In countries where teachers have experience in working with external tests and data, it may be easier to embed an external formative test in the regular functioning of schools. Teachers' assessment literacy and understanding of different aspects of reliability and validity also influence the extent to which they will be able to create their own assessments and then set learning targets and assessment criteria together with their students.

Key elements of successful reform

Key elements of successful reform include providing leadership for a deep understanding of formative assessment; putting students at the centre of assessment frameworks; building teachers' capacity to use student assessment for improvement; and developing adequate tools and instruments to support assessment practices.

Leadership for a deep understanding of formative assessment

As teachers in most countries have long held the responsibility for summative classroom-based assessments, it may be challenging to embed a deep understanding of formative assessment in schools. It is often not well understood that assessment for learning requires a major shift in mindset for teachers, as well as fundamental changes vis-à-vis traditional classroom assessment practices. The challenge is to provide strong leadership and clear communication to ensure that teachers move beyond surface-level formative assessment approaches, such as using a series of small tests to prepare a final summative assessment or giving unspecific feedback. Formative assessment needs to be

independent of the requirement to accredit performance. Its aim should be to identify misconceptions or missing elements of student learning in order to change instruction and provide feedback. To have the greatest impact, feedback to students needs to be timely, detailed and specific, including concrete steps needed to progress further.

Putting students at the centre of assessment frameworks

Vision and leadership are also required to ensure that students are at the centre of the assessment process and participate actively in monitoring their own progress. Recent educational research emphasises the importance of assessment as a process of metacognition, where learners become aware of their own thought processes, personally monitor what they are learning and make adaptations in their learning to achieve deeper understanding. For example, self-assessment and peer-assessment are powerful processes where students identify standards and criteria to make judgements about their own work and that of their peers, which can promote a greater sense of agency and responsibility for current and life-long learning. But developing skills for self-assessment and self-regulation takes time and requires structured support by teachers in the classroom.

Building teacher capacity

To ensure that policy commitments to formative assessment are matched with actual developments in the classroom, sustained investment in teachers' understanding and capacities regarding formative assessment is necessary. An important priority is to develop teachers' capacity to interpret student assessment data (including data generated by standardised tests) for the improvement of classroom instruction. To become assessment literate, teachers need to be aware of the different factors that may influence the validity and reliability of results and to develop the capacity to make sense of assessment results, identify appropriate actions and track progress. Other key areas of training in formative assessment are to help teachers understand which assessment information is most appropriate for a particular purpose, how to provide effective feedback to students and how to engage students in their own assessment.

Developing assessment instruments

Teachers' assessment practice can further be supported by adequate tools and instruments. Low-stakes central assessments can provide external signposts for teachers and students, by indicating the learning goals that are expected nationally, and can offer interesting pedagogical tools for teachers. However, many systems are facing challenges in the effective use of external assessments for formative purposes. The data gathered in large-scale assessments are often not at the level of detail required to diagnose individual student needs, and the results may be sent to schools too late to have an impact on the learning of students tested. While large-scale standardised assessments can be useful to provide some initial clues about areas that need attention, other more fine-grained diagnostic instruments are needed to identify the causes of poor performance and develop an appropriate instructional intervention.

Processes for effective implementation

While existing policy frameworks signal the high level of attention given to formative assessment at the policy level, ensuring effective implementation is equally important. Evidence on different approaches indicates that assessment may support or diminish

student motivation and performance, depending on how it is implemented and used. Assessments that are not well implemented and used may contribute to alienating students (and teachers) from the education system and exacerbating inequity in education. On the other hand, carefully planned assessment interventions that are well aligned with learning goals and place students at the centre of the process have strong potential to raise achievement and reduce disparities.

Tensions may arise when an assessment is being used for both formative and summative purposes. Assessment systems that are useful for formative and monitoring purposes usually lose much of their credibility when high stakes for students, teachers or schools are attached to them. This is because the unintended negative effects of high-stakes assessments, such as curriculum narrowing or excessive test preparation, are likely to prevail over the intended positive effects. There are risks in using a single test for too many purposes, in particular where the information ideally required in each case is not the same.

A key governance challenge for countries is to develop a clear vision and strategy for assessment, where different formative and summative assessment approaches, developed nationally and locally, serve clearly defined purposes and the format of the assessment is aligned to these specific purposes. Clear communication about the primary purpose of an assessment tool is vital to ensure that assessment results are used in an effective way. It is important to communicate clearly about the kinds of evidence that different types of assessment can – and cannot – provide. Box 7.1 gives three examples of how countries are trying to address these challenges.

Box 7.1. **New Zealand, Norway and the Netherlands: Ensuring that assessment results are used to improve student learning**

New Zealand: Clear communication about assessment purposes

The New Zealand Ministry of Education's Position Paper on Assessment (2010) provides a formal statement of its vision for assessment. It describes what the assessment landscape should look like if assessment is to be used effectively to promote system-wide improvement within and across all layers of the schooling system. The paper places assessment firmly at the heart of effective teaching and learning. The paper highlights and explains six key principles: 1) the student is at the centre; 2) the curriculum underpins assessment; 3) building assessment capability is crucial to achieving improvement; 4) an assessment-capable system is an accountable system; 5) a range of evidence drawn from multiple sources potentially enables a more accurate response; and 6) effective assessment is reliant on quality interactions and relationships. To support effective assessment practices at the school level, the Ministry of Education decided to conduct an exercise which maps existing student assessment tools. The purpose is to align some of the assessment tools to the National Standards and provide an Assessment Resource Map to help school professionals select the appropriate assessment tool to fit their purpose.

Source: Nusche, D., et al. (2012), *OECD Reviews of Evaluation and Assessment in Education: New Zealand 2011*, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264116917-en.*

Norway: A strategy for building teachers' formative assessment capacities

In Norway, a statutory requirement has been introduced for schools to implement assessment for learning. To support teachers in fulfilling the requirements for formative assessment, the Directorate for Education and Training has created a website on assessment for learning providing a range of materials and tools including questions for reflection, films, assessment tools and literature, and also examples of different ways to document formative assessment practice. At the same time, there has been a developing awareness that teachers have not traditionally received training in formative assessment and that there was

Box 7.1. **New Zealand, Norway and the Netherlands: Ensuring that assessment results are used to improve student learning** *(cont.)*

very little expertise available nationally for school leaders to draw on to provide support. To address this the Ministry of Education and Research and the Directorate for Education and Training in Norway identified formative assessment as a priority area for education policy and professional development and launched a range of support programmes and learning networks at the regional, local and school level. For example, the Assessment for Learning programme (2010-14) is organised in learning networks at the local and regional level, where practitioners can exchange experience and create spaces for common reflection on effective practice. Participating municipalities and counties employ a formative assessment contact person who assists in running the project locally. These contact persons attend Assessment for Learning workshops run by the Directorate. The programme also provides online resources including tools and videos on how to enact effective formative assessment in the classroom.

Source: Nusche, D., et al. (2011), *OECD Reviews of Evaluation and Assessment in Education: Norway 2011*, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264117006-en*.

Netherlands: An external tool to support formative assessment in schools

In the mid-1980s primary schools started to make use of a student monitoring system, the LVS (*Leerling Volg Systeem*), which was developed by the Central Institute for Test Development (Cito). Later on, student monitoring systems were also implemented in secondary schools, and currently every secondary school has a student monitoring system. The Cito student monitoring system (LVS) for primary education is a consistent set of nationally standardised tests for longitudinal assessment of a student's achievement throughout primary education, as well as a system for manual or automated registration of student progress. The LVS covers Language, (including decoding and reading comprehension), Arithmetic, World Orientation (Geography, History and Biology), Social-emotional development, English, Science and Technology. It is purchased by schools at their own cost and initiative. The primary objective of the LVS is formative assessment of student achievement and individual students' mastery of key subject matter areas in relation to their year level. Item Response Theory is used to vertically equate students' scores in the LVS tests, which allow for a calculation of student growth trajectories in primary school. Since 2003, the LVS also contains computer-based tests, some of which are adaptive. The following presentation formats are made available on the basis of the LVS:

- The student report is a graph in which the student's progress is visible throughout the years. Data available in the national surveys are used as a frame of reference, based on percentiles, so that the position of an individual student with regards to five reference groups (25% highest scoring students, just above average, just below average, far below average, and 10% lowest scoring students) is immediately visible from the corresponding graph.
- For children with special education needs, and who visit special education schools, an alternative student report is made available. This report also shows at what level a student is functioning and how to interpret the results of the student compared to children of the same age who attend mainstream primary education.
- The group survey contains the results of all the students from a group over a number of years in a table. For each student the scale of ability score at the successive measuring moments is shown along with the level score.

Source: OECD (2013), *Synergies for Better Learning: An International Perspective on Evaluation and Assessment*, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264190658-en*.

Raising the profile of school self-evaluation

Raising the profile of school self-evaluation is of key importance to school improvement and quality assurance and needs to be consolidated in school systems. Growing evidence indicates the important link between effective school self-evaluation and school improvement actions. The vast majority of OECD education systems have introduced requirements for schools to conduct self-evaluation, although these vary significantly in nature. The main objectives are:

- to signal that schools are best placed to analyse their own contexts, performance and areas for improvement
- to allow a regular assessment of the effectiveness of structures and processes in place in schools and the quality of student learning outcomes
- to engage the school community in the process of self-evaluation, so that it owns the process and makes use of the results to continually strive for improvement in teaching and learning at the school.

Different approaches stimulate a culture of school self-evaluation. This may involve introducing requirements for schools that promote strategic planning. Some requirements could be the drawing up of strategic plans covering four to five years and regular updates of school progress on these plans, or the development of annual school reports about their achievements, challenges and strategies for improvement. External school evaluations can bring greater depth and breadth to self-evaluations in schools by providing relevant benchmark information, comparative data from other schools, or new and challenging ideas that might help the school to expand its evaluation, interpret its own data and assess its quality. In systems with external school evaluation mechanisms, these can be adapted to promote the reinforcement of school self-evaluation practices. Other systems may need to introduce a degree of externality to promote more effective school self-evaluation.

Relevant contextual factors

Several important contextual factors underlie decisions on how to raise the profile of school self-evaluation, including notably the degree of school autonomy within the system and the leadership structures at schools. There has been a general trend towards greater levels of school autonomy, and several systems have introduced specific regulations to underline the school's responsibility for the quality of its educational provision. Different school systems have various levels of maturity of evaluation cultures at the school level. In many countries, self-evaluation activities have been initiated by individual schools or school groups (e.g. in Australia, Canada, Germany and England, United Kingdom). The OECD Review revealed that, even within systems with a comparatively mature school evaluation culture, there is significant variation among schools in self-evaluation capacity. There does appear to be steady political support to raise the profile of self-evaluation. For example, in European Union countries, there has been broad political support to encourage self-evaluation since 2001. Other important factors include whether or not there is an established mechanism for external evaluation, such as a School Review Body or a School Inspectorate, and whether there are objective school performance measures available for all schools within the system, such as results from national assessments and/or examinations.

Key elements of successful reform

Key elements in promoting effective self-evaluation in schools include ensuring that self-evaluation activities focus on the quality of teaching and learning; prioritising capacity building and establishing resources for self-evaluation; promoting a common understanding of school quality and offering supporting tools to schools; and ensuring a degree of externality to challenge the validity of self-evaluation results.

Ensure a focus on the quality of teaching and learning

Effective school self-evaluation contributes to school improvement and is not simply an exercise in compliancy. The quality of teaching is central to the quality of students' learning and is the key variable which a school can influence. It follows that any reform to raise the profile of self-evaluation should ensure that evaluation activities focus on the quality of teaching and learning and on their relationship to student learning experiences and outcomes. This requires a culture of openness and reflection around what happens during the teaching and learning process, including classroom observation. It is also an important way to signal that self-evaluation should actively involve and relate to the work of all school staff members.

Prioritise capacity building and establish resources for self-evaluation

There needs to be an explicit recognition that the process of self-evaluation is dependent on school leadership's capacity to stimulate engagement, to mobilise resources and to ensure appropriate training and support to staff. The drawing up of national and/or professional competency profiles for school principals and deputy principals should clarify the importance of the school self-evaluation process, including classroom observation, in the school principal's role. School leaders will benefit from training in techniques of observing and assessing teaching and learning and giving developmental feedback. Consideration can also be given to the resourcing of structures to strengthen school principals' capacity to implement effective self-evaluation processes, for example by creating new evaluation roles within the school for different staff (e.g. establishing specific teams responsible for school improvement or data analysis). It is essential to ensure that all members of the school with evaluation responsibilities have the necessary skills in class observation, interviewing, data gathering, analysis, and interpretation of results which ensure both validity and reliability in the evaluation process and which allow the results of evaluation to be understood.

Promote a common understanding of school quality and offer supporting tools to schools

The use of clear reference standards and criteria is an important element in conducting an effective self-evaluation. The development of an agreed set of national criteria for school quality, for example in a school quality framework, can provide an important guiding reference for school self-evaluation. A national school quality framework may draw on much international research that points to the characteristics of effective schools, together with evidence on effective strategies gathered at national and local levels. Schools can use this framework to draw up their own criteria to evaluate their teaching and learning quality and, in turn, to set strategic development goals. It is also important to periodically review the school quality framework in light of practical experience, school evaluation results and more recent research.

Schools can also benefit from the supply of self-evaluation resources and tools that have been approved (and maybe developed) at the national level as reliable and broad-based supports. Among other tools, stakeholder surveys can be used by schools to seek feedback from the broader school community on their perceptions of the school's teaching and learning quality. School information management systems can make regular reporting activities more efficient and can be optimised with additional analytical programmes to allow flexibility for schools to monitor and analyse key results.

Ensure a degree of externality to challenge the validity of results

A strong focus on self-evaluation holds the basic premise that schools are best placed to analyse their own contexts, performance and areas for improvement. The provision of a comparable evidence base to all schools allows critical reflection on where each school stands in comparison to other schools. All countries collect information from schools on a regular basis as part of compliancy reporting systems, and this can be used to compile benchmark information on key indicators. Similarly, the trend towards administering national assessments offers an opportunity to provide schools with feedback on comparable performance data in core areas. Benchmarked data are useful for schools, but many countries could capitalise more on technology to improve the relevance of results to instructional practice, by providing faster feedback and tailored analytical packages. Where there is a strong evidence base for school evaluation and an established mechanism for external school evaluation, external evaluators can focus on how a school conducts its self-evaluation and uses the results to improve student learning, or could even collaborate with the school to validate its self-evaluation and improvement plan.

Processes for effective implementation

The implementation of school self-evaluation activities should ensure engagement of school staff and students so as not to remain an exercise for the school leadership team. There is considerable recognition of the importance of fully engaging all members of the school community in the self-evaluation process. However, there is also evidence that this requires high levels of trust and strong commitment from the school community. As noted above, this implies recognising the key role that school leaders play in implementing an effective self-evaluation culture. However, it also calls upon other important actors in the school community, for example school governors, who may have important roles to play in self-evaluation, but may also largely be a group of volunteers with limited evaluation capacity.

Implementing an effective way to challenge the results of self-evaluation activities requires a strategic approach. External school evaluators would need to update their skills to be able to validate school self-evaluation and even to work collaboratively with schools on their school self-evaluations. This would require adequate retraining of external evaluators and strategic planning of the required intensity and frequency of external evaluations. Introducing a system of external school evaluation would require significant resources and a commitment to build adequate capacity among evaluators. Box 7.2 gives examples of how selected countries are trying to address these challenges.

Box 7.2. **Luxembourg and Northern Ireland, United Kingdom: Raising the profile of school self-evaluation**

Luxembourg: Introducing requirements for school development planning

In Luxembourg, there has been little formal tradition of school evaluation. There is no external school evaluation mechanism, only a system of annual compliancy reporting. In 2009, there was a major strategy to stimulate a culture of regular school self-evaluation. A specific Agency for School Quality Development (ADQS) was established within the Ministry and a regulation was introduced for providers of "fundamental education" (ISCED 0 and 1) to conduct a school development planning exercise, initially on a four-year planning cycle, but revised to a three-year plan in 2013. This was introduced within the context of a reform to focus "fundamental education" on students' competency development in four key stages which was accompanied by the introduction of national student assessments in one of these key stages (Cycle 3) and also in lower secondary education. Each school introduced new organisational structures and teams that also assumed roles within the school development planning process. The ADQS closely followed schools in their development planning and, by the end of 2011, all fundamental schools had developed a four-year plan. A major focus from the ADQS has been to help schools with analysing data, and it offers feedback from national assessments and other assessment tools, as well as advice and analytical expertise. Each year the school team should evaluate its implementation of the school development plan. This implies reviewing achievement of annual school objectives and adapting those to be implemented in the following year. Building on the experience of implementing development planning, the ADQS worked on the development of a school quality evaluation framework and methodological guidance with examples of evaluation tools that schools can choose to use.

Source: Shewbridge, C., et al. (2012), *OECD Reviews of Evaluation and Assessment in Education: Luxembourg 2012*, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264116801-en*.

Northern Ireland, United Kingdom: Using external school evaluation to stimulate more effective self-evaluation

In Northern Ireland, there is an established culture of school evaluation. The Education and Training Inspectorate within the Department of Education conducts regular school inspections using a school quality inspection framework that it publishes and promotes for schools to use. Schools have been legally required to conduct school development planning since 1998, benefit from analytical software and information systems developed by school supporting bodies and also receive tailored packages of benchmarked data compiled by the Department of Education. Evaluation evidence from the Education and Training Inspectorate shows a high sophistication of school self-evaluation activities in a good proportion of schools, but underdeveloped practices in others. In this context, the Department of Education has recently introduced policies to further raise the profile of school self-evaluation. In 2010, a revision to school development planning requirements specifies areas for self-evaluation. Policies also emphasise the school's responsibility for its improvement and the strong expectation that self-evaluation is underpinned by evidence. At the same time, self-evaluation plays an increasingly important role in external school evaluation: the school's approach to school development planning is examined as part of external evaluation, and a more proportionate approach to school inspection is being gradually introduced. The school inspection process is also used to actively build evaluation capacity among school leadership. There is a competitive recruitment process open to all school principals and other senior staff to participate in external school evaluation as a member of a school inspection team. The selected candidates join a maximum of two individual inspections in any given year as Associate Assessors. They are trained by the Education and Training Inspectorate on external evaluation procedures and performance indicators. Together with their participation in inspections of other schools, this provides professional development for monitoring, evaluating and improving educational provision in their own schools.

Source: Shewbridge, C., et al. (2014), *OECD Reviews of Evaluation and Assessment in Education: Northern Ireland, United Kingdom*, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264207707-en*.

Taking a comprehensive approach to education system evaluation

Education system evaluation should take a comprehensive approach, so that the whole breadth of national education goals is monitored. System evaluation refers to approaches to monitor and evaluate the performance of the education system as a whole, but also the performance of sub-national education systems.

Education system evaluation has a heightened role to play in the evaluation and assessment framework, as there is increased emphasis on evidence-based policy making and greater public accountability requirements. While national education goals may be comprehensive and broad, national monitoring systems may be rather limited in the information they offer. Typically, countries use many different components to evaluate their education system (e.g. educational research, national assessments, indicator frameworks, international surveys), but these have been established at different times and may evolve to adapt to different needs with little co-ordination among them. The challenge is to design a comprehensive approach to education system evaluation which integrates its different components in a coherent way.

Given the importance of student learning objectives as a reference for policy development and implementation, a number of OECD education systems have developed comprehensive frameworks for education system evaluation. This ensures that system evaluation results provide a broad informative basis for policy development as they consider the whole range of student learning objectives. The main objectives behind such reforms are:

- to provide comprehensive accountability information to the public on quality and equity in the education system and feedback on reforms to the education system
- to help focus stakeholders on the major goals and challenges in the education system as a whole
- to meaningfully inform policy planning and policy development so educational processes and outcomes are improved.

In most OECD countries, monitoring systems have been developed to meet the demand for regular information on outcomes at different stages of the education system, typically via large-scale national standardised assessments and international student surveys, but also via thematic evaluations of samples of schools as part of external school evaluation. The growing importance of performance data has generated a great deal of research and analysis of student outcomes. At the same time, most OECD countries have invested in indicator frameworks, bringing together demographic, administrative and contextual data collected from individual schools. Some countries have also established agencies dedicated to evaluation and assessment in recognition of the need for adequate capacity, specialised expertise and independent analysis. Furthermore, countries are increasingly engaging in planning cycles whereby policy priorities and targets for improvement are set and progress towards these is regularly monitored and evaluated.

Relevant contextual factors

Several general trends have increased the focus on education system evaluation within the evaluation and assessment framework. There is an increasing recognition within OECD countries of the need to use evidence to inform policies to improve educational processes and outcomes within the education system. There has also been growing demand to provide accountability information to the public on the performance of

the education system, as part of the drive to measure outcomes for accountability in the public sector and also as a result of greater pressure by more educated parents. This has been accompanied by a stronger role, in some countries, of market-type mechanisms which require the availability of high-quality information for parental and student decisions. In addition, with challenging financial circumstances in some countries, there is a growing imperative to scrutinise the use of public resources.

Key elements of successful reform

The key elements of successful reform to evaluate the school system include ensuring a broad concept of education system evaluation, going beyond measurement in educational evaluation, and mapping out the available information for education system evaluation against education system objectives.

Ensure a broad concept of education system evaluation

A comprehensive approach to education system evaluation requires conceiving it broadly to include the wide range of system-level information which permits a good understanding of how well the whole range of student learning objectives is being achieved. A strategic approach to system-level evaluation would benefit from clear national objectives, priorities and targets so that progress against these can be assessed. System evaluation should include a varied set of components, such as broad measures of student outcomes (in particular, specifically designed national assessments, longitudinal research and surveys, and international assessments); a system-level indicator framework with basic demographic, administrative and contextual information; information systems to share and disseminate system-level information; and research and analysis to inform planning and policy development, including the evaluation of specific programmes and policies. In addition, system evaluation needs to place significant emphasis on student progress with the monitoring of both student results over time and progress of particular student cohorts. Another important priority is to ensure collection of adequate contextual information to make comparisons meaningful in the light of differing contexts and to effectively monitor equity. In addition, system-level evaluation should include the production of an annual report with an assessment of whether or not the education system is achieving its objectives.

Go beyond measurement in educational evaluation

An imperative is to develop measures of performance that are broad enough to capture the whole range of student learning objectives. Although it is not always possible to devise indicators and measures of good quality across all the objectives of the education system, policy making at the system level needs to be informed by high-quality data and evidence, and not driven by the availability of such information. Qualitative studies as well as secondary analysis of the available measures and indicators are essential information to take into account in policy development and implementation. Qualitative approaches include the narrative provided by external school evaluation reports, key stakeholder feedback on broader outcomes (e.g. school climate, student engagement, views on the implementation of school reforms) and qualitative appraisal of teachers and school leaders. The qualitative aspects can feed into the policy debate by providing evidence on a broader set of student learning outcomes, as well as help shed light on some of the factors associated with student learning outcomes.

Map out the available information for education system evaluation against education system objectives

A systematic review of the availability of information in a meaningful and nationally agreed education system evaluation framework should be done based on the mapping out of key objectives for the education system, followed by a set of goals to be realised. The next stage should be a systematic identification of available measures, plus, where measures are available, a technical note on their validity and/or limitations for interpretation. This analysis will provide information on key gaps in data availability and also in limitations of existing measures. This will be the foundation of strategies to prioritise further measurement development and/or refinement according to national political priorities and long-term goals. This exercise will also remind all stakeholders of the full spectrum of national priorities and goals and clearly show that not all of these are currently measured. As a result, final steps are to ensure the development of qualitative analysis in priority areas, for which there are currently no measures, and to feed the results of this analysis into the policy making process.

Processes for effective implementation

Effective implementation of a comprehensive approach to education system evaluation requires policy coherence, credibility of execution, high technical and analytical capacity, a strategic approach, transparent reporting, and a valuable use of results. Coherence with a comprehensive approach to education system evaluation requires a commitment to evidence-based policy making. The rationale to establish such an approach builds on the principle of using the results of system evaluation to improve the knowledge base on which policy makers and practitioners draw to improve their practices. This involves a strategic approach to research, analysis and evaluation, and information management activities to support the provision of evidence-based policy advice.

Credibility of system evaluation activities facilitates effective implementation. This requires sufficient technical capacity to undertake education system evaluation and a well-defined distribution of responsibilities. A way to raise credibility for evaluation activities is to give a clear mandate to a technically autonomous national body responsible for education system evaluation with the necessary distance from political decision-making to conduct rigorous and reliable analyses of data. A national body can confront education authorities when necessary and be impartial in its conclusions about the education system. This can provide a fresh and constructive external point of view informing the national debate.

An additional important implementation aspect is ensuring that education stakeholders value the results of education system evaluation. This requires effectively communicating results from system evaluation to encourage their use by different stakeholders. While countries often collect large amounts of data and statistics at the system level, there is frequently significant untapped potential for integrating and using the available data. Great care is needed in ensuring adequate accessibility of system evaluation results, clarifying the interpretability of the results, establishing protocols to share data among stakeholders, providing clear and timely reporting of results to different audiences, articulating key messages on the major results, and offering opportunities for discussion. Box 7.3 shows how Australia has introduced a comprehensive approach to public reporting.

Box 7.3. **Australia: Taking a comprehensive approach to education system evaluation**

Education system evaluation is a priority for the Australian Government and includes public reporting of the progress and performance of Australian schooling as a core commitment. The rationale is to monitor and review the performance of school systems to support performance improvement against nationally agreed educational outcomes as well as enhancing accountability for these outcomes. This commitment to transparency has seen significant developments at the national level over a relatively short period and increased collaboration among the states, territories and government and non-government sectors.

The focus on public reporting is supported by clear standard frameworks both for reporting key performance measures and for general government sector reporting. In 2008, the Council of Australian Governments agreed to a National Productivity Agenda setting four major targets for schooling, including an increased proportion of young Australians attaining senior secondary education and targets to reduce the performance gap of Indigenous students. The Council also set educational outcomes in relation to student engagement, literacy and numeracy, social inclusion, and transition from school to work and further study. Ministers agreed that public reporting on Australian schooling would support improving performance and education outcomes; be both locally and nationally relevant; and be timely, consistent and comparable. As the basis for reporting on the progress of the education system, the Measurement Framework for Schooling in Australia:

- outlines the data collection and reporting responsibilities of school systems and sectors across the country
- details national key performance measures for schooling
- outlines the annual assessment and reporting cycle
- underpins the National Report on Schooling in Australia released by Education Ministers.

The Measurement Framework for Schooling in Australia 2012 clearly presents the agreed measures and their source for each of the priority areas: literacy, numeracy, science literacy, civics and citizenship, information and communication technologies literacy, vocational education and training in schools, student participation, student attainment and student attendance. In 2008, the framework was enhanced by the inclusion of comparable measures from the National Assessment Program – Literacy and Numeracy (NAPLAN).

In late 2010, the framework was further refined to incorporate the full suite of agreed national key performance measures related to general government sector reporting. The Measurement Framework for Schooling in Australia is reviewed every three years by the Australian Curriculum, Assessment and Reporting Authority in consultation with jurisdictions and sectors. The revised framework is then submitted to the Education Council for Education Ministers' approval.

Source: Santiago, P., et al. (2011), *OECD Reviews of Evaluation and Assessment in Education: Australia* 2011, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264116672-en*.

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PART II

Chapter 8

Growing and sustaining innovative learning environments

Which factors do policy makers need to keep in mind when designing and implementing policies to grow innovative learning environments (ILE)? This chapter presents common factors across OECD education systems that contribute to develop successful innovative learning environments, as identified from the research literature and from ILE programmes implemented in recent years. Reviewing past experiences in innovative learning environments can help policy makers seeking to design and implement reforms.

This chapter focuses on policy making and implementation in innovative learning environments. It defines and reviews the main purposes and contextual features of ILEs, identifies the key elements of successful policy design and explains, through the analysis of past reform experiences, which practices and factors can contribute to efficient policy implementation.

Key findings

- Developing innovative learning environments (ILE) is necessary today, as traditional educational approaches will not be able to deliver 21st century competences for learners. Traditional education is facing difficulties in influencing actual changes in learning, in light of the complexity of education systems, the lack of recognition that learning takes place in non-formal ways and the perception that improvement and innovation are contrasting goals.
- The Innovative Learning Environment research and framework carried out by the OECD's Centre for Educational Research and Innovation (CERI) identified the following key features of ILEs: integrating principles derived from a close research-based understanding of learning; innovating the "pedagogical core"; engaging in learning leadership and creating formative learning organisations; and extending capacity through partnerships. This can be applied both by schools and learning environments, by wider networks (the meso-level), and by systems (the macro-level).
- Policy implementation requires a facilitation role at the government level and a leadership role at the school level to create conductive conditions for ILEs. The appropriate processes of implementation for fostering and sustaining ILEs have been identified in the OECD/CERI ILE framework as a series of C's, including: culture change, clarifying focus, capacity, creation, communities, collaboration, communication, change agents, coherence and consolidation.

Challenges to growing and sustaining innovative learning environments

For 21st century educational change, both innovation and learning are central, particularly with the concern that traditional educational approaches are not sufficiently delivering 21st century competences for learners. Developing innovative learning environments can address this challenge.

"Innovative learning environments" refer to arrangements for learning and teaching that introduce forward-looking insights about learning and innovation. Addressing these as learning environments rather than using the institutional units "school" and "classroom" emphasises the focus on making learning central to policy and reform. Major challenges surrounding the endeavour to reform schools towards 21st century learning include:

- **Influencing actual change in learning:** Policy-making instruments are well removed from the on-the-ground teaching and learning where change has to take place for progress to be made.
- **Informing the debate with simple terms and messages:** Mixed messages that inform debate risk confusing the direction of desirable change, for example widespread support for developing collaboration and community, as compared with the parallel emphasis on promoting autonomy (although they need not be incompatible in practice).
- **Recognising the complexity of contemporary education systems:** Governance and leadership frameworks tend to be closely focused on formal schools and systems, when

learning increasingly takes place in a wide variety of non-formal ways and settings, including through social media.

- **Perceiving improvement and innovation as contrasting goals:** A common perception is that improvement and innovation are contrasting goals, when instead innovation should be viewed as an essential ingredient of improvement in 21st century learning systems.

Drawing from the OECD/CERI ILE* project, this chapter analyses and identifies the elements and policy strategies for putting learning at the centre. To do so, it introduces four key elements of innovative learning environments and follows with a series of policy approaches that have been determined effective to grow and sustain contemporary schools and learning environments (the series of C's mentioned above): culture change, clarifying focus, capacity, creation, communities, collaboration, communication, change agents, coherence and consolidation. Also included are examples of how these processes are being promoted in education systems in different countries around the world.

Key elements of innovative learning environments

According to the OECD work on Innovative Learning Environments, 21st century schools and learning environments should strive to:

- be informed by "research-based learning principles" through all their work, organisation and strategies
- innovate the elements and dynamics of the pedagogical core
- become formative organisations through strong learning leadership, evaluation and feedback, and corresponding design strategies
- open up to partnerships, including with other schools and learning environments, to grow professional capital and to sustain renewal and dynamism.

The research-based learning principles are the guiding values of learning environments while the three other areas are the fundamental layers to make this happen: the pedagogical core, learning leadership, and partnerships.

Being informed by research-based learning principles

To make learning central, key research-based learning principles have been developed that can guide the work, organisation and strategies of learning environments. These principles can serve as criteria for whole systems or reforms that seek to base themselves on evidence of what makes young people learn best. They depend on accepting two main objectives: 1) the aim of schooling is to create environments in which young people are engaged in effective learning; and 2) the strategies for such engagement should best be founded on research about how young people learn best.

The research-based learning principles state that, in order to be most effective, schools and other learning environments should:

- make learning central, encourage engagement, and be where learners come to understand themselves as learners
- ensure that learning is social and often collaborative

* The OECD/CERI Innovative Learning Environment project gathered 125 examples from 29 systems in 23 countries and carried out detailed case study research on 40 of those cases. This chapter draws on the strategies and initiatives submitted to the OECD in the current phase of ILE work (*http://www.oecd.org/edu/ceri/innovativelearningenvironments.htm*).

- be highly attuned to learners' motivations and the importance of emotions
- be acutely sensitive to individual differences including in prior knowledge
- be demanding for each learner but without excessive overload
- use assessments consistent with these aims, with strong emphasis on formative feedback
- promote horizontal connectedness across learning activities and subjects, both in and out of school (Dumont et al., 2010).

These principles embody commitments both to learning and to doing those things demonstrated through decades of research to enhance it. They imply structured and well-designed learning environments using sophisticated mixes of pedagogical repertoires. Such principles can be translated into more familiar educational terms: learning-centred, profoundly personalised, inclusive, and social.

In most contexts, implementing these research-based learning principles can imply significant change if they are to be embedded in daily practice, and still more in the practice of whole learning environments. Such principles imply significant innovation in that many schools and systems will need to change, some radically, in order to put them into practice. In addition, learning environments should aim to integrate all the principles rather than a selected few. If schools strive to foster learner engagement and formative assessment, for instance, but seek to do so while ignoring individual differences or the importance of emotions for effective learning, then the overall impact will be diminished.

Innovating the pedagogical core

At the heart of each learning environment is the pedagogical core, which includes four elements and their different dynamics:

- Learners (who?): Who the learners are in any school may be a given of geographical proximity, but the profile of learners may also be innovated, for example, inviting parents or other family members in to become students or when learners are brought together from a distance, sometimes from around the world, using communication technologies.
- Educators (with whom?): Who the educators are may be a source of innovation as different experts, adults, family or community members, and students themselves, work with the teachers, or as teachers join forces across schools and even over large distances to share a class or project.
- Content (what?): Many approaches may be taken to innovating content, even within existing curriculum guidelines, such as emphasising 21st century competences including social learning; making connections through inter-disciplinary approaches; or giving emphasis to specific areas like language learning or sustainability.
- Resources (with what?): There are numerous means to innovate resources, extending the reach of the learning environment through digital resources as well as redesigning facilities and learning spaces. (Many detailed examples based on 40 international case studies are found in OECD, 2013a)

Rethinking and innovating each of these core elements – each one by itself and especially all four together – is to address the deepest core of any learning environment. The core elements are interconnected dynamically to each other. They are related through pedagogy in terms of how teachers and learners interact through particular content and

using different resources (hence, the term pedagogical core). Other organisational dynamics that relate these elements occur in the traditional and ingrained organisational structures that have been devised largely for convenience to simplify control and accountability rather than to optimise learning engagement or outcomes – for instance, the predominant role of the single teacher working alone largely invisible to all but her class, in front of fixed class sizes of young people of the same age/grade, using standardised timetables. They represent an industrial (not post-industrial) response to educating very large numbers of young people in mass school systems.

Four dimensions where schools are innovating these core structures and dynamics are:

- different mixes of pedagogy that engage learners and realise personalisation through good teaching – pedagogies for active learning and deepening understanding and for enhancing problem-solving and team work, while challenging each individual learner;
- different ways that educators work together in the service of these pedagogies, sometimes alone but often collaboratively with others, breaking with undue reliance on the single- teacher/single-classroom model in more complex organisational and professional arrangements;
- rethinking how learners work together at different times, re-examining single age/grade practices and how students are grouped so as to optimise the learning of all students;
- more flexible use of learning time, to ensure, for instance, that deep learning is possible and to personalise timetables.

Innovative schools are introducing more complex mixed practices and pedagogies to achieve ambitious learning goals. Much of the educational discussion is over-simplified to artificial contrasts – knowledge versus skills, direct teaching versus inquiry-based approaches – when instead each has its place. The choices are about how to mix practices to suit the learners, aims, and context in which the innovation lies, in rejecting the standardisation of so much schooling practice (see also Vieluf et al., 2012).

Becoming formative organisations: Learning leadership and the formative cycle

Innovative learning environments are formative organisations with learning at the centre, strengthened over time through strong learning leadership, evaluation and feedback, and corresponding design strategies. Leadership is essential to ensure the continuous formative cycle of the organisation in learning environments that reflect and strategically use evaluation and feedback. Teacher engagement and professional learning are key aspects of the design and implementation process, as are the learners. The learners themselves should be privileged and influential players.

For learning to become and remain the core business of schools, leadership is essential and critical for reform and innovation. Whether at the school and learning environment (micro) level or the broader system (macro) level, leadership influences the direction and outcomes of learning environments. Creating and sustaining environments that are conducive to good learning requires learning leadership with strong visions and corresponding strategies intensely focused on learning via shared, collaborative activity, not just a heroic principal. Such leadership will extend beyond the school in contemporary learning environments embedded in a rich web of networks and partnerships.

In addition, formative feedback should be integral to individual classes and should permeate the organisation as a whole. This involves rich information about the learning taking place, where it is constantly fed back to the different stakeholders and revised into strategies for learning and further innovation. This requires strong processes of self-evaluation and the constant endeavour of sharing knowledge about learning, whether through using learning logs and portfolios, collaborative teaching and professional observation, research, or the focused application of information systems and student data management. Information richness about learning strategies, students, and learning outcomes will quickly become overload unless that information is converted into meaningful evaluative knowledge and acted upon by the learning leadership and others.

Opening up partnerships to extend capacity and horizons

The contemporary learning environment needs to develop strong connections with partners so as to extend its boundaries, resources and learning spaces. Such extensions should include parents and families, not as passive supporters of schools but as active partners, stakeholders and actors in the educational process. Partnerships should include local community bodies, businesses, and cultural institutions, including museums and libraries. Partners drawn from higher education are critical for extending the learning horizons of both students and staff and offering additional expertise in the constant process of development. Equally important are partnerships with other schools and learning environments through networks and professional learning.

Creating wider partnerships should be a constant endeavour of the 21st century learning environment, overcoming the limitations of isolation in order to acquire the expertise, knowledge partners, and synergies that come from working in partnership with others. Partners extend the educational workforce, resources and sites for learning. Working with partners is a form of capital investment – the social, intellectual, and professional capital on which a thriving learning organisation depends (Hargreaves and Fullan, 2012). This is even more critical in circumstances of scarce resources, when more is expected to be done with less. It is also about meeting one of the key "learning principles" outlined above: promoting horizontal connectedness, including connections between the worlds of education and the broader social worlds beyond school boundaries.

Policy strategies to grow and sustain innovative learning environments

It is one thing to identify features of innovative, powerful schools and learning environments; it is another to implement these on a wider scale, for learning environments to grow and be sustained. Growing and sustaining ILE reform is about helping to create ever denser clusters of 21st learning practice so that critical masses of practice and change may be reached. Further, it is about recognising that in contemporary learning systems, formal institutional provision is only one part of the whole. As noted earlier, the appropriate processes of implementation for fostering and sustaining innovative learning environments are identified in this section as a series of C's, including: culture change, clarifying focus, capacity, creation, communities, collaboration, communication, change agents, coherence and consolidation.

In looking at diverse strategies to grow innovative powerful learning around the world, however, it is important to recognise that contexts and conditions vary so widely, especially in the international context, that "what works" recipes are not meaningful. Much depends on how policies are interpreted and implemented in practice: broad

categories such as networking or assessment policies or teacher professional development drives cover such a wide range of practices that they may be very effective or instead make very little difference. Much also depends on how such approaches are combined in systemic ways rather than treating policies as isolated practices or single bullets. The examples and strategies are described here are illustrative not prescriptive.

Moreover, in creating conducive conditions for innovative learning systems to flourish, there is clearly a support and facilitation role for government, for making connections with the many different partners involved. But there is also a clear leadership role to be played. Many of the strategies discussed in this chapter depend on government design and leadership. Ministries and system agencies provide the legitimacy and the system-wide perspective to push new directions. In the language of top-down and bottom-up approaches, both are needed, often in combination. If these are to result in culture shift and be sustained across changes of administration, it may be important to ensure that the learning leadership provided by government is not through highly politicised, trumpeted schemes, but rather through more sustained, less high-visibility changes over time, which can help alter cultures and behaviours in education.

Culture change

Several of the strategies emphasise the importance of creating culture change in schools, as both much more significant than surface change but also much more difficult to realise. A reform in Victoria, Australia, for instance, refers to "changing the mindset of schools to aspire to major improvement, changing the instructional practices of the school leaders and teachers and system providing intense and step-by-step support." The system-wide renovation in Slovenia (Box 8.1) began from the understanding that past reforms had been excessively top-down so that there was insufficient ownership of them by the local actors who matter. The need for new kinds of knowledge and new kinds of schools – as learning communities – amounted to a veritable culture change, in particular in accepting the importance of being more collaborative and connected. In this case, training in moderation skills was needed, given the lack of experience with collaboration.

Box 8.1. **Slovenia: Renovation through school development teams**

As part of the *Gymnasia* (general upper-secondary schools) renovation process, school development teams were created based on the concepts of distributed leadership, learning communities and empowerment of teachers as change agents at the school level. With the support of the head teachers, school development teams have promoted, steered and co-ordinated the development processes in schools through activities such as needs analysis and structured dialogue on concepts of knowledge, teaching and learning, planning and evaluation. School development teams also receive conceptual and practical support from a strategic team of the National Education Institute. The general aim has been to achieve the following two sustainable effects:

- to stimulate didactic innovations by individual teachers and interdisciplinary teams in order to develop higher-order thinking and competences
- to introduce and sustain such change on the school level through strategic planning and thoughtful implementation and co-ordination across whole schools.

Box 8.1. **Slovenia: Renovation through school development teams** *(cont.)*

At the beginning, the main focus was on the first of these aims, but focus has tended to shift to the second.

The reform combines different approaches and instruments, such as direct promotion, provision of incentives, network creation, knowledge management, leadership strategies and other professional development capacity building, creating new forms of expertise and change management, and more general drives to create climates favourable to innovative learning. It involves different groups and elements to be organised and combined in many different ways: learning professionals; the students; concepts of change management, of learning and teaching, and of knowledge; materials, facilities, and technologies. It has developed an institute of change agents, research and professional development network programmes, and networking.

The whole process has lasted for around ten years, including three years of pilot stage when its main features were designed and implemented. Ten schools were part of this initial pilot phase, but it then spread to all *Gymnasia* (over 70 schools), and represents now a model for implementation of change in other schools.

Over time, more and more activities have been put in the hands of schools themselves. When people are not included, they do not feel the changes and innovations as their own. The most important transforming idea was that of co-design with teachers, in which they come to take lead responsibility drawing on national materials and support.

Source: OECD (2013a), *Innovative Learning Environments*, Educational Research and Innovation, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264203488-en*.

Clarifying focus

Several systems emphasise a clear focus on specific objectives. Both British Columbia (Canada) and New Zealand report a relentless recourse to learning evidence to ensure that network innovation activity is disciplined and focused, encouraging accountability and speeding transfer of knowledge around schools and systems. Trying to cover everything all at once risks disjointed diffusion of effort and missing all targets in the process. Several systems report how choices needed to be made to ensure focus while avoiding narrow goal-setting that blinkers wider innovation. Many networks, for instance, choose improving writing as a core focus for attention in improvement, but saw it as the vehicle through which many wider innovations can be built. Similarly, the French Belgian initiative Take-off (*Décolâge!*), involving 260 schools and 53 psychosocial centres, is strongly focused on reducing grade repetition in the very early years of schooling as the strategic means for consolidating a much wider set of changes related to classroom practice and underachievement.

Many of the innovation strategies aim to address mainstream goals, such as low educational achievement and enhancing quality. Conventional approaches have failed to dent such stubborn and persistent problems as continued low achievement among the same groups of students. Within this context, in some cases, innovating learning environments are seen not just as a means to these widely-shared equity and quality goals, but as an end in itself. Strengthening the focus on learning is also an explicit goal, which aims to make schools more learning-centred and enable students to accomplish deep learning rather than superficial mastery. Some have a strong future focus: both Thüringen (Germany) and Spain, for example, are working to spread new content around 21st century skills and futures literacy.

Capacity, creation, communities, and collaboration

Knowledge creation and mediation are central features of many of the strategies to innovate learning environments, and to grow and sustain them. Many different approaches are used to share knowledge and to capture the learning continually taking place through the innovation.

As a cornerstone of the reform, several strategies generate knowledge about the learning taking place and acting on that knowledge. The New Zealand Learning and Change Networks have network participants engage at the outset in deep learning for up to six months to identify the priority learning challenge, map the current situation around the achievement challenge, and assess the learning, teaching leadership and family support practices (Box 8.2). In Australia (Victoria), the Western Metropolitan Region reform has been designed around rigorous performance analysis, a unified leadership focused on building commitment and capacity, training and practice in evidence-based classroom techniques, and the provision of additional resources and support.

Box 8.2. **New Zealand: The Learning and Change Networks strategy**

The Learning and Change Networks strategy seeks to learn from a period of widespread experimentation to bring together schools, kura (Māori-language immersion schools), communities, professional providers and ministry officials to achieve targets for learner achievement (including near universal achievement of NCEA Level 2 qualifications by 18-year-olds by 2021). Learning and Change Networks are addressing the three big agenda items of schooling improvement, blended learning, and cultural responsiveness as a whole instead of creating projects that deal with those agendas separately, as so often happens.

Design of the strategy commenced in October 2011 and five pilot networks representing 45 schools/kura were established. The strategy went live in October 2012, and now around 55 networks have been established involving up to one-fifth of New Zealand schools/kura, with an average size of just over seven schools per network. All learners are included, with a particular focus on priority groups: Māori, Pasifika, those from lower socio-economic groups, and those with special education needs, along with their families, teachers, school and community leaders.

Among the networks' distinctive features are:

- a tight and highly developed methodology for ensuring a strong focus on learning and learning change, including very explicit tools, procedures, support, and facilitation
- an explicit and prominent focus on engaging parents, families and communities and on learners themselves in the learning and education (not just as relationships to foster as good in themselves but because they are strategic stakeholders in determining learning outcomes)
- a developed applied theory of making professional learning communities and networks work so as to achieve outcomes that individual schools and teachers cannot readily do by themselves
- an elaborated set of structures and management arrangements that puts the onus for action and change on the networks and their members, while embedding these in regional and national structures of support
- a central role given to evaluation, generating learning evidence at school, network, regional and system levels
- a strong connection to international experience and networks.

Source: OECD (2013a), *Innovative Learning Environments*, Educational Research and Innovation, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264203488-en*.

A research component is often critical to understand how the strategy is working and to create the materials to strengthen and sustain teacher education and professional leadership development. Research and observation have been drivers of change in the Catalonia/Jaume Bofill Foundation strategy to promote innovative learning leadership (Jolonch, Martinez and Badia, 2013). The LEGO Education ICT programme in Peru, which is equipping 20 000 primary schools, has been based on research in three phases: experimental design evaluation of new pedagogy, followed by surveys of principals and others, and more qualitative evaluation. Such research informs an understanding of implementation, not just what works in ideal conditions.

Schools and projects participating in innovation programmes with additional funding may be required, as a condition of their participation (as in the experimental schools chosen by the Experiments and Entrepreneurship Division of the Ministry of Education or the Finnish On the Move! co-ordination projects), to write up their approaches and materials into handbooks to be shared with others.

The creation of expert knowledge and converting that into forms and formats may require specialist institutes to become an integral part of the reform strategy. In the case of the Austrian NMS Reform. this was achieved through the creation of the National Centre for Learning Schools (CLS) (Box 8.3). Extensive evaluation is integral to the Austrian reform, such as mixing large national quantitative research and smaller qualitative research, and incorporating the results into the qualification programme and into specially-developed protocols for evaluation. Similarly, in Slovenia, the National Education Institute has been crucial to the reform, in partnership with the ministry and the consortia of *gymnasia*. In South Australia, the innovations are linked to a local university where honours students provide research to feed back into the innovation process.

In strategies to spread innovative learning environments, professional learning goes hand in hand with knowledge, as it needs to be used and disseminated. The Centre for Innovative Educational Leadership (CIEL) programme in British Columbia (Canada) immerses participants in research knowledge about leadership and learning that is deep and context-based with a strong focus on inquiry. Part of this is direct engagement with the OECD/ILE learning principles. The creation of the *Lerndesigner* change agents as part of the NMS Reform in Austria involved equally the organisation of *Lernateliers* where these new actors in educational innovation come together for professional learning and exchange (Box 8.3). The recognition and expertise that comes with such deep learning has strengthened the reform effort throughout.

Organisational routines that have at their core the aim of keeping learning at the centre of all school activity by changing organisational cultures of teachers and schools – through collaboration, observation of others, and student and professional learning – represent promising strategies to be promoted. Among them are approaches such as Lesson Study and Learning Study, associated particularly with Japan and Hong Kong (Cheng and Lo, 2013), including the kernel routines described by Resnick, et al. (2010):

> When chosen purposefully and implemented well, new organisational routines can function as powerful instruments for transforming school practice. ... Rather than attempting to drive out current practices, the kernel routine recruits and "re-purposes" the familiar ways of doing things … [with] clear articulation of the steps in the routine, the rationale for these steps, and the requirements of each one. This calls for training procedures and a set of tools and artefacts for performing the routine.

Box 8.3. **Austria: The Change Agent Initiative: *Lerndesigners*, in lower secondary school reform**

The Austrian school New Secondary School (NMS) reform initiative began in 2008 in 67 pilot schools and has since led to a mandated school reform for the whole sector to be completed in phases by 2018. The initial goal of the NMS pilot was to foster innovative learning environments and increase equity in the lower secondary sector. An external consultant group was hired from the start to guide the pilot phase, which initiated and implemented networks and communities of practice at all system levels. The focus was on school principals and *Lerndesigners* (a teacher leadership role, new for Austria) to act as change agents and provide leverage for school reform. The rationale was clear and focused: school reform must happen at the school level and change agents require networking and communities of practice.

Each NMS school designates a member of the teaching staff to be the *Lerndesigner*, who attends national and regional network meetings and qualification programmes (*Lernateliers*) as well as local networking events. To strengthen the role and foster innovation, school principals were also invited to a national network meeting each semester to address their own leadership issues and develop shared leadership with the new *Lerndesigners* as a change strategy on the school level.

A specific *Lerndesigner* qualification was jointly organised by the national centre responsible for national *Lernateliers* and the University Colleges of Teacher Education responsible for regional *Lernateliers*. It takes two years to acquire competence in six areas: mindfulness of learning, difference and diversity, competence orientation, backwards-design curriculum development, differentiated instruction, and assessment.

In April 2012, the NMS was mandated by the Austrian Parliament, and a new phase of reform implementation began with the 2012/13 school year. To sustain positive change and foster learning environments which are equitable and challenging for all NMS lower secondary pupils, a National Centre for Learning Schools (CLS) was established. The primary objectives of the CLS are to:

- sustain and foster school networks and communities of practice
- develop change agents through qualification programmes, symposia and networking
- integrate findings from current learning research in the NMS environment to development strategies
- disseminate next practice insights and examples online and in print
- support change processes in teacher education to meet the goals of the NMS
- exploit system-wide synergy potentials
- provide support for policy and programme development.

Source: OECD (2013a), *Innovative Learning Environments*, Educational Research and Innovation, OECD publishing, Paris, *http://dx.doi.org/10.1787/9789264203488-en*.

The Victorian WMR School Improvement at Scale strategy also used learning walk routines for professional learning and culture change. Policy strategies to promote such organisational cultures will naturally revolve around promoting professional learning in these different methods and approaches and facilitating communities of practice that are actively applying them.

Networks and professional learning communities are thus a widespread feature of strategies for growing and sustaining innovative learning. By their nature, they are based

on voluntary and motivated engagement rather than obligation. While this may seem ephemeral compared with the solidity of well-defined educational structures, this is becoming the natural form of collective action in contemporary learning systems. Growth in network participation is a simple indicator of growth and sustenance of innovative learning environments: the British Columbia Networks of Inquiry and Innovation, for instance, began with 34 schools and now includes more than 500 schools. But, as stressed above, this is not to endorse networking (or the accumulation of network partners) for the sake of it. At its most effective, networking involves focused and disciplined activity promoting good learning and teaching.

Establishing the climate and means for effective networking is important to developing networks and professional learning communities. One obvious way in which this can be done is to support the establishment of online platforms for teacher learning and networking, as discussed in the next section. As discussed further below, there is a policy role in relation to coherence and alignment: ensuring that incentives and governance requirements are, at the least, not negating the demands of professionals to work and learn together across sites and institutions. There is also a leadership role in promoting directions that can only be realised through collaboration and offering support to underpin networking activity.

Communication technologies and platforms

In the 21st century, it is obvious that digital communication should be prominent in any strategy that seeks to overcome the limits of time, place and resources to share knowledge and to build communities of practice at scale. Technology contributes to all the different components, relationships, partnerships, and principles that are integral to innovative learning environments, whether through innovating the pedagogical core, facilitating the learning leadership and formative organisation cycle, or extending capacity through rich networks of partnership.

Platforms and digital communications have become an integral element of any strategy to grow and sustain innovative learning environments, as in the following examples:

- The French innovation platform *Respire*, organised by the National Ministry of Education, has gathered more than 2 500 innovations, and the platform hosts communities of practice. It is organised around four guiding principles: informality, personalisation, open source, and co-operation. It thus facilitates existing factors: the digital use of social networks, a strategy for change, and a community of practice.
- The Mother Tongue Theme Site has been running since 2001 and is co-ordinated and managed by the Swedish National Agency for Education. In 2003, it won the award for the Best Global Website for "the most innovative multilingual and multicultural site in Europe". The website has three parts (general information, online resources, and language rooms), and 100 teachers and school leaders contribute to it with unique content in 45 different languages. The site is actively linked to professional development activities – conferences, seminars and training courses.
- At the end of 2012, the Finnish National Board of Education launched a new portal as an open service to facilitate the spread of innovation and good practices. One of the themes included in the portal is learning environments.

- The *Enlaces* programme organised by the Chilean Ministry of Education has developed online resources on quality and innovative pedagogical practices, and provides syntheses and associated teacher resources.

Change agents

Many of the strategies involve the creation through policy initiatives of specific change agents, who are able to exercise influence at the local level and help to sustain the drive to innovation. Austria's *Lerndesigners* in the NMS reforms (Box 8.3) is a new teacher leadership role, seen as complementary to the leadership of principals and senior managers, not replacing it. This is not only an individual role, but one which involves networking and learning through periodic *Lernateliers*, which are able to make the *Lerndesigners* effective change agents. In Conafe, Mexico, the Itinerant Pedagogical Advisors have been created specifically as coaches and advisors to communities and teachers where existing educational resources are weak. School coordinators in the Curricular Integration of Key Competences project in Spain became the leaders of this strategy in each school as did the leaders in Slovenia's Renovation through School Development Teams (Box 8.1). Norway created a cadre of Advisory Teams aimed at supporting school owners and leaders in problematic areas of achievement and quality.

The examples are by no means identical – some are about advisers to principals, others are teacher leaders, others are specific learning coaches and consultants – but they share the feature of being newly-created roles to meet needs that call for specialist knowledge and functioning. There may be tensions and trade-offs in the degree of formalisation of such roles. With greater formalisation come greater recognition and tighter processes, at the risk of reducing local flexibility and increasing resistance. It may be that these roles need time to be formalised and embedded, rather than introduced wholesale from the beginning.

Coherence and alignment

Increasing the coherence and alignment of different parts of education systems is a common objective to ensure that policy directions in one part of the system are not nullifying those in another and, better still, are reinforcing each other. A clear example is offered in the field of evaluation and assessment: "A critical aspect in the effectiveness of the evaluation and assessment framework is its proper alignment with educational goals and student learning objectives" (OECD, 2013b). This system-wide alignment reflects the sixth ILE learning principle directed at school-level and system-level reform and applies to strategies and innovative learning as to other areas of schooling change. However, the goal of alignment suggests processes that are linear and mechanical and thus do not fit with contemporary complex learning systems (Looney, 2011). The broader notion of coherence may be preferred.

There are different ways to work towards greater coherence. One is suggested by Finland, in which the ideas of innovative learning projects can be spread and elaborated by incorporating them into the knowledge base that guides ongoing curriculum reform and related development of curriculum support materials. The curricula thereby inform the reform process, not only avoiding incoherence and duplication but positively reinforcing each other. Another example is about ensuring that the innovation uses system-wide standards so as to avoid establishing competing (and confusing) benchmarks (e.g. the

British Columbia Networks of Inquiry and Innovation (NOII) which are grounded in British Columbia standards of performance).

The issue is not just one of coherence but of avoiding unnecessary competition (and hence confusion) between any one initiative and others that may be competing for the limited time and attention of those involved. The Austrian NMS reform has been deliberately linked to other initiatives so as to avoid competition, and similarly the New Zealand note emphasises the importance of removing competition with other initiatives aimed at accelerated learning. At the least, it means a readiness to integrate or even remove those initiatives that are causing clutter as and when they become redundant, rather than continually adding yet more on top. More fundamentally, it emphasises the importance of adopting a holistic approach, so as not to treat the three large New Zealand agenda items of school improvement, blended learning, and cultural responsiveness in separate silos, each with its own associated initiatives.

Resourcing may be an issue in these circumstances. Innovation initiatives must often function on small budgets, and the examples submitted to ILE are no exception. This calls for ingenuity to co-ordinate with other programmes (such as for funding technology or team teaching) or to link with national or even international funding streams (both Hungary and Slovenia refer to European development funds). Creatively connecting to other initiatives may provide much needed support, but there are possible risks of blurring focus.

Consolidation: scale and time

Growing innovative learning environments based on sound knowledge and professional commitment cannot be achieved overnight. Growing and sustaining ILE reform requires scale, where pilots grow and are sustained, and time for implementing, both for change and for scale. Several of the featured strategies describe how they were implemented through pilots. The Austrian NMS Reform (Box 8.3) began in 2008 with 67 pilot schools, before later being mandated with system-wide completion foreseen for 2018. The Teacher Education Programme on Early Numeracy and Literacy in the former Yugoslav Republic of Macedonia went through a careful review and preparation phase in 2008-09 before full implementation. The New Zealand Learning and Change Networks programme (Box 8.2) began in five pilot networks representing 45 schools/kura and now has reached 20% of the more than 2 500 schools in New Zealand. The Thüringen Development of Inclusive and Innovative Learning Environments programme in Germany began in 40 start-up schools with the view that they should become reference schools for schools joining the programme at a later stage. The Finnish *Innolukio* project began as a small local initiative and grew to a nationwide venture (Box 8.4).

In some cases, as in the Victoria WMR reform, there was agreement at the beginning that change had to be region-wide, not just evident in pilot or volunteer locations. With the Slovenian Renovation through School Development Teams programme, it had originally been planned to begin as a pilot, but half the schools wanted to participate immediately, and the programme was overtaken by demand.

These examples represent pilots in a genuine sense. But often the term is used to refer not to genuine leading experiments to be built on over the longer term but to relatively small-scale initiatives that will likely never lead to wider adoption or change. A very common experience is for funded programme innovations to last only for as long as the

Box 8.4. **Finland: The *Innolukio* case**

One example of a learning environment initiative that has grown from a small local initiative to a nationwide venture is *Innolukio* ("innovative general upper secondary school"). The main focus is on entrepreneurship.

"The *Innolukio* learning environment encourages upper secondary school students towards creative thinking and provides them with the knowledge and skills that are required in future work tasks. The essential goal of the project is to create a connection between upper secondary school students, businesses and universities, while utilising the creativity of the students as a national resource. The *Innolukio* concept encompasses, for example, inspirational videos, weekly exercises, the *Innolukio* competition and other learning materials that support creativity. The learning environment is free of charge to upper secondary schools and their students. Students are primarily intended to engage in the activities during their free time, but teachers can freely use the materials for teaching purposes."

The initiative started in a single school in a small town in Northern Finland (Ylievieska). Several years later, at the beginning of the 2012/13 year, the network included 320 upper secondary schools and 110 000 students. *Innolukio* has already started to generate new local solutions, and the long-term goal is to get all Finnish upper secondary schools involved.

The partners involved include the Finnish National Board of Education, the Ministry of Employment and Economy, the Trade Union of Education in Finland, the Association of Finnish Local and Regional Authorities, Aalto University, University of Oulu, the Federation of Finnish Technology Industries, the Economic Information Office, Nokia Corporation and Microsoft Corporation.

There are several factors contributing to its success. Some are related to learning environments, but other factors include active use of advocates, successful management of publicity and the focus on entrepreneurship education, which is widely accepted as important (including among policy makers).

Source: OECD (2013a), *Innovative Learning Environments*, Educational Research and Innovation, OECD publishing, Paris, *http://dx.doi.org/10.1787/9789264203488-en*.

additional funding is available and for practice to slip back to business as usual once it has dried up. There is the well-known Hawthorne Effect whereby the experience of the reference pilots is unrepresentative and hence an inaccurate guide to potential adoption by others simply because of the additional spotlight and support the pilot has received. Without a commitment to sustain the change, pilot projects become ends in themselves. As expressed in one of the System Notes submitted to the ILE project, "it is much easier to start something than to sustain it".

It is a known feature of strategies for educational innovation and change that they necessarily take time to put into effect, no matter what the urgency shown. The Swedish Mother Tongue Theme Site, for instance, started with 4 languages in 2001 and has reached materials in 45 languages and over 10 000 web pages over a decade later. The Slovenian Renovation programme has been a ten-year process. Even those strategies that reported relatively swift progress (for example, the five years for the Victorian WMR strategy to show results) can be viewed as slow by the timetables of political cycles.

The importance of time is partly a matter of the processes involved in moving beyond the early innovators to reach a critical mass of practitioners. It is also a matter of the

phases of learning and implementation that need to be passed through in order to embed the learning strategies in systems and institutions. This is formalised in the New Zealand Learning and Change Networks strategy (Box 8.2) into four phases of development: 1) establishing infrastructure to operate as a network; 2) profiling the current learning environment to understand student achievement challenges and agree on change priorities; 3) implementing a plan to address the change priorities; and 4) sustaining useful changes and agreeing on next steps. The strategy in Victoria (Australia) to make a significant difference to outcomes in the Western Metropolitan Region was also designed around four big phases: initiation, early implementation, relentless implementation, and deepening learning. Only by reaching the final phase can the benefits of the change fully be seen. This also warns against looking to evaluate programmes early when insufficient time has elapsed for change properly to embed. The results of such evaluations are bound to be disappointing.

A feature of the Austrian NMS strategy is its awareness of the different generations that have passed through the qualification cycles as *Lerndesigners*. Instead of assuming that the already qualified earlier generations had become active and expert and no longer in need of attention, networking and professional development opportunities were established for them as well in order to keep them engaged in the reform process. It is an impressive example where sustaining as well as creating change has featured in programme design.

A perennial problem in educational reform is that the timetables involved in making school-level educational change are not matched by the political timetables of government programmes and funding. Rather than build on the foundations laid in a previous administration, the temptation is always present to scrap existing initiatives and start afresh. One means of mitigating the obviously negative impact of mismatched political and educational change cycles is to unhitch innovations too closely from association with particular government programmes. The more that government is only one partner among several, the less vulnerable programmes are to being wound up when administrations or personalities change. The British Columbia innovators refer to this as establishing "third spaces" in the endeavour to step out of politically charged environments towards more professional dialogue.

Conclusions

The processes to grow and sustain innovative learning environment reform are driven by the key elements process from the OECD/CERI Innovative Learning Environment research and framework. As noted earlier, the key elements of ILEs include integrating principles derived from: a close research-based understanding of learning; innovating the "pedagogical core"; engaging in learning leadership and creating formative learning organisations; and extending capacity through partnerships. These can be applied both by schools and learning environments and by wider networks (the mesolevel) and by systems (the macro-level).

As discussed, the process of growing and sustaining ILE reform may be summed up around a series of C's which include culture change, clarifying focus, capacity, creation, communities, collaboration, communication, change agents, coherence and consolidation. The complexity of contemporary learning systems and the need to engage those most involved in teaching and learning on the ground mean that top-down mandating is

inappropriate and even common policy metaphors such as levers, alignment and scale-up are inadequate and excessively mechanistic for the nature of 21st century educational change.

To make desirable change resides in helping to set conditions and create climates. It is about helping to grow capacities and foster collaboration. It is about encouraging learning-focused networks and communities of practice. It is also about enhancing coherence, particularly to ensure that accountability demands do not work against the kind of innovative improvements described in this chapter. There is a need to avoid excessively bureaucratic approaches and control, but this should not be understood as letting all do what they want, with much talking but little action, without focus or procedures.

Lastly, as mentioned, the role of governments to support and facilitate is clearly in creating conducive conditions for innovative learning systems to flourish and in making connections with the many different partners involved. In addition, they must also play a leadership role as ministries and system agencies provide the legitimacy and the system-wide perspective to push new directions. In the language of top-down and bottom-up, both are needed, often in combination. To create a sustainable cultural shift across changes of administration, the learning leadership provided by government should not be through highly politicised, trumpeted schemes but rather through piece-by-piece change that can, over time, help alter education's DNA.

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PART II

Chapter 9

Implementing school improvement reforms

Which factors do policy makers need to keep in mind when designing and implementing school improvement policies? This chapter presents common factors across OECD education systems that contribute to successful school improvement policies, as identified from the research literature and from the programmes implemented in past years. Reviewing past school improvement reform experiences can help policy makers seeking to design and implement reforms in this area.

This chapter discusses policy making and implementation of school improvement programmes. It describes main purposes and contextual features of school improvement programmes, identifies the key elements needed for successful policy design, and explains, through analysis of past reform experiences, which practices and factors can contribute to efficient policy implementation.

Key findings

- There is an increasing trend across OECD countries to introduce school improvement programmes as a way to raise student outcomes. These programmes, defined at national or regional level and implemented at the school level, combine the introduction of new pedagogy, curriculum or instructional practices with teacher training and school leadership guidance, external support staff and constant assessment methods. These reforms may fail to take hold in classrooms because of lack of effective engagement by those involved or because of reform overload or shifts in policies when political agendas change.
- School improvement programmes aim to develop schools' internal capacity for change and improvement. Key elements that can contribute to their success include changing classroom practices by focusing on teaching and learning; ensuring professional development and building on data for improvement; building schools' capacities to deliver, along with providing enough ownership and autonomy; and ensuring policy consistency by balancing external pressure and support.
- Processes to consider for effective implementation include enhancing capacity-building as crucial for the implementation and long-term sustainability of reforms; understanding and engaging stakeholders in the process; finding a balance between political and policy agendas; considering further impact evaluation right from the policy design process; and keeping the context of education systems in mind.

Challenges in implementing school improvement reforms

Across OECD countries and beyond, a policy approach for raising education outcomes has been the introduction of school improvement programmes. These programmes focus on promoting better student learning by changing pedagogy, curriculum or instructional practices across schools. They usually have an organisational component (such as teacher professional development and/or external support staff who observe and help school leaders and teachers to change their behaviour), a network component to build links between teachers and schools, and a classroom component (such as new curricula, new assessment methods or new teaching methods). These types of programmes, implemented by policy makers to attain higher and sustained learning achievements, have had relative success, depending on different factors.

Nevertheless, there is limited systematised knowledge on the best ways policy makers can implement policies to promote improvement in schools and classrooms, and especially on policy processes that can change the classroom context and lead to improved student outcomes. There are some common challenges at the classroom, school and system level:

- There is a tendency for many education improvement reform initiatives to bypass the classroom level.

- Developing capacity at the school level is not sufficiently enhanced or may be too superficial.
- The external environment may not be conducive to implementing policies at the school level.
- The context of education systems and the surrounding policy processes may not be taken sufficiently into consideration for effective implementation of reforms.

This chapter illustrates how countries have responded to these challenges by analysing school improvement programmes which have been evaluated by research (Skalde and Pont, 2013).

It builds on the analysis of available comprehensive studies or literature reviews of school improvement programmes that have been implemented and analysed since 2000 (Annex 9A.1). They cover a range of different school improvement programmes from Canada, the United States, Europe and Australia. Most target both the school organisation and the teaching of students, and include both capacity building at the organisational level and measures to enhance the quality of teaching. Some of the studies also include programmes which take a more indirect approach to school improvement, such as the introduction of accountability measures, market mechanisms and changes in school management. The long time span covered is because it takes time for programmes to be implemented, and evaluation studies are often published on a longer time frame.

Two key questions underpinned the analysis:

- What factors affected the success or failure of implementation and results?
- How did the context influence the implementation process and the results?

The chapter provides analysis on the elements that need to be included in school improvement programmes to ensure their success and on the issues to be aware of for effective implementation. Reviewing past reform experiences may help policy makers who are seeking to design, adopt and implement reforms.

Key elements of success in school improvement programmes

The school improvement programme analysis identified areas which are important for success of school improvement reforms. These can be grouped under three clear levels of action:

- Focus on changing classroom practices: Elements of the programmes that target classroom practices through the introduction of new curricula, methods of teaching, professional development of teachers and use of data.
- Building school capacity: Elements of the programme that are directed towards developing the organisation and leadership of schools.
- Policy alignment : External factors such as external pressure and support, alignment of policies and timeline of policies.

Focus on changing classroom practices

One of the main challenges in school reform is the tendency for reform initiatives to bypass the classroom level. Most of the school improvement programmes reviewed have an explicit goal of improving quality of teaching and learning. Different factors seem to promote reaching into the classroom.

Clear focus on teaching and learning: A consistent finding across the literature is that school improvement efforts which are directed towards changing teaching practices are more effective than policy reforms that only intend to change other aspects of the system, such as the structure or level of resources. A review of research on initiatives to increase the autonomy of schools looks into why some autonomy measures seem to work better than others (Honig and Rainey, 2012). Compared to earlier decentralisation initiatives, the introduction of new autonomy measures included more attention to improving classroom practice and not only to the creation of decision-making structures. Previous initiatives had, according to the authors, overemphasised "changing formal school governance structures without also prompting substantial direct investments in improving teaching and learning". The study concludes that focusing on teaching practices contributed to the modest gains in student achievement in participating schools, and that this focus was more important for results than the autonomy initiative itself.

Another study of low-performing schools which have succeeded in turning around their results found that all the improving schools had implemented new strategies to improve quality of teaching and learning (Aladjem et al., 2010). The strategies ranged from adoption of new curriculum, increasing learning time, to introducing after-school programmes and block schedules. Nearly all the schools also used data on student performance in their development. A review of research on Comprehensive School Reforms (CSR) in the United States gives more details on what type of materials seem to matter for effective implementation (Desimone, 2002). The studies indicated that CSRs are easier to implement when the reform is specific: when the materials, training guidance and instructions are clear and require little interpretation, the reform will be more efficiently implemented.

Developing and supporting teachers: Many curricular reforms and school improvement programmes contain assumptions about how teachers learn and change their practices, assuming that the new curriculum is self-evident and self-explanatory and that teachers will be able to implement a new philosophy of learning with some briefing and few training sessions. However, when teachers are asked to change their views of teaching and learning, the changes are more subtle than what many reforms acknowledge (Ng, 2008). For improvement efforts to be successful and for teachers to put in the extra effort, teachers need to believe in the effectiveness of the programme. The US CSR study found that teachers' perceptions of a programme's efficacy are somewhat subjective, but for the most part teachers were influenced by more objective evidence of success and positive impact on students' learning (Borman et al., 2000). In the study of eight education systems, the findings showed that for teachers to reach new understandings of teaching and learning, they also need time and space to assess how the new knowledge can be integrated with what they already know and how this can be translated into new classroom practices (Earl, Watson and Katz, 2003).

Unsurprisingly, the literature points out the importance of teachers getting adequate training and resources to implement changes and to sustain the new practices over time. Regardless of the type of programme or reform, there seems to be a need for continuous professional development when changes are introduced, and also a need to deepen and extend the programme or reform as time goes on. Teachers generally express the desire for training on what the programme entails concretely, with specific examples of lesson plans. At the same time, teachers want training tailored to their context and needs (Desimone, 2002). Bodilly (1998), for example, found professional development was more effective

when there was a whole-school training (as opposed to training involving only a few teachers), when facilitators were available in the school, and when there was considerable training. According to this study, teachers need to get a concrete idea of what the changes should look like, for instance in the form of materials, texts, guidance or videos.

Earl, Watson and Katz (2003), in the comparative study of reforms in eight education systems give the example of the English National Literacy and Numeracy Strategies, which provided resources and training for nearly all primary schools in the country. Even when the investment was substantial, only a minor proportion of teachers participated in the in-depth professional learning. However, participation in professional learning increases the chances of real change in teaching practice, according to the authors. Furthermore, a lack of adequate training is a problem when it comes to keeping up improvement efforts. Sustaining school improvement requires substantial resources over the longer terms, which are often not planned for. As Earl, Watson and Katz (2003) put it: "One-shot training and access to materials will not result in sustainable changes in practice." The lack of professional training is especially problematic when the programmes or reforms intend to influence all classrooms and teachers and when the changes to practice require in-depth professional development for each teacher, with training opportunities needed over a long period of time.

Using data for improvement: There seems to be a broad consensus across the different reform examples on the usefulness of integrating data on student achievement into the instructional change efforts. The use of data for improvement is a component in all school improvement programmes and reforms included in this study. Data is often used for evaluating strengths and weaknesses, assessing progress and for taking decisions on further improvement needs. The case study looking at school turnaround policies in Ontario (Canada), Australia, New Zealand and England (United Kingdom) illustrates the different uses of data. Ontario (Canada) stresses the importance of having common data across schools to facilitate school-level instructional decision-making. In England (United Kingdom), data is used for self-assessments by schools, to track individual students and in inspections. In Australia, data is used to guide human-capital investment decisions (Orland, 2011).

Data can also be used to assess the progress of implementation of a school improvement programme and to take decisions on the need for a different mix of programmes or practices within the schools (Honig and Rainey, 2012). In the case study of chronically low-performing schools which have turned around their results, the recommendation is for schools to use data to set goals for instructional improvement and to maintain a strong and consistent focus on improving teaching and learning (Dawson et al., 2008). The data is also important to make improvements visible in the early phases of implementation. "Quick wins" can play an important role in shoring up the motivation for implementing the school improvement efforts and overcoming any resistance that might linger (Dawson et al., 2008).

The Effective School Improvement project (ESI) (Wikeley et al., 2005), which looked at school improvement programmes in eight European countries, recommended using two sets of data, one for student outcomes and one focused on change. The goals should explicitly refer to student outcomes in a broad sense, including a wide range of knowledge, skills and attitudes. The other set of goals should be focused on change, for instance change in the organisation, teacher behavior or the materials students use (Reezigt and

Creemers, 2005). England is put forward as an example of a school system which over time has developed data literacy in schools and in local authorities (Reezigt and Creemers, 2005).

A review of school improvement programmes in Manitoba (Canada) and England (United Kingdom) recommended not focusing solely on general goals, but rather introducing goals that are specifically about teaching and learning. These programmes put a lot of weight on internal and external evaluation. Both of the programmes encouraged enquiry and reflection as an integral part of implementation. Teachers got feedback both from external sources and from their internal reflection and stocktaking. Data was used to inform the progress of implementation. The enquiry and reflection components were seen as success factors of both programmes (Harris and Young, 2000).

There is no concrete recipe for how a programme to change classroom practices should be designed and which elements it should contain. It seems that especially in-depth professional training for teachers and school leaders is a critical factor, and that practical tools such as data use and different types of supporting materials can help teachers change their classroom practice. However, it becomes evident that when changing classroom practices, it is easy to underestimate what it takes in terms of professional development, practical guidance, tools and communication for teachers and leaders to radically change the way they think and behave when it comes to their profession. One important lesson is that teachers are professionals who, like all human beings who are asked to change, need convincing and real learning to be able to implement new ways of doing things and that this process is deep and subtle.

Building school capacity: Leadership, professionalism and autonomy

Another challenge that school improvement reforms face is that efforts to develop long-term capacity at the school level often are not sufficiently enhanced or are too superficial. Indeed, school improvement programmes are defined as programmes which target both the classroom and the school as an organisation. The analysis of school improvement literature gives some indications on organisational elements that support success in implementation.

Supporting leadership: All the studies reviewed point to leadership as a critical factor for implementing reform and for improving schools, but the type of leadership varies according to the cases. Some of the studies put weight on strong leadership from the principal, as is the case for study on chronically underperforming schools in the United States, where it was important for the leaders in schools that succeeded in turning around their results to signal both the urgency and the magnitude of the needed change. Mujis et al. (2004) also suggest that for underperforming schools, a strong leader is preferable to more distributed leadership. A different case study of previously low-performing schools which demonstrated dramatic improvement also points to the importance of leadership (Aladjem et al., 2010). Leadership, both in terms of the principal's role and shared leadership responsibilities among senior school staff and the principal, was mentioned as critical for implementing and, in some cases, sustaining reforms.

In the school improvement programmes from Manitoba (Canada) and England (United Kingdom), the focus was on distributed leadership, as teachers were responsible for implementing the programme. The reasoning behind this concept of devolved leadership is to give greater freedom of action by involving teachers and not being limited by keeping to strict hierarchy (Harris and Young, 2000). A study of especially successful schools taking

part in the Manitoba School Improvement Program indicates that particularly successful schools had "change-directed leadership from a collection of individuals within the school", in contrast to one single person (Earl, Watson and Katz, 2003). The European ESI project also identifies leadership as key to school improvement. The findings suggest that fostering leadership as part of school improvement can be difficult in school cultures where the staff will not readily accept the principal as a natural leader. In some countries collegiality prevails between principals and teachers, and this culture does not allow for the principal to take on a key role in leading change.

According to the study of school improvement programmes in systems in which school leadership was not a developed concept at the time of the study, such as Belgium (French Community), Portugal, Italy, and Greece, and in which teachers were rather isolated and principals had more of an administrative role, implementing improvement was often problematic. In these countries, not only leadership by the principal was absent but leadership by teachers as well (Reezigt and Creemers, 2005).

Developing professional communities: In all the studies, developing professional communities at the school level is put forward as a prerequisite for successful implementation of school improvement programmes. This concept is expressed differently across the studies (culture for improvement, capacity for change, establishing professional cultures of development, development of organisational capacity, build a committed staff, internal agency, and collective capacity), but these terms all refer to the same idea. Overall, the concept implies that an important part of developing a professional community is having professional training and external support available for the whole school. The ESI project underlined the importance of having shared goals, a shared vision of school values and processes, and an understanding of working together to promote a common culture for improvement (Reezigt and Creemers, 2005). This can be a particular challenge for systems with a weak tradition of school-level improvements and high teacher autonomy, such as in Portugal at the time of the study, or where schools are not seen as legitimate entities of reform action. The empirical data in the ESI project showed that at the time of the project, most of the countries had teachers that mainly worked independently of each other, rather than in collaborative teams (Jong, Houtveen and Westerhof, 2002).

Another resource which is critical for developing a professional community and for facilitating implementation of school improvement programmes is time for leaders and teachers to plan and consult with each other or with outside agents. Reezigt and De Jong (2001) argued that improvement activities cannot depend solely on the good will and spare time of the school staff, but that additional time must be allocated to implementation.

Ownership and autonomy: Real change in teaching depends on teachers' willingness to change their behaviour. However, school improvement programmes often tend to be developed and imposed by external agents. Getting teachers on board with the programme is therefore critical to successful implementation. The ESI project identified ownership as a key to school improvement in Europe. Ownership is defined as the "feeling amongst school stakeholders that improvement is needed and that the planned activities are the right activities for that school" (Reezigt and Creemers, 2005). Ownership depends on schools having a certain degree of autonomy. But as the ESI project points out, even when schools have high degrees of autonomy, as in the Netherlands, the decision to participate in a programme for school improvement is often taken outside the school community and

ownership must be established after the programme has started. Studies of the American Comprehensive School Reform (CSR) also showed that ownership of the reform by teachers is essential to implementation (Desimone, 2002), as there were different CSR models and the studies showed that it was crucial for teachers to be a part of the selection process. The studies concluded that this active participation by teachers has a positive influence on teacher commitment, the pace of change and the extent of implementation. In fact, several of the studies stressed the importance of having schools with a culture for improvement where teachers do not perceive change with fear, and where there is internal pressure from teachers or groups of teachers to push the improvement agenda.

Case studies of school improvement programmes in New Zealand, Ontario (Canada), England (United Kingdom) and Australia suggest the need for balancing local autonomy with capacity and external support (Orland, 2011). The mix of autonomy and support varies across the different school systems. In Australia, there is a high level of autonomy, and school leaders are recognised as being competent leaders who can set local priorities, use data from system-wide tests for improvement and allocate resources. In Ontario, the balance between local autonomy and external support is seen as a key to the good results they obtain. In New Zealand, schools also are provided with guidance in instruction and school organisation while having a high degree of autonomy. In England, the case study underlines the importance of weighing centrally imposed goals against locally developed plans for school improvement.

Enhancing the capacity of schools to deliver change and improvement is an important aspect of school development. Even though most of the studies are clear about the importance of fostering leadership, organisational capacities and a professional community, and the necessity of having a well-functioning school, they are often less clear when it comes to how programmes can support this. In some cases the capacity of schools to improve is seen more as a condition for success, rather than as a feature of reform. This also means policy makers need to take into account the limitations of what schools can do if they do not have the appropriate level of leadership and capacities. In the same way that policy makers need to consider what teachers know, it is necessary to consider how to design programmes to increase the possibilities of collective ownership of the changes.

Policy alignment: A favourable external environment

School improvement programmes do not happen in a vacuum, and the external environment can be more or less favourable to schools' efforts to sustain their own development. Among external challenges to the success of school improvement efforts, factors may include the lack of sufficient external support, the existence of conflicting policy agendas, and the lack of a long-term perspective in the programmes. Analysis of the literature shows that external elements can contribute to greater or lesser effectiveness of school improvement programmes.

Balancing external pressure and support: All of the studies reviewed point to the importance of having some kind of external pressure, in combination with external support. External pressure can be especially important to get started and move the process of implementation forward. The ESI project identified several factors which were in play in the school improvement programmes included in the study (Reezigt and Creemers, 2005):

- Market mechanisms: Mechanisms such as freedom of school choice for parents and students played different roles in the countries. The study pointed to both positive and

negative aspects to these mechanisms and how they were seen to affect school improvement.

- External evaluation and accountability: External evaluation and accountability were identified as factors that forced schools to start improvement efforts in many cases. However, the study also warned against the risk of loss of morale among teachers if the assessments were perceived as unfair.
- External agents: External agents such as inspectors, policy makers, educational consultants, or researchers can also play a role in getting the schools to act. National inspectorates can put pressure on schools to improve. In countries which had centralised systems at the time of the study, external agents were seen as less important, as was the case in Portugal, Greece and Italy.
- Community participation in education and societal changes: Demands from parents and the larger community can also work as external pressure to get improvement efforts started.

External agents played important roles in the programmes in Manitoba (Canada) and in England (United Kingdom), but with different degrees of intervention. In the Manitoba School Improvement Programme (MSIP) the external agent, called the critical friend, was to provide pressure and support, but was not expected to intervene directly in the school development process. In contrast, in the Improving the Quality of Education for All Project (IQEA) in England (United Kingdom), the external agent was to intervene more directly if progress was non-existent or the pace "too cosy" (Harris and Young, 2000).

Studies of Comprehensive School Reforms in the United States also found that professional networks which allowed for collaboration of teachers within and among schools were important for the success of CSR designs (Desimone, 2002). Earl, Watson and Katz (2003) also identified effective networks as instrumental in the success of school reforms. Effective networks are characterised by "a strong sense of commitment; a sense of shared purpose; a mixture of information sharing and psychological support; voluntary participation and equal treatment; and an effective facilitator" (Earl, Watson and Katz, 2003). Local or central authorities can provide infrastructure and help create and sustain networks, but it is important to keep a balance between local ownership and external support.

Alignment and consistency: Alignment of school improvement programmes to the wider policy agenda is identified as an important element in several of the case studies and literature reviews (Earl, Watson and Katz, 2003; Desimone, 2002; Reezigt and Creemers, 2005; Honig and Rainey, 2012).

When the school improvement programme is consistent with other initiatives and efforts that the school is involved with, the reform is more likely to be implemented. The ESI project concluded that the alignment of programmes to national goals is a prerequisite for successful school improvement (Reezigt and Creemers, 2005). Between the different reforms, there were large differences in how detailed central goals were. The CSR review showed that if the reform is not linked with other improvement efforts and the wider policy agenda, there is a risk of overload and reform fatigue, reducing the school's capacity to implement reforms. Poorly co-ordinated policy initiatives from different governance levels can create obstacles to school improvement (Desimone, 2002). For instance, new accountability regimes can pull the energies of a school in a different direction than the

school improvement they are already engaged in, which could lead to the school improvement programme being dropped by the school (Datnow, 2005).

Honig and Rainey's (2012) review of autonomy initiatives reveals how conflicting policies can be an obstacle for implementation. For instance, in schools which could not exercise their authority over curriculum, the conflicting policy agenda meant the schools had to negotiate with different units at the district level to reconcile the autonomy initiative with the curriculum initiative, a time-consuming and challenging task.

Lack of alignment can also be a result of an unstable political context, with changes of governments (central or local), or replacement of key persons or just inconsistent political messages and changing signals, funding decisions or shifting agendas (Earl, Watson and Katz, 2003). Schools and their staff can become cynical if one reform follows another, without giving schools the time to implement one change before the next one is announced. Changes in policy on the central level can also be perceived as fragmented and disconnected, even though these changes make sense from the perspective of the central government. In some cases there is a need for better co-ordination between different initiatives. Earl, Watson and Katz (2003) gave the example of the English Literacy and Numeracy Strategies which in the early years appeared to have a very clear and focused agenda. With the expansion of the strategies and more external personnel with different responsibilities, Earl, Watson and Katz (2003) argued that it was important to "make the connections among various policies, explain the transitions and co-ordinate the activities of various groups to ensure that schools are not inundated with confusing messages and that they understand how initiatives go together".

A long-term perspective: Another element which results of the analysis highlights is the need to allow time for school improvement programmes to be put into practice. Programmes intended to change attitudes and behaviours of teachers and leaders often fail to take effect (Cuban, 1992), and when changes do happen, they take time. The meta-analysis of effect studies of CSR show that there is often some progress the first year, followed by a setback the next two to four years, before changes are consolidated and results keep improving five to eight years after initial implementation (Borman, Overman and Brown, 2002).

A long-term perspective is needed when implementing reforms, especially if these require a different philosophical underpinning of instructional methods or changes in the governance structure of schools. The implementation process can take years, and might weaken as time goes on. Long-term commitment is therefore essential. A common problem in implementation of school improvement programmes was that the programmes often were funded quite substantially in the beginning of the implementation phase. However, short-term funding is not enough to allow for transformation of schools organisation and teaching. Sustainable change will often require long-term funding and support. Even when programmes are research-based, funded on principles of how to create change and offer a lot of support for schools, change can be very fragile (Earl, Watson and Katz, 2003).

The longitudinal study of six CSR models implemented in thirteen schools in an urban district in the United States explored why some schools sustained reform, while others dropped it after a short period of time (Datnow, 2005). After three years, the reform efforts had stopped in six out of the thirteen schools. Changing district policies and leadership had a different influence on the schools according to the schools' capacities and strategies

to face turbulence in the environment. Teachers often explained that other more important priorities were taking the place of reform implementation. Some schools were more easily put off track, while other schools kept at it in the face of the changing environment. Usually there was an interplay of factors on all levels (state, district, school and classroom level), contributing to schools dropping out of reform. The most efficient implementers were schools with high capacity and strategic leadership where the reforms were institutionalised in daily life.

External elements can influence schools' capacity and willingness to introduce and continue with school improvement reforms. Elements such as external pressure and support mechanisms, ensuring alignment to other policies that may be implemented at the same time, and ensuring long-term sustainability need to be seen as key external factors to be embedded into school improvement programmes, as they may be crucial for success or failure of the reforms.

Factors for effective implementation

The list of elements for success in school improvement strategies gives an indication of what should be considered in the policy-making process, but it is not a prescription of how school improvement programmes should be designed or implemented. The list of success factors is large for most policy makers, who are used to being asked to deliver results on ambitious goals with short time limits and limited resources in unstable political environments. In this sense, it is not surprising that policy makers consistently underestimate the kind of resources, time and learning opportunities that are needed to fundamentally change the teaching approaches of a large number of teachers. Taking into account what it takes to change teaching and learning in classrooms across all schools in a system may be unrealistic for most policy makers in a short time period, but it is necessary to keep it in mind.

In addition, a challenge to effective implementation of school improvement reforms is that the context of education systems and the surrounding policy processes are often not taken into consideration, resulting in reform overload at the school level and lack of clear priorities or the staff required to implement the changes. Analysis of the school improvement literature gives some indications of the factors that can support success in the implementation process. Some of these are highlighted in the following sections.

Keeping the context of the education systems in mind: Context plays an important role in how policies are interpreted and implemented, and although some programmes may be effective in one setting, they may not be in another. Among the contextual factors that need to be taken into account when looking at a policy or reform are the composition of the student population; the governance structures (i.e. whether the system is decentralised or centralised, the number of levels of governance and the number of actors); the political context in which the policy is being implemented; and the historical and cultural traditions of the system.

- Composition of the student population: This can make a difference with regards to what school improvement programme would be suitable for a school. Some programmes do not work well with a high percentage of students with a different language background than the majority. Studies of CSR showed that some of the models did not take into account that many schools have a majority of students who speak English as a second language and were not easily adapted to linguistic variability among students (Datnow,

2005). Another study found that schools with a high percentage of minority students had teachers who were less likely to support reforms (Desimone, 2002). A high degree of student mobility can also represent a difficulty when implementing school improvement programmes

- Governance structure of the system: Countries may also have institutional practices which hamper the development of a culture for school improvement, such as election of school leaders by teachers or a high proportion of teachers in temporary positions. The ESI project found that external pressure seemed to play a minor role in Finland and in Greece, whereas in England the national context of accountability placed high external pressure on schools (Wikeley et al., 2005).
- Readiness for change of teachers and school leaders: Some school improvement programmes depend heavily on the school's leader and the school's own abilities to improve. If there is a long history of autonomous teachers, lack of understanding of leadership and no functioning school-level collaboration, some school programmes and change efforts will not be suitable. In less centralised educational systems, there is more variety between schools in their history of school improvement. Within the same school system, there might be programmes which will work well for schools with a long tradition of improvement, while the design might be less suitable for schools which are struggling to meet basic standards. Mujis et al. (2004) argue that school improvement programmes need to take into account the developmental level of schools and their staff. A similar argument is put forward by Desimone (2002) who discusses how a very specific and externally developed programme with detailed lesson plans might be appropriate for some schools, while in more developed schools, teachers might feel their creativity is being suppressed and need designs which are more open to local development. In their review of what characterises school systems that are improving their performance, Mourshed, Chijioke and Barber (2010) argue that the more flexibility and freedom is given to leaders and teachers of a system, the more competent and professional they are.

Understanding and engaging stakeholders: The literature on school improvement programmes is clear on the need to understand teachers' views and the necessity of getting teachers on board with the content of school improvement programmes. In order for changes to be successfully implemented, the changes must be communicated in ways which resonate with teachers' thinking, or in ways that can be integrated with their previously held views, or which are convincing and make sense from a moral or normative point of view. Simply ordering a change in teaching methods will not work.

At the OECD, the topic of how to engage stakeholders in making reforms happen has been continuously highlighted. Member countries have agreed that "policy makers need to build consensus on the aims of education reform and actively engage stakeholders, especially teachers, in formulating and implementing policy responses" and that "all political players and stakeholders need to develop more realistic expectations about the pace and nature of reforms to improve outcomes" (Wurzburg, 2010). The annual International Summit on the Teaching Profession, co-organised by the OECD, which has brought together education ministers with teacher union representatives of high performing and improving education systems to discuss how to progress in education reform, testifies to the importance of engaging teacher unions in reforms.

The literature does not, however, give simple answers as to how teachers and others can be engaged in the design and implementation of school improvement programmes. In many circumstances, teacher unions are instrumental. Some reforms may require changes in working conditions. Improvements in working conditions or better learning opportunities may also be given to teachers in exchange for their willingness to introduce new approaches or reforms. Teacher unions are therefore important stakeholders in many school improvement programmes. In addition, the unions are often important opinion leaders and can influence teachers' views on a new curriculum, assessment methods or professional training. There are also ways of consulting unions on teachers' views or creating other structures for dialogue and consultation with teachers in order to better understand their points of views (Chapter 10). In his book on the reforms in Ontario, Canada, Levin (2008) gave an account of how educational authorities in Ontario managed to convince teachers and other stakeholders through consistent and evidence-based messages communicated over time. This aspect of policy making becomes more critical as the trend towards decentralisation continues and more stakeholders participate in education processes. The engagement of businesses and their representatives also becomes important (Chapter 11).

Dealing with the policy agenda: The political world has its own logic and time frames which are not necessarily in line with the paths designed for school improvement programmes. During election periods, politicians and parties bring their own agendas on what may be needed to improve schools. It can be especially hard to keep the long-term perspective and continue aligning reforms and messages when the political context changes. Levin (2008) makes the case for strong administrative leadership to keep policy efforts aligned and avoid reform fatigue or overwhelming schools with conflicting messages. Schools are often expected to deal with more than one programme, reform or change of law or expectation at the same time. It will therefore be necessary for local and central school authorities to consider the totality of changes that schools are expected to undertake. In times with limited resources, it is even more important to make sure 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 a long-term perspective can be reconciled with the needs of politicians to promote an understandable and popular policy agenda on a day-to-day basis.

Evaluating impact: Many educational systems have weak traditions of evaluating programmes and reforms. Most of the articles reviewed in this chapter contain some account of the impact of the school improvement programmes on student learning. Data can be used to monitor students' progress as well as the changes taking place in the school organisation. However, the review found that most of the school improvement programmes have not been evaluated in a way that satisfies rigorous scientific criteria, such as high-quality experimental and quasi-experimental study standards. This is one of the challenges that policy makers face as they search for information on policy reforms with demonstrated impact to use or adapt for their own systems. In times of greater accountability combined with decentralisation, evidence of impact becomes more important, and policy makers are encouraged to include evaluation of impact from the beginning of policy design.

Finally, it is important for policy makers and those who will be designing and implementing reforms to keep in mind the focus and key aspects of school improvement programmes:

- Placing students and learning at the centre: Students and their learning are at the heart of education. Improving education systems requires improving student outcomes, and maintaining a focus on students and their learning as central to the process of policy implementation. Evidence on school improvement programmes concludes that focusing on learning and instruction contributed to gains in student achievement. School improvement efforts which are directed towards changing instruction are more effective than policy reforms which only intend to change other aspects of the system, such as the structure or the level of resources.
- No way around capacity building and leadership: Many of the success factors are factors which are not directly under the control of policy makers. Having competent leaders and schools with organisational capabilities is not something that can be achieved over an election period. Recruiting effective and competent leaders and teachers takes time. Nevertheless, the research seems clear: there is no way around building the capacities of the schools and increasing the skills and competencies of teachers and school leaders. In the long term, policy makers can do very little with schools that do not have these capacities. Many of the policy instruments in use today, such as accountability regimes or market mechanisms, rely on schools being able to turn these measures or pressures into improvement of their classrooms and their students' learning.

This need to build capacities of teachers and schools represents a dilemma for policy makers. Should school improvement programmes be offered only to schools which are motivated and therefore more likely to succeed, with the risk of increasing differences between schools? Or should efforts be concentrated on the schools most in need, with the risk of imposing changes on schools which might not be in a situation to be able to implement a programme successfully? Harris and Young (2000) point to the risk of school improvement programmes accentuating the differences in improvement between schools. This can be seen as an unacceptable consequence in systems with long traditions of centralisation. In any case it seems clear that there is no one size fits all policy approach to school improvement.

Building capacity can also be seen as a long-term strategy where big reforms and school improvement programmes become less necessary. Indeed, the trend in most OECD countries is to shift away from reforms towards self-adjusting systems where schools develop their capacities and can adapt more easily to new expectations from policy makers and the surrounding community (Wurzburg, 2010).

Conclusion

Common success factors have been identified and can serve as guidance for policy makers when planning new school improvement programmes intended to change learning environments, schools and classrooms. At the same time, the research shows there is no single model for success and that education systems may achieve results by combining policies and implementation approaches in different ways.

In-depth analysis and reflection should go into the planning and the implementation activities of policies and reforms. Looking to other countries and experiences of education policy implementation around the world can provide policy makers with guiding questions

and principles, rather than answers. Just as teaching must be evidence based, policy making should build on the best evidence of what works. But just as teaching is the art of adapting the knowledge base to local circumstances and opportunities, so too is policy making.

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ANNEX 9A.1

Research studies on school improvement

Research studies on school improvement

Research article	Cases	Objective of the study
Case studies of large-scale reform in eight educational systems (Earl, Watson and Katz, 2003)	New Zealand, England (United Kingdom); Victoria (Australia); Kentucky (United States); California Mathematics Reform, San Diego (California); Chicago (Illinois); Success for All (comprehensive school reform in the United States).	The paper sums up research on reforms and presents factors that support or inhibit continuation of educational reform. The work is based on a literature review and eight cases of large-scale school reform from different contexts. The school improvement programmes are different and include focus on teaching and learning, curriculum, assessment and management.
Case studies of Effective School Improvement (ESI) in eight European countries (Wikeley et al., 2005; Stoll, et al., 2002)	Belgium (Schools without failure, Algebra); England (LEA Improvement strategy and Improving Quality of Education for All); Italy (Quality Evaluation in schools, The Primary school reform); Finland (PEDANET, VSOP, LUMA, ERC&S); Portugal (National curriculum reform in mathematics, Education for All); Greece (Environmental education, Restructuring classroom for teaching of cognitive areas, Multicultural education and the European dimension); Netherlands (National Pedagogical Centres, LPC, KEA, Common Core Curriculum Project); Spain (LOGSE, Annual Plans of School Improvement).	The project's aim was to develop a model of effective school improvement and to "clarify the factors that impede or foster effective school improvement in primary and secondary schools by the evaluation of ESI programmers in EU member states …"
Comparing School Improvement Programmes in England and Canada (Harris and Young, 2000)	England (The Improving the Quality of Education for All Project [IQEA]); Manitoba (Canada) (Manitoba School Improvement Programme [MSIP]).	This study compares two school improvement programmes in England and Canada and examines how they function and how they promote school improvement in different contexts.
Case studies of four programmes to improve low-performing schools (Orland, 2011)	Australia, Canada, England, and New Zealand.	This review, commissioned by the US Department of Education, examines how a number of other countries approach the challenge of improving low-performing schools.
Research on Comprehensive School Reform in the US (Aladjem et al., 2010; Desimone, 2002; Borman, Overman and Brown, 2002; Datnow, 2005)	Included in the analysis are several literature reviews of what characterises successful implementation of school improvement programmes in the United States.	Different comprehensive school reforms (CSR) were developed first in the 1980s to promote comprehensive reforms in schools. Between 1998 and 2006, nearly 7 000 American schools received three-year awards to implement CSR models.
Literature review on school effectiveness (Sammons, 2007)	The Improving Quality of Education for All development programme; High Reliability Schools; The Literacy and Numeracy Strategies; Comprehensive School Reforms; and Improvement through inspections.	This literature review on research on school effectiveness includes an analysis of some English and American school improvement programmes.

Research studies on school improvement *(cont.)*

Research article	Cases	Objective of the study
Literature review of turning around low-performing schools (Herman et al., 2008)	Schools which have managed to turn around their results.	This is a literature review of school turnaround literature with recommendations for practices unique to turnaround schools. The practice guide is intended for use by educators who need to improve student achievement quickly and dramatically. The review does not address Comprehensive School Reform (CSR).
Literature review of autonomy initiatives (Honig and Rainey, 2012)	Boston Public Schools (Pilot Schools); Chicago Public Schools (Chicago High School redesign initiative); New York City Department of Education (Performance-driven budgeting); New York City Department of Education (New Century High Schools); Oakland, California Unified School District (New small autonomous schools).	This comprehensive research review of autonomy initiatives in the United States looks at lessons from initiatives to increase schools' decision-making authority as a strategy to leverage school improvement. The initiatives aim to give schools more authority over key decisions about school improvement to enable schools to develop and implement approaches to teaching and learning that build on their strengths and address their needs.

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PART II

Chapter 10

Education union partnerships in policy reforms

This chapter presents an overview of the views of teacher unions on their contribution and engagement with governments on education reforms. It draws on responses from organisations representing teachers in 19 countries to a survey conducted in 2013 by the Trade Union Advisory Committee to the OECD (TUAC).

The chapter discusses findings on teachers' commitment and engagement in education reforms, particularly in the areas of teachers' working conditions, professional development and setting teaching standards. It reports the views of teachers and their unions on their level of engagement in both policy development and policy implementation, and the policy areas in which they are successfully engaged.

Key findings

- Competent and motivated teachers are one of the most important ingredients of a thriving education system. Without teachers' implementation efforts in the classroom, education reforms cannot be expected to be effective. In many OECD countries, teachers are organised within active unions, and teachers constitute one of the largest occupational groups in the workforce. To conduct reforms in education, building consensus on reform objectives and actively engaging stakeholders – especially teacher unions – can lead to success.
- While the survey by the Trade Union Advisory Committee to the OECD (TUAC)* presents an encouraging picture of union involvement in most OECD countries, particularly on teacher and skills policies, there remains room for improvement concerning the stabilisation and institutionalisation of union-government dialogue. Examples of existing collaboration of teacher unions and governments across OECD member countries show that there are opportunities for unions to take on the provision of professional development and of spaces for teachers to engage in sharing professional practice and leadership. Governments could play a proactive role by recognising and supporting such initiatives.
- Arrangements for a fruitful social dialogue between governments and unions need development efforts and also need to recognise the importance of pluralism, involving respect for both agreement and disagreement. The continuing impact of the economic crisis reinforces the importance of this approach. Education systems are dependent on high-quality teachers and their role in implementing education policies. It is therefore essential that they and their unions be at the centre of policy development, practice and reform.

Education union engagement in education policy

Competent and motivated teachers are a key element to a thriving education system, and their implementation efforts in the classroom are key for effective education reforms. Moreover, teachers across many OECD countries are organised within active unions and usually constitute one of the largest occupational groups in countries' workforce. To conduct reforms in education, building consensus on reform objectives and actively engaging stakeholders, especially teacher unions, can lead to success (OECD, 2010). Yet, until recently research has tended to miss the contributions that teacher unions make to teacher quality and professional development (Bascia, 2009).

* The Trade Union Advisory Committee (TUAC) is an international trade union organisation which serves as an interface for trade unions with the OECD and has consultative status with the OECD and its various committees (*www.tuac.org*). In 2013, TUAC conducted a snapshot survey with Education International (EI) to provide more information on the level and intensity of engagement teacher unions have with their governments. This section draws from the TUAC/EI snapshot survey exercise.

Understanding the role and potential of teacher unions for improving education is essential for the health of countries' education systems. This chapter presents an overview of teacher unions' contributions and engagement with governments on development and implementation of education and training policies in different areas and of possibilities to engage in discussions about specific issues in education. It draws on a survey conducted by the OECD's Trade Union Advisory Committee (TUAC) among its member organisations in 2013. The term "education policies" refers to government policies which correspond to whole education systems while the term "training policies" applies to government policies which deal particularly with skills development including adult skills and professional/vocational training at upper secondary and tertiary level.

The 2013 TUAC survey presents an encouraging picture of union involvement in most OECD countries, particularly on teacher and skills policies. Teacher unions are currently engaged on issues such as working conditions, pay, equality issues and curriculum, for both education and training policies. Most unions indicate partial engagement in policy development and implementation. International fora, such as the International Summits on the Teaching Profession, help to foster collaboration between governments and unions. However, there remains room for improvement concerning the stabilisation and institutionalisation of union-government dialogue.

An overview of teacher unions and their engagement with governments

While union membership, with the exception of the Canadian provinces and territories, is almost always voluntary, teachers in OECD countries are highly unionised. In fact, whereas union membership levels are declining in some other sectors, teacher union membership has remained stable in many countries, despite the economic crisis (Carter, Stevenson and Passy, 2010). Education International (EI), which represents around 30 million teachers and education workers in 170 countries, is the largest global union federation.

While the numbers cited above point to teachers' commitment to their unions and to shaping policy making, other studies look at the issues they want their unions to engage in and the best ways for unions to intervene. Bascia (2008) finds that teachers' expectations focus on occupational advocacy (improving working conditions); economic sufficiency (improvements in compensation); participation in decision-making; professional development and learning; and articulating and promoting a positive professional identity.

The first two expectations correspond to the common understanding of union advocacy. The latter three are less well explored, yet evidence (see below) shows that it is these areas of activity which raise the levels of teacher self-efficacy and confidence. It is also these areas which, while being areas of fertile discussions with employers and governments, need more awareness and development.

Research on teacher leadership indicates teachers' will to participate in professional decision-making and the connection of education reforms to teacher self-efficacy (Frost, 2011; MacBeath, 2012). Several countries maintain close formal relations with their teacher unions. This is the case in Sweden, for example, where teacher unions are regularly consulted, as well as expected to give their opinion on proposed legislation. In Alberta (Canada), the province's teacher union collaborates with the government on several projects. This includes formal membership in advisory boards and direct involvement in teacher certification (Bascia and Osmond, 2013). A study commissioned by Education

International also proposed other dimensions to be incorporated in education policy, including support for teachers leading in the development of professional practice and the creation and transfer of professional knowledge (Bangs and Frost, 2012). Current areas of engagement for teacher unions include working conditions, teacher training and teaching standards.

- There is a growing discussion about how teachers' working conditions, including teacher appraisal, can be reshaped by teacher unions in partnership with governments to respond to teachers' professional needs (Figazzolo 2013; OECD, 2013). In Ontario (Canada), for example, the teacher union commissioned a report to fulfil this task, which covered all aspects of teachers' working conditions (Leithwood, 2006).
- A number of teacher unions in OECD countries have, or intend to, become providers of high-quality professional development for their members and also provide professional sites for their members to network and share practice. Examples include the United States, Canada, Australia, Norway and the United Kingdom (Bangs and MacBeath, 2012; Bangs and Frost, 2012).
- Teacher unions may also assume leadership roles in setting teaching standards, one example being the National Board for Professional Teaching Standards in the United States, which certifies American teachers.

Evidence points to a growing realisation in a number of countries that strong teacher unions can be a vital component of a successful education system (OECD, 2011). However, as the case study of a recent social partnership between teacher unions and the English government showed, it is essential that all unions be involved in discussions if the relationship is to be open and flexible (Carter, Stevenson and Passy, 2010). In addition, constructive relationships between teacher unions and governments can be fragile and need constant attention (Bascia and Osmond, 2013).

The existence of formal or informal arrangements or institutions in place to support collaboration between governments and teacher unions is key to success in social dialogue. To this end, there is a range of institutional practices which depend on the country context, history and traditions. On the international front, one of the most significant global developments in furthering collaboration between teacher unions and governments on teacher policy is the creation in 2011 of the International Summits on the Teaching Profession, jointly organised by Education International, the OECD and the host government, which brings together teacher union leaders and ministers of education. Themes include teacher quality, teaching and leadership, teacher evaluation, and, in 2014, inclusion and equity in highly devolved systems (Asia Society, 2011, 2012, 2013; Schleicher, 2011). As part of the summits, delegations jointly agree on objectives for aspects of their teacher policies in the coming year.

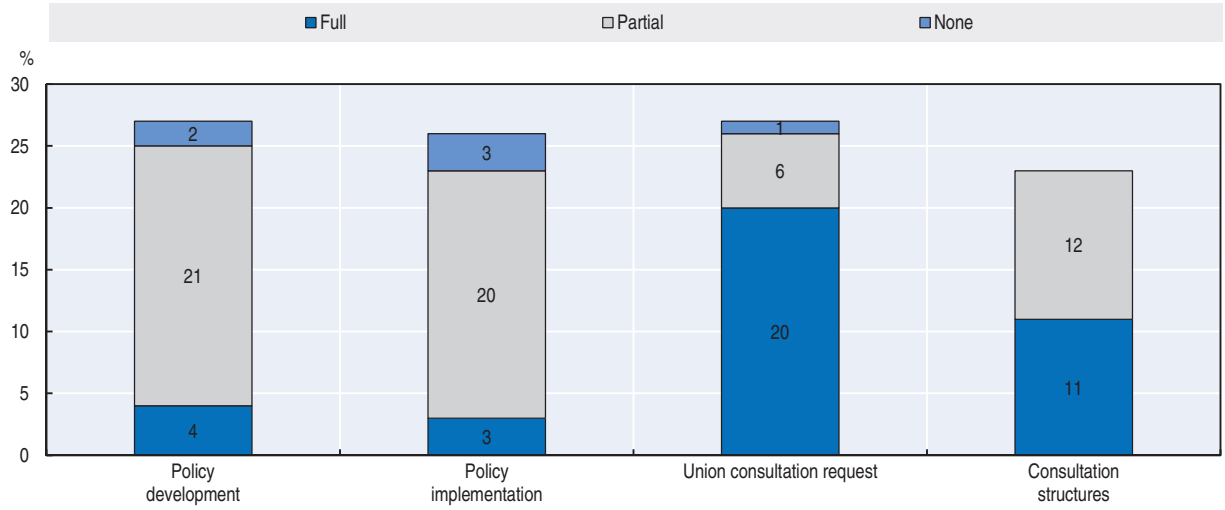
Priorities and approaches for teacher union engagement with governments

Evidence points to the importance of governments engaging teacher unions on the development of education and skills policies. The 2013 snapshot survey by Education International and TUAC sought to provide more information on the level and intensity of engagement teacher unions have with their governments. Questions addressed education policies as well as training policies. Results are based on the responses of 24 unions with different memberships (from education at all levels to non-formal education sectors, adult education and school management). In all, TUAC received 27 questionnaires completed by

24 unions in 19 countries or jurisdictions. Responses to the survey are from individual unions. A single union may organise across more than one jurisdiction. In the United Kingdom, for example, one union, the NASUWT, represents members and negotiates with the governments of all four UK jurisdictions. While a number of unions may organise in the same jurisdiction, their responses may be different because their perceptions of their relationships with governments may also be different.

The large majority of respondents indicated that they partially engage with governments on the development and implementation of education policies (Figure 10.1). A small minority reported full or no engagement. Overall, unions considered themselves to be slightly more engaged in policy development than in implementation.

Figure 10.1. **Teacher unions education policy engagement with governments (2013)**



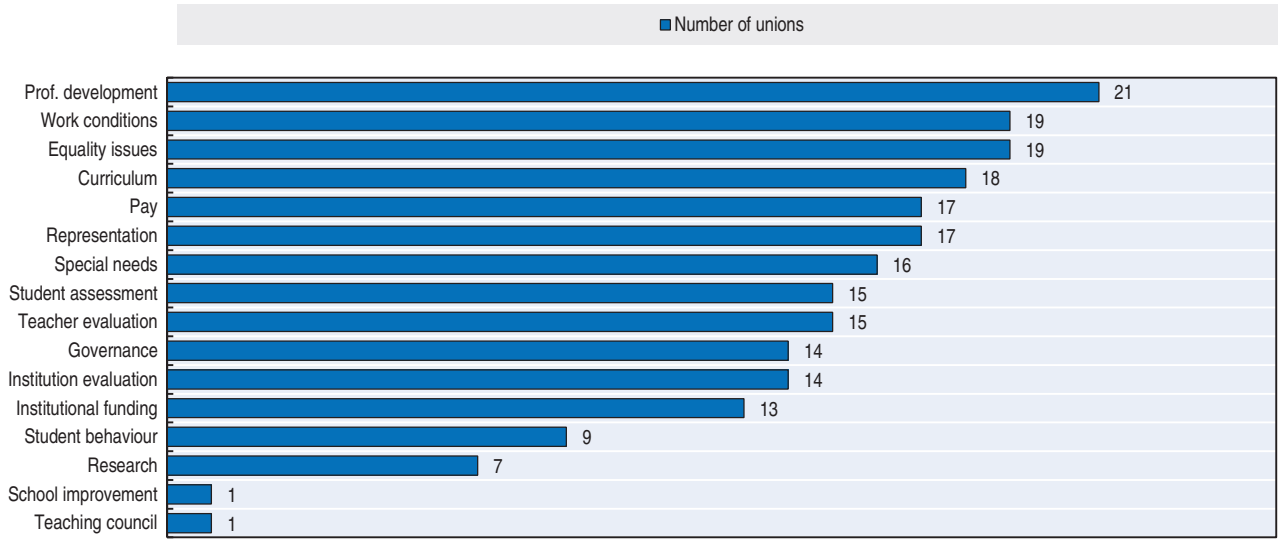
Source: Education International and TUAC (2013), Survey of Trade Unions' Engagement with Governments on Education and Training.

StatLink http://dx.doi.org/10.1787/888933171536

While most unions reported that governments had established arrangements for consultation, half of the respondents felt only partially engaged in these consultation structures. Fewer unions reported being engaged in consultation structures which are fully in place compared to the willingness of governments to respond fully to consultation requests. Clearly, in some countries there could be further discussion on the adequacy of consultation structures. The existence of formal structures seems therefore no guarantee for tangible results. Perspectives sometimes varied between unions in the same country, reflecting the fact that governments may have different relations with unions representing different sectors of the workforce.

Unions were also asked to identify areas of education policy which are currently the subject of productive discussions (Figure 10.2). Almost all respondents mentioned teachers' professional development, followed by working conditions and equity issues. Curriculum issues, pay, support for students with special needs, teacher evaluation, student assessment and institutional evaluation were also mentioned by a majority of unions. One-third reported productive discussions on student behaviour. Issues rarely mentioned were educational research, school development and teaching councils.

Figure 10.2. **Teacher unions/governments education policy engagement by individual education policy (2013)**

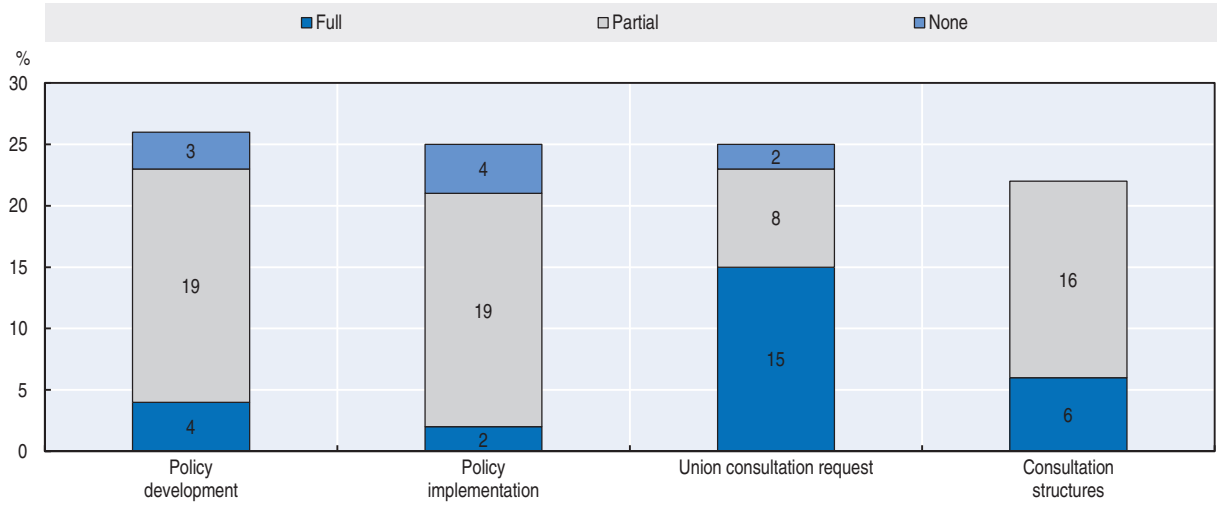


Source: Education International and TUAC (2013), Survey of Trade Unions' Engagement with Governments on Education and Training.

StatLink http://dx.doi.org/10.1787/888933171540

Similar questions were asked on training policies (Figure 10.3). Responses point to differences between engagement on education policies and on training policies. While most respondents indicated that they were partially engaged with governments, there were a greater number reporting full engagement in the development of training policies but also a larger number reporting no engagement. More unions reported no engagement on training policy implementation than those reporting full engagement. Fewer declared they were able to engage governments when they considered it necessary. Also, compared to the existence of full consultation structures on education policies reported by around

Figure 10.3. **Teacher unions training policy engagement with governments (2013)**



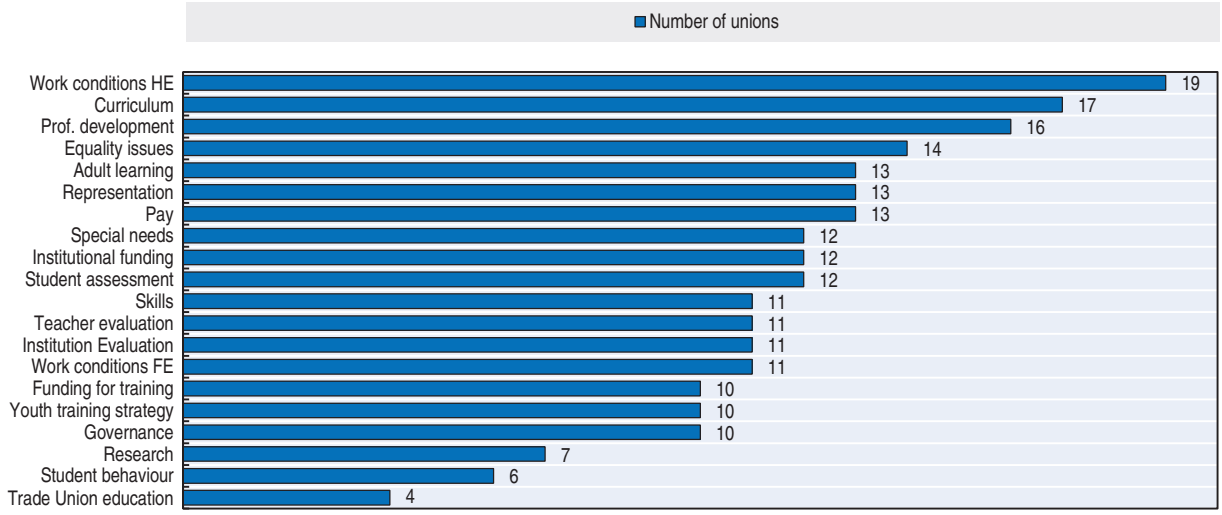
Source: Education International and TUAC (2013), Survey of Trade Unions' Engagement with Governments on Education and Training.

StatLink http://dx.doi.org/10.1787/888933171553

half of the respondents, fewer respondents reported full consultation structures on training policies. There would seem to be a need for further discussion on the adequacy of consultation structures on training policies in most countries.

Asked for areas of training policy with ongoing productive discussions, the majority of unions identified the curriculum, followed by professional development, equity issues, pay, adult learning and working conditions. Lower levels of consultation were reported on the youth training strategy and funding for training (Figure 10.4).

Figure 10.4. **Teacher union/government engagement by individual training policy (2013)**



Source: Education International and TUAC (2013), Survey of Trade Unions' Engagement with Governments on Education and Training.

StatLink http://dx.doi.org/10.1787/888933171563

Conclusion

The TUAC survey presents an encouraging picture of union involvement in most OECD countries, particularly on teacher and skills policies. However, room for improvement remains concerning the stabilisation and institutionalisation of union-government dialogue. Examples of existing collaboration of teacher unions and governments across OECD member countries show that opportunities exist for unions to take on the provision of professional development and of spaces for teachers to engage in sharing professional practice and leadership. Governments could play a proactive role by recognising and supporting such initiatives.

Education systems are dependent on high-quality teachers and their role in implementing education policies. It is therefore essential that they and their unions be at the centre of policy development, practice and reform. Arrangements for a fruitful social dialogue between governments and unions need development efforts, and also need to recognise the importance of pluralism, involving respect for both agreement and disagreement. The continuing impact of the economic crisis reinforces the importance of this approach.

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PART II

Chapter 11

Ensuring constructive co-operation with employers

This chapter presents employers' views on education policies and their engagement in policy making. The chapter draws on responses from employer representative organisations from 27 countries to a survey conducted in 2013 by the Business and Industry Advisory Committee to the OECD (BIAC).

The chapter reports on the education policy areas in which employers seek further actions to better meet their needs, such as improving student career guidance and vocational education and training. It also reviews the potential channels for employers' engagement in education policy making, such as participation in multi-stakeholder bodies, consultation processes and informal dialogue, and presents recommendations on ways to improve co-operation with the private sector on education policy.

Key findings

- Many countries today face the challenge of persistent unemployment, among youth as well as older workers, while employers often report that they are unable to find suitably skilled candidates to fill job vacancies. Employers, policy makers and education institutions could strengthen co-operation mechanisms to increase the employability of individuals. This co-operation should reinforce incentives to undertake the sorts of reforms required in education systems and labour markets by improving their policy design and implementation.
- According to the 2013 Business and Industry Advisory Committee to the OECD (BIAC)* survey on involvement in education of employers' organisations, forging closer linkages between the worlds of education and work was consistently identified as a top priority across all levels of education. Recognising that there are many different forms of co-operation and that employer engagement in education policy making can take many channels, there is a significant potential at the international level to share good practices and build effective employer engagement mechanisms in countries, regions and sectors.
- According to employers, priority needs first to be given to improving the provision of basic skill levels prior to individuals' entry into the labour market. This entails increasing access for all individuals to high-quality and relevant education and ensuring a smooth transition into work. Improving co-operation in education policy making can be fostered through different forms, such as establishing multi-stakeholder foresight systems, providing incentives to education institutions to engage with employers, raising awareness among employers about education trends and fostering joint initiatives for work-based learning opportunities.

Ensuring constructive co-operation with employers

Persistently high levels of long-term unemployment, among youth as well as older workers, are a challenge faced in many countries. At the same time, employers often report that they are unable to find suitably skilled candidates to fill job vacancies. There is thus a need for actions that increase the employability of individuals, thereby boosting innovation, productivity and growth. This is considered key for economic growth as much as it is essential for social cohesion.

* The Business and Industry Advisory Committee to the OECD (BIAC) is an independent international business association devoted to advising government policy makers at OECD and related fora on the many diversified issues of globalisation and the world economy (*www.biac.org*). BIAC recently conducted the 2013 BIAC Education Committee survey among 28 national employer organisations from 27 countries, most of them OECD members. It addressed the legal framework, organisations' priorities for major education policy reforms since 2007, examples of successful initiatives and specific aspects of the education system.

Reforming education systems and labour markets is critical to ensure a smooth transition into the labour market. Towards this objective, employers are well positioned to help identify where education and training policies and initiatives can narrow skills gaps. Co-operation among employers, policy makers and education institutions is therefore important for strengthening the employability of individuals and can be beneficial not only to employers and jobseekers, but also to reduce unemployment, strengthen competitiveness and foster inclusive growth for the benefit of economies and societies.

Forging closer linkages between the worlds of education and work is critical to help inform an individual's choice of studies and enhance his/her employability (OECD, 2012). According to the 2013 Business and Industry Advisory Committee (BIAC) survey on the involvement in education of employers' organisations, this was consistently identified as a top priority across all levels of education (BIAC, 2013). The survey also indicated that methods to improve co-operation in education policy making can take different forms, such as establishing multi-stakeholder foresight systems, providing incentives to education institutions to engage with employers, raising awareness among employers about education trends and fostering joint initiatives for work-based learning opportunities. The OECD has an important role to play in this endeavour by providing a forum to share and analyse good practices for employer engagement in education policy making.

An overview of employers' organisations engaged in education policy making

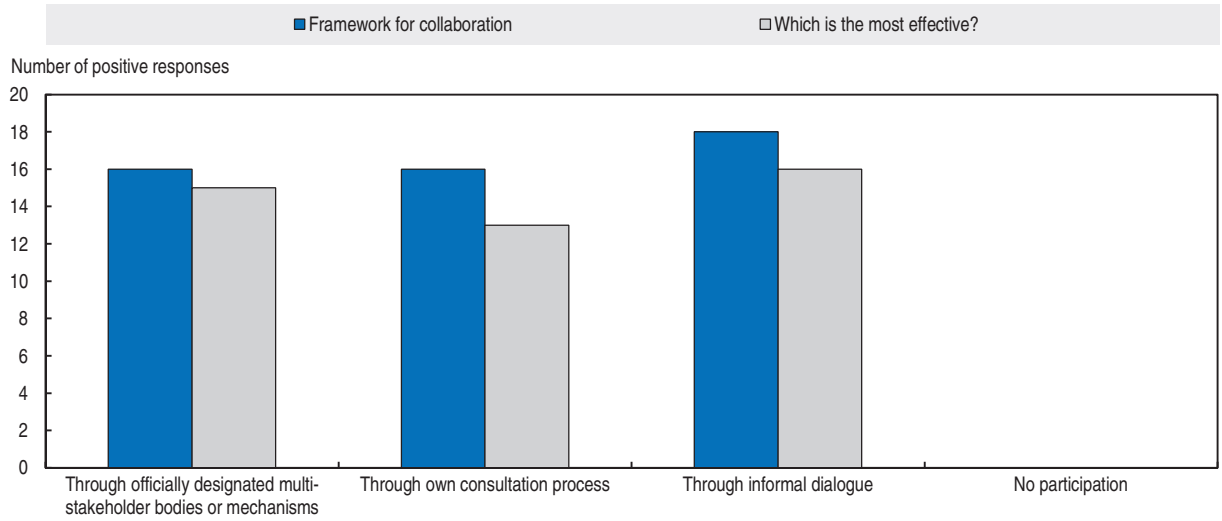
Employer engagement in education policy making can take many channels, including:

- employer-led proactive initiatives, such as roundtables with policy makers and education institutions, but also involvement in vocational education and training (VET) course design
- advice to policy makers through various consultation formats, such as official multi-stakeholder bodies or mechanisms of government consultation with business and employers' organisations
- less formalised forms of dialogue
- co-creation and co-decision processes, e.g. in designing vocational training courses or qualification systems.

Some of these channels are described in the BIAC survey (Figure 11.1). It finds that there is a largely even spread between the use of official multi-stakeholder bodies or mechanisms, internal consultation processes by employer organisations among their respective members and informal dialogue with policy makers. All of these are considered to be of similar effectiveness. No business organisations indicated that they had no participation in the education policy reform process.

Despite the various channels for engagement, their success is mixed. Around 90% of respondents to the BIAC survey indicated that some of their recommendations to their country's education reform discussions were considered to a sufficient extent, others not. Some respondents reported that their recommendations were only rarely considered.

Figure 11.1. **Types of participation in education policy discussions and their perceived effectiveness (2013)**



Source: Business and Industry Advisory Committee to the OECD (2013).

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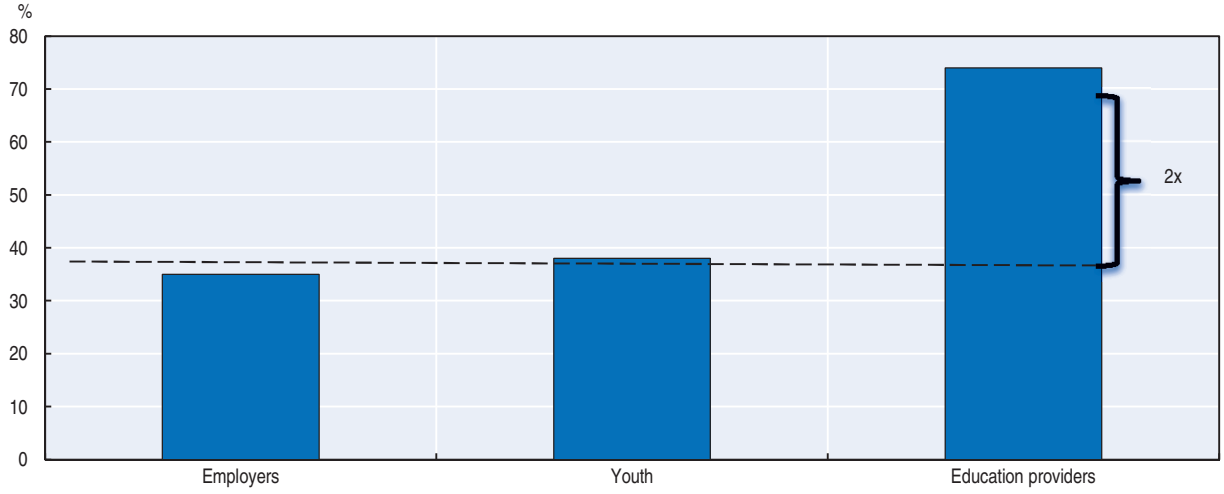
Recent research by McKinsey, building on surveys to 5 300 youth, 2 600 employers and 700 post-secondary education providers across eight European countries, finds that education providers are twice as likely as employers and youth to rate their graduates as prepared for work, revealing a seeming disconnect between the worlds of education and work (Mourshed, Patel and Suder, 2014) (Figure 11.2). Furthermore, 27% of employers indicated that they left a vacancy open because they could not recruit anyone with the right skills.

Figure 11.2. **Respondents who agree that graduates/new hires are adequately prepared for work**



Note: Employers: Overall, the entry-level employees we hired in the past year have been adequately prepared by their pre-hire education and/or training.
Youth: Overall, I think I was adequately prepared for an entry-level position in my chosen career field.
Education providers: Overall, graduates from my institution are adequately prepared for entry level positions in their chosen field of study.
Source: Business and Industry Advisory Committee to the OECD (2013). Adapted from Mourshed, Patel and Suder (2014).

StatLink http://dx.doi.org/10.1787/888933171586

To reduce this gap, it appears that there is room for progress in strengthening employer engagement in education policy reform. Before exploring the modalities for increasing such engagement, however, it is important to first understand why employer involvement is necessary. This calls for greater understanding of the challenges that companies of differing sizes are facing across sectors and countries, and of their priorities for education.

Employers' priorities for education reform

In a world where globalisation is creating new and shifting markets, changing demands for skills, and different forms of work, hiring a new employee represents one of the most important investment decisions for companies. On top of the many fundamental policy conditions that are required for businesses to sustainably create jobs (BIAC, 2014), companies look for employees who hold the particular knowledge, skills and character to meet their specific needs.

However, companies are challenged in many sectors and regions to find suitable employees, as many candidates have inadequate proficiency in basic tasks and skills (OECD, 2013a). The demand for skills is increasingly shifting to more sophisticated tasks in technology-rich environments, yet at least 10% of adults on average lack the most elementary computer skills (OECD, 2013a). At the same time, employers in Europe also report a particular shortage of soft skills such as communication and work ethic (Mourshed, Patel and Suder, 2014). Skills gaps and mismatches threaten the competitiveness of enterprises, undermine social mobility and contribute to unemployment, as data from the OECD Survey of Adult Skills shows that those with low literacy skills are more than twice as likely to be unemployed.

In response to these skills gaps, greater priority needs to be given to improving the provision of basic skill levels prior to individuals' entry into the labour market. This entails increasing access for all individuals to high-quality, relevant education. Reforming education systems and labour markets to ensure a smooth transition into the labour market is critical.

The results of the BIAC Survey show that employers seek action on the following:

- Review school education curricula to target key labour market and societal needs, in consultation with employers, taking care to avoid overloading the curricula: Particular attention should be paid to science, technology, engineering and mathematics (STEM) disciplines, for which employer organisations report skills shortages in many countries, including Austria, Belgium, Germany and the United Kingdom (BIAC, 2013; BUSINESSEUROPE, 2011). Other skills also require greater emphasis in curricula, such as literacy and numeracy, and communication and critical thinking. In Turkey, for example, the Turkish Industry and Business Association (TUSIAD) has published secondary education textbooks in various disciplines as a sample for a contemporary curriculum.
- Strengthen teacher quality and training, including for vocational and education and training (VET) and school leaders: In order to motivate teachers and raise the quality of teachers and school leaders, actions should be taken to evaluate and incentivise them. OECD data shows, for instance, that large proportions of teachers have never received any external appraisal or feedback (e.g. Italy and Portugal) and, in some cases, also no internal appraisal (e.g. Italy, Ireland and Spain) (OECD, 2013b). One way of incentivising

teachers could be through the provision of differential pay systems capable of rewarding teacher excellence.

- Strengthen VET systems: This includes encouraging more access into VET systems; improving VET qualification systems; increasing recognition of the need for excellence across all occupations, including VET; and facilitating transitions between VET systems and other levels of education. Employer organisations in many countries (e.g. Australia, Denmark, Hungary, Sweden and Turkey) are proactively working to improve VET systems (BIAC, 2013).
- Encourage smarter investment in education that yields the largest economic and social benefits, for example in improving access and quality in early childhood education and care, preventing dropout and integrating immigrants (BIAC, 2010).
- Increase the autonomy of schools (including school leadership), while at the same time improving their accountability through greater evaluation of schools, students and teachers (BIAC, 2010).
- Improve career guidance for students, both in schools and higher education (BIAC, 2010): In Japan, for example, the national business organisation, *Keidanren*, is working with several universities to offer scholarships for undergraduate and post-graduate students to study abroad for one year. *Keidanren* provides pre-departure orientation for students and advice on their study plans and future careers, and organises a job fair upon their return in order to help integrate them into the labour market.

The above-mentioned policy reforms are required in many countries to raise education outcomes and facilitate school-to-work transition, together with labour market reforms to encourage job creation and incentives to work. Complementing these reforms, employer organisations and companies around the world are already implementing many of their own initiatives to help bridge skills gaps, while broader co-operative efforts are also required among employers, policy makers and education institutions to help instigate the necessary reforms to most effectively increase the employability of individuals. By means of an example at the international level, in 2013 the International Organisation of Employers (IOE) and BIAC, with support from the International Labour Organisation (ILO), established the Global Apprenticeship Network (GAN), which seeks to improve the status of apprenticeship programmes, share good practices and develop a network of companies offering apprenticeships.

Options for private sector engagement in education policy

While employer engagement in policy making helps to maintain a workplace perspective throughout education and training programmes, there is no single model for engaging employers in education and much may depend on country and sector specificities. A range of possible options for co-operation may be considered, such as:

- Countries could be encouraged to establish high-quality, system-level foresight systems for education policy, engaging all stakeholders (including employers and employers' organisations) to anticipate skills needs and labour market trends over the medium term. This would help to ensure the labour market relevance of lifelong education and training programmes, although this also calls for making the organisation and operation of education institutions adaptable to meet these changing education needs. One example would be the Finnish *Oivallus* (Insight) project (2008-11), launched by the Confederation of Finnish Industries (EK), which brought together representatives from

companies, academics, teachers and other experts, and focused on future competence needs of businesses.

- Education institutions could be encouraged to foster co-operation with employers, notably for assessment and quality assurance systems. Steps may include, for example, budget allocation and explicit mandates for employer dialogue initiatives. In New Zealand, Trades Academies are specifically designed to deliver trades and technology programmes to secondary students, based on partnerships between schools, tertiary institutions, industry training organisations and employers.
- Awareness-raising could be encouraged among employers on education and training trends, and possibilities for their engagement in education policy. Employer organisations can work with governments to help inform companies of such issues and explain the advantages of their engagement in education policy. BUSINESSHUNGARY and the Hungarian National Association of Entrepreneurs and Employers carried out a multi-year research project which sought to describe the labour market needs of Hungary's regions, based upon questionnaire responses provided by companies and education institutions. Consequently, regional committees for the development of VET were established to address local skills needs.
- Joint initiatives to help develop work-based learning opportunities could be pursued through co-operation and trust-building between employers, teachers, researchers and students. This could involve, for example, greater use of alumni networks; closer linkages between education institutions, new start-ups and existing employers; professional development of teachers in various industries and roles; and deeper connections between education, innovation and research activities. In 2008, the Federation of German Employers (BDA) and the Federation of German Industries (BDI) partnered to launch an initiative in science, technology, engineering and mathematics (STEM), resulting in a website platform providing details of over 1 100 STEM programmes in the private sector throughout the country, and acting as a search engine for students. About 8 000 professionals act as ambassadors of the initiative to mentor students and encourage entering STEM disciplines. While it is not possible to establish direct causality, the relative percentage of first-year post-secondary students enrolled in STEM disciplines (compared to other disciplines) rose by almost 4% between 2007 and 2011 (BIAC, 2013).

Conclusion

Strengthening mechanisms by which employers, policy makers and education institutions can co-operate to increase the employability of individuals is a policy issue that can generate significant shared benefits for all actors, as well as for economies and societies at large. This co-operation should reinforce the incentives to undertake the sorts of reforms described earlier that are required in education systems and labour markets, by improving their policy design and implementation.

Recognising that there are many different forms of co-operation, there is significant potential at the international level to examine conditions for success and to share good practices and lessons learnt in order to build effective employer engagement mechanisms in countries, regions and sectors. Building upon its expertise in educational issues and its established relationship with the business community through BIAC, the OECD is particularly well-placed to make progress in this area.

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PART III

Country snapshots

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PART III

Chapter 12

Education policy country snapshots

This chapter presents snapshots of education policies in OECD countries. Designed for policy makers, analysts and practitioners who seek information and analysis of education policy taking into account the importance of national context, these country snapshots offer an overview of education policy in a comparative format, presenting context, key issues and goals, and recent policies and reforms for each OECD country. These snapshots are based on the analytical framework developed for the Education Policy Outlook, which draws on the OECD knowledge base on education policies in member countries. The framework organises quantitative and qualitative knowledge on education policy in terms of: a) raising student achievement for all (through equity and quality and preparing students for the future); b) enhancing the quality of institutions (through school improvement and better evaluation and assessment policies); and c) steering education systems (through governance and funding).

The reforms presented were generally introduced between 2008 and 2014. The information is drawn mainly from country responses to an Education Policy Outlook Snapshot Survey, Education Policy Outlook Country Profiles and OECD comparative and country-specific analysis and statistics on education 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.

AUSTRALIA

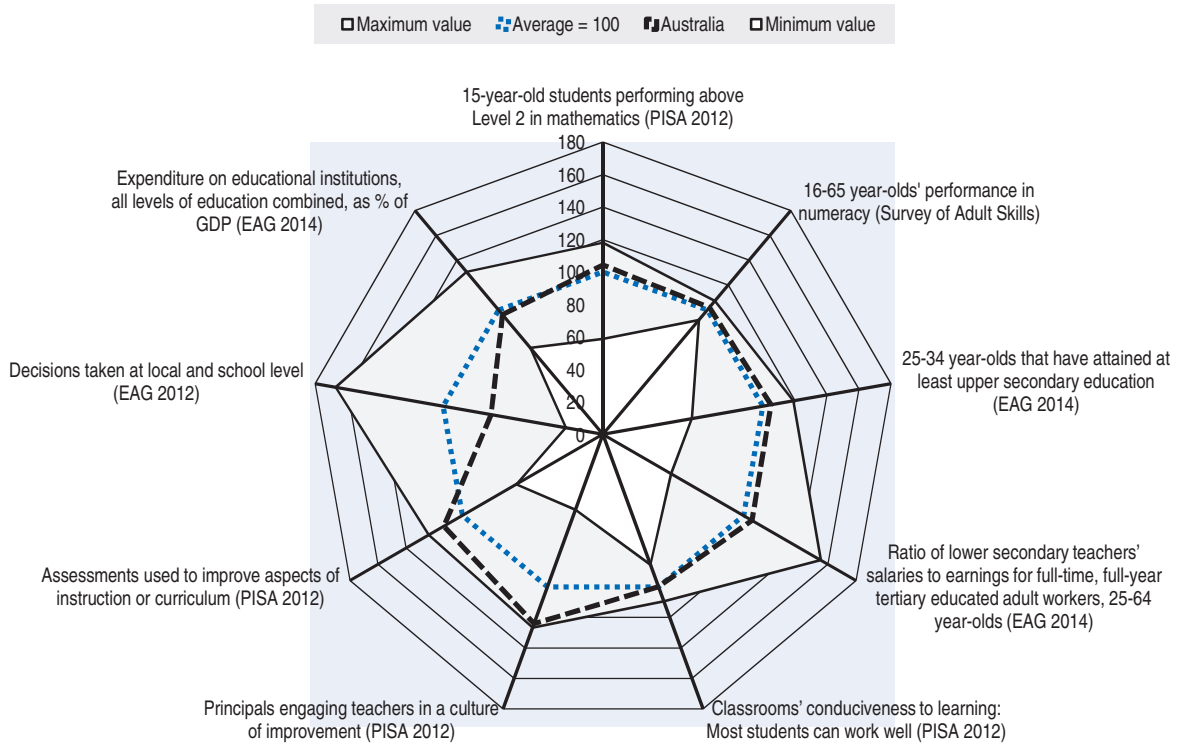
Context

Students: Australia performs above the OECD average in PISA 2012, with decreasing performance in mathematics and reading and unchanged performance in science across PISA cycles. Australia has fewer underperforming students than the OECD average, and the impact of students' socio-economic background on performance is below average. However, rural as well as Aboriginal and Torres Strait Islander populations have lower academic performance and less access to tertiary education than the national average. A high proportion of children are enrolled in early childhood education, and school is comprehensive until age 16. School choice is widely available compared to the OECD area. Secondary and tertiary pathways aim to prepare students for social integration and entry into the labour market. Attainment rates in upper secondary education are at the OECD average. The enrolment rate in upper secondary vocational education and training is above the OECD average, as is the attainment rate in tertiary education. Compared to their peers in other OECD countries participating in the Survey of Adult Skills, proficiency in literacy among 16-65 year-old Australians is above average. Proficiency in numeracy in this survey is at average, with 16-24 year-olds performing somewhat higher. Unemployment rates in Australia are below the OECD average.

Institutions: Australia's schools have positive learning environments, with autonomy over curriculum and assessment above the OECD average and autonomy over resource allocation (such as hiring and dismissing teachers and budget allocation) at around the OECD average. Teachers at lower secondary level are required to undergo a four-year pre-service training, including a mandatory teacher practicum. Instruction time for students and teachers' teaching time in primary and secondary education are among the highest across OECD countries. At primary and secondary levels, teachers' salaries are also above the OECD average, and class size is around the OECD average. A higher proportion of teachers in Australia than the TALIS average consider that the teaching profession is valued in society and would choose to work as teachers if they could decide again. Moreover, the evaluation and assessment framework is well conceived and can help generate improvements in the classroom with clearer information for schools on areas to improve.

System: Australia works in a shared national education system in agreement with states. The education system is steered nationally through agreements with states and territories, focused on education priorities and funding. Schools and states share most decision-making in lower secondary education, with schools making most decisions regarding the organisation of instruction. School funding has lacked transparency and coherence, and outcomes of numerous studies have shown the difficulty in determining how individual schools are funded. Expenditure on educational institutions as a percentage of GDP (for all educational levels combined) is below the OECD average, with a higher share from private sources than the OECD average.

Figure 12.1. **Selected indicators compared with the average: Australia**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.

Source: The Australia Snapshot was produced combining information from *Education Policy Outlook: Australia*, (OECD, 2013) with OECD data and the country's response to the Education Policy Outlook Snapshot Survey (2013). More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink http://dx.doi.org/10.1787/888933174144

Key issues and goals

Students: Australia's high education performance can be complemented with further focus on reducing inequities by tackling system-level policies hindering equity in education. Other important issues are strengthening incentives for attaining skills demanded by the labour market and increasing access to education and performance of students from disadvantaged backgrounds and Aboriginal and Torres Strait Islander students.

Institutions: Providing continued support for professional development of teachers and school leaders and clearer evaluation and assessment on how schools can improve are among key issues in Australia.

System: Another issue needing attention is increasing the clarity of policies and funding within the decentralised education system.

Selected policy responses

- To strengthen performance and support students from disadvantaged backgrounds and Aboriginal and Torres Strait Islander students, Australia has made investments in early childhood education and care, with a *National Early Childhood Development Strategy* (2009), and has defined completion objectives for VET and ways to strengthen apprenticeships to develop the skills of students from socio-economically disadvantaged backgrounds.
- Through its schools' policy, *Students First* (2014), the Australian Government targets the following four key policy areas: 1) developing a sound national curriculum; 2) improving the quality of teaching; 3) expanding principals' autonomy; and 4) engaging parents and the wider community in how their school is run.
- The *Australian Institute for Teaching and School Leadership* (AITSL) (2010) aims to promote excellence in teaching and school leadership. The AITSL develops nationally agreed policies and provides resources to support educators to become expert practitioners and drive excellence in teaching and school leadership.
- Australia is also implementing several policies aiming at improving the quality of teaching at different points during a teaching career. It introduced a national approach to the Accreditation of Initial Teacher Education Programmes (2013) to ensure the quality of programmes across the country. Recent policy direction seeks to build on this with the establishment of the Teacher Education Ministerial Advisory Group (2014) to look at ways to better prepare new teachers. The Australian Charter for the Professional Learning of Teachers and School Leaders (2013) aims to promote improvement throughout teaching careers. Additionally, the Australian Professional Standards for Teachers (2013) provide guidance for the quality of teaching across three domains (Professional Knowledge, Professional Practice and Professional Engagement) and four career stages (Graduate, Proficient, Highly Accomplished and Lead).
- Through the *National Agreement for Skills and Workplace Development* (NASWD, 2009) and the *National Partnership Agreement on Skills Reform* (NP, 2012), the objective is to improve access to training and participation in the labour market. Under the NP, all jurisdictions are required to implement key reforms so that at any age, an unqualified working Australian is able to access a training place subsidised by the government in order to pass at least the first Certificate III qualification. All jurisdictions are also required to support the expansion of the Commonwealth's income-contingent loan policy that helps reduce tuition costs. The Australian Government provides funding to state and territory training systems through funding associated with these agreements.
- In tertiary education, Australia has introduced the Upholding Quality – Quality Indicators for Learning and Teaching measure (2014). Additionally, to promote internationalisation at the tertiary level and increase collaboration in the region, Australia is piloting the *New Colombo Plan* (2013), which provides funding for Australian students to study or intern in the Indo-Pacific region.

Spotlight: Providing appropriate resources to all schools

Starting in 2014, in accordance with the Australian Education Act 2013, the Australian Government is delivering recurrent funding to all Australian schools on a needs basis to ensure that schools are appropriately funded to deliver quality education for all their students, regardless of background. Recurrent funding for government and non-government schools is determined on the same basis, with reference to a Schooling Resource Standard (SRS). For non-government schools, their base funding is discounted based on the capacity of the school community to contribute towards the cost of operating their school. In addition, all schools are entitled to specific loadings (additional funds) that address identified student and school needs. These loadings are targeted at students from low socio-economic backgrounds, Aboriginal and Torres Strait Islander students, students with limited English skills and students with a disability, as well as at small schools and schools in regional and remote areas.

The new Australian Government recurrent funding model was developed following the independent Review of Funding for Schooling (Final Report, December, 2011) commissioned by Australian Government in 2010. The review made a number of recommendations, including implementing needs-based funding that is independent of sectorial difference and targeting resources to support the most disadvantaged students.

The detailed policy profile is available at:
http://dx.doi.org/10.1787/9789264225442-17-en

AUSTRIA

Context

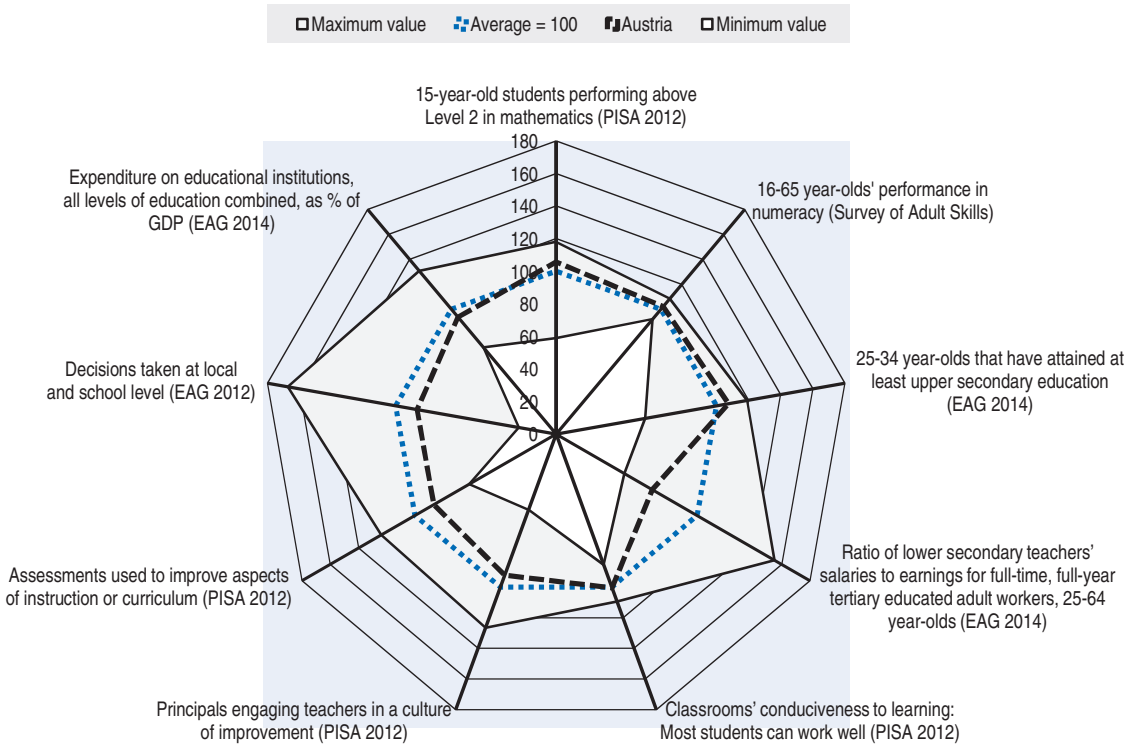
Students: Austria performs above the OECD average in mathematics in PISA 2012, with performance in reading below the OECD average, performance in science around the OECD average and unchanged performance across PISA cycles. The impact of students' socio-economic background in Austria is similar to the OECD average. Early childhood education and care (ECEC) usually starts at age 3 with an enrolment rate of 3-4 year-olds above the OECD average. Student tracking starts at age 10 (one of the earliest tracking ages among OECD countries) and may hamper equity if not managed appropriately. At the same time, Austria has above average upper secondary attainment and a well-established vocational education and training (VET) system with one of the highest enrolment rates among OECD countries. Entry, attainment and graduation rates in tertiary education remain below the OECD average. Average proficiency in literacy among 16-65 year-olds is lower than in other OECD countries participating in the Survey of Adult Skills, and proficiency in numeracy is above average. Unemployment rates are comparatively low.

Institutions: Autonomy over curriculum and assessment of schools in Austria is below the OECD average, and they have one of the lowest levels of autonomy in allocating resources. To teach at lower secondary level, teachers are required to have a tertiary qualification in education of three years including a mandatory teaching practicum. Austria has one of the highest proportions of teachers above the age of 50 in OECD countries. Teaching conditions include below-average class size and below-average teaching time in primary and secondary education. School leaders are required to have a specific teaching qualification depending on the school type they apply for, as well as school leadership training and experience in teaching. They carry out both administrative and pedagogical activities, and there is also a long tradition of school inspection which looks at quality of teaching and implementation of administrative tasks.

System: The central government is responsible for governance of the education system. The Federal Ministry of Education and Women's Affairs has overall legislative and implementation responsibility for primary and secondary education and school-based VET at upper secondary level, while the *Länder* are partially responsible for implementation of compulsory education policies. At pre-primary level, the responsibility lies in the *Länder*. The Federal Ministry of Science, Research and Economy is responsible for the higher education sector including Universities of Applied Sciences (*Fachhochschulen*), with the exception of University Colleges of Teacher Education, which fall within the remit of the Federal Ministry of Education and Women's Affairs. All higher education institutions have to undergo obligatory external quality assurance on a regular basis, and this task is performed by a single agency established to this end. Decision-making in lower secondary education is shared among the central government, the *Länder*, local governments and

schools. Expenditure on educational institutions as percentage of GDP (for all education levels combined) is below the OECD average, with a higher share from public sources than the OECD average.

Figure 12.2. **Selected indicators compared with the average: Austria**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.

Source: The Austria Snapshot was produced combining information from the country's response to the Education Policy Outlook Snapshot Survey (2013) with OECD data. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink *http://dx.doi.org/10.1787/888933171591*

Key issues and goals

Students: Austria reported the need to increase the participation of children from disadvantaged backgrounds in pre-primary education and to reduce the achievement gap between students from disadvantaged or immigrant backgrounds and their peers. Other issues reported by Austria include decreasing early dropout rates and improving the transition to higher levels of education (e.g. from VET to tertiary education). Austria also considers it important to widen access to universities of applied sciences (*Fachhochschulen*) by providing additional study places.

Institutions: Improving teacher training, assessing the education system and school performance, and giving concrete feedback are of interest for Austria to improve the quality of learning in general and VET schools. Austria also reported the need to make final

school leaving examinations/university entrance certificates (*Matura*) more comparable between schools, and it is currently implementing centralised exams.

System: The central government considers that the multi-level decision-making process can cause inefficiencies in school management. Investments in higher education and research are seen as a possible path to reduce dropout and improve teaching quality and research.

Selected policy responses

- In 2010, Austria introduced *a free compulsory year of pre-primary* education with language learning support and a nation-wide curriculum. Austria also extended the *whole-day schooling offers*, providing students with afternoon care outside of teaching time (2013).
- By 2018/19, Austria will have implemented the complete roll-out of New Secondary Schools (*Neue Mittelschule, NMS*, 2008) to raise the age of early tracking. This new comprehensive school system has already been implemented in many schools. It will replace general secondary schools (*Hauptschulen*), including through the application of the curriculum of the more prestigious academic secondary schools (*Allgemeinbildende Höhere Schule*) and more innovative teaching and learning methods.
- The *National Strategy against Early School Leaving* (2012) includes second chance education and a mentoring programme for low performers. Austria is also implementing the recently introduced apprenticeship and upper secondary certificate (*Lehre mit Reifeprüfung*).
- Austria designed the school quality for general schools (*Schulqualität in der Allgemeinbildung*, *SQA*) and VET schools (*Qualitätsinitiative Berufsbildung*, *QIBB*) to improve the quality of teaching and leadership. Substantial reforms of teacher training (*LehrerInnenausbildung NEU*) were also adopted in 2013.
- The Mapping Process for the Austrian Higher Education System (2011) was implemented through four projects: development of physical infrastructure (building development plan), large scale-research infrastructure, university funding and a co-ordination platform (the Austrian Higher Education Conference). Moreover, the Federal Ministry of Science and Research increased the study places at *Universities of Applied Sciences* to meet the needs of technical and business professions. At the end of this phase of expansion (2012/13 to 2014/15), approximately 4 000 additional places will be available at universities of applied sciences. National statistical reports have shown an increase in the overall student body from 16 782 in 2011/12 to 17 956 in 2012/13.
- Austria launched a reform of university funding to increase the number of degrees and decrease dropout. The university structural funds (*University Structural Funds Ordinance*, 2012) were implemented in 2012/13, and the capacity-based discipline-specific university funding will be implemented in the course of the decade, depending on budget allocation.

Spotlight: Developing and assessing national education standards

In 2012, educational standards for mathematics, German and English in Grades 4 and 8 have been defined, to be periodically assessed in nationwide tests. The aim is to ensure that all pupils achieve sufficient levels of basic competence in these subjects and to give feedback to schools to develop quality teaching. Schools are expected to use their results to elaborate a development plan followed up by annual meetings between school leaders and regional authorities (*Bilanz- und Zielvereinbarungsgespräch*).

The first cycle of testing the standards started in 2012. A report on the first full testing cycle is to be published in 2017, to be followed by implementation of a second cycle. The national testing of educational standards complements Austria's participation in international large scale assessments and aims to enable a data-based school development process.

BELGIUM

Context (National)

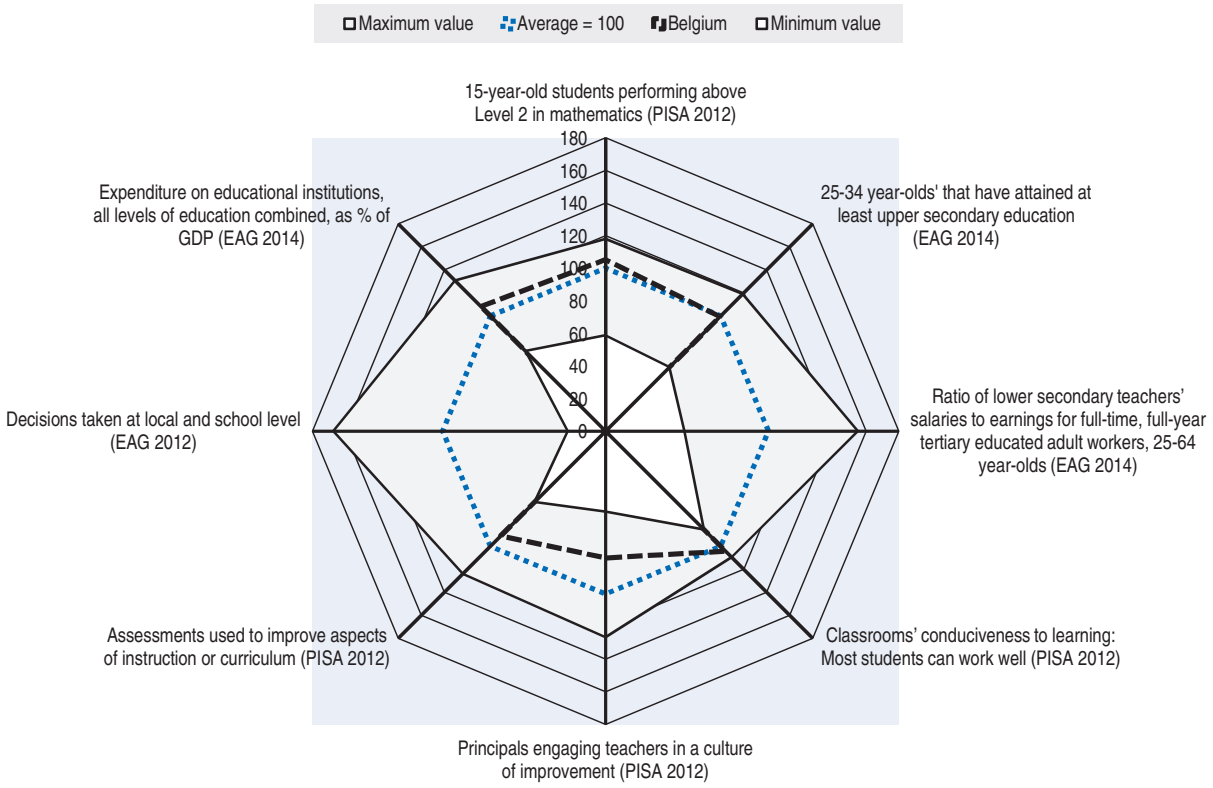
Students: Belgium performs above the OECD average in PISA 2012 in mathematics and reading and is an average performer in science (with some variations in the performance between its different communities). The country's performance in mathematics decreased, while performance in reading and science remained unchanged across PISA cycles. Socio-economic background had an above-average impact on students' performance in PISA 2012, even if Belgium has some positive equity indicators, such as an earlier starting age for early childhood education and care (ECEC) of 2.5 and the highest enrolment rate of 3-4 year-olds in ECEC among OECD countries. Free pre-primary education is offered between ages 2.5 and 6. Education is compulsory in Belgium from ages 6 to 18. Student selection mechanisms such as school choice, grade repetition and early tracking (at age 12) may hamper equity if not managed carefully. Attainment at upper secondary education level is similar to the OECD average, and the number of students enrolled in different vocational education and training (VET) programmes, which have close ties with social partners, is above the OECD average. Attainment in tertiary education is also higher than the OECD average, and unemployment rates in Belgium are below the OECD average for all education levels.

Institutions: In Belgium, schools report a degree of autonomy over curriculum which is slightly below the OECD average. Teachers from pre-primary to lower secondary education undergo on average three years of teacher training, including a mandatory teaching practicum. In upper secondary education, a master's degree in addition to the teacher training certificate is the typical qualification requirement for most teachers in secondary general, technical and art education. More 15-year-old students in Belgium than the OECD average consider their classrooms as conducive to learning, although teacher-student relations seem comparatively less positive and school leaders seem to perform fewer instructional tasks. Teachers' working conditions in primary and secondary education include teaching time below the OECD average and above-average salaries.

System: Belgium has three autonomous education systems, which are administrated by the three linguistic Communities (Flemish Community, French Community and German-speaking Communities), and the role of the federal government is limited. The federal level is responsible for pensions of the educational staff, determining the starting and finishing ages of compulsory education and the minimum diploma requirements. Schools are organised into three networks: community education, subsidised public and subsidised private (as they are run by a private entity). The proportion of decisions taken at school and state level in lower secondary education varies widely between the French and Flemish communities and also depends on the network and share of private financing (with greater autonomy in private networks). On average, most decisions in lower secondary education are taken at the state level in the French community, while most

decisions are taken at the school level in the Flemish community. Expenditure on educational institutions as a percentage of GDP (for all educational levels combined) is above the OECD average, with a higher funding share from public sources than the OECD average.

Figure 12.3. **Selected indicators compared with the average: Belgium**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.

Source: The Belgium Snapshot was produced combining information from the country's response to the Education Policy Outlook Snapshot Survey received in December 2013 with OECD data. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink http://dx.doi.org/10.1787/888933171608

Key issues and goals

Students: The Flemish community reported that special attention is needed for students from disadvantaged socio-economic groups, students who do not speak the language of schooling at home, and students who drop out before completing secondary education. Flanders (Flemish community) is also considering limiting early tracking of students in secondary education. Beyond school, Flanders envisages improving quality assurance mechanisms in higher education and making adult education more responsive to labour market needs. The French Community aims in particular to reduce grade repetition, personalise students' academic trajectory to increase quality and equity; and upgrade the secondary VET programme to facilitate students' transitions into further

education. To increase equity, both the Flemish and French communities see integrating Special Education Needs (SEN) students into mainstream education as a priority.

Institutions: Improving teacher training opportunities is seen as an issue in Belgium. Flanders highlights providing better teacher career development opportunities, while the French community highlights improving school leadership.

System: Both communities report an aim to rationalise the higher education system to increase efficiency and coherence. To this end, Flanders aims to use new modes of public-private investment to enhance capacities in response to demographic evolution. The French community envisages improving general co-ordination of activities. Other important funding issues in the French community include increasing student spots in schools to face demographic challenges and improving complementary funding distribution between institutions.

Selected policy responses

Flemish community:

- An *Agreement between the Flemish Government and the Social Partners on Professional Careers* (2012) aims to facilitate the transition from education to the labour market and increase employability.
- A *national qualifications' structure* introduced a short-cycle tertiary education level (2009) to promote access to tertiary education and to better meet labour market needs.
- A parliamentary act to improve quality in tertiary education (2012) introduced institutional assessments to complement the current programme accreditation mechanism.
- A public-private funding partnership (2011) set up for *a participatory Design Build Finance Maintain (DBFM) company* (*Participatieve DBFM-vennootschap*) aims to improve school infrastructure and build 211 schools.
- A *parliamentary act on the financing of primary and secondary education* (2008) aims to allocate available resources according to the socio-economic background of students in the schools, rather than according to the educational network to which a school belongs. The act also provides for an evaluation of the new financing system to be carried out after a few years.

French community:

- A differentiated management system (*Decree of 30 April 2009*) provides additional resources to students from disadvantaged socio-economic backgrounds to increase equity in school achievement. Moreover, complete or *partial integration of SEN students* in the regular school system has been implemented.
- The *decree that defines the status of school leaders and their engagement letters* (2007) was implemented. The decree also sets up an initial training for school leaders complemented with a first hands-on experience.
- A new organisation of VET in upper secondary education (*Certification Par Unités*, 2010) reorganises the curriculum by units of study and mixes general knowledge with professional skills.
- Starting in the 2014 school year, compulsory and upper secondary schools have about 13 750 new spots for students, funded by EUR 55 million of direct investment.

- The *Landscape Decree* (*Décret Paysage*, 2014) defining the higher education system and academic organisation of schooling (Article 79) aims to enable an individualised school trajectory for students from all types of higher education institutions. The decree also sets up the Higher Education and Research Academy (*l'Académie de Recherche et d'enseignement supérieur*, ARES), to serve as a platform for co-ordination and dialogue.

Spotlight: Preventing school dropout

Belgium is working to reduce student dropout through different policies. Flemish Belgium created an *Action Plan on Early School Leaving* (2013) to reduce school dropout in secondary education by 2020, which combines preventive actions, policy co-ordination and alternatives for students who have already dropped out. In French Belgium, the *Take-off project* (*Projet décolâge*, 2012) develops pedagogical tools for remediation instead of grade repetition.

CANADA

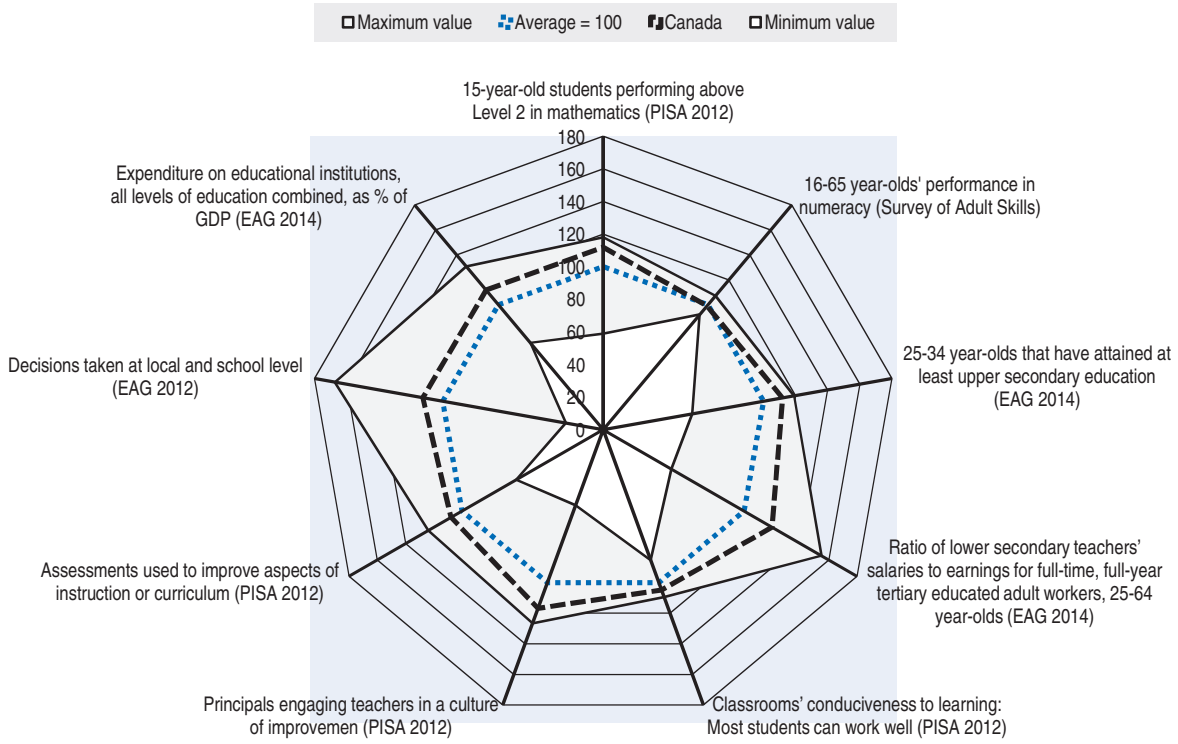
Context

Students: Canada continues to be among the top performers in PISA 2012, although performance in mathematics, reading and science has decreased across PISA cycles. The impact of socio-economic status on mathematics performance is lower than the OECD average, with performance of students from an immigrant background similar to that of their peers. Canada has fair and inclusive policies that can contribute to high levels of equity. All provinces and territories provide pre-primary education for 5-year-olds. School is compulsory until age 16 or 18, depending on the province or territory, and grade repetition is below the OECD average. Attainment in upper secondary education is above the OECD average. Due to the structure of education systems in most Canadian provinces and territories, the proportion of students enrolled in vocational education and training (VET) programmes at upper secondary level is among the smallest in the OECD. However, attainment in Canada is higher in technical tertiary education, and is the highest in tertiary education among OECD countries. Adults (16-65 years-old) performed at the average in literacy and below the average in numeracy compared to the other countries participating in the Survey of Adult Skills. Unemployment is below the OECD average.

Institutions: Canada has positive learning environments compared to the OECD average. Schools have less autonomy than the OECD average in both resource allocation and responsibility for curriculum and assessment. Teachers have at least a bachelor's degree and one year of pre-service teacher training, which includes teaching practicums. Teachers have heavier teaching workloads than in other OECD countries, with more teaching time at both primary and secondary levels. Evaluation and assessment arrangements are a key component of every provincial and territorial education system and a key area for collaboration through the Council of Ministers of Education, Canada (CMEC).

System: Education is decentralised in Canada. In each of the 13 jurisdictions, one or two ministries or departments of education are responsible for organisation, delivery and assessment of its education system. In several provinces, elementary/secondary education and post-secondary education are the responsibility of separate ministries or departments. Decision-making is entrusted to school boards or districts and the level of responsibility delegated is at the discretion of the provincial/territorial government. In general, almost half of decisions are taken at the local level in lower secondary education. Canada's ministers of education and advanced education collaborate on pan-Canadian educational priorities under the Council of Ministers of Education (CMEC). Canada's expenditure on educational institutions as a percentage of GDP (for all educational levels combined) is above the OECD average, with a higher share from private sources than the OECD average.

Figure 12.4. **Selected indicators compared with the average: Canada**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.

Source: The Canada Snapshot was produced combining information from the country's response to the Education Policy Outlook Snapshot Survey received in December 2013 with OECD data. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink http://dx.doi.org/10.1787/888933171618

Key issues and goals

Students: Improving the performance of minority-language and Aboriginal students can contribute to better equity and quality of education in Canada. Also, it would be important to strengthen the apprenticeship system through measures such as increasing the attractiveness and completion rates of apprenticeships and skilled trades' programmes among youth, as well as the participation of employers.

Institutions: Canada also faces the dual challenge of achieving a well-sized and prepared teacher population where it is most needed, and of providing support and guidance to schools.

System: Continuing to set priorities will be important while also continuing to practice variety within a decentralised system, as well as improving access and efficiency of funding to tertiary education.

Selected policy responses

- *Nova Scotia's SchoolsPlus* programme (2008) is an inter-agency approach to support the child and family, with the school as the centre of service delivery. The aim is to provide students and their caregivers with help more quickly, through easy referral to specialists and community services (e.g. crisis intervention, youth mental health services, after-school programming, parent and family support, sexual health and child care).
- New Brunswick launched the *Labour Force and Skills Development Strategy* (2013) to strengthen student pathways, support learning and skills development and attract and retain skilled individuals to participate in the New Brunswick labour market. In part, the strategy aims to align kindergarten to grade 12 and post-secondary education with labour-market needs so that students can gain the knowledge and skills needed for an easier transition into the workforce.
- Quebec introduced the I Care About School! strategy (*L'École, j'y tiens !*, 2009) to reach a completion rate of 80% in secondary education by 2020 (through reduced class size, after-school care and reintegrating dropouts).
- Ontario's *Student Success/Learning to 18 Strategy* (2003) was created to increase graduation rates and support all students in Ontario to successfully complete their secondary schooling and reach their post-secondary goals. The strategy built leadership capacity for secondary schools by creating the Student Success Leader, the Student Success Teacher and Student Success Teams, which tracked and addressed the needs of disengaged students, and worked to establish quality learning for all students. Good leadership at all levels (ministry, district and school level), coupled with extensive capacity building, was considered fundamental to the success of the reform (see *Evaluation of the Ontario Ministry of Education's Student Success/Learning to 18 Strategy: Final Report*). In 2011/12, Ontario had a high-school graduation rate of 83%, a 15% improvement since 2003/04. Over the eight years that the Student Success Strategy has been in place, this represents approximately 115 500 more students who have graduated than would have if the rate had remained at its 2003/04 level.
- Alberta's new *Student Learning Assessments (SLAs)* (2013) will replace the *Provincial Achievement Tests*. Information from the SLAs will be used to generate a report delivered to students, teachers, and parents at the beginning of the school year on the students' strengths and areas for improvement relative to provincial standards.
- The *Learn Canada 2020* (2008) framework is a joint declaration by provincial and territorial ministers of education to enhance Canada's education systems, learning opportunities and overall education outcomes. The framework builds on what are considered the four pillars of lifelong learning: Early Childhood Learning and Development; Elementary to High School Systems; Post-secondary Education; and Adult Learning and Skills Development.
- To set priorities, ministers of education across Canada agreed (2013) that numeracy was a *key priority* and that "provinces and territories would work together to identify and share best practices on innovative teaching and learning strategies to raise student achievement in this area".

- Canada provides funding for innovation and research through: 1) scholarships for master's, doctoral and postdoctoral students as part of the *strategic priorities (2013-16)* of the *Social Sciences and Humanities Research Council*; and 2) scholarships and fellowships for undergraduate, postgraduate and postdoctoral students through the *National Sciences and Engineering Research Council of Canada*.

Spotlight: Creating a national vision on early leaning

The *CMEC Early Learning and Development Framework* (2014) presents a pan-Canadian vision for early learning to be adapted to the needs and circumstances of each province and territory and support the development of policies and initiatives that enhance the quality and continuity of the learning experience in the early years and beyond. The principles guiding this framework are: 1) the child is integral to policy and programme development; 2) the family is central to a child's development; 3) honouring the diversity of children and families is integral to equity and inclusion; 4) safe, healthy and engaging environments shape lifelong learning, development, behaviour, health and well-being; 5) learning through play capitalises on children's natural curiosity and exuberance; and 6) the educator, or the extended family as educator, is central to supporting learning and development through responsive and caring relationships.

The detailed policy profile is available at:
http://dx.doi.org/10.1787/9789264225442-18-en

CHILE

Context

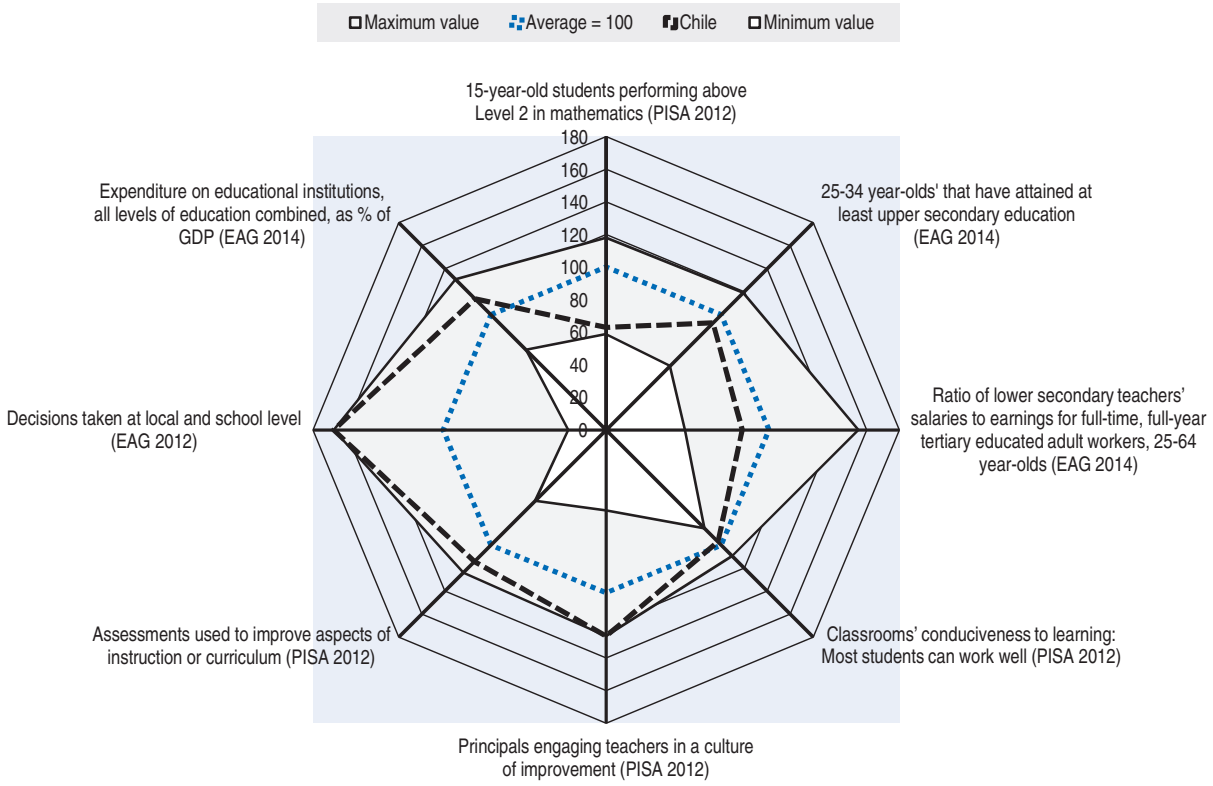
Students: Chile performs below the OECD average in PISA 2012, with improvements in mathematics and reading performance and unchanged performance in science across PISA cycles, as well as progress in educational attainment compared to other OECD countries in recent years. Equity remains an issue, particularly for students from socio-economically disadvantaged backgrounds and from rural areas. The impact of socio-economic status on students' mathematics performance is one of the largest among OECD countries. Early childhood education and care (ECEC) in Chile usually starts at age 4. Enrolment in pre-primary programmes has increased for 3-4 year-olds and remains below the OECD average. Education in Chile is compulsory from ages 6 to 18. Educational practices that may hinder greater progress in equity if not managed carefully include grade repetition, school choice and transfers to other schools for struggling secondary students. Attainment rates in upper secondary and tertiary education, as well as enrolment in upper secondary vocational education and training (VET), are below the OECD average. The transition into further education and the labour market is challenging, while unemployment in Chile is below average.

Institutions: Chile's learning environments are at the OECD average and vary widely across schools, according to PISA findings. Schools' autonomy over resource allocation and curriculum and assessment is above the OECD average. While the scores of candidates entering the teaching profession on the voluntary national University Selection Test (*Prueba de Selección Universitaria*, PSU) are increasing, there is a need for improvement. Teaching licensing and practicum are not mandatory to enter the profession. On average, lower secondary teachers' pre-service training lasts five years, and including a teaching practicum is at the discretion of training institutions. Teaching conditions in primary and secondary institutions in Chile include teaching time and class size above the OECD average, and below-average salaries. A higher proportion of teachers in Chile than the TALIS average consider that the teaching profession is valued in society and would choose to work as teachers if they could decide again. Support for teachers includes clear standards, comprehensive evaluations intended for improvement and professional development opportunities. The recent creation of institutions to develop more systematic evaluation may contribute to monitoring school processes and guiding school improvement.

System: In Chile, governance of the education system is shared between central and local authorities. The Ministry of Education sets the central framework and the policy agenda, providing schools with a high level of autonomy. Education is delivered by municipalities and by a high proportion of privately managed educational institutions that receive public subsidies. Expenditure on educational institutions as a percentage of GDP (for all education levels combined) is above the OECD average, with one of the highest

funding shares from private sources among OECD countries. Chile also had one of the most significant increases in expenditure per student among OECD countries between 2005 and 2011 at primary, secondary and post-secondary non-tertiary levels of education.

Figure 12.5. **Selected indicators compared with the average: Chile**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.
Source: The Chile Snapshot was produced combining information from the *Education Policy Outlook: Chile* (OECD, 2013) with OECD data. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink http://dx.doi.org/10.1787/888933171620

Key issues and goals

Students: Within a context of significant improvements, delivering equity and quality in education remains a challenge in comparison to other OECD countries. Public funding and quality assurance of tertiary education institutions also remain key issues to ensure efficiency and equity. The challenge extends to aligning skills of young people with the needs of the labour market to ensure social progress.

Institutions: Chilean schools require strong school leaders and support to implement and drive school improvement, along with continued support to improve teaching conditions. The evaluation and assessment framework can be further consolidated for greater coherence.

System: Chile aims to provide local authorities and institutions with the capacity to deliver quality provision within a national vision and to ensure efficiency and equity of public funding in education.

Selected policy responses

- A financial incentive, the Law on Preferential Subsidies (*Ley de Subvención Escolar Preferencial*, 2008) was introduced to strengthen performance and support disadvantaged students. It provides additional funding and support for schools that serve students from socio-economically disadvantaged backgrounds, from pre-primary through secondary education. In tertiary education, a more comprehensive scholarship programme pays full tuition expenses for high-performing disadvantaged students, and low interest rates have been set for student loans.
- A new accountability system brings together the Ministry of Education, the National Education Council and a newly created Quality of Education Agency (*Agencia de Calidad de la Educación*, 2012), which is in charge of co-ordinating national assessments for schools and students, monitoring national system performance and providing information to stakeholders on performance. The Education Superintendence (*Superintendencia de Educación Escolar*) also initiated inspections in 2012 to ensure that schools meet legal standards.
- A reform of the school leadership role as part of the Law of Quality and Equity in Education (*Ley de Calidad y Equidad de la Educación*, 2011) requires competitive and open selection processes, offers higher salaries and more assistance for professional development, and grants more flexibility in firing teachers.
- Modifications made in 2012 to the laws regulating financial aid to students at the tertiary level added a subsidy to private student loans (*Crédito con Aval del Estado*, CAE) so that effective real interest rates of student loans are capped at 2% and loans are income contingent. The Scholarship for Tertiary Education (*Becas de Educación Superior*) programme expanded previous scholarship programmes to cover all students with satisfactory educational performance belonging to the lowest 60% of household income distribution.

Spotlight: Raising standards for teachers and school leaders

Chile has developed a national framework defining standards for the teaching and school leadership profession to provide clarity on expectations for the profession and to guide teacher training, recruitment and evaluation in a decentralised environment.

The Good Teaching Framework (*Marco para la Buena Enseñanza*, 2008) provides a clear and concise profile of what teachers are expected to know and be able to do. It identifies four domains: preparation for teaching, creation of an environment favouring the learning process, teaching that allows the learning process of all students, and professional responsibilities. Within each domain, it describes criteria and performance levels (outstanding, competent, basic or unsatisfactory).

The Good School Leadership Framework (*Marco para la Buena Dirección*, 2005) provides both a description of the skills and competencies needed for good school leadership in Chilean schools and a reference for professional development of school leaders. It covers four areas: leadership; curricular management; management of the school environment and coexistence; and resource management. Each of these areas includes a set of criteria on which to focus professional development.

The detailed policy profile is available at:
http://dx.doi.org/10.1787/9789264225442-19-en

CZECH REPUBLIC

Context

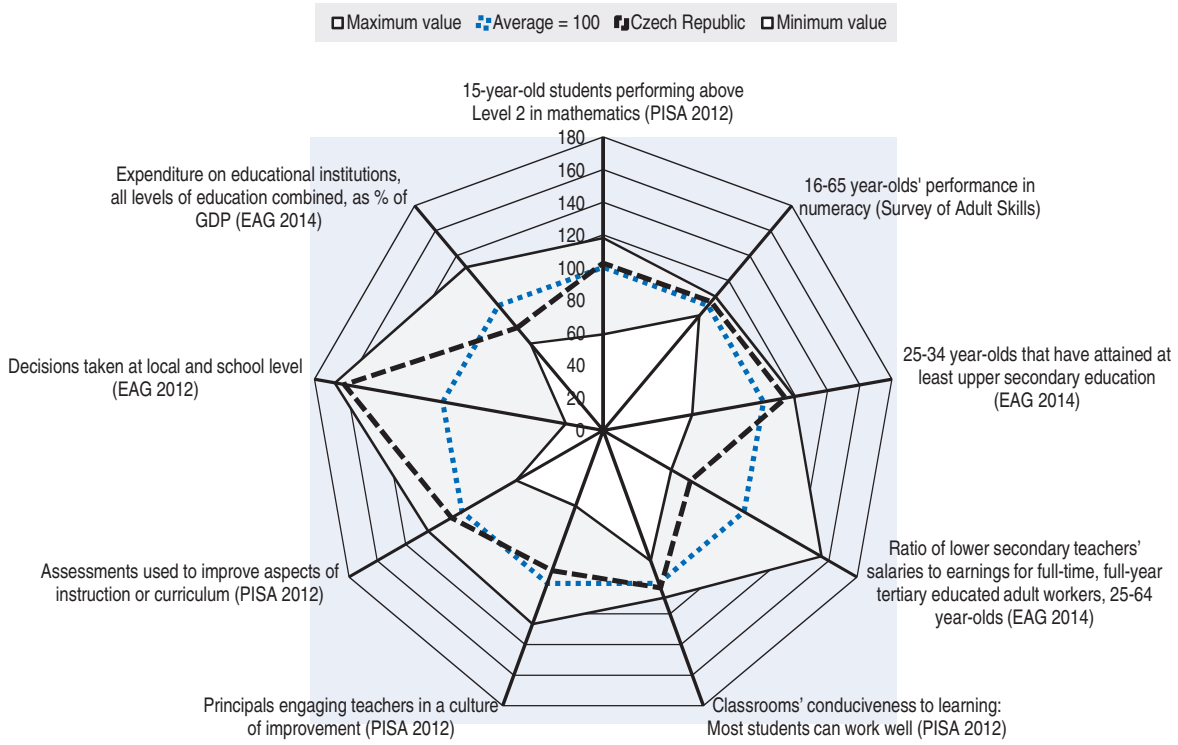
Students: The Czech Republic performs above the OECD average in science in PISA 2012, with performance in mathematics and reading around average. Performance has remained unchanged in reading and science across PISA cycles and has decreased in mathematics. The impact of socio-economic background on students' academic performance is around the OECD average, and student performance varies highly between schools. Early childhood and care (ECEC) usually starts at age 4, and efforts to improve equity include improving enrolment in ECEC to reach the OECD average for 3-4 year-olds. Different approaches to student selection, such as school choice, academic streaming and early tracking (at age 11), and differentiation of educational pathways can hamper equity if not managed carefully. Upper secondary attainment rates in the Czech Republic are above the OECD average. Enrolment in upper secondary vocational education and training (VET) is one of the highest among OECD countries, while students in the apprenticeship track do not feel well prepared for the labour market. In addition, tertiary attainment rates are below the OECD average. Literacy skills are high among 16-65 year-olds compared to other countries participating in the Survey of Adult Skills, and even higher among 15-24 year-olds. Unemployment is below the OECD average.

Institutions: Czech compulsory (basic) schools have one of the highest levels of autonomy among OECD countries in allocating resources, such as hiring and dismissing teachers, and in the use of curriculum and assessment. Lower secondary education teachers in the Czech Republic undergo five years of pre-service training. The organisation of a teaching practicum is at the discretion of training institutions. Teaching time is above the OECD average in primary education and below the OECD average in secondary education. Conditions for teachers have been improving, with class size below the OECD average. With the economic crisis, the teaching profession has become a more attractive alternative for tertiary-educated people looking for employment, although teachers still earn less than the OECD average at primary and secondary levels, and about half of the average salary for an individual with tertiary education in the Czech Republic. A lower proportion of teachers in the Czech Republic than the TALIS average consider that the teaching profession is valued in society and would choose to work as teachers if they could decide again. Schools are evaluated through well structured, evidence-driven external inspections.

System: Governance of the education system is shared between central authorities and schools. The government sets priorities and defines national programmes and reforms, while municipalities are responsible for organising pre-primary and compulsory education. At the lower secondary level, schools have great autonomy, with most decisions taken at the school or local level. Fourteen regional governments steer upper secondary and tertiary professional education and its objectives within their region. Expenditure in

education is lower than the OECD average, despite spending increases on tertiary education, and the financial crisis has affected education funding, particularly for non-teaching staff in small schools. Expenditure on educational institutions as a percentage of GDP (for all educational levels combined) is one of the lowest among OECD countries, with a higher share of funding from public sources than the OECD average.

Figure 12.6. **Selected indicators compared with the average: Czech Republic**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.

Source: The Czech Republic Snapshot was produced combining information from the country's response to the Education Policy Outlook Snapshot Survey received in December 2013 and *Education Policy Outlook: Czech Republic* (OECD, 2013) with OECD data. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink http://dx.doi.org/10.1787/888933171637

Key issues and goals

Students: The Czech Republic faces the challenge of raising overall student performance and reducing the proportion of those who are underperforming. Almost one in four students underperformed in PISA 2012 and did not achieve the level considered necessary to participate effectively in society (Level 2). To better prepare students for the future, it is key to help students effectively develop the skills needed in the labour market. This requires focusing on improving the quality of the education provided at tertiary level, rather than only increasing enrolment.

Institutions: Progress can also be hampered by a lack of systemic support to ensure the capacity of teachers and school leaders to address diverse student needs and to provide more inclusive education, and also by a lack of clarity to guide schools. Another issue is the introduction of a career progression system for teachers and leaders associated with pay levels, as well as integration of an evaluation and assessment framework including developing national standardised tests, while limiting their undesired effects.

System: The Czech Republic considers its key issues to adopt and implement its strategy for 2020 priorities and making better use of existing information about the impact of policy changes for the improvement of education outputs. Developing professional capacity across the education system (e.g. teaching, leadership, evaluation, and assessment) is also seen as important to foster education quality, along with improving the efficiency of overall school funding and transparency of the system, and promoting better financing of the education of disadvantaged students.

Selected policy responses

- The Long-Term Plan for Education and the Development of the Educational System (2011-15) aims to improve the quality and efficiency of the education system by targeting a wide array of areas, including ECEC, VET; and evaluation and assessment.
- The *Innovation of the Framework Educational Programme of Pre-Primary Education* (2012) puts emphasis on care and education of 2-year-olds in nursery schools (*mateřské školy*) and the interrelation with the Framework Educational Programme for Primary Education that deals with preparedness of children for primary education.
- A National Institute of Education (NUV) has been created (2011) to guide and provide support to schools. Selected policy initiatives aim to promote more inclusive education, address diverse student needs, improve the teaching profession and better align education qualifications to those in the labour market.
- The Strategy Czech School Inspection (2014-20) aims to strengthen external evaluation for school improvement.
- *Standardised tests in grades 5 and 9* (2011) of basic education have been implemented in three curricular areas: Czech language, foreign languages and mathematics. The Czech Republic aims for the tests to provide feedback to students, inform parents and teachers on student learning and school quality and evaluate the work of schools. Results will be published at the school level to allow between-school comparisons, and monitor the performance of the Czech school system as a whole and across regions. Test results might serve as a basis for enrolment in a higher level of education.
- With the *Operational Programme Research, Development and Education* (*Operační program Výzkum, vývoj a vzdělávání*, 2014-20), the Czech Republic aims to contribute to a structural shift in the economy towards one based on an educated workforce and to produce high-quality research. The four priority areas of this programme are: 1) strengthening the capacity for quality research; 2) developing higher education institutions and human resources for research and development; 3) promoting equal access to quality pre-school and primary and secondary education; and 4) providing technical support.

Spotlight: Tackling equity in education

The Czech Republic has made decreasing the inequality in the education system one of its three key priorities in the *Education Policy Strategy of the Czech Republic for 2020* (2014). Czech authorities and policy makers aim to focus on equal access to education as well as to ensure that students' personal or social circumstances do not hinder their educational achievement.

The government has also introduced multiple policies to support students, particularly those who might be at risk of low performance. Inclusive Education Support Centres (2009-10), a follow-up to a 2006 programme, aimed to assess the conditions for inclusive education in compulsory education and provide support to schools to better address individual learning. As part of the *Education for Competitiveness Operational Programme* (2007-13), school counselling centres were developed to manage school choice, to strengthen support for students in compulsory education, and to help them when deciding on an educational pathway.

The detailed policy profile is available at:
http://dx.doi.org/10.1787/9789264225442-20-en

DENMARK

Context

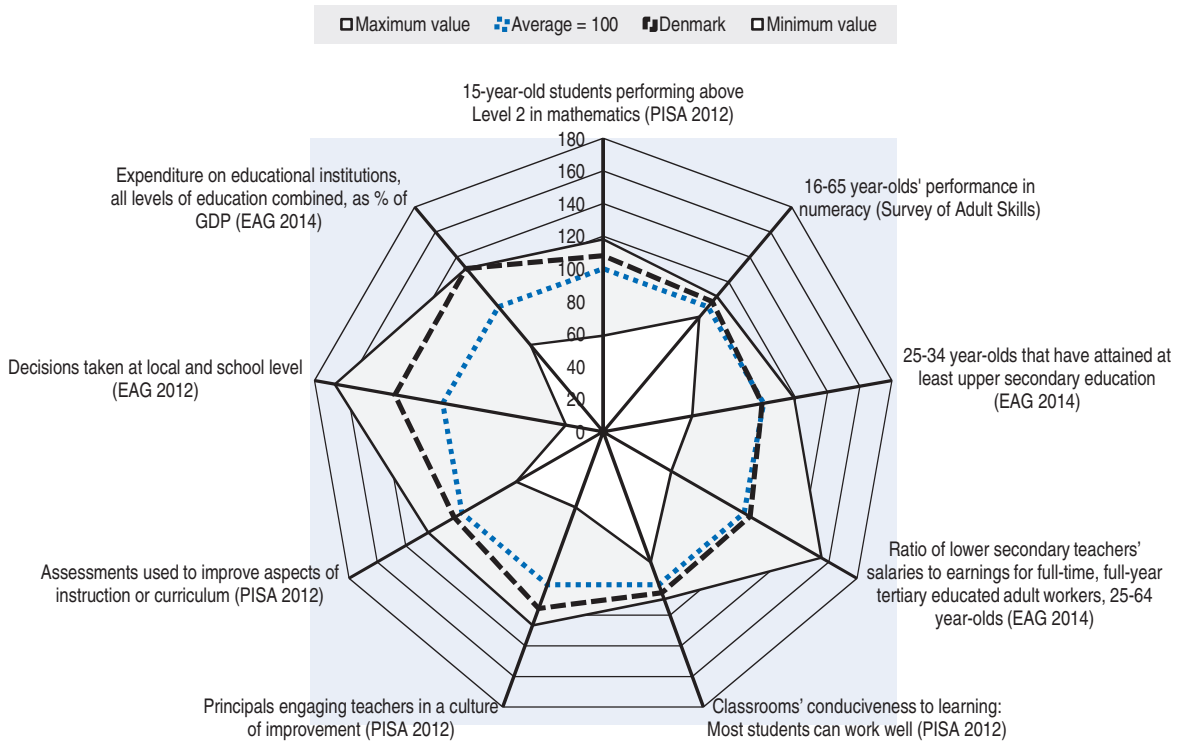
Students: Denmark's performance on PISA 2012 is higher than the OECD average in mathematics and around the OECD average in reading and science. PISA results have decreased in mathematics across PISA cycles, and remained unchanged in reading and science. The impact of students' socio-economic background on mathematics performance is similar to the OECD average, while immigrant students are at higher risk of poor performance. The education system has a number of features that promote equity, including an early starting age in early childhood education and care (age 1), an above-average proportion of students enrolled in early childhood education, low grade repetition and comprehensive schooling until age 16. Upper secondary attainment rates are around the OECD average and graduation rates are above average, as are enrolment rates for upper secondary vocational education and training (VET), but dropout from VET is also high. Tertiary attainment rates are above the OECD average and education is accessible to all. In the Survey of Adult Skills, adults (16-65 year-olds) in Denmark scored above average in numeracy and below-average in literacy skills compared to participating countries, with younger adults (16-24 year-olds) scoring around the average in literacy and above average in numeracy. Unemployment rates are below the OECD average.

Institutions: Students and teachers report positive learning environments. Schools in Denmark report autonomy over resource allocation above the OECD average and autonomy over curriculum and assessment around the OECD average. At lower secondary level, teachers follow a pre-service teacher training programme of four years, including a mandatory teaching practicum. At upper secondary level, it is a six-year training programme, also including a teaching practicum. Teachers are trusted professionals with fewer teaching hours in primary and secondary education than the OECD average, above average salaries, and class size at around the OECD average at primary and secondary levels. At the same time, teachers receive less feedback and fewer professional development opportunities than the OECD average. Compared to the TALIS average, a higher proportion of teachers in Denmark would choose to work as teachers again, while a below-average proportion of teachers consider that the teaching profession is valued in society. School principals in Denmark are less active as instructional leaders than on average across OECD. A national framework for evaluation and assessment is being developed, guided by national objectives for student achievement, but schools and municipalities need further support to build their capacity to analyse and use data for improvement.

System: Governance of the education system in Denmark is shared between central and local authorities. The Ministry of Education sets national priorities, and most education decisions in primary and lower secondary schools (*Folkeskole*) are carried out by the 98 municipalities. Most decisions at lower secondary level are made by the school or local level, and upper secondary schools and post-secondary educational institutions are self-

governing. Denmark invests a substantial amount of public resources in education and prioritises funding to meet local needs. Indeed, spending on education institutions (for all levels of education combined) is the highest among OECD countries as a percentage of GDP, combined with one of the highest shares of funding from public sources among OECD countries.

Figure 12.7. **Selected indicators compared with the average: Denmark**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.
Source: The Denmark Snapshot is based on *Education Policy Outlook: Denmark* (OECD, 2014). More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink http://dx.doi.org/10.1787/888933171645

Key issues and goals

Students: Denmark's education performance can be nurtured by maintaining equitable practices and supporting performance for students with immigrant background and low performers. Strengthening the quality of VET to improve completion rates is also important.

Institutions: Some important objectives for Denmark include ensuring that teachers and principals have quality support, feedback and professional development opportunities, and that principals take on a more pedagogical role. Completing a framework for evaluation and assessment and using the results in schools are also considered priorities.

System: Effective steering can be enhanced by setting clear education objectives to guide a decentralised municipal environment. Other key issues include building the

capacity of municipalities and schools to implement national strategies at the local level and optimising resources in a decentralised context.

Selected policy responses

- In 2010, Denmark introduced a mandatory assessment of language development for all 3-year-olds to diagnose possible language problems before children start school.
- Several reforms in progress aim to help reduce dropout among VET students, by providing increased flexibility across the system and allowing students completing an upper secondary vocational programme to access higher education. A new policy agreement, Better and More Attractive Vocational Education and Training Programmes (*Bedre og mere attraktive erhvervsuddannelser*, 2014), aims to provide a more attractive supply of VET programmes.
- Efforts to improve schools include a major reform of teacher education (2012) to develop a bachelor of education programme (2013) based on modules, with greater autonomy for colleges to deliver the programme.
- In 2011, the government introduced a platform (*A Denmark that Stands Together*) designed to improve educational outcomes for all Danish students and to clarify national priorities. It sets specific targets for 2020, including achieving upper secondary completion rates of 95% and tertiary enrolment and completion rates of 60%.
- National tests from Years 2 to 8 were implemented in 2010.

Spotlight: Improving Danish public schools (*Folkeskole*)

The reform of the *Folkeskole* is in the process of being implemented in Denmark to raise standards for Danish public schools, based on an *agreement by the different political parties* in 2013. Most of the necessary legislation for its implementation has been passed in 2014 by the Danish Parliament.

Operative targets are to have at least 80% of students achieving good national test scores in mathematics and reading; to gradually increase the number of high performers, to gradually reduce the number of low performers, and to improve student well-being.

To meet these objectives, the reform includes the following objectives:

- to modify the school day in terms of distribution of learning times, by having more subject-divided lessons and assisted learning, introducing daily physical activity, opening up schools to their communities, and collaborating with associations for selected activities
- to clarify and simplify the Danish Common Objectives for teaching of individual subjects to support better teaching and learning
- to advance provision of elective subjects by one year to Year 7, and to make them mandatory and delivered by municipalities
- to raise the stakes of the public school leaving examination for entry into post-compulsory education
- to deliver additional funding to ensure that teachers have appropriate training and continuous professional development and to allow schools to have additional pedagogical staff to support schools and classroom progress
- to create a national body of 40 learning consultants to deliver advice to municipalities and schools.

The detailed policy profile is available at:
http://dx.doi.org/10.1787/9789264225442-21-en

ESTONIA

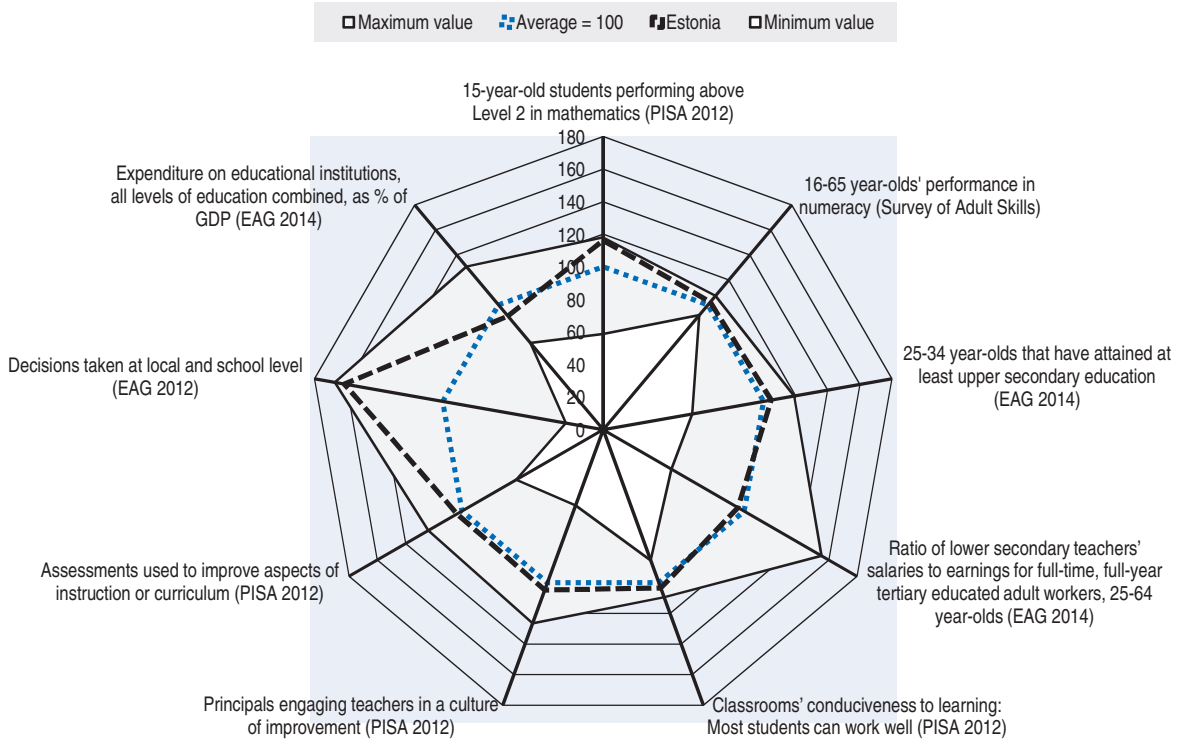
Context

Students: Students in Estonia perform above the OECD average in mathematics, reading and science in PISA 2012 and their socio-economic background had less impact on performance than in other OECD countries. Performance in reading increased across PISA cycles, while performance in mathematics remained unchanged. Estonia has a comprehensive schooling system from age 7 to 17 which covers all compulsory education and is integrated within a single structure. Grade repetition is low, tracking starts at age 15, and school choice is possible. Estonia's enrolment rates in upper secondary vocational education and training (VET) programmes are below the OECD average. Attainment rates are high in upper secondary education and around the OECD average in tertiary education, VET included. In the Survey of Adult Skills, Estonia showed high proficiency levels in literacy and numeracy among 16-65 year-olds compared to their peers in other countries participating in this survey, and even higher results among 16-24 year-olds. However, unemployment rates are above the OECD average.

Institutions: Schools in Estonia have autonomy above the OECD average, including the capacity to make decisions on curriculum and to hire and dismiss teaching staff. Lower secondary teachers are required to have five years of initial teacher training, including a mandatory teaching practicum, and follow continuous professional development. Primary and secondary education teachers have below-average class size and teaching time. Their salaries are lower than the OECD average, despite a significant increase since 2000. A lower proportion of teachers in Estonia than the TALIS average consider that the teaching profession is valued in society and would choose to work as teachers if they could decide again. Teacher appraisal is used for career advancement and is moderately used to determine the need for professional development, but there is no appraisal system for school leaders. The assessment of the education system on a system level is carried out yearly by the Ministry of Education and Research.

System: In Estonia, governance of the education system is shared between central and local authorities, with schools having a high level of autonomy on resource allocation. The state sets national standards and establishes principles of education funding, state supervision and quality assessment. Early childhood education and care (ECEC) is managed by local authorities, and most of the decisions in lower secondary education are taken at the school level. Estonia's expenditure on educational institutions as a percentage of GDP (for all education levels combined) is below the OECD average, with a higher share of public funding than the OECD average. Estonia had one of the greatest increases in expenditure per student among OECD countries during 2005-11 at the tertiary level.

Figure 12.8. **Selected indicators compared with the average: Estonia**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.

Source: The Estonia Snapshot was produced combining information from the country's response to the Education Policy Outlook Snapshot Survey received in December 2013 with OECD data. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink http://dx.doi.org/10.1787/888933171658

Key issues and goals

Students: A priority reported by Estonia is ensuring that all students have access to a basic school close to home and an upper secondary school in the closest regional centre offering high-quality study choices that meet the students' needs. Estonia aims to further develop the skills required by today's labour market in both VET and higher education. This includes strengthening apprenticeships and practice in the work place, in collaboration with employers.

Institutions: Estonia reports a lack of attractiveness of the teaching profession, with teachers' salaries still considered uncompetitive and insufficient practical training in teacher training programmes. Moreover, no systematic appraisal mechanisms are used to reward the performance of school leaders.

System: Other important issues in Estonia include guaranteeing funding of salaries for non-teaching staff in general education institutions and defining the responsibility of the national and local governments in securing the salaries.

Selected policy responses

- The *recent amendment to the Pre-school Act* of 2000 (2010) (covering children from 1.5 to 7 years of age) introduces an obligation for local governments to provide childcare services where there is a shortage of places in municipal care centres. The cost for parents will be capped at 20% of the minimum wage (the same rule applies to pre-school institutions). The new act also aims to ensure that children from the same family can access the same institution. Presently, around one-third of local governments have shortages, mainly for the group up to 3 years of age, and the same principle applies to major urban areas.
- Estonia aims to continue modernising VET programmes by focusing on key competencies and workplace practice. Estonia is reforming its VET system with the implementation of the *Vocational Educational Institution Act* (2013), which sets the legal framework to improve the quality of teaching and practical training in VET, implement distributive leadership in VET institutions and modernise the funding structure and infrastructures. The *Vocational Education Standards* (2013) aim to create an output-based curriculum, introduce new courses in upper secondary VET, create conditions to intensify and shorten studies, and create a new unit of calculation of course credits.
- A multi-actor working group is developing a new continuous professional development system for teachers that will be driven by teachers' needs for professional development. The new system will be based on the Lifelong Learning Strategy 2014-20, and expected to start in 2015.
- The *Lifelong Learning Strategy for 2014-20* addresses obstacles to lifelong learning and proposes strategic measures in five areas: 1) changing the approach to learning and teaching; 2) raising the status of teaching profession and developing school leadership; 3) improving the match between lifelong learning opportunities with the needs of the labour market; 4) applying modern digital technology in learning processes; and 5) creating equal opportunities for lifelong learning for everyone.
- A higher education reform that introduces means-tested financial support for students and ensures the right of free education for all full-time students was implemented (2013). As part of this reform, legislative changes were made in the *University Act* (*Ülikooliseadus*) and *Professional Higher Education Act* (*Rakenduskõrgkooli seadus*) to introduce free education for full-time students starting with the academic year 2013/14. A new performance-based funding system for Higher Education Institutions has also been introduced (2013), that puts more emphasis on the quality and internationalisation of the system.
- Starting with the academic year 2013, efforts have been made to increase teachers' salaries, changing the calculation base from contractual hours to full-time employment pay.

Spotlight: Reorganising the school networks

Reorganising the school networks (*koolivõrgu korrastamine*) has been high on the policy agenda since 2004/05. During the analytical phase, school-related commutes of all students have been mapped to answer questions such as: 1) how close to their home is the upper secondary school they attend; 2) whether or not they prefer studying in larger cities; and 3) how the institutional set-up of a school influences what students it recruits. In 2012, basic principles that emphasise the separation of basic and upper secondary schools were prepared for legislation. Amendments to *the Basic School and Upper Secondary School Act* were passed in 2013. Based on the legislation, the central government intends to establish state-owned upper secondary schools in each county. The reform aims to improve students' learning environments and optimise the use of educational resources. The reform is still in the implementation phase, as it involves extensive negotiations with local authorities that have responsibility for managing schools.

FINLAND

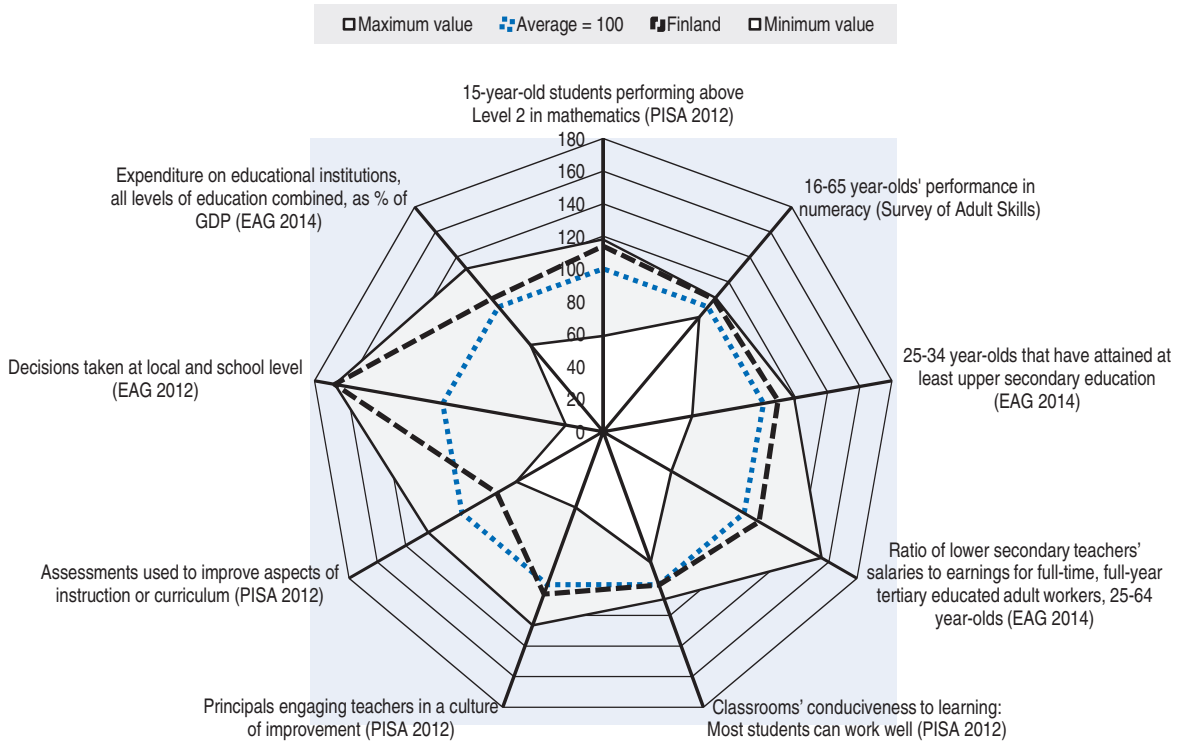
Context

Students: Finland remains among the top performers in PISA 2012, with decreasing performance in mathematics, reading and science across PISA cycles. Students' socio-economic background has low impact on Finnish educational performance. Finland has nine years of basic education (comprehensive school) with focus on equity and on preventing low achievement, and offers flexibility at upper secondary level between general and vocational education and training options that both lead to tertiary education. Education is currently compulsory from ages 7 to 16 and will be extended to age 6 to 17 in 2015. Attainment rates in upper secondary and tertiary education are higher than the OECD average, with one of the highest enrolment rates in upper secondary vocational education and training (VET) in OECD countries. School dropout is lower in Finland than in other EU countries, and is higher among people with an immigrant background. Adults (16-65 year-olds) in Finland scored among the top skilled across participating countries in the Survey of Adult Skills, with younger adults (16-24 year-olds) scoring higher than all adults in Finland and young adults in other countries. In the context of the economic crisis, unemployment remains below OECD average.

Institutions: Schools in Finland have average autonomy over the use of curriculum and assessment compared to other OECD countries and a below-average level of autonomy over resource allocation. Teachers are trusted professionals required to have a master's degree that includes research and practice-based studies. In primary and secondary education, their salaries are slightly above the OECD average, and their teaching time is below average. A much higher proportion of teachers in Finland than the TALIS average consider that the teaching profession is valued in society and would choose to work as teachers if they could decide again. Finnish society and its education system place great importance on their schools and day-care facilities and trust the proficiency of their school leaders, teachers and educational staff, with no national standardised tests or high-stakes evaluations.

System: Governance of the education system is shared between central and local authorities. The Finnish Government defines and sets educational priorities, while municipalities (local authorities) maintain and support schools and day-care centres and also have significant responsibility for organising education, funding and curriculum and for hiring personnel. A national Education and Research Development Plan outlines education policy priorities every four years, and guides the government when preparing and implementing education policies. Social and political agreement on the value of education has provided stability on the structure and key features of the education system. Decisions in schools are made by either the local government or the school, depending on how decision-making is organised in the municipality. Finland's expenditure on educational institutions as a percentage of GDP (for all education levels combined) is above the OECD average, with one of the highest shares of public funding among OECD countries.

Figure 12.9. **Selected indicators compared with the average: Finland**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.

Source: The Finland Snapshot was produced combining information from the *Education Policy Outlook: Finland* (OECD, 2013) with OECD data. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink http://dx.doi.org/10.1787/888933171661

Key issues and goals

Students: Finland's high education performance is supported by system-level policies that encourage quality and equity. These can be continued and complemented with further focus on reducing recent inequities in specific groups, as large performance gaps are seen between boys and girls and between native students and students with immigrant background. Demographic changes imply a smaller proportion of younger people in Finland, and there have been some mismatches between supply and demand of study places and labour market needs.

Institutions: Finland aims to strengthen the capacity of school leaders and teachers to deliver quality education in all schools and to ensure that all players in the education system have the capacity to use evaluation and assessment to improve student outcomes.

System: Ensuring capacity to deliver high-quality education across all municipalities and improving efficiency of funding in tertiary education are key system-level goals for Finland.

Selected policy responses

- A shift in perspective is the transference of early childhood education and care services from the Ministry of Social Affairs and Health to the Ministry of Education and Culture (2013).
- *Education and Research 2011-2016: A development plan* aims to increase participation of students with immigrant background in preparatory education to improve their opportunity to participate in upper secondary education.
- A *curriculum reform* is being developed from pre-primary through upper secondary education, to be implemented from 2016. The reform aims to adapt the curriculum to the new needs for skills and competences, strengthen the inter-disciplinary approach and provide educators with digital resources.
- Efforts are being made to ensure post-basic qualification completion and employment for youth, including the introduction of the *Youth Guarantee* (2013).
- The Ministry of Education appointed an *Advisory Board for Professional Development of Education Personnel* (2008) to examine and improve professional development and the changing needs of teachers.
- The *Osaava Programme* (2010-16), a national fixed-term programme for continuing professional development (CPD), aims to ensure systematic CPD of staff in schools. The programme supports education providers to systematically and continually develop the skills and knowledge of their staff according to locally identified needs. Participants in Osaava and other government-funded CPD increased from 30 000 in 2009 to almost 70 000 in 2013.
- *Quality Criteria for Basic Education* (2009), were developed to provide clear criteria, raise quality and facilitate evaluation. Starting in 2014, evaluation activities will be merged into the Finnish Education Evaluation Centre.
- Since 2013, a general reform of the Finnish municipality structure has been prepared to secure high-quality and equitable education services and consolidate local self-government.
- In 2013, a *structural policy programme* was introduced to optimise expenditure, which will have implications, among others, on the provision of local governments' obligations and services, such as secondary education.

Spotlight: Nurturing excellence in teachers

One of the factors adduced to explain Finnish success in education is the quality of its teachers. A reform at the end of the 1970s strengthened teacher education and made it highly selective. Teacher education moved from teachers' colleges into universities, and primary school teachers were required to have a master's degree. At present, teacher education is provided by nine universities, of which eight have teacher training schools. According to selected evidence, only about 10% of candidates who apply to primary teacher studies are accepted. Applicants for teacher education must have passed the Finnish matriculation examination (or a foreign equivalent) or completed a three-year vocational education programme. The student selection process for primary teacher education involves two stages: 1) an examination to assess applicants' academic learning skills; and 2) a combination of written questions and aptitude tests to assess applicants' skills, motivation and commitment.

Primary school teachers major in education, and they may specialise in teaching one or several subjects in their minor subject studies. Upper grade teachers major in specific subjects and do their pedagogical studies over a five-year programme or as a separate module after graduation. With strong theoretical and practical content, teacher education is research-based, with emphasis on developing pedagogical knowledge. Teachers are trained to adapt their teaching to different learning needs and styles of students. There is also emphasis on teaching practicum which includes a minor portion of basic teaching skill practice in front of peers in student groups, and a more significant portion of required teaching practice at teacher-training schools run by the university or at affiliated schools. In addition, other teacher groups, such as pre-primary teachers and vocational teachers, are required to have a tertiary education degree.

The detailed policy profile is available at:
http://dx.doi.org/10.1787/9789264225442-22-en

FRANCE

Context

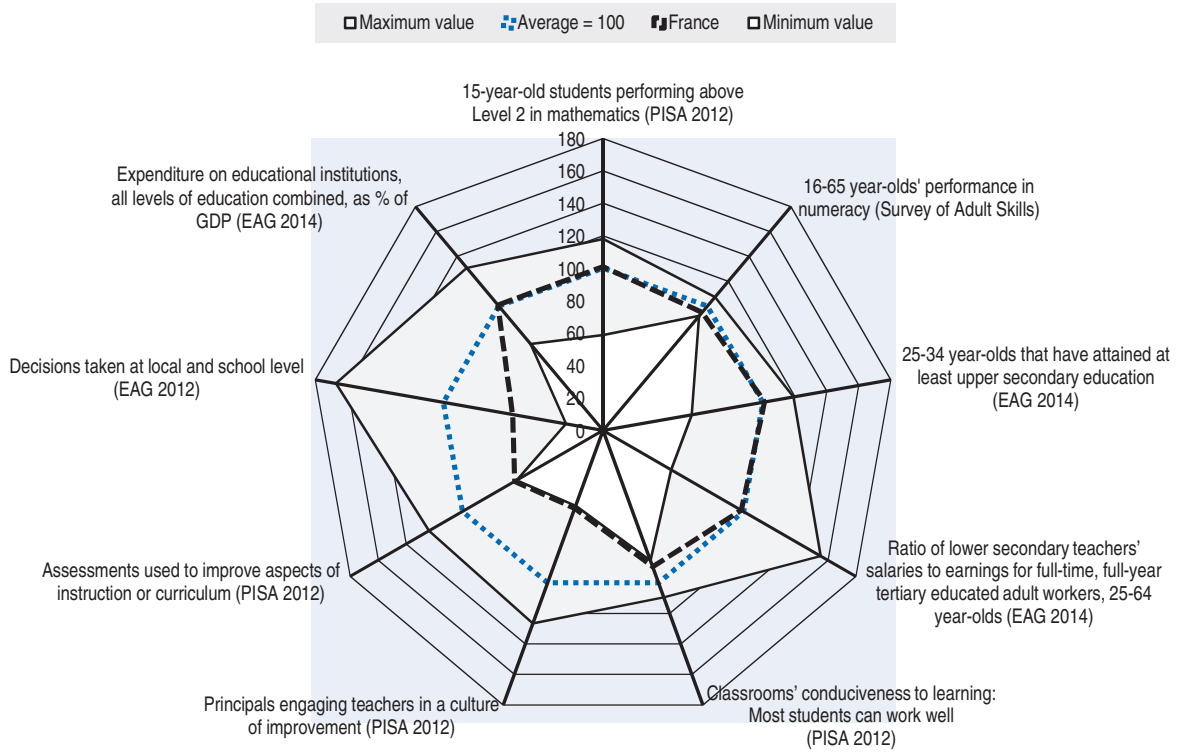
Students: France performs above the OECD average in reading in PISA 2012 and at the OECD average in mathematics and science, with unchanged performance in reading and science and decreasing performance in mathematics across PISA cycles. The impact of socio-economic background on the performance of 15-year-olds in mathematics is above the OECD average. Pre-primary education usually starts at the ages of 2 or 3 and lasts three years. Education is compulsory from age 6 to 16, and student tracking starts after lower secondary education. Although there has been some improvement, grade repetition rates in France are above the OECD average, which may hinder equity. Attainment rates in upper secondary education are comparable to the OECD average, and enrolment rates in upper secondary vocational education and training (VET) are at the OECD average, with ensured transition from VET to tertiary education. At the tertiary level, attainment rates are also around the OECD average. Proficiency in literacy of young adults (aged 16-24) is higher than for all adults (aged 16-65) and slightly below the average for countries participating in the Survey of Adult Skills. Unemployment rates are around the OECD average.

Institutions: Autonomy over curriculum and assessment of schools in France is at the OECD average, and schools have one of the lowest levels of autonomy among OECD countries over resource allocation, such as hiring and dismissal of teachers. Students in PISA consider their classrooms less conducive to learning than the OECD average. Lower secondary teachers receive five years of pre-service training. A teaching practicum is now compulsory at least during the fifth year. Teaching conditions in primary and secondary education include salaries below the OECD average, class size above the OECD average, below-average teaching time in secondary education and above-average teaching time in primary education. A lower proportion of teachers in France than the TALIS average consider that the teaching profession is valued in society and would choose to work as teachers if they could decide again. The evaluation and assessment approach is relatively recent, unlike monitoring and certification practices. Several methods exist in France to assess and evaluate not just schools, but also teachers and school principals as well as students. These methods are integrated to some extent into an overall consistent evaluation and assessment framework to improve practices.

System: The central government steers the education system in France, defines educational policies and curricula and is responsible for recruitment, training and management of school leaders and teachers in state education and in private education operated under contract. Schools, local authorities and central government share schooling decisions in secondary education. Most of the funding for educational institutions comes out of public funds and is relatively transparent and consistent. France's

expenditure on education institutions as a percentage of GDP (for all educational levels combined) is around the OECD average, with one of the highest shares of public funding among OECD countries.

Figure 12.10. **Selected indicators compared with the average: France**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.
Source: The France Snapshot was produced combining information from the *Education Policy Outlook: France* (OECD, 2014) with OECD data. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink http://dx.doi.org/10.1787/888933171672

Key issues and goals

Students: The performance of France could be increased by reducing inequalities between students from different socio-economic backgrounds. Improving mechanisms for guidance and transition between education and the labour market is also important.

Institutions: Other challenges for France include fostering quality teacher training and adequate learning environments that can give school leaders and teachers more opportunities to improve their students' learning. Promoting consistency and continuity of the variety of system evaluation measures is also considered a challenge for France.

System: Reducing the compartmentalisation and complexity of the system can help improve performance in tertiary education. Another priority is ensuring that the allocation of resources is sufficient to meet the specific needs of certain education areas or institutions.

Selected policy responses

- Since 2011, priority education for disadvantaged students and school is mainly based on the Network for Educational Success (*Réseau de réussite scolaire*, RRS, 2006) and the Primary and Secondary Schools for Ambition, Innovation and Success programme (*Écoles collèges lycées pour l'ambition, l'innovation et la réussite, Éclair*, 2011), where one-third are classified as of educational priority. RRS and Éclair promote continuity of learning throughout compulsory education.
- The reforms of VET at upper secondary level (2009) aimed to raise the level of qualification of young people, better integrate them into the labour market or tertiary education and reduce the number of school-leavers without any formal qualifications. At tertiary level, the law of 22 July 2013 reaffirmed the importance of measures to promote integration in the labour market. Experience in work environments (apprenticeships, placements, etc.) has been made compulsory in vocational bachelor's and master's degree courses. An awareness of entrepreneurship was also introduced into the curricula in general. The law aims to double the number of interns by 2020.
- The National Council for the Evaluation of the School System (*Conseil national d'évaluation du système scolaire*, CNESCO, 2013) aims to: 1) produce evaluations and evaluation summaries; 2) provide methodological expertise on existing evaluations; and 3) promote an evaluation culture for education professionals and general public.
- The University Communities (*Communautés d'universités et établissements*, ComUE, 2013) aim to structure and simplify tertiary education. Site contracts (about 30) will be signed between the Ministry of Higher Education and Research and groupings of tertiary education institutions. These site contracts are an attempt to target the governance level considered an appropriate scale for structuring and implementing coherent local policies, thus reinforcing universities' national and international visibility.

Spotlight: Introducing a global school reform

The law on guidance and planning for the reform of schooling in France (*Refondation de l'école de la République,* 2013) aims to raise students' knowledge, skills and cultural levels and to reduce social and territorial inequalities. The law includes: prioritising primary school to develop basic skills and reduce inequalities; introducing digital tools in schools; developing new curricula; ensuring learning progression from pre-school to lower secondary school; enabling students to succeed in secondary education and make a successful transition to working life; involving school partners; and improving the evaluation of the education system. Other key elements include the following:

An amendment to the school reform law (*Amendement au projet de loi sur la refondation de l'école de la République*, 2014) states that grade repetition should only be used in exceptional cases.

The Priority Education Networks (*Réseaux d'éducation prioritaire*, REP, 2014) aim to develop adequate learning environments for students from low socio-economic background. The REP also intend to train and retain quality teaching and non-teaching staff working in REP schools.

Spotlight: Introducing a global school reform *(cont.)*

The reform of teacher training (2013) aims to strengthen the professional aspect of training, retaining the requirement for a master's degree. It has created the Institution for Initial Teachers Training and Education (*Écoles Supérieures du Professorat et de l'Éducation*, ESPE), which organise initial teacher and education personnel training, combining theoretical and practical training. Teachers in primary and secondary schools must have a master's degree and pass a competitive exam to become civil servants. The ESPE participate in continuing training and aim to develop innovative teaching methods through an ongoing link with research and internationalisation.

The redistribution of learning time (*Rythmes scolaires*, 2013) in primary education aims to achieve more balanced learning time across the week. As part of this reform, the learning time also increased from 4 to 4.5 days per week and a maximum of 6 hours per day, to arrange for extracurricular educational activities and more personalised support to students. The number of school days increased from 144 to 162 days a year.

GERMANY

Context

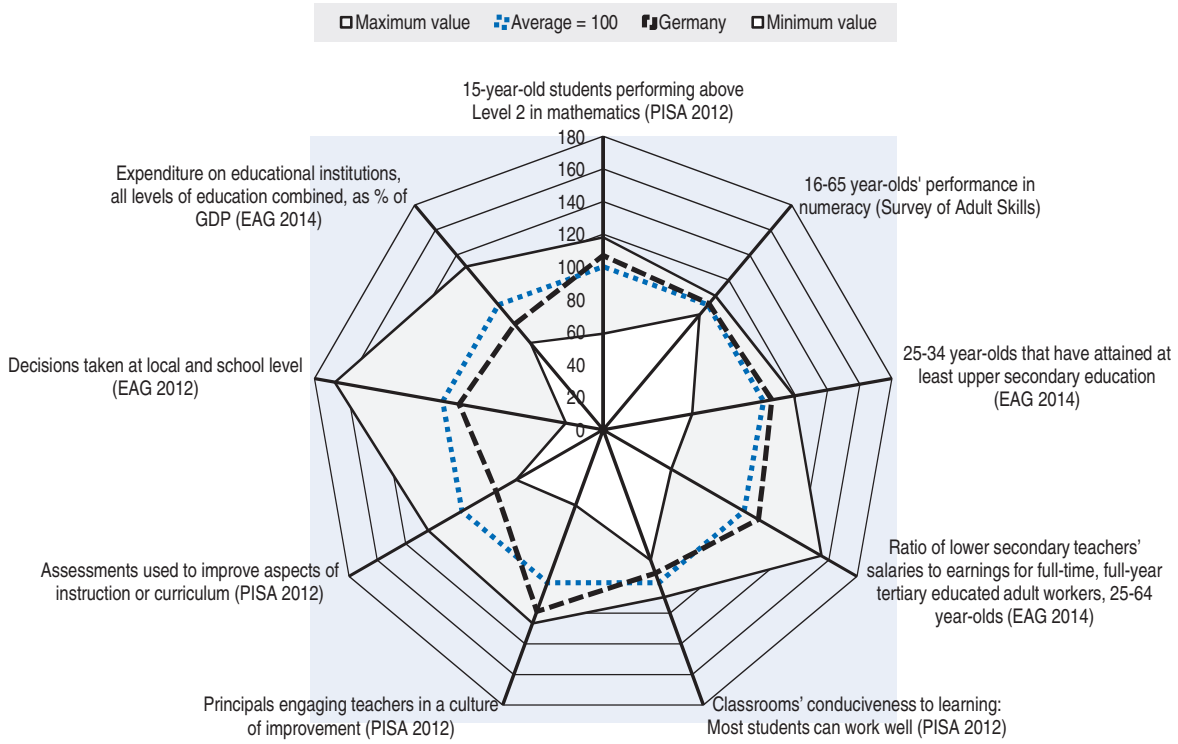
Students: Germany's performance in mathematics, science and reading in PISA 2012 is above the OECD average, with overall improvements in reading and mathematics and unchanged performance in science across PISA cycles. The impact of socio-economic background on students' mathematics performance has decreased to around the OECD average. Germany has a high proportion of children enrolled in early childhood education compared to the OECD average, while system-level policies such as early tracking (mostly at the age of 10, one of the earliest among OECD countries) and a relatively high rate of grade repetition may hinder equity if not managed carefully. In the system of schools of general education, there are measures for permeability between educational tracks, such as allowing for students to gain access to an upper level school (*Gymnasium*) through achievement in other secondary school forms. The well-developed dual system, offering students both vocational and academic education, eases integration into employment. Attainment rates in upper secondary education are above the OECD average, and enrolment rates in upper secondary vocational education and training (VET) are around average. At tertiary level, attainment rates, which are below the OECD average, have increased since 2000. In the Survey of Adult Skills, adults (16-65 year-olds) in Germany performed at around average skills' proficiency in numeracy and below average in literacy compared to other participating countries, with younger adults (16-24 year-olds) scoring higher than other adults in Germany and at around the average for young adults in participating countries. Labour market perspectives are positive compared to most OECD countries: unemployment is among the lowest, and the proportion of 15-29 year-olds who are neither employed nor in education or training (NEET) is below average.

Institutions: Compared to other OECD countries, German schools have below-average autonomy over curriculum and assessment and over allocation of resources, such as hiring and dismissing teachers or deciding teachers' salaries. German students' views on whether learning environments are conducive to learning are close to the OECD average. In recent years, school leaders have increasing autonomy, and their use of instructional leadership approaches is above the OECD average, according to school principals' reports in PISA 2012. Lower secondary teacher pre-service training lasts 6.5 years including a mandatory teaching practicum. The teaching workforce is ageing, with a higher proportion of teachers above the age of 50 than the OECD average. Teachers' salaries are among the highest across OECD countries, and teaching time and class size in primary and secondary schools are above average. School supervisory authorities perform external school evaluations that are taken into account for implementation of school improvement measures. Also, there are national standards for education and evaluation to facilitate comparability.

System: Germany has a regional education governance system, with responsibilities shared between the Federation, the *Länder* and local authorities, and co-ordination ensured

through several bodies. Schooling decisions are mainly made at the *Länder* level, while VET is a joint responsibility of the Federation and the *Länder*, with strong engagement of social partners. Expenditure on education institutions as percentage of GDP (for all educational levels) is below the OECD average, with a higher share of public funding than the OECD average. Vocational secondary programmes receive large funding contributions from the private sector.

Figure 12.11. **Selected indicators compared with the average: Germany**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.
Source: The Germany Snapshot was produced combining information from the *Education Policy Outlook: Germany* (OECD, 2014) with OECD data. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink http://dx.doi.org/10.1787/888933171687

Key issues and goals

Students: Germany faces challenges to support students with disadvantaged and migrant backgrounds and to continue reducing the impact of socio-economic background on student outcomes while raising performance in academic and VET provision.

Institutions: New initiatives are advisable in the field of teaching and teacher training to support school improvement, particularly considering the high proportion of older teachers and the potential impact on teacher replacement and teacher training when they retire.

System: Other challenges for Germany relate to setting national priorities while responding to *Länder*'s needs, continuing to ensure investment in education, and focusing on policies that help bring greater equity to the system.

Selected policy responses

- The National Integration Plan (2007) was created to improve equity and boost participation and success of students with a migration background. In collaboration with civil society stakeholders, it was transformed into the *National Action Plan on Integration* (NAP-I) (2011).
- The *Recognition Act* (2012) and the *Länder* Recognition Acts (2014) facilitate the recognition of qualifications gained abroad for the professional integration of foreigners.
- Efforts are being made to support school improvement through the *Quality Offensive in Teacher Training* (2013). The goal is to achieve sustainable improvement in the process of teacher training, including career entry and further learning. This policy also aims to contribute to an expanded recognition of course achievements and certificates throughout the country, offering more flexibility to students and teaching postgraduates.
- In 2006, the Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* in the Federal Republic of Germany (*Kultusministerkonferenz*, KMK) adopted a *comprehensive strategy for educational monitoring* including four interconnected areas: 1) international comparative studies of student achievement; 2) central assessment of the achievement of educational standards (the basis for comparison between *Länder*); 3) comparative studies in order to review the efficiency of individual schools, within the *Länder*; and 4) joint education reporting of the Federation and the *Länder*. The latest reform implemented under this strategy is *Educational standards for the Allgemeine Hochschulreife* in German, mathematics and in English/French (2012).
- An enforceable legal entitlement to an ECEC place has been extended to children age 1 and 2 (*KiFöG*, 2013). Germany has targeted equal access to early childcare and education through the introduction of an enforceable right to a place in ECEC settings for 1-2 year-old children, extending existing provisions for children from age 3. Implementation of the law was backed up through targeted financial investments by the Federal Government, the *Länder* and municipalities and through regular monitoring.
- The federal investment programme *The Future of Education and Care* (2003-09) aimed to further develop all-day schools, with EUR 4 billion provided to 8 262 schools. Objectives included improving quality of schools and teaching, and decoupling social background from competence acquisition. More than 50% of total support was invested in primary schools, and the *Länder* continue to support all-day schools with own programmes.

Spotlight: Responding to transition problems from compulsory education to VET

The dual vocational system is a pillar of education in Germany that contributes to above-average attainment rates in upper secondary education. It offers students both knowledge and practical skills at the same time: students in the dual system typically spend 3-4 days in a training firm and 1-2 days at school. Low unemployment rates may also be explained by the strengths of the dual system. Some pending issues remain in the transition from compulsory education to VET as well as from VET to tertiary pathways. The government has implemented a number of initiatives to tackle these challenges, including the following:

- The *National Pact for Career Training and Skilled Manpower Development in Germany* (2004-14) aims to provide in-company training as well as additional efforts from the public sector in VET. New partners were included such as the Standing Conference KMK and the Federal Commissioner for Migration, Refugees and Integration. Their goals are to improve the maturity of students in two strands of lower secondary schools (*Hauptschule* and *Realschule*) and to provide young people in the transition system with qualification opportunities leading to career prospects.
- The Educational Chains initiative, leading to vocational qualifications or *Bildungsketten* (2010), includes several actions and measures, including a career start coaching programme, analysis of potential, a career orientation programme, and VerA (preventing training dropout). The package provides preventive support, starting at Grade 7 with a vocational orientation programme, to create occupational perspectives, avoid early dropout, and ensure a better transition into VET and into the labour market. Under the VerA programme, older experienced people are engaged to provide orientation to youth. The federal government, the federal employment agency and the *Länder* are jointly focussing their activities with a view to successfully supporting young people.

The detailed policy profile is available at:
http://dx.doi.org/10.1787/9789264225442-24-en

GREECE

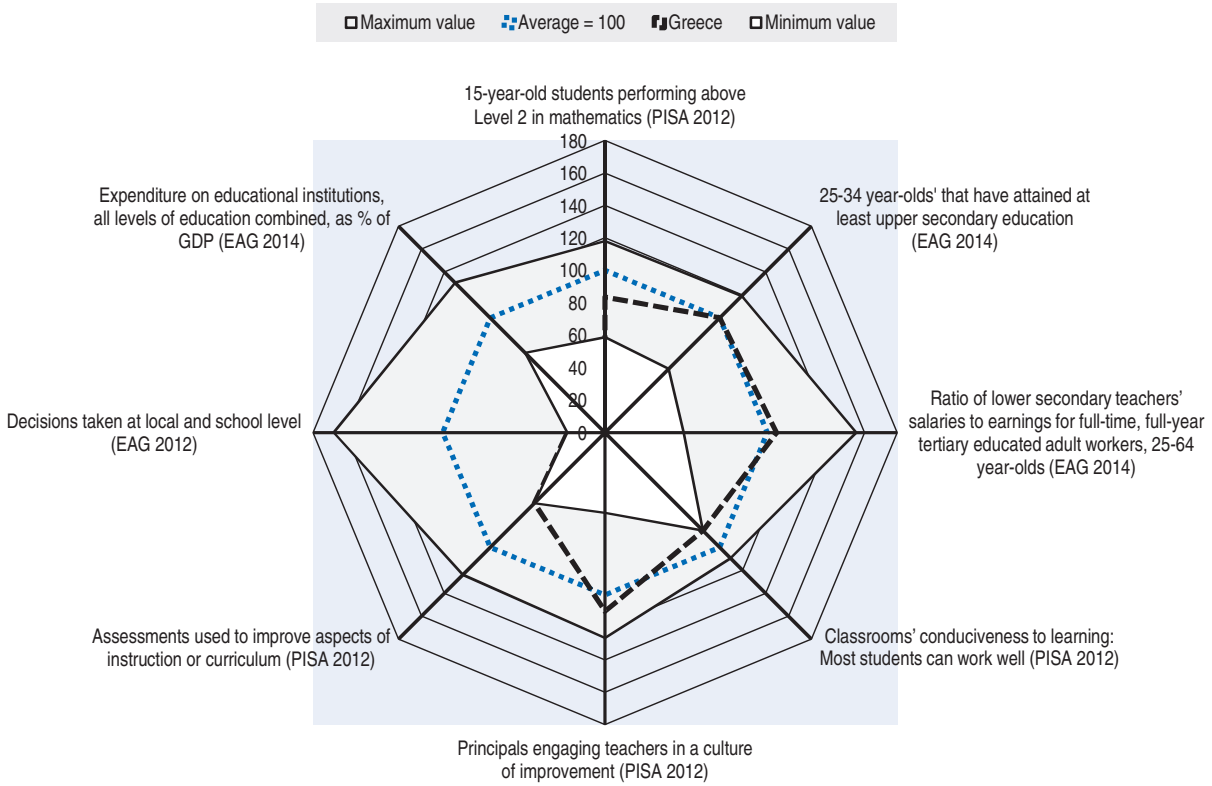
Context

Students: Greece performs below the OECD average in mathematics, reading and science in PISA 2012 and has achieved improvements in mathematics across PISA cycles, while science and reading performances remain unchanged. The impact on PISA performance of students' socio-economic backgrounds is comparable to the average of OECD countries. Some system-level policies may help increase levels of equity: early childhood education usually starts at age 4 (although with low enrolment rate); education is compulsory between ages 5 and 14-15; grade repetition is low; school choice is limited; and tracking is delayed until age 15. Attainment rates in upper secondary education are around the OECD average, and enrolment rates in upper secondary VET education are below average. In a context of high unemployment rates, which have more than doubled since 2008 for 25-34 year-olds, Greece also struggles with tertiary-level attainment rates that are below the OECD average.

Institutions: Autonomy over curriculum and assessment in Greek schools is below the OECD average, with the lowest level among OECD countries, as there is little flexibility within the compulsory curriculum at either primary or secondary levels. There is also a below-average level of autonomy for allocation of resources such as hiring and dismissal of teachers, which are almost exclusively decided by regional or national education authorities. Lower secondary teachers are required to follow a pre-service teacher training programme of four years including a mandatory teaching practicum. Conditions for primary and secondary teachers include below-average class sizes and teaching time in primary and secondary education. Teachers' salaries are below the OECD average and were significantly affected by the economic crisis. Furthermore, evaluation and assessment are not well-developed in Greece. Until 2013, there were no evaluation and assessment systems at primary and secondary levels.

System: Education in Greece is highly centralised: the main responsibilities in all education sectors lie with the national Ministry of Education. In the context of decentralisation reforms, the Regional Directors' roles are reinforced to respond to local system needs. Private expenditure on education concerns private schools, private tutorial institutions and private instructors. At the tertiary level, the budget and the financial reports of higher education institutions are approved by the Council of each institution.

Figure 12.12. **Selected indicators compared with the average: Greece**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.

Source: The Greece Snapshot was produced combining information from the country's response to the Education Policy Outlook Snapshot Survey received in December 2013 with OECD data. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink *http://dx.doi.org/10.1787/888933171699*

Key issues and goals

Students: Greece identified a need to support vulnerable social groups in compulsory education and ensure more effective access to education for children with disabilities and Special Educational Needs (SEN). It also reported that attention is required to strengthen the role and effectiveness of VET and ensure quality and equity in higher education.

Institutions: Greece envisages improving the selection process, qualifications and mobility for teachers. Other reported issues of prime interest include strengthening the role of teachers, establishing rules for teachers' merit in education, and ensuring quality assessment in primary and secondary education.

System: In tertiary education, key issues reported include ensuring more transparency in the admissions system and improving governance in a context of declining budgets at all levels of education due to the economic crisis.

Selected policy responses

- Greece set up Zones of Educational Priority (ZEP) to improve access to education in disadvantaged socio-economic areas by providing additional funding and human resources to participating schools (*Law on Development of Lifelong Learning*, 2010).
- The *In-Service Education and Training of Teachers* (INSET, 2012) aims to provide training opportunities for teachers in the implementation of new curricula in compulsory education; teacher training methods to organise and implement Experimental Actions and Projects; training for teachers specialised in ICT, drama, music, art or intercultural education; induction of newly appointed and substitute teachers; and the general use of ICT.
- The Law on Organisation and Operation of the Institute for Youth and Lifelong Learning and of the National Organisation for the Certification of Qualifications and Vocational Guidance and Other Provisions (2013) sets up the legal framework to give accreditation for instructors and students in the field of non-formal education and informal learning.
- The Law on the Structure, Operation, Quality-Assurance of Studies and Internationalisation of Higher Education Institutions (2011) introduces a time limit in the duration of studies to increase graduation rates.
- A central Directorate of Economic Affairs in *the Ministry of Education* (Ministerial Decision no.110101/H/22-08-2013) was established to explore the most effective and efficient use of the budget allocated to education.

Spotlight: Promoting quality assurance in primary and secondary education

A main step towards creating a system for quality insurance in primary and secondary schools is the establishment in 2013 of the Authority for Quality Assurance in Primary and Secondary Education (ADIPPDE) for the evaluation of educational work. The ADIPPDE is administratively autonomous and supervised by the Ministry of Education. Its missions are to monitor, study and assess the implementation of education policy in primary and secondary education; to evaluate the quality of the educational work of school and of other education decentralised services; and to supervise appraisal for primary and secondary education teachers.

Furthermore, the Institute of Educational Policy has been established, operating at the system level to promote evaluation and monitoring of the education system (Law 3966/2011). Evaluation and assessment in Greece are based on self-evaluation. Greek legislation sets the development of the Evaluation of Education Practice (EEP) and determines the purpose, stages, goals and supervision structure of EEP (Ministerial Decision 3 0972/G1/5-3-2013, 2013). Finally, the Decree on Teacher Appraisal identifies the bodies, procedure and criteria for evaluation and promotion of teachers (Presidential Decree 152/2013, 2013).

HUNGARY

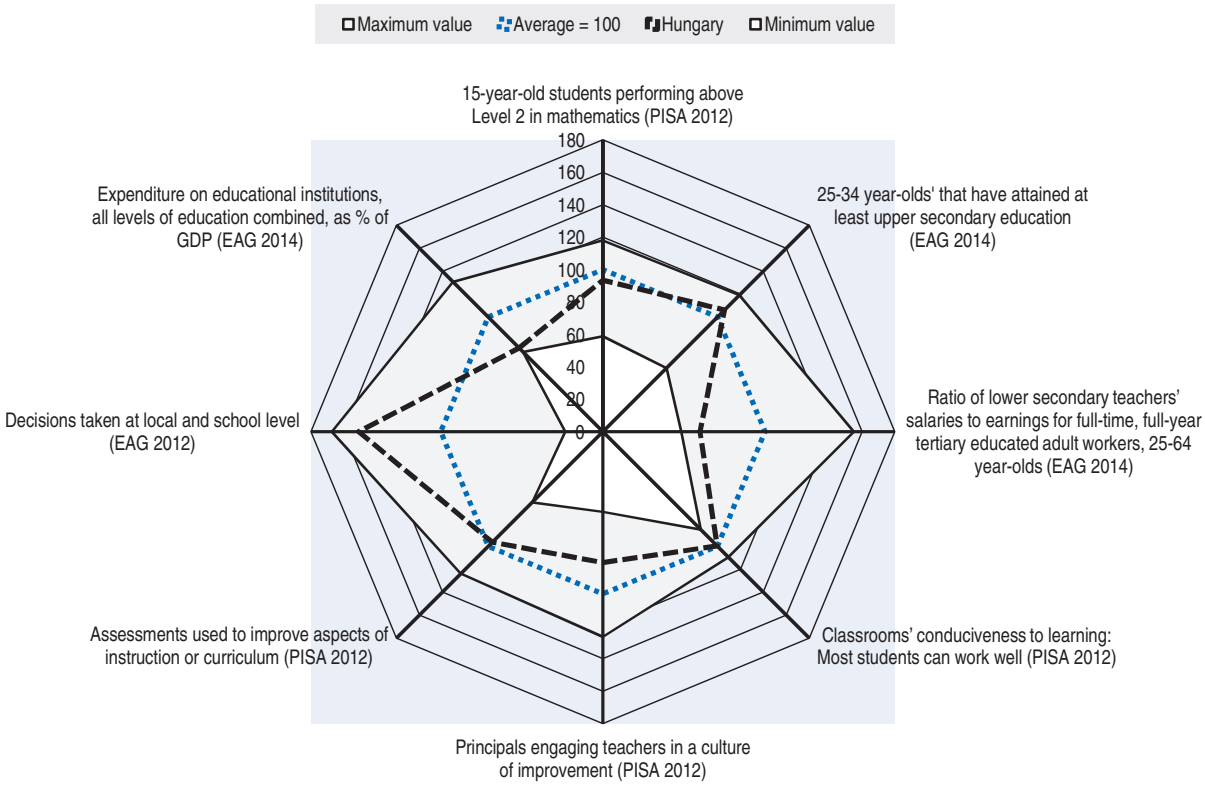
Context

Students: Hungary performs below the OECD average in PISA 2012, with increased performance in reading, unchanged performance in science and decreased performance in mathematics across PISA cycles. The impact of socio-economic background on mathematics performance in Hungary was among the largest in OECD countries, with high variance between schools (school selection is made based on student records). Hungary has some system-level policies that can promote equity in education. Pre-primary education usually starts at age 3, and an above-average proportion of 3-4 year-olds is enrolled. Education is compulsory from ages 5 to 16, with comprehensive schooling typically from age 6-7 to 14-15, and grade repetition is low. However, tracking starts at ages 10-11 (one of the earliest among OECD countries), and school choice may hamper equity. Attainment rates at upper secondary level in Hungary are above the OECD average, but enrolment in vocational education and training (VET) upper secondary programmes is below average, even though transition to tertiary education is ensured. Also, tertiary education attainment in Hungary is below the OECD average, and unemployment is higher than the average in OECD countries.

Institutions: Autonomy over resource allocation in Hungary's schools, such as hiring and dismissing of teaching staff, is above the OECD average, and autonomy over use of curriculum and assessment is around the OECD average. The development of external control mechanisms and a nationwide system of supervision is in its initial phase. Lower secondary teachers in Hungary undergo five years of pre-service training, including a mandatory teaching practicum. Average class size, teaching time in primary and secondary level and teachers' salaries are below the OECD average. School assessment comprises both self-evaluation and external evaluation, and school maintainers (individuals who run the school and include the new Klebelsberg Institution Maintenance Centre, independent maintainers and local governments for kindergartens) are responsible for evaluating the effectiveness of the pedagogical work of schools and their professionals.

System: The central government is in charge of the governance of the education system. Until 2011, most schooling decisions in lower secondary education were taken at school level but responsibilities of the central government have been strengthened in primary and secondary education in recent years. However, non-state (denominational, foundational and private) education institutions are not affected by the state maintenance which has been effective for public education institutions since January 2013 (except for kindergartens). Non-state institutions are under legal control of county governmental offices. The Ministry of Human Resources is responsible for the overall education system, whereas school-based VET and adult training is within the competence of the Ministry for National Economy. Expenditure on educational institutions for all educational levels combined represents a smaller- than-average share of GDP compared to other OECD countries.

Figure 12.13. **Selected indicators compared with the average: Hungary**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.

Source: The Hungary Snapshot was produced combining information from the country's response to the Education Policy Outlook Snapshot Survey received in December 2013 with OECD data. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink http://dx.doi.org/10.1787/888933171700

Key issues and goals

Students: Hungary targets reducing inequities in students' knowledge and skills and broadening access to higher education. Another key issue reported is meeting labour market needs. To face this challenge, Hungary considers it important to increase the share of VET programmes that directly satisfy labour market demands.

Institutions: Hungary reports the challenge of an ageing teaching workforce. To this end, priorities include attracting a younger teaching workforce while improving pedagogical practices and teacher training. Hungary aims to improve the structure of upper secondary final examinations and the general quality of Hungarian higher education. Interlinking the systems of external school assessment and teacher appraisal is also an issue of interest.

System: Hungary considers further rationalising the supply of tertiary education as a key reform. The country also considers it of prime interest to implement new financial regulations for public education and to reform the public funding system, introducing quality-based state support according to the needs of higher education institutions.

Selected policy responses

- The *Decree on the National Core Curriculum* (2012) develops curricular regulatory instruments while the Act on Textbook Provision of National Public Education (2013) provides free new textbooks in primary education and for disadvantaged students in secondary education.
- The National Public Education Act (2011) transfers teacher employment status to the state level for public institutions to make the teaching profession more attractive and increase the quality of teaching. A new system of teacher career management and wage scales was introduced in 2013. Since then, teacher salaries have risen and further rises are expected until 2017. The *Decree on Teacher Training System* (2012) reintroduces an undivided teacher training programme and increases the duration of in-school teaching practice from half a year to one year. Furthermore, to improve educational outcomes, the National Public Education Act (2011) sets the regulatory framework for quality teaching by defining teachers' tasks, rights and obligations.
- As part of the Decree on the Admission Procedure in Higher Education (2012), Hungary is gradually raising the minimum admission requirements to universities between 2013 and 2016. Additionally, in 2013, the quota system for selection of applicants was replaced by minimum score requirements per study programme and admission based on programme capacities (Decree on National Higher Education Excellence, 2013). In addition, the *National Higher Education Act* (2011) introduces new short-cycle higher education programmes as an effort to better meet the demands of the labour market. Hungary also aims to widen the partnership between tertiary education institutions and the industrial sector by introducing practical training at business partners' enterprises in the curricula of specific programmes.
- The central state has taken over the maintenance of schools and pedagogical institutions from local governments. To achieve this task, it has established the Klebelsberg Institution Maintenance Centre, and has set up 198 school districts with the responsibility of maintaining educational institutions.
- As part of the National Higher Education Act (2011) and the Decree on National Higher Education Excellence (2013), Hungary aims to switch from direct public funding of higher education institutions (also known as normative funding) to a funding system based on state-financed scholarships. This reform aims to create an equality-based support allocation model for higher education institutions and faculties satisfying pre-defined quality criteria.
- System-level reforms have been adopted between 2011-13 in VET, better matching skills with labour market needs, strengthening the professional content of teaching/learning at secondary level, and providing larger workplace training and tools for a higher stakeholder engagement (Act No. CLXXXVII of 2011 on VET).

Spotlight: Providing various forms of support to students in need

Hungary developed target programmes providing financial and pedagogical support as well as mentorship from educators, such as the Provisions Scholarship Programme (*Útravaló*) and the *Arany János Talent Fostering Programme* (2000) to alleviate the financial burden of students from disadvantaged socio-economic backgrounds in secondary education.

In tertiary education, students who do not receive a state scholarship are eligible for a state-subsidised student loan at a fixed interest rate of 2% to cover their study-related expenses as part of the *Tied Student Loan* (2012).

ICELAND

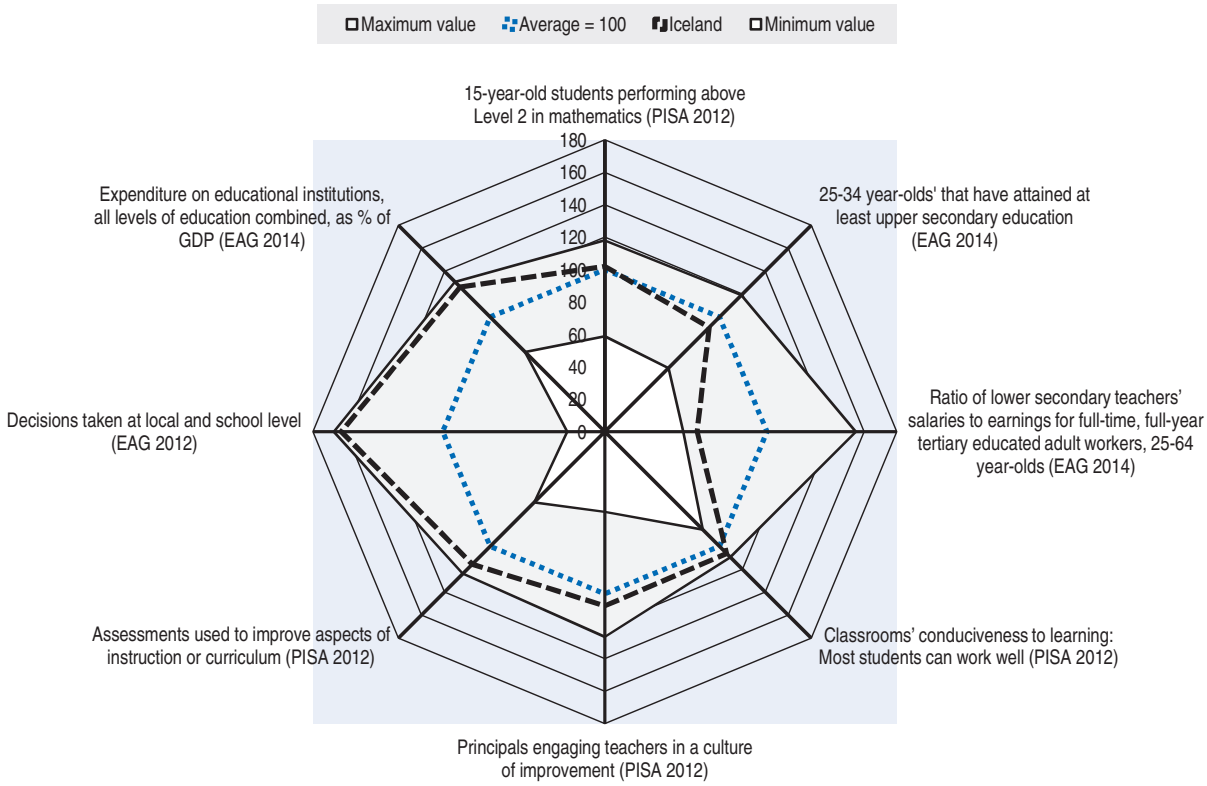
Context

Students: Iceland performs at around the OECD average in mathematics in PISA 2012, with below-average performance in science and reading, and decreased performance in all three assessment areas across PISA cycles. Students' socio-economic background in Iceland had one of the smallest impacts on mathematics performance among OECD countries. Pre-primary education usually starts at age 2 and an above-average proportion of 3-4 year-olds is enrolled. School is compulsory and comprehensive from age 6 to 16, which covers primary to lower secondary levels (among the longest periods of comprehensive schooling in OECD countries). Tracking starts at age 16, and selection mechanisms such as school choice may hamper equity. Attainment in upper secondary education and enrolment in vocational education and training (VET) programmes at upper secondary level are below the OECD average. Re-entry to general upper secondary is assured, demonstrated by a high proportion of students (particularly in VET) over age 20 with labour market experience. Transitions between upper secondary vocational programmes and higher education are sometimes obstructed or difficult to navigate. Attainment in tertiary education is around the OECD average, and unemployment is below average.

Institutions: Autonomy over resource allocation and curriculum and assessment in Iceland's schools is above the OECD average on issues such as hiring and dismissing teachers as well as establishing student assessment policies. Lower secondary teachers are required to follow a pre-service teacher training programme of five years, including a mandatory teaching practicum. Teaching conditions for primary and secondary teachers include below-average class size and below-average teaching time in primary and secondary education. A lower proportion of teachers in Iceland than the TALIS average consider that the teaching profession is valued in society and would choose to work as teachers if they could decide again. Evaluation and assessment in Iceland emphasises improvement more than accountability, and Icelandic students take national tests in Grades 4, 7 and 10.

System: Governance of the education system is shared between central and local authorities. The Icelandic Parliament is responsible for the school system and sets the basic objectives and administrative framework. Municipalities are responsible for pre-primary and compulsory education, and most schooling decisions in lower secondary education are taken at school level. The central government steers upper secondary schools and higher education institutions. Expenditure on education institutions as a percentage of GDP (for all educational levels combined) is one of the highest among OECD countries, with a higher share from public sources than the OECD average. Also, student loan funds are available for tertiary and upper secondary VET students.

Figure 12.14. **Selected indicators compared with the average: Iceland**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.
Source: The Iceland Snapshot was produced combining information from the country's response to the Education Policy Outlook Snapshot Survey received in December 2013 with OECD data. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink http://dx.doi.org/10.1787/888933171714

Key issues and goals

Students: Iceland reports an aim to improve literacy in compulsory education and, in particular, to raise literacy and educational attainment among immigrant students. Iceland has also set as a goal to make its education system more inclusive from pre-primary to upper secondary level, and intends to increase the proportion of students entering VET and the apprenticeship system.

Institutions: Iceland also recognises the need for improving teacher education and professional development. Other priorities include implementing the new system of student assessment introduced by the new National Curriculum Guidelines, as well as strengthening and financing external evaluation at all school levels.

System: Iceland is considering merging universities and increasing co-operation among municipalities. According to Iceland's reports, the country faces the challenge of providing funding to respond to a large increase in its tertiary education student population and an expansion of postgraduate programmes, in a context where budget cuts have adversely affected implementation of new legislation and national curriculum guidelines.

Selected policy responses

- *New National Curriculum Guidelines* for pre-primary, compulsory and upper secondary education (2011-13) and a *National Qualification Framework for Higher Education* (2007) have been defined to ensure the quality of education.
- The Council for Teachers' Education and Professional Development, with representatives from the teachers' union, teacher training institutions and the Ministry of Education, was established (2012).
- The Association of Municipalities and the Ministry of Education set a formal co-operation agreement on the financing and execution of external evaluation in compulsory education (2011).
- A Quality Council for universities was established (2012).

Spotlight: Engaging the community to re-think Icelandic schools

A community-based approach was used to think about quality in Icelandic elementary schools as part of the government's *2020 – Moving Iceland Forward initiative* (2010). National assemblies of citizens discussed ideas to improve quality in elementary schools and sent their recommendations to the Moving Iceland Forward steering committee. It resulted in Iceland 2020 – Defining a vision and objectives for education and other public policy areas.

IRELAND

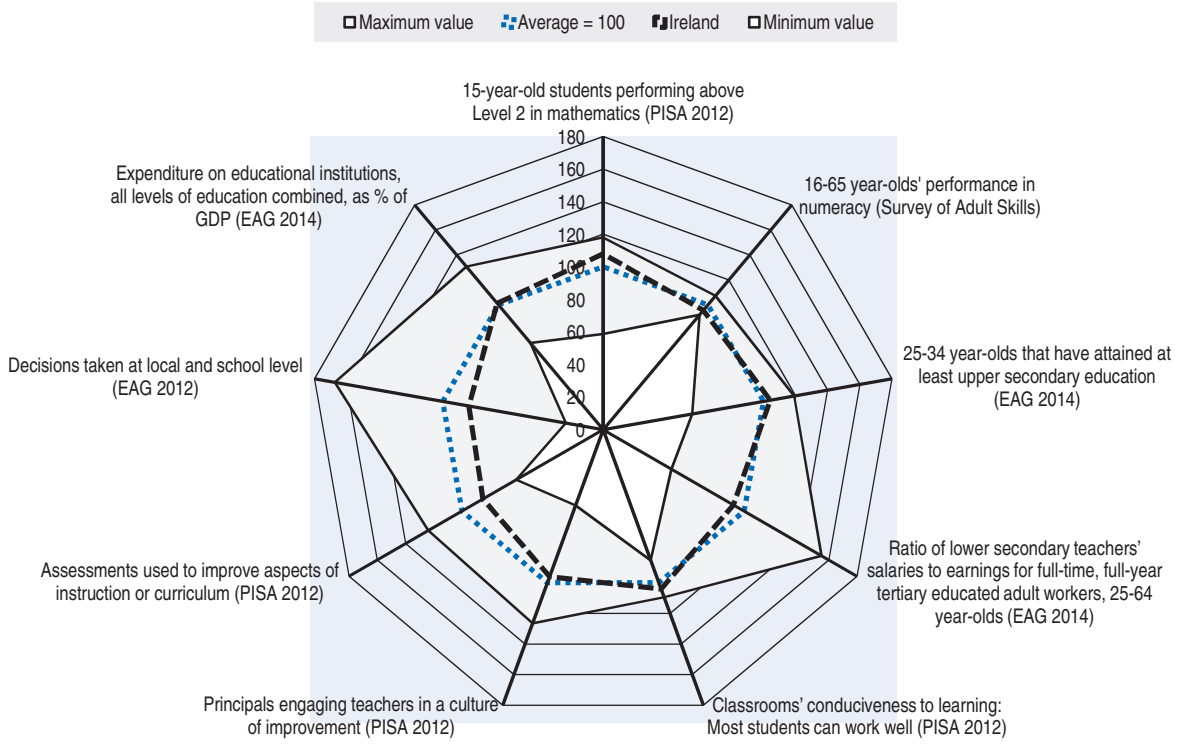
Context

Students: Ireland is a high performer in PISA 2012 in mathematics, reading and science, with improvement in science, unchanged performance in mathematics and decreased performance in reading across PISA cycles. The impact of socio-economic background on Irish students' performance in mathematics in PISA 2012 is around the OECD average. In recent years, the percentage of students with immigrant background increased. Some aspects of Irish education contribute to a high level of equity. Children aged 3-4 are provided with a free year of pre-primary education, and students aged 4-6 can enrol in either pre-primary or primary school. Education is compulsory from age 6 until age 16, with low grade repetition compared to the average among OECD countries, and tracking starting at age 15. Academic selection of students for admission to schools is not allowed. Attainment rates in upper secondary education are around the OECD average. The enrolment rate in vocational education and training (VET) upper secondary programmes (limited to a narrow set of occupations) is comparatively low, even though transition from VET to other educational pathways is ensured. Tertiary education attainment is above average, and proficiency levels in literacy and numeracy among 16-65 year-olds and 16-24 year-olds are slightly below the average of their peers in countries participating in the Survey of Adult Skills. In the context of the economic crisis, unemployment is above average.

Institutions: Autonomy over the use of curriculum and assessment in Irish schools is around the OECD average, and autonomy over resource allocation, such as hiring and dismissing teaching staff, is below average. Teachers in Ireland need to have a credential or license in addition to pre-service training (five years for lower secondary teachers), as well as a mandatory teaching practicum. In primary and secondary schools, their teaching time is longer than in other OECD countries. The Inspectorate undertakes external school and system evaluations, using various sources of information, including standardised tests and examinations focused on student achievement.

System: The school system is steered by schools and the central government through the Department of Education and Skills. Schools are locally owned and managed by private (mainly religious) organisations, and universities are autonomous. In the context of the economic crisis, the government has been assessing how to reallocate resources to ensure sustained investment in education. Expenditure on educational institutions as a percentage of GDP (for all educational levels combined) is above the OECD average, with a higher share of public funding than the OECD average. Ireland had also one of the greatest increases in expenditure per student among OECD countries during 2005-11 at the tertiary level.

Figure 12.15. **Selected indicators compared with the average: Ireland**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.

Source: The Ireland Snapshot was produced combining information from the *Education Policy Outlook: Ireland* (OECD, 2013) and OECD data. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink http://dx.doi.org/10.1787/888933171727

Key issues and goals

Students: A challenge for Ireland is helping all students from different socio-economic and increasingly diverse immigrant backgrounds to reach their potential. Ireland has had to cope with many difficulties during the economic crisis, including an increase in youth unemployment.

Institutions: Irish school leaders and teachers need to meet the particular challenges of learning environments in small schools and to deliver quality education across all schools. Schools need the capacity to raise performance and deliver quality education for all students, with special attention to diversity and students from the most disadvantaged backgrounds. School self-evaluations, teacher appraisals and assessments for improvement can be strengthened. An integrated evaluation and assessment framework can help improve teaching and student outcomes.

System: Ensuring that those working at the local and school level can respond to national education objectives is a key goal for Ireland. Due to the economic crisis, Ireland has had to deal with significant budget cuts in education. Therefore, it is seen as important to maximise resources to ensure that budget cuts do not affect the quality and equity of the system.

Selected policy responses

- The *National Strategy to improve Literacy and Numeracy among children and young people 2011-2020* (2011) aims to improve literacy and numeracy standards among children and young people.
- *Initial Teacher Education Criteria and Guidelines for Programme Providers* (2011), developed by the Teaching Council, aims to clarify the inputs (or characteristics) of initial training programmes, the processes that student teachers should follow in these programmes, and the expected outputs of these programmes.
- School Self Evaluation: Guidelines for Primary School (2012) and School Self Evaluation: Guidelines for Post-Primary Schools (2012) were introduced to improve the quality of learning.
- The Further Education and Training (FET) Sector in Ireland is undergoing significant reform. *SOLAS (An tSeirbhís Oideachais Leanúnaigh agus Scileanna*, 2013) is the new national FET Authority. SOLAS provides oversight and funding of the FET programmes, with 16 Educational and Training Boards (ETBs, 2013) established to replace 33 Vocational Education Committees.
- *Higher education reforms* (2011) aim to ensure efficient funding. These reforms include a gradual increase of student tuitions between 2011 and 2015. In addition, a mean-tested grant and a new *scholarship scheme* aim to temper the effect of the tuition increase on students from disadvantaged socio-economic backgrounds.

Spotlight: Improving opportunities for disadvantaged students

In 2005 the Department (then called Education and Science) developed *Delivering Equality of Opportunity in Schools* (DEIS) as an on-going national policy for educational inclusion. The plan consists of a standardised system to identify each school's level of socio-economic disadvantage (based on its community) and an integrated School Support Programme that provides schools and school clusters or communities with additional resources and support, depending on their level of disadvantage. The key initiatives of DEIS include:

- early childhood education for disadvantaged communities
- targeted student-teacher ratio to reduce class size in disadvantaged primary schools
- access to teachers/co-ordinators in rural primary schools
- professionalising school leaders and teachers as well as access to an administrative principal
- measures to target deficits in literacy and numeracy
- additional funding for school books, based on level of disadvantage
- support for school library and librarians for post-primary schools with high levels of disadvantage
- access to Home, School, Community Liaison services and to the School Completion Programme
- measures such as guidance and counselling to increase attendance, retention and attainment
- more curriculum choice
- improved access to higher education for students from disadvantaged backgrounds.

The independent government-funded Educational Research Centre evaluated the programme in 120 DEIS schools first in 2007 and again in 2010. The findings show an overall improvement in reading and mathematics in both urban and rural schools, with rural students improving more than their urban peers. Evaluations by the Inspectorate confirmed the positive effect of DEIS in primary schools. The Department points to positive outcomes of DEIS post-primary schools, with an increase in completion rates from 68.2% for 2001-07 cohorts to 80.1% for 2006-12 cohorts. Further evaluations are planned to understand the specificities of the policy that are contributing to the positive outcomes.

The detailed policy profile is available at: *http://dx.doi.org/10.1787/9789264225442-25-en*

ISRAEL

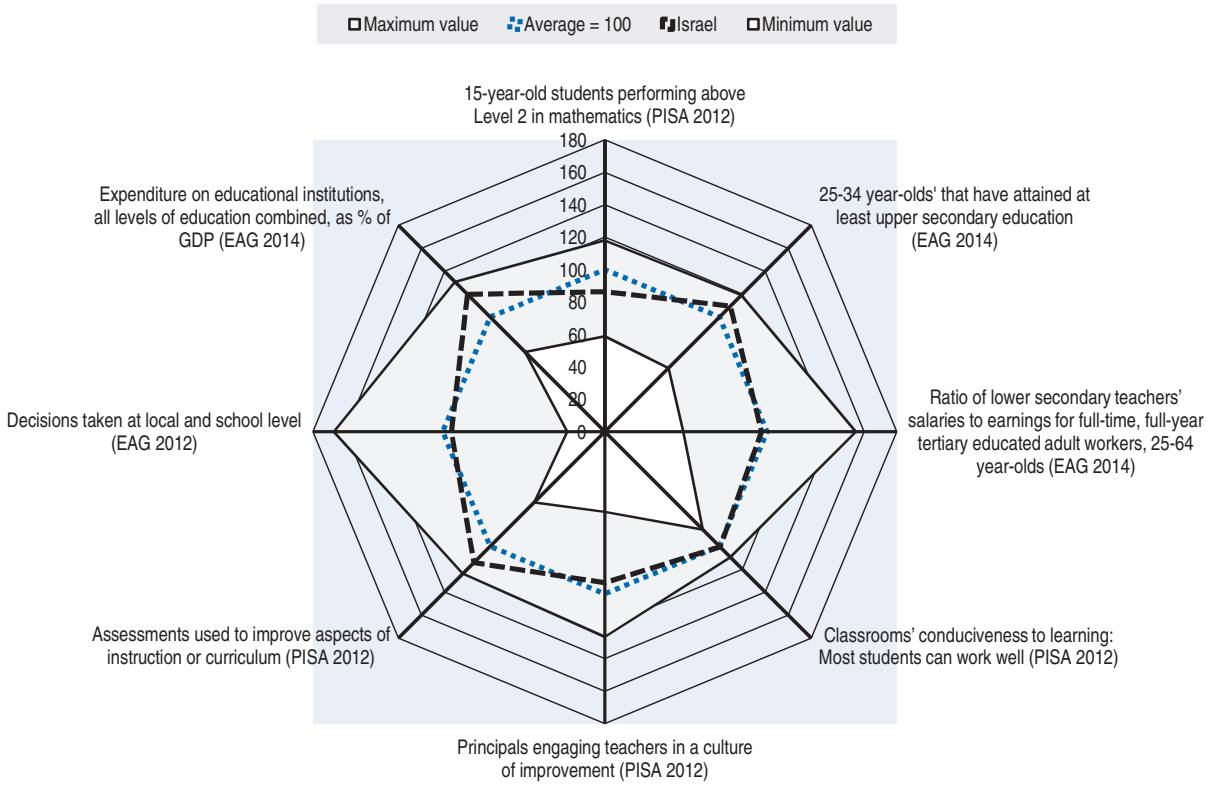
Context

Students: Israel's performance in PISA 2012 is below the OECD average, with one of the highest improvements among OECD countries in mathematics, reading and science across PISA cycles. The impact of socio-economic background on students' performance in mathematics is around the OECD average, and Israel has strong differences in mathematics performance between and within schools and across socio-economic groups. Early childhood education and care (ECEC) usually starts at age 3, with the enrolment rate of 3-4 year-olds above the OECD average, and education is compulsory from age 5 to 18. Israel has a heterogeneous education system. From primary to post-secondary level, students are generally sorted into six education streams of schools, three for the Hebrew-speaking community (secular, religious and ultra-orthodox) and three for the Arabic-speaking community (for Arab, Druze and Bedouin minorities). Ability grouping and school choice are also common among a majority of 15-year-olds. The enrolment rate in upper secondary vocational education and training (VET) is lower than average, and Israel has above-average upper secondary and tertiary education attainment. In the context of the economic crisis, unemployment remains below the OECD average.

Institutions: Autonomy over curriculum and assessment in Israel's schools is around the OECD average, and autonomy over resource allocation is below the OECD average. School principals must have a special tertiary-level degree authorised by the Institute of Israeli School Principals. Lower secondary teachers must follow a four-year pre-service teacher training programme, including a mandatory teaching practicum. Teaching conditions for primary and secondary teachers include above-average class-size compared to other OECD countries, lower salaries (with some increases since 2000), above average teaching time in primary education and below-average teaching time at secondary level. A higher proportion of teachers in Israel than the TALIS average consider that the teaching profession is valued in society and would choose to work as teachers if they could decide again. The evaluation and assessment framework is well-structured and uses both internal and external tools. Two central external student assessments are the *Meitzav* (system-level evaluation in Grades 2, 5 and 8) and the *Bagrut* (upper secondary exit examination and matriculation exam).

System: The education system in Israel is steered by the central government. While school autonomy has increased, the Ministry of Education determines education policy, especially in primary and secondary schools. Expenditure on educational institutions as a percentage of GDP (for all educational levels combined) is above the OECD average, with a higher share of private funding than the OECD average.

Figure 12.16. **Selected indicators compared with the average: Israel**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.
Source: The Israel Snapshot was produced combining information from the country's response to the Education Policy Outlook Snapshot Survey received in December 2013 with OECD data. More information on the spider chart and sources available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink http://dx.doi.org/10.1787/888933171731

Key issues and goals

Students: Israel has large gaps in educational performance among student population subgroups, with a heterogeneous system and a relatively large dispersion of socio-economic-cultural background of students between and within schools. While aiming to promote cultural diversity and recognise students' gaps, tracking, grouping and school choice practices might widen inequities and contribute to the social segregation of students if not well-managed. Other points of interest reported by Israel include strengthening VET in upper secondary education.

Institutions: Israel sees the need to ensure quality education in a school system that has grown significantly, with changes in the composition of the student population. The country considers that this requires expanding and ensuring the quality of the teaching force, ensuring equity in the conditions of education delivery, and adapting the curriculum and teaching practices to the needs of the 21st century.

System: Some actions reported by Israel to help reduce achievement gaps include expanding the pedagogical and financial autonomy of schools, while providing support and capacity-building to carry out these tasks successfully.

Selected policy responses

- The *New Horizon Programme* (*Ofek Hadash*) (2007) lengthens teachers' work-week in primary and lower secondary schools for working in small groups with underperforming students, in exchange for increased teacher pay (with higher starting salaries, although flatter salary structures). The programme defined a separate and more generous pay scale for school principals and greater autonomy (for example, for hiring teachers, granting tenure and promotion or starting the process to fire teachers). With this reform, teachers' salaries after 15 years of experience had an annual *increase* of 7.9% in primary education and 8.5% in lower secondary education between 2010-11 (the second highest increase among OECD countries). An *evaluation* conducted three years after its inception found that this programme is well implemented in schools and has wide acceptance among teachers and principals, and that the individual hours with students are perceived as effective to foster student improvement. At the same time, teachers reported that these hours take place during the school day, with teachers feeling over-stressed, and teachers and principals are still reporting a lack of adequate physical conditions and autonomy.
- The New Horizon Programme introduced school-based assessment co-ordinators in schools. Their role is to assist schools to establish a culture of assessment for learning at school as an everyday process by helping schools to define their information needs, establish a variety of instruments to measure student learning and improvement, and interpret data from internal and external assessments. School-based co-ordinators should have teaching experience and a master's degree in measurement and assessment (or in another field as long as they have completed an academic specialisation in measurement).

Spotlight: Attracting university graduates to the teaching profession

Some programmes have sought to attract university-level graduates into the teaching profession in general and to science areas in particular. In Academics for Teaching (2008), participants undergo an intensive teacher-training programme (no tuition fees and a monthly allowance) and teach full-time with a commitment to teach for three years. They receive a normal teacher's salary in addition to a supplement, and after the three years they can enrol, for free, in a master's degree in return for an additional two years' commitment. Other programmes to attract individuals to the teaching profession are Outstanding Achievers for Education (to attract students with good performance at the tertiary level, 2009), Teach First (to promote teaching as an interim career move following graduation from university, 2010), Educational Pioneer (to encourage those already working with youth in other contexts to become teachers) and the Atidim programme (to encourage English and science teachers to work in remote and disadvantaged areas, 2002).

ITALY

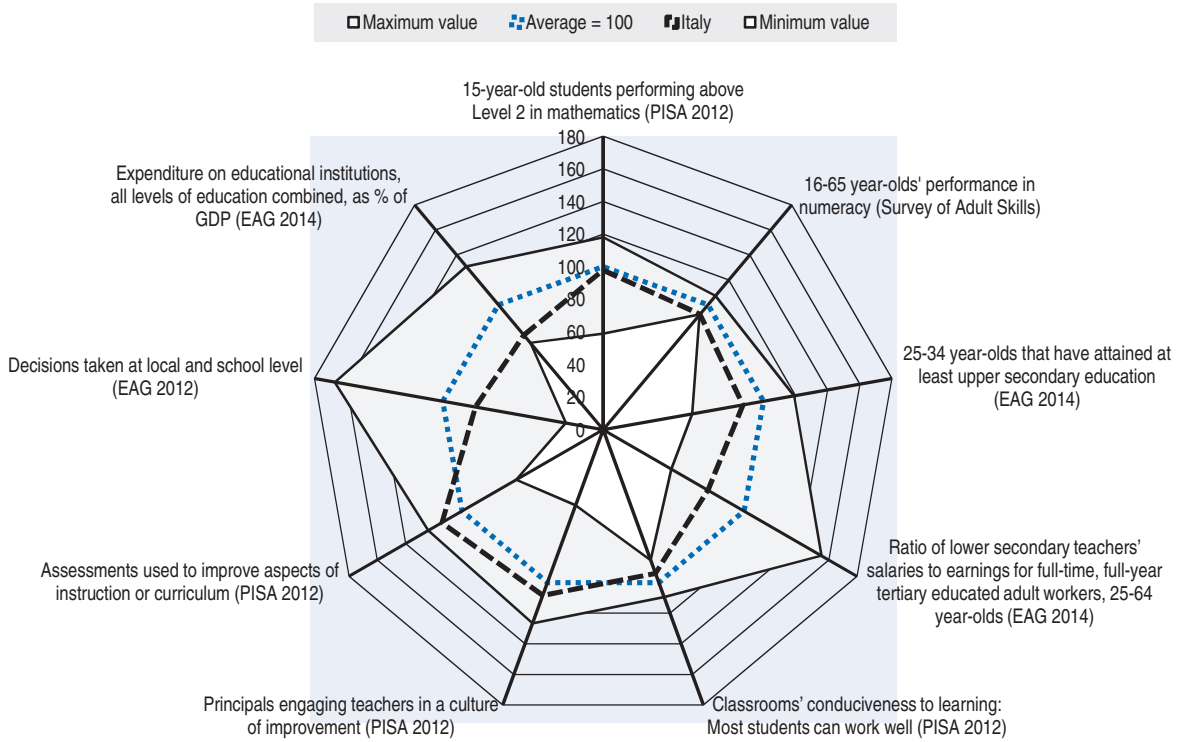
Context

Students: Italy's performance in mathematics, reading and science is below the OECD average in PISA 2012. There have been increases in mathematics and science performance across PISA cycles, while reading performance remains unchanged. Students' socio-economic background had less impact on mathematics performance than in other OECD countries. Enrolment of 3-4 year-olds in pre-primary education is above the OECD average, and education is compulsory from age 6 to 16, covering primary, lower secondary and the first two years of upper secondary education. Large regional performance differences remain, and students with immigrant background score lower than their peers with no immigrant background. If not managed carefully, some system-level policies, such as student tracking from age 14 (one year before the OECD average) and high grade repetition rates, may hinder equity. Attainment rates are lower than the OECD average in upper secondary and tertiary education, especially in the southern regions, although more students enrol in upper secondary vocational education and training (VET) than the OECD average. The Survey of Adult Skills shows that skills in literacy and numeracy among young adults (16-24) are higher than among 16-65 year-olds but lower than their peers in other countries. Labour market demand for employable people with high technical skills remains unmet, while both overall unemployment and unemployment for tertiary educated individuals are higher than the OECD average.

Institutions: Italian schools have one of the lowest levels of autonomy among OECD countries over resource allocation (such as in hiring and dismissal of teachers) and an above-average level of autonomy over curriculum and assessment (such as in establishing student assessment policies and choosing textbooks). Lower secondary teachers are required to follow a pre-service teacher training programme of six years including a mandatory teaching practicum, and to pass a competitive examination to enter the teaching profession. In the last ten years, there has been about a 90% turnover in school headship through new recruitment procedures. The country has one of the highest proportions of teachers aged 50 or older among OECD countries. Teaching conditions for primary and secondary teachers include below-average class size, teaching time and salaries. Compared to the TALIS average, a higher proportion of teachers in Italy would choose to work as teachers again, while a lower-than-average proportion of teachers consider that the teaching profession is valued in society.

System: Responsibility for education is shared between the central government and regions. The central government is responsible for governance of the education system, setting nationwide minimum standards and central principles. Most schooling decisions in lower secondary level are taken at the central and school levels. The state allocates funds to schools, taking into account, among other factors, the student body, human resources and type of school. Expenditure on educational institutions as a percentage of GDP (for all educational levels combined) is below the OECD average, with a higher share of public funding than the OECD average.

Figure 12.17. **Selected indicators compared with the average: Italy**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.

Source: The Italy Snapshot was produced combining information from the country's response to the Education Policy Outlook Snapshot Survey received in December 2013. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink *http://dx.doi.org/10.1787/888933171744*

Key issues and goals

Students: Italy reports the challenges of reducing regional disparities in core skills performance, supporting students from disadvantaged socio-economic backgrounds, reducing early school leaving and ensuring completion of compulsory education. Another issue identified by Italy is reducing youth unemployment and skills mismatch by tackling unmet labour market demand for higher technical skills.

Institutions: In recent years, an important issue for Italy has been turning aging and historic infrastructure into safe and stimulating learning environments. Other issues of prime interest are creating an evaluation culture, setting up a national school evaluation system and developing national education standards.

System: Some current issues include co-ordination between the state, regions and local authorities, as well as enhancing school autonomy. Italy is also trying to identify the means to increase spending efficiency, and aims to reinforce monitoring and evaluation processes to guarantee financial accountability in public spending.

Selected policy responses

- Italy reformed its *national curriculum for ISCED* levels from early childhood to lower secondary education in 2012 (Ministerial Decree No. 254/2012).
- A reform of upper secondary education, which started in 2010 and is expected to be completed by 2014/15, aims to reorganise and simplify pathways at upper secondary level, which have increased over past decades. The reform limits the types of paths, based on identified needs at national and regional levels. Upper secondary VET comprises technical institutes and vocational programmes, with some autonomy over curriculum to better meet local requirements related to employment. All programmes last five years (two two-year cycles and one final year).
- New post-secondary VET pathways were set up, such as the Higher Technical Institutes (*Istituti Tecnici Superiori*, ITS 2011). Also, *an agreement* between the state and regions (2010) aims to ensure alignment to the minimum performance levels laid down in Legislative Decree n. 225/2005 and coherence between the state vocational education system and the regional vocational training system.
- Following a comprehensive reform of tertiary education (law No. 240/2010), a new quality assurance and accreditation system for institutions and study programmes has been implemented. The system is divided into three steps: 1) an *ex ante* accreditation, 2) a periodical accreditation and 3) a periodical evaluation. Law 240/2010 also aims to fully integrate doctoral training in the degree structure. The law also defines standards and criteria for institutions to set up a doctoral programme and Ministerial Decree 45/2013 defines accreditation and quality assurance criteria for doctoral programmes.
- Initial training of school leaders also underwent reform, and compulsory initial training is now provided by the National School of Administration (2013). Also, a comprehensive reform of initial teacher education (Ministerial Decree 249/2010) from pre-primary to upper secondary education at levels 0-3 is taking place to enhance regular initial teacher training (e.g. selection of candidates, quality of training and accreditation).
- Italy set up performance-based funding in tertiary education. The Operating Fund (*Fondo di finanziamento ordinario*, FFO) provides a lump sum to universities (86% in 2013), and the rest (13.5% in 2013) is granted according to regular on-time student enrolment and research results. The Multiannual Planning Fund (*Fondo per la Programmazione*) supports initiatives that contribute to the Ministry's Multiannual Strategic Plan (law No. 240/2010).

Spotlight: Setting a National Evaluation System

The new National Evaluation System (SNV, 2013) is composed of the *National Institute for the Evaluation of the Education and Training system* (INVALSI, 2004), the National Institute for Documentation, Innovation and Research in Education (INDIRE) and the Inspectorate. Schools are considered important contributors to the evaluation process. The regulation will be implemented as from 2014 and will build on the success of the pilot project *VALES* where schools voluntarily participated in an evaluation process of school leadership and performance.

The school evaluation process will take place in four phases: 1) the school will self-evaluate; 2) with the help of a co-ordinated team, the school leader will complete the school self-evaluation report setting out the school's evidence-based evaluative judgements about its strengths and areas for improvement; 3) the report will inform the work of a visiting team of experts that will carry out the external evaluation, with findings used by the school to inform the school improvement plan and develop improvement targets with support of INDIRE or other qualified institutions; and 4) publication and dissemination of the results. The school self-evaluation report and improvement targets will provide the basis for evaluation of school leaders. The INVALSI has also achieved a complete roll-out of standardised tests in foundation skills in primary and lower secondary education (Grades 2, 5, 8, and 10), as part of the National Assessment System (2008). Implementation in Grade 6 has recently been suspended (2013), while implementation of a standardised test for Grade 13 is not yet operational.

JAPAN

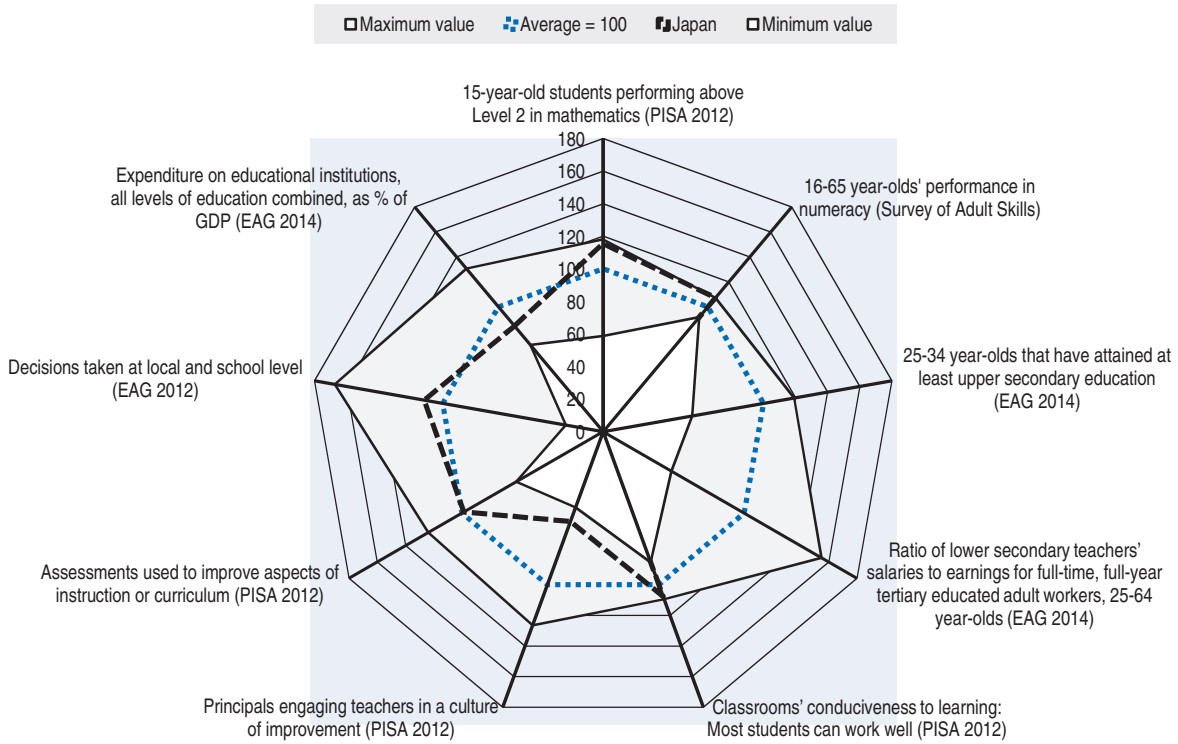
Context

Students: Japan is among the top PISA 2012 performers in mathematics, science and reading, with improvements in reading and science and unchanged performance in mathematics across PISA cycles. The impact of socio-economic background on student performance is below the average across OECD countries. Japan has several policies that promote equity in education. Pre-primary education usually starts at age 3, and the number of 3-4 year-olds enrolled is above the OECD average (although enrolment is mainly in private institutions). Compulsory education lasts from age 6 to 15, covering primary and lower secondary levels. School choice is limited, with late tracking starting at age 15 and no grade repetition. Japan also has an above-average attainment rate in upper secondary education, although fewer students than the OECD average are enrolled in upper secondary vocational education and training (VET). Tertiary attainment is above average, with a large proportion of adults graduating from more technical tertiary programmes. According to the Survey of Adult Skills, adults (16-65 year-olds) have high literacy and numeracy skills compared to other countries, and literacy skills are even higher among 16-24 year-olds. Moreover, unemployment remains below the OECD average.

Institutions: Autonomy over allocation of resources such as hiring and dismissal of teachers is below the OECD average in Japanese schools, but they have the highest level of autonomy among OECD countries regarding curricula and student assessment policies. Lower secondary teachers are required to follow a pre-service teacher training programme of four years including a mandatory teaching practicum. Primary and lower secondary teachers in Japan have below-average teaching time, combined with above-average class sizes. Japanese lower secondary teachers also work the longest hours among countries participating in TALIS. A lower proportion of teachers in Japan than the TALIS average consider that the teaching profession is valued in society and would choose to work as teachers if they could decide again. School assessment is organised at the local level through teachers' self-evaluation and assessment of the school by the local community.

System: Central and local authorities are responsible for decision-making on the education system in Japan. The Ministry of Education, Culture, Sports, Science and Technology (MEXT) is the main body in charge of education, with most of the decisions on lower secondary education taken at regional or local levels of government. Most schooling decisions in lower secondary education are taken by regional and local governments and schools. The share of GDP devoted to educational institutions (all education levels combined) is below the OECD average, with a higher share of private funding than the OECD average. With the high number of students entering higher education in Japan, the country is experiencing an increasing demand for public loans and scholarships.

Figure 12.18. **Selected indicators compared with the average: Japan**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.

Source: The Japan Snapshot was produced combining information from the country's response to the Education Policy Outlook Snapshot Survey received in December 2013. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink *http://dx.doi.org/10.1787/888933171754*

Key issues and goals

Students: Japan reports as issues of key interest continuing to train future skilled workers in a context of globalisation and a decreasing working-age population. Additionally, Japan sees transitioning from school to work as increasingly difficult, resulting in high rates of highly educated young people neither in employment nor in education or training. To face these challenges, increasing the responsiveness of higher education to the demands of a globalised world is among Japan's reported priorities.

Institutions: Japan reports that it aims to secure talented, motivated and resourceful teachers to increase education quality and provide students with skills to face the globalised market. Other key goals identified by Japan for education improvement include developing school management and evaluation of the education system, providing support and feedback in the process of increasing school autonomy, and improving communication with parents and local communities on school activities.

System: Japan reports high interest in engaging local communities in children's education. Regardless of the financial situation of local governments, Japan aims to maintain equal opportunities and ensure standards of compulsory education for all, as well as to secure funds to achieve the targets and carry out measures introduced by the Basic Plan for the Promotion of Education (2013).

Selected policy responses

- The Project for *Promoting Educational Activities through Co-operation among Schools, Families and Communities* (2007) provides educational activities thanks to volunteers with rich social experience.
- Based on the Career and Occupational Education in Schools for the Future report by the Central Council of Education (2011), MEXT proposed *guidelines for developing VET education in Japan*.
- MEXT is mobilising budget and systemic resources to support top Japanese universities to compete internationally as part of the Initiative for Emerging Global University (2014). Japan aims to double the number of Japanese students overseas by 2020 as part of the *Japan Revitalisation Strategy*. Examples of initiatives undertaken include a new system where public and private sectors co-operate to assist Japanese students studying abroad, and Go Global Japan (2012), in which MEXT supports universities in providing students with strong foreign language and communication skills.
- The government formulated the 300 000 International Students Plan (2008) to increase the number of overseas students in Japan to 300 000, and is currently promoting acceptance of high performing overseas students in Japanese universities. The Japan Revitalisation Strategy will also aim to increase the number of overseas students in Japan.
- The Basic Plan for the Promotion of Education (2013) sets direction for investment. Using benchmarks from OECD countries, the plan outlines measures to secure financial resources to achieve established targets and reforms. The plan also clarifies the progress evaluation process.
- MEXT enhanced the *scholarship loan programme* for students in higher education and introduced an interest-free scholarship loan with an income-contingent repayment policy (2012) to improve access to higher education.
- After the earthquake in 2011, the OECD Tohoku School project was created to support local innovations to foster resilience, creativity and 21st century skills in the 100 students from the region. The project was operationalised by Fukushima University, in support of the OECD. It was seen as a good example of transforming education by project-based learning with a real life issue and with bottom-up initiatives, leadership and ownership. The project will aim to go global and explore how local innovations can be born to find solutions to challenges in the world of 2030.

Spotlight: Setting curriculum guidelines

The Ministry of Education (MEXT) revised the Course of Study (学習指導要領), which serves as the fundamental standards for school curriculum (in 2008 for elementary and lower secondary schools and in 2009 for upper secondary schools) to increase children's fundamental knowledge, skills, and capacity to think and communicate. The revision came as a response to studies, including PISA, showing declining results for Japanese students in reading comprehension, application of knowledge and skills, desire to learn, study and lifestyle habits, confidence in themselves and the future, and physical strength.

The idea of fostering a *zest for life* is central to the revised guidelines. Students are expected to acquire solid fundamental knowledge and skills, to develop the ability to think, make decisions and express themselves, and then to use these skills and abilities to solve problems. The guidelines strengthen the curriculum in languages, mathematics and science, and increase study hours in class. They also aim to nurture a sound mind and fitness by enhancing moral and physical education.

KOREA

Context

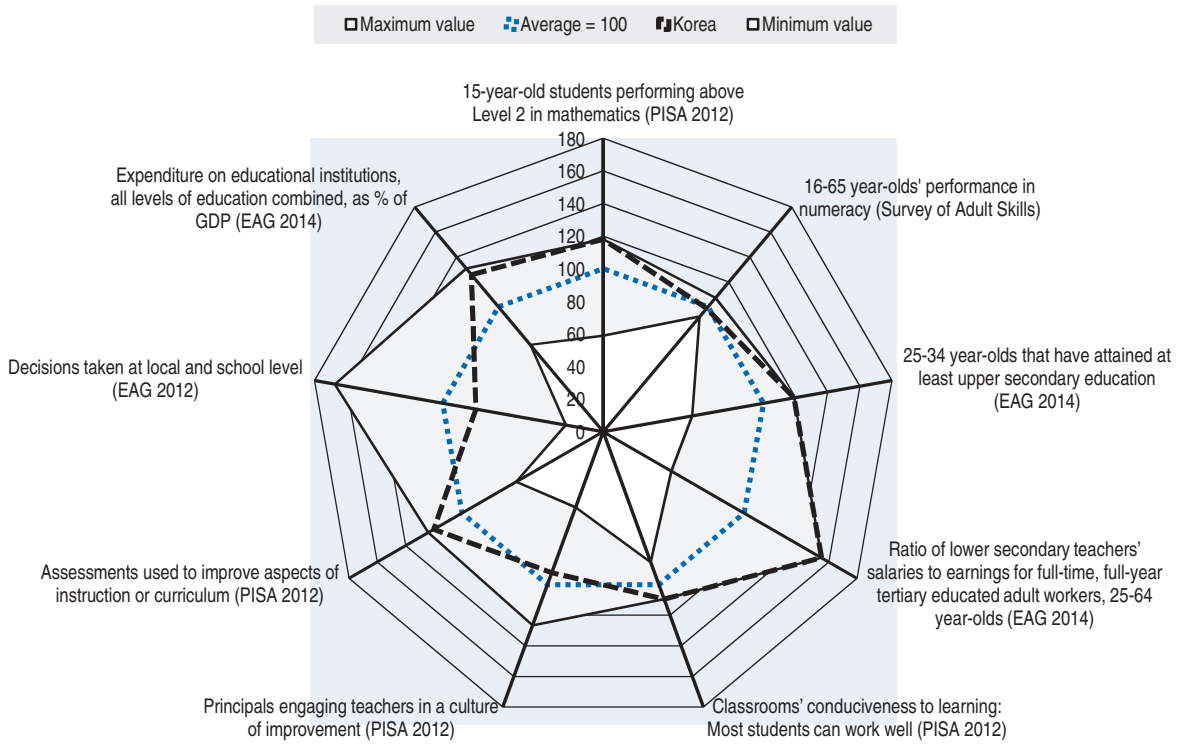
Students: Korea is one of the OECD's top performers in mathematics, reading and science in PISA 2012, with improvements in science and reading and unchanged performance in mathematics across PISA cycles. Students' socio-economic background had less impact on 15-year-olds' performance in mathematics in PISA 2012 than in other OECD countries. Korea had one of the strongest relations between mathematics performance and student perseverance among participant countries in the OECD. Education usually starts at age 3, with above-average enrolment rates in pre-primary education (mainly private), while compulsory education covers primary and lower secondary levels from age 6 to 14 (one of the shortest periods in OECD countries). Tracking starts at age 14 (one year before the OECD average), and grade repetition is very low. Korea has some of the highest attainment rates in upper secondary and tertiary education for 25-34 year-olds among OECD countries. The enrolment rate in upper secondary vocational education and training (VET) is below average, and the post-secondary education system is well developed, allowing post-secondary VET students to enter a university degree programme. Literacy skills among 16-65 year-olds in Korea are high compared to the average of countries participating in the Survey for Adults Skills, and even higher among 16-24 year-olds, while numeracy skills are around average for 16-65 year-olds and above average for 16-24 year-olds. Unemployment rates were among the lowest in OECD countries, but Korea's employment rate for population with at least upper secondary education is also comparatively lower. This suggests a labour force that is not being fully used.

Institutions: Autonomy over resource allocation in Korean schools is below the OECD average and autonomy over curriculum and assessment is among the highest levels in OECD countries. To teach at lower secondary level, teachers undergo a four-year pre-service training including a mandatory teaching practicum, and pass a competitive examination to enter the teaching profession. Primary and secondary teachers have above-average class size (among the largest in OECD countries) and below-average teaching time. Compared to the TALIS average, a higher proportion of teachers in Korea consider that the teaching profession is valued in society, while a lower proportion of teachers would choose to work as teachers if they could decide again. The scope of the evaluation and assessment framework scope is broadening from student assessment to overall evaluation of the system. Teacher appraisal aims to support continuous professional development, and school evaluation includes internal and external (local and national) evaluations.

System: Governance of the education system is shared between central and local authorities. The Ministry of Education and municipal and provincial offices provide primary to upper secondary education, while higher education is provided by the Ministry of Education and councils for university and university college education. The share of GDP devoted to educational institutions (for all education levels combined) is among the

highest in OECD countries, with one of the highest shares of private funding among OECD countries, mainly as a result of contributions of households. Korea also had one of the significant increases in expenditure per student among OECD countries during 2005-11, for all education levels.

Figure 12.19. **Selected indicators compared with the average: Korea**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.

Source: The Korea Snapshot was produced combining information from the country's response to the Education Policy Outlook Snapshot Survey received in December 2013 with OECD data. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink *http://dx.doi.org/10.1787/888933171764*

Key issues and goals

Students: Korea reports working to further improve equity in education attainment. It aims to increase the percentage of resilient students (students of disadvantaged socio-economic background who achieve high performance), from 2.5% in 2012 to 10% in 2017. The country also faces a considerable expansion of the private education sector (mainly through tutoring or private institutions called *hagwon*), which may affect student motivation, increase the financial pressure for households and be a source of inequities in access to further education. Another priority reported is preparing occupational skills standards to achieve a stable qualification and training system at the national level, as well as preparing a career development system for lifelong learning. To better prepare students for the future, Korea also aims to develop programmes to improve entrepreneurship and research.

Institutions: Korea reports efforts to provide an education environment where students are less stressed and develop their full potential beyond cognitive skills, according to their individual needs and motivations. Korea also considers it important to keep

teachers' and principals' knowledge and professional skills updated to help them face emerging needs in today's knowledge society and digital age. In addition, Korea reports working to provide a coherent and well-aligned evaluation system.

System: Korea aims to better co-ordinate overall education spending and budgeting plans (distributed at different government levels) to make more efficient use of resources. It also reports that it aims to ease financial burdens on students from disadvantaged backgrounds for entrance into tertiary education, through different criteria.

Selected policy responses

- In 2014, after-school childcare has been extended and implemented until 5 p.m. daily for all elementary students in Grades 1 and 2 whose families demonstrate their desire to receive the service. Also, children from multicultural, single-parent, or low-income families who are in need of additional care are receiving childcare service until 10 p.m.
- In addition to after-school childcare that is available to 3-5 year-olds, the *Nuri* curriculum (integrated curriculum at early childhood education and nursery) has extended its programme time by up to five hours and the government is providing support for tuition.
- Korea is developing a *National Competency Standard* (2013) to identify and standardise the competencies needed to successfully perform a job. Also, the *Learning Account* (2009) is a system which can accumulate and manage a person's learning experiences, providing credits and qualifications for career development.
- Korea launched the National Teacher Professional Development and Evaluation System (NTPDES) (2010) to improve teacher effectiveness.
- As part of aforementioned policy, Korea is also broadening its evaluation and assessment framework (2010) to encompass the whole education system (student assessment, school evaluation, teacher appraisal, evaluation of principals, evaluation of local education authorities, evaluation of research institutes and evaluation of educational policies). Data collection and management as well as statistical surveys of education are provided by the National Education Information System (NEIS), and the School Information Disclosure System. Measures are being taken to link the systems so policy makers can better understand what is happening at schools rather than looking at the outcomes of educational administrative bodies. Moreover, efforts are being made to link data collection/management systems with the evaluation systems.

Spotlight: Introducing test-free semesters in lower secondary education

The government will also introduce *test-free semesters* for lower secondary students by 2016 to reduce student stress related to tests and help them acquire life values and engage in various activities, including career search. Korea had defined 42 schools with test-free semesters by the end of 2013. In 2014/15, test-free semesters will be open to any school that wishes to adopt this policy, and will be required by all middle schools by 2016. Middle schools will only have three national test subjects (Korean/Literature, English, mathematics), and elementary schools will no longer administer achievement tests. Local education offices will aim to create simpler academic evaluations.

LUXEMBOURG

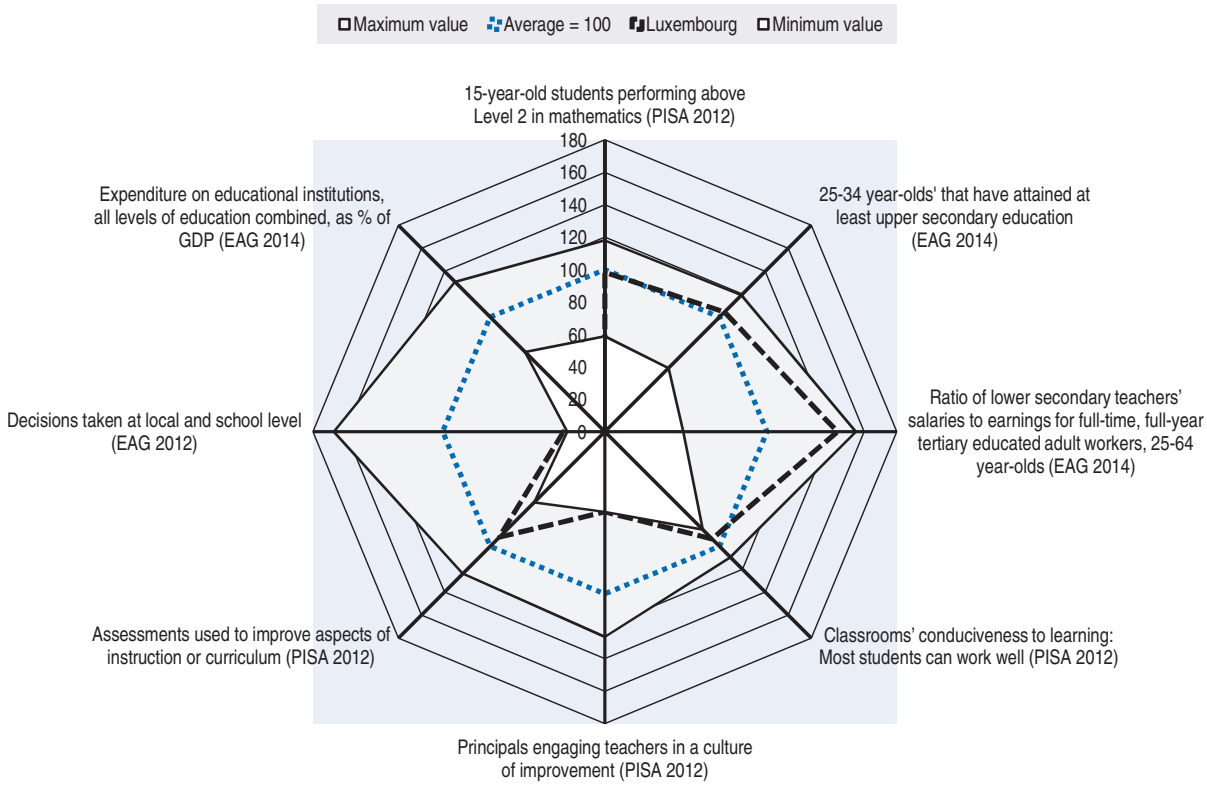
Context

Students: Luxembourg performs slightly below the OECD average in PISA 2012, and the impact of socio-economic background on mathematics performance is above the OECD average. Across PISA cycles, Luxembourg has achieved improvements in reading, while performance in mathematics and science has remained unchanged. Luxembourg has some policies that foster equity. Pre-primary education usually starts at age 3, and the enrolment rate of 3-4 year-olds is above average. School attendance is compulsory from age 4 to 16, including primary, lower secondary and parts of pre-primary and upper secondary levels. Student selection mechanisms, high repetition, school choice and early student tracking at age 13 may hamper equity if not managed carefully. Attainment rates in upper secondary are around the OECD average, and Luxembourg has an above-average enrolment in upper secondary vocational education and training (VET) programmes that grant access to higher education. Current reforms aim to make the compartmentalised VET system more permeable. A larger proportion of students than the OECD average attain tertiary education. Once students reach the labour market, there is low unemployment.

Institutions: Autonomy is below the OECD average in Luxembourg schools for both resource allocation (including hiring and dismissal of teachers) and for deciding on curriculum and assessment. Lower secondary teachers are required to follow a pre-service teacher-training programme of 6.5 years including a mandatory teaching practicum, pass a competitive examination to enter the teaching profession, and have continuing education. Teaching conditions for primary and secondary teachers include a comparatively low class size, teaching time above the OECD average and the highest salaries among OECD countries. The education system lacks a framework setting out clear purposes and responsibilities for evaluation and assessment.

System: The central government is in charge of education. The Ministry for Education and Vocational Training is responsible for planning and managing school education and sets out the priorities for educational policy. Most schooling decisions in lower secondary education are taken by the central government.

Figure 12.20. **Selected indicators compared with the average: Luxembourg**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.
Source: The Luxembourg Snapshot was produced combining information from the country's response to the Education Policy Outlook Snapshot Survey received in December 2013 with OECD data. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink http://dx.doi.org/10.1787/888933171774

Key issues and goals

Students: Luxembourg reports as a key target giving students the time to develop the required competences and attain their maximum potential, regardless of their starting point. Other priorities include adapting elementary education to the needs of a modern, changing society and adapting vocational education to the labour market's skills demand.

Institutions: Luxembourg also considers it important to increase school autonomy and enhance the use of school success plans (*Plans de réussite scolaire*). Other issues of interest include encouraging parents' involvement and developing new approaches to evaluation and assessment reports.

System: Luxembourg aims to increase schools' autonomy to adapt teaching methods to student needs. Other key issues reported are the sub-national distribution of decision-making and co-operation, as well as Luxembourg's aim to provide funding to achieve the missions of elementary and secondary education as set by the laws on compulsory education (2009).

Selected policy responses

- The *Compulsory Education Reform* (2009) sets new learning cycles. The traditional organisation by academic years has been replaced by two-year learning cycles. Their structure aims to help teachers to adapt the learning setting to their pupils' individual rhythms and needs, and give pupils more time to develop the required competences. Additionally, this reform:
  - enlarges school autonomy, allowing individual initiatives and choice of didactic material, with each school expected to set up a school success plan defining the institution's objectives according to its pupils' needs and characteristics
  - seeks parental involvement, introducing standards on information for parents, including regular individual meetings between teachers and parents
  - provides a new approach to evaluation, with pupils evaluated both during and at the end of a cycle and learning achievements of each pupil documented in a portfolio to track their progress.
- The state and the business sector collaborate in the Committee for Vocational Training to ensure that VET programmes meet job market needs. Curricula are set up by National Training Commissions, which include representatives of secondary schools and representatives from the business sector (*Vocational training reform*, 2008).
- The financing rules on separately-managed state bodies (*services de l'Etat à gestion séparée*) apply to secondary schools. Their resources comprise a state subsidy, the balance carried over from the previous year, income from services provided or other operating revenues and donations and legacies (*Loi portant sur l'organisation des lycées et lycées techniques*, 2004).
- The Secondary School Report (*Rapport-Lycée*) set up by the Agency for Quality, is used to monitor quality and results in secondary schools (*Loi portant sur organisation des lycées et lycées techniques,* 2004).

Spotlight: Promoting partnership to improve school administration

As part of the Compulsory Education Reform (2009), school administration is ensured by a partnership of municipal authorities, teaching staff and parents. The reform introduced School Committees of elected members from their teaching staff to be set by each school. The Committees issue proposals on school organisation and budget, set up the school success plan and determine the needs for teacher training. Parents' representatives meet the School Committee at least three times a year to discuss or organise joint events.

The Municipal Council decides on organisational issues and provides funds for school infrastructure. The Municipal School Commission is the platform for co-operation among schools, parents and communal authorities. It gives its opinion on school success plans and budget proposals, monitors implementation of the success plans and organises extracurricular activities. The National School Commission is the platform for co-operation at the national level. It develops proposals for reforms, research and teacher training for the Minister of Education. Schools are supervised by inspectors appointed by the Ministry. The inspector co-ordinates activities of the School Committees' presidents, runs the Commission for School Inclusion (CIS) and issues instructions to the multi-professional teams.

MEXICO

Context

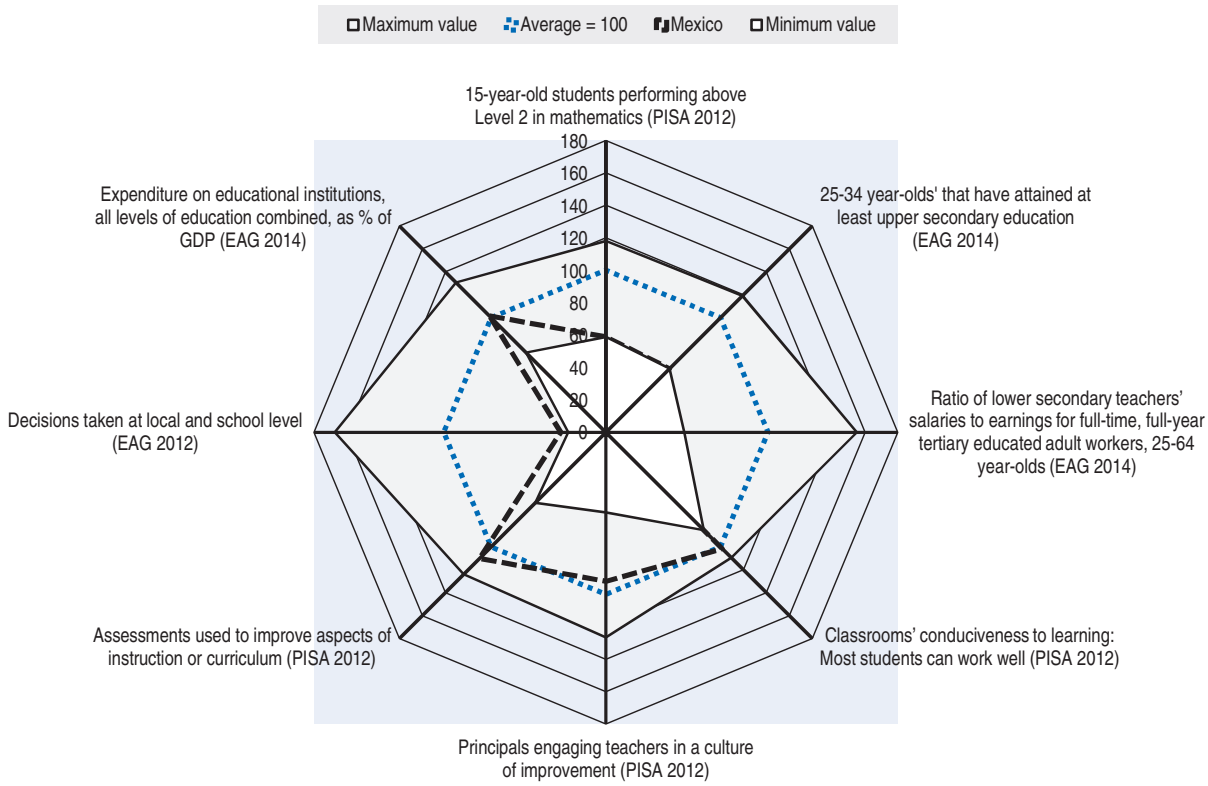
Students: Mexico is among the few countries with improvements in both equity and quality in PISA 2012. Although its performance remains below the OECD average in mathematics, science and reading, Mexico has achieved improvements in mathematics and reading, and unchanged performance in science across PISA cycles. The socio-economic background of students and schools had less impact on their performance in PISA 2012 than the OECD average, demonstrating improvements in equity of learning opportunities. Early childhood and education and care (ECEC) usually starts at age 4-5 and the enrolment rate of 3 and 4 year-olds in early childhood education is below the OECD average. Education in Mexico is compulsory from age 4 to 15. Grade repetition is high, and there is a gap with other OECD countries in upper secondary and tertiary attainment, enrolment, graduation and performance. New upper secondary programmes provide learning opportunities in remote regions and the technological baccalaureate has been reformed. Enrolment in upper secondary vocational education and training (VET) is among the lowest across OECD countries, with weak links between VET and employers, and low investment from firms in this sector. Unemployment is low compared to the OECD average. One-quarter of 15-29 year-olds were not in education and not employed in 2012.

Institutions: In Mexican schools, levels of autonomy over curriculum and assessment and over resource allocation are below the OECD average. Lower secondary teachers in Mexico undergo four years of pre-service training including a mandatory teaching practicum. Working conditions for primary and secondary teachers in Mexico include teaching time and class size above the OECD average. Also, a higher proportion of teachers in Mexico than the TALIS average consider that the teaching profession is valued in society and would choose to work as teachers if they could decide again. Some key issues regarding school improvement remain, including the process of selecting teachers and assigning them to schools, balancing formative and summative appraisal in their evaluations, improving the quality of teacher training programmes and of teaching in the classroom, as well as reviewing the incentives to improve performance.

System: Governance of the education system in Mexico is shared between central and regional authorities. Within the federal system, the government has been prioritising education and setting objectives through agreements and pacts with the states and main stakeholders. As all 31 states operate education services and administrative norms vary from state to state, there is a need to strengthen capacity to ensure a successful implementation of policies. The National Union of Education Workers (*Sindicato Nacional de Trabajadores de la Educación*, SNTE), with leaders in each state, plays a role in education

policy issues, which is being rebalanced with the state. Most decisions in lower secondary education are taken by the central or state governments. Expenditure on education institutions as a percentage of GDP (for all educational levels combined) is above the OECD average, with a higher share of private funding than the OECD average.

Figure 12.21. **Selected indicators compared with the average: Mexico**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.
Source: The Mexico Snapshot was produced combining information from the *Education Policy Outlook: Mexico* (OECD, 2013) with OECD data. More information on the spider chart is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink http://dx.doi.org/10.1787/888933171786

Key issues and goals

Students: Mexico is working to increase education performance and attainment in compulsory education. Large performance and completion gaps persist, especially for indigenous and low socio-economic status populations. System-level policies should focus on improving educational success of students from diverse backgrounds and delivering quality education across all schools, including upper secondary and VET.

Institutions: Mexico is also revising evaluation and assessment practices, especially regarding student assessment and teacher appraisal. Mexico sees as key issues raising the quality of teaching, professionalising school leaders, and providing transparency in governance and funding across the system.

System: Balancing central and regional governance and ensuring effective engagement of stakeholders are key issues. Mexico faces challenges for achieving transparent and equitable funding of students and schools.

Selected policy responses

- Efforts to improve quality and coverage in ECEC include creating care centres in urban areas for children of low-income working parents (2007), organising a national system of day-care centres and creating a framework syllabus to help ECEC institutions develop a curriculum.
- Mexico made upper secondary education compulsory in 2012 (aiming for universal coverage by 2022).
- A National System of Upper Secondary Education (*Sistema Nacional de Bachillerato*, 2009) aims to improve academic guidance and education offer and provide a monitoring system and mechanisms to deliver this level of education.
- The Dignified Schools Programme (*Programa Escuelas Dignas*, 2013) intends to improve the infrastructure of schools, focusing on seven key criteria including safe learning environments, sanitary learning environments, and adequate furniture and equipment. The programme operates in three steps: 1) diagnosing the school's infrastructure and resources; 2) allocating funds on a case-by-case basis to help schools comply with at least three of the seven criteria; and 3) providing compliant schools with a certificate from the National Institute for Educational Physical Infrastructures (INIFED). The school community is then responsible for maintenance.
- School participation councils (*Consejos Escolares de Participación Social*, 2009) have been promoted to ensure parental and society engagement in education, increasing from 4% to 44% between 2009 and 2010. School councils are composed of parents, school principals, teachers, union representatives, former students and community members.

Spotlight: Expanding coverage and improving teaching and learning in schools

A constitutional reform in Mexico (2012) set out commitments on education to increase education coverage in upper secondary (80%) and tertiary education (40%); to improve teaching and learning conditions by providing more autonomy to schools and establishing full-time schools; to create a teacher professional service; and to promote system improvement with more transparency and consolidation of the evaluation authority. As part of this constitutional reform, various initiatives have been introduced.

New legislation to consolidate a professional teacher service (2013) aims to bring together and update different components of the teaching profession. Some new policies promoted are: 1) introducing an induction process in the first two years of teachers' practice; 2) establishing the main lines of a teacher evaluation process for all teachers; and 3) establishing new horizontal incentive mechanisms to include or replace the different voluntary programmes currently available (e.g. *Carrera Magisterial* and the Incentives Programme for Teacher Quality).

Spotlight: Expanding coverage and improving teaching and learning in schools *(cont.)*

To enter the profession, teacher candidates will pass a public selection process (*concurso*). Teachers will be assigned a mentor for the first two years and will require a positive evaluation to be confirmed in their post. To assess competence and support development, a new mandatory evaluation system has also been introduced for teachers, school leaders and supervisors. A teacher's first or second unsuccessful evaluation will lead to individual coaching and a third will mean dismissal. The National Institute for Educational Assessment and Evaluation (*Instituto Nacional para la Evaluación de la Educación*, INEE) will define the precise formative evaluation tools.

The law also aims to professionalise school leaders by introducing a transparent selection and recruitment process and an induction process during the first two years of practice. Public selection processes (*concursos*) will be organised, with candidates who have a minimum of two years teaching experience and specific profiles determined by INEE and local and federal authorities. Under this law, school leaders will be confirmed in their post only after positive evaluation. New technical assistance to schools is also being introduced to support teachers in evaluation practices. This will be provided by school leaders, supervisors and pedagogical advisors (*Asesores Técnico-pedagógicos*, ATP).

The detailed policy profile is available at:.

http://dx.doi.org/10.1787/9789264225442-26-en

NETHERLANDS

Context

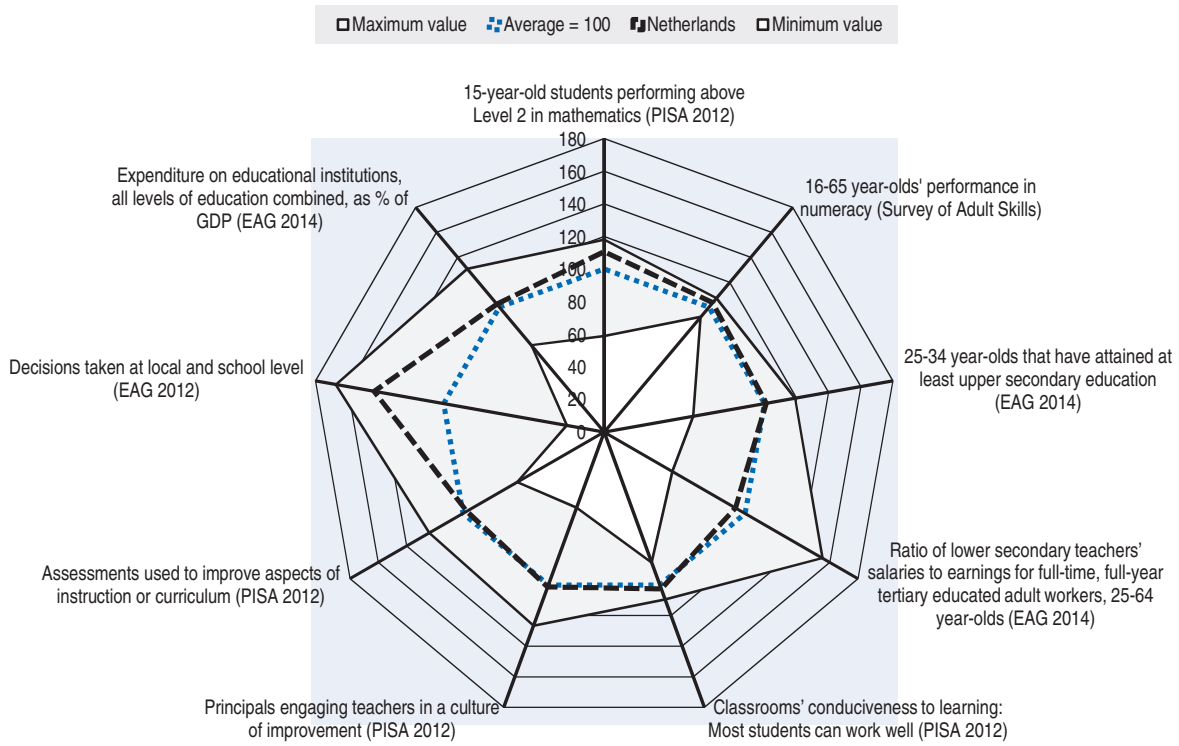
Students: The Netherlands is an overall high performer in PISA 2012, with decreased mathematics performance and unchanged performance in reading and science across PISA cycles. Students' socio-economic background had a lower impact on performance than the OECD average in PISA 2012. The Netherlands has a differentiated structure of secondary education, which sorts students from age 12 into seven possible programmes (the highest number of programmes among OECD countries). Early childhood education and care (ECEC) usually starts at ages 3 or 4. Policies aiming to increase participation of students from disadvantaged backgrounds include above-average enrolment of 3-4 year-olds and almost universal enrolment of 4-year-olds in ECEC. Targeted funding for schools with specific needs is available through the government or municipalities. The Netherlands is also focusing on further stimulating excellent and highly talented students and already high-performing schools. Attainment in upper secondary education and tertiary education in the Netherlands is around the OECD average. Flexibility in upper secondary education and guidance and counselling can support Dutch students' transition into post-secondary education and the labour market. Adults (16-65 year-olds) in the Netherlands have higher-than-average literacy and numeracy skills according to the Survey for Adult Skills, and results are even higher for younger adults (16-24 year-olds). Labour market perspectives are positive, with unemployment below the OECD average.

Institutions: Schools in the Netherlands have some of the highest autonomy levels over curriculum and assessment, in particular in determining course content and allocation of resources (such as selecting teachers to hire). To teach at lower secondary level, teachers undergo four years of pre-service training including a mandatory teaching practicum. Dutch teachers' salaries are above the OECD average, but lower than other tertiary educated employees in the country. Primary and secondary teachers have teaching time above the OECD average. A higher proportion of teachers in the Netherlands than the TALIS average consider that the teaching profession is valued in society and would choose to work as teachers if they could decide again. An increased focus on the use of evidence from assessment and evaluation resulted in better educational practices.

System: Governance of the education system is shared between the central government and the schools. The system combines centralised norms and policies with school autonomy over administration and school management, which is characteristic of Dutch education. Centralised output norms provide broadly-formulated attainment targets. In addition, for some subjects (e.g. language and mathematics) more specific subject-oriented norms are provided. Supervision is also centralised. Most decisions in primary and secondary education are taken at the school level, and the Ministry of

Education, Culture and Science provides funding to all education levels, with equal funding for public and private schools. Expenditure on education institutions as a percentage of GDP (for all educational levels combined) is above the OECD average, and the share of private funding is a higher than the OECD average.

Figure 12.22. **Selected indicators compared with the average: Netherlands**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.
Source: The Netherlands Snapshot was produced combining information from the country's response to the Education Policy Outlook Snapshot Survey received in December 2013 with OECD data. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink http://dx.doi.org/10.1787/888933171798

Key issues and goals

Students: Policies aim to maintain and improve student performance and focus extra efforts to stimulate already high performers in a context of increasing diversity. The Netherlands also aims to reduce performance gaps across schools, stimulate equity and reduce dropout. System-level characteristics include early tracking, while aiming to ensure flexibility in catering to the needs of individual students.

Institutions: The Netherlands sees growing student diversity, which requires teachers to be able to adapt their practice to meet the needs of underperforming students and high performers. Therefore, professionalisation of teachers and school leaders is seen as a major priority through access to quality initial and continuous training. Another priority concerns strengthening the steering capacity and responsibility of school boards to address student needs and develop positive learning environments. The government is

targeting a large group of Dutch schools that have been performing adequately for some time, yet have not demonstrated a clear drive to improve their performance. Results from school, teacher and student assessments also need to be better used to improve schools and student learning.

System: The Netherlands considers that new demands and challenges make it necessary to improve the transparency and accountability of its schools and school boards. Given its high level of school autonomy, the Netherlands aims to ensure that school boards and school leaders have the capacity to effectively implement national education policy consistently across schools, as well as to use resources more efficiently while ensuring quality education.

Selected policy responses

- In higher education, two main policies have been introduced. The Quality in Diversity in Higher Education law (*Wet Kwaliteit in verscheidenheid hoger onderwijs*, 2013) advances the deadline for applications to enter higher education to May 1st and sets study checks to help prospective students make an informed decision about their future education. Activities in these study checks include online questionnaires, interviews with prospective students, and attending a lecture or a seminar. *Performance agreements 2012-15* setting goals for 2015 have also been signed with all higher education institutions, which will be evaluated on the basis of these agreements.
- Aiming to improve the teaching profession and promote the excellence of education, the Netherlands has recently introduced a comprehensive strategy called the Teachers' Programme (*Lerarenagenda 2013-2020*, 2013). The seven main points of the programme are: 1) attracting high performing students into teacher training programmes; 2) improving teacher pre-service training programmes; 3) providing attractive and flexible development pathways; 4) developing support for teachers at the start of their careers; 5) developing schools as learning organisations by engaging teachers, school leaders and school boards; 6) helping all teachers maintain and develop their skills and qualifications; and 7) sustaining a strong professional organisation that represents teachers.
- The National Agreement on Education (2013) with different education stakeholders comprises common goals on quality improvement that are worked out in specific sub-agreements on five themes: 1) contents and quality of education; 2) attracting the best teachers to education; 3) labour conditions; 4) relationship between the education field and the national government; and 5) governance of and within education.
- The Vocational Professionalism Agenda (2011) aims to improve secondary vocational education by reducing and condensing most four-year courses into three years, increasing classroom hours, improving the transition to higher professional education and improving quality at this level.

Spotlight: Increasing student retention

The *Drive to Reduce Dropout Rates* (*Aanval op schooluitval*, 2002) was introduced in conjunction with the Europe 2020 Strategy with the goal to reduce to less than 35 000 the number of students dropping out of school by 2012. The target has been revised to aim for a maximum of 25 000 students by 2016. By 2012-13, provisional results showed that the number of early school leavers had been reduced to 27 950.

This policy is based on six key points: 1) focusing on the transition between pre-vocational and vocational education; 2) improving the special needs facilities in schools; 3) offering tailored programmes to students who prefer to work; 4) improving information and career guidance and counselling to students; 5) offering more attractive sports and cultural activities; and 6) providing programmes for 18-23 year-olds who drop out.

To accomplish these goals, the government partnered with regions, local authorities, employers and other key stakeholders, created a system of data collection and analysis (Education Number 2008-11) to understand the students and the strategies being used to prevent dropout, linked school funding to the reduction of early school leavers, and funded programmes and facilities, particularly for students who had difficulty attaining a qualification.

The detailed policy profile is available at:
http://dx.doi.org/10.1787/9789264225442-27-en

NEW ZEALAND

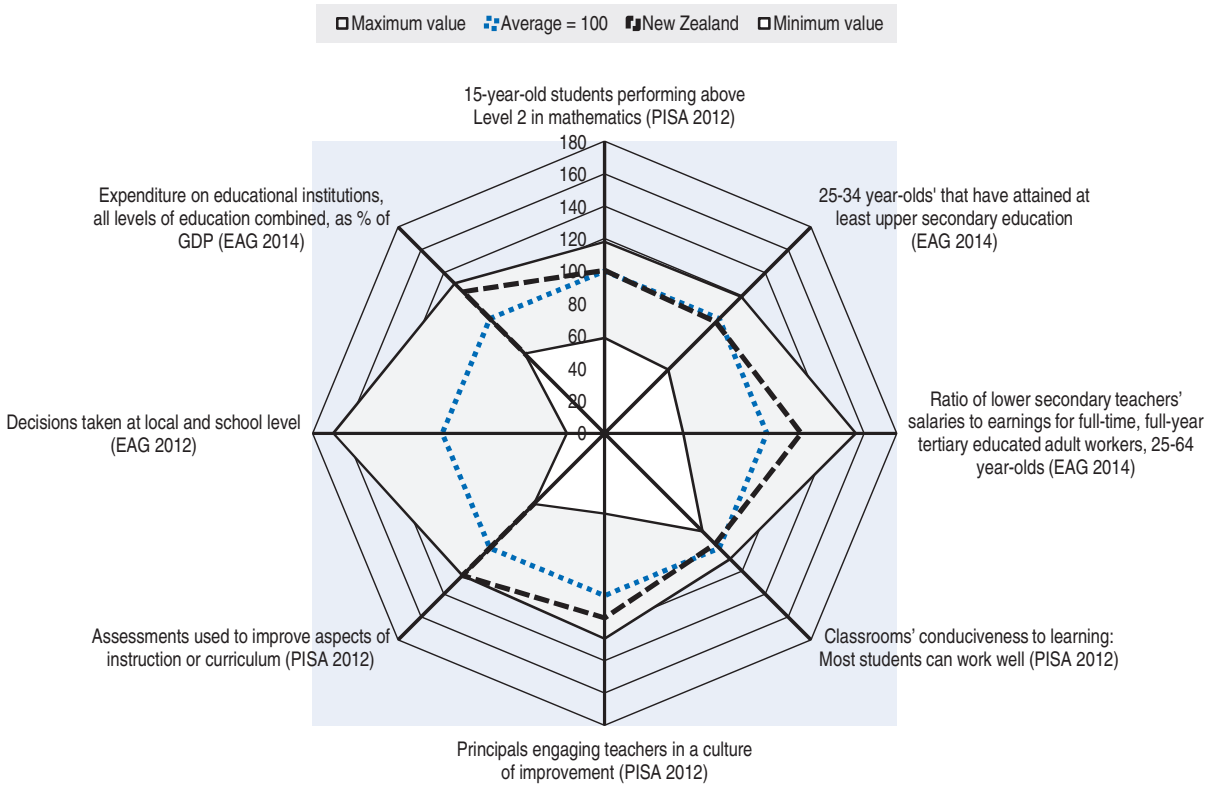
Context

Students: New Zealand has remained a top PISA performer since 2000, with students performing above the OECD average in reading, science and mathematics. The country experienced an overall decline in performance across PISA cycles, and the impact of student socio-economic background on performance is higher than the OECD average. Early childhood education and care (ECEC) usually starts at age 3 with above-average enrolment rates of 3-4 year-olds. New Zealand has an inclusive ECEC curriculum, compulsory school from age 5 to 18, comprehensive schooling until the age of 16, low levels of grade repetition, flexible options in upper secondary education, and flexible strategies to promote education success of Māori and Pacific Islanders. Upper secondary education attainment rates are around the OECD average in New Zealand, and tertiary education attainment rates are above the OECD average. Many vocational education and training (VET) programmes are offered in post-compulsory education. Labour market perspectives for students are positive, and unemployment is below the OECD average.

Institutions: The highly devolved self-governing school system gives school leaders and teachers much autonomy over curriculum and assessment and resource allocation compared to the OECD average. This requires capacity and professional development to meet responsibilities and use evaluation and assessment tools effectively to improve student learning. Teachers in primary and secondary education have above-average salaries and teaching times.

System: Governance of the education system is shared between the central government and schools. There is no middle-level school administration in New Zealand. Schools and universities are among the most autonomous across OECD countries. Schools are managed by school boards with a focus on student achievement. The role of government education agencies has been refocused to support education system leaders, such as teachers and education providers. The government sets annual objectives in a Statement of Intent for its central education agencies, and the Ministry of Education develops a national policy framework. Funding aims to support free schooling, and although tertiary study involves costs to the student, financial support is available. A part of the funding that tertiary institutions receives depends on student achievement. Expenditure on education institutions as a percentage of GDP (for all educational levels combined) is one of the highest among OECD countries, with a higher share of private funding than the OECD average.

Figure 12.23. **Selected indicators compared with the average: New Zealand**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.

Source: The New Zealand Snapshot was produced combining information from the country's response to the Education Policy Outlook Snapshot Survey received in December 2013 and *Education Policy Outlook: New Zealand* (OECD, 2013) with OECD data. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink *http://dx.doi.org/10.1787/888933171805*

Key issues and goals

Students: The average impact of socio-economic background on student performance is above the OECD average, and large performance and completion gaps persist within the student population according to gender, socio-economic status and ethnicity. Māori and Pacific Islanders students represent more than one-third of the student population, and diversity of the student population is increasing, while they face lower outcomes and may be less likely to complete their secondary education. Key targets for New Zealand are ensuring that students are fully engaged in learning, motivated for educational success, supported at all levels of their education and have clear pathways to further education, training and employment.

Institutions: To improve the learning environment, New Zealand aims to raise the status of the teaching profession, to strengthen teacher and principal appraisal, and ensure that schools have incentives to co-operate and share resources where there is a clear educational benefit. Additionally, national standards and other achievement information can be used to better inform student progress and teaching practice.

System: Important goals for New Zealand are ensuring the capacity of school boards of trustees to lead education policies, ensuring effective governance of tertiary education institutions by having people with appropriate governance skills, and ensuring efficient targeted funding to students from low socio-economic backgrounds at all levels of education.

Selected policy responses

- An *Early Learning Taskforce* (2013) is working to provide connections between early childhood services and communities to improve access to services for families who are not participating in early childhood education.
- *Positive Behaviour for Learning* (2009) provides programmes and initiatives for schools, teachers and parents to help address problem behaviour, improve children's well-being and increase educational achievement.
- The *Youth Guarantee* (2010) aims to enable students in upper secondary to acquire key skills to attain the National Certificate in Educational Achievement and transition into tertiary education and/or employment. As part of the *Youth Guarantee*, the *Achievement 2013-17 programme* partners with secondary schools to support students at risk of failing the test. The Youth Guarantee also creates vocational pathways with more options and seeks a greater integration of core curriculum subjects with industry recognised pathways.
- The *New Zealand Qualifications Framework* (2010) has been followed with a review to reduce duplication and proliferation of certificate and diploma qualifications and to ensure easy understanding for students and employers.
- The *Education Amendment Act* (2013) aims to reinforce the central role of schools' boards of trustees to ensure student achievement. The proposed creation of an independent *Education Council of Aotearoa New Zealand* (EDUCANZ, 2013) aims to provide a focal point for stronger professional leadership in teaching.
- New Zealand has defined *National Standards* (2010) and the *National Curriculum* (2007) to clarify learning objectives and expectations and to provide support to improve performance. The country is also developing a *Student Achievement Function* (2011) to support schools. Additionally, the *release and use of public achievement information* and data on labour market outcomes have empowered students, teachers and communities by engaging them more in the learning process as well as providing important information on achievement.
- The *Tertiary Education Strategies* (TES) set the government's five-year direction and priorities in tertiary education. The most recent Tertiary Education Strategy (2014-19) aims to promote a more outward-facing and engaged tertiary education system, where there is a strong focus on achieving better outcomes for students.

Spotlight: Meeting educational targets

Better Public Services targets (2012) set ten challenges, including three in education: 1) participation of 98% in early childhood education in 2016; 2) about 85% of 18-year-olds achieving a national certificate Level 2 or equivalent in 2017; and 3) increasing attainment of advanced trade qualifications, diplomas or degrees for 25-34 year-olds. These targets provide a focus for the education sector and have been used in budget and strategic planning processes. Funding is prioritised in the budget to ensure achievement of targets. The targets aim to point to new ways of working, including involvement of other government agencies. The Better Public Services targets have also sought innovative ways of working with parents, families and communities, particularly with the early childhood and upper secondary school targets. The target achievement progress is being monitored with an emphasis on service quality. It is expected that the focus on targets will lead to long-term sustainable improvements to student achievement as new practices are developed in and adopted across the education system.

The detailed policy profile is available at:
http://dx.doi.org/10.1787/9789264225442-28-en

NORWAY

Context

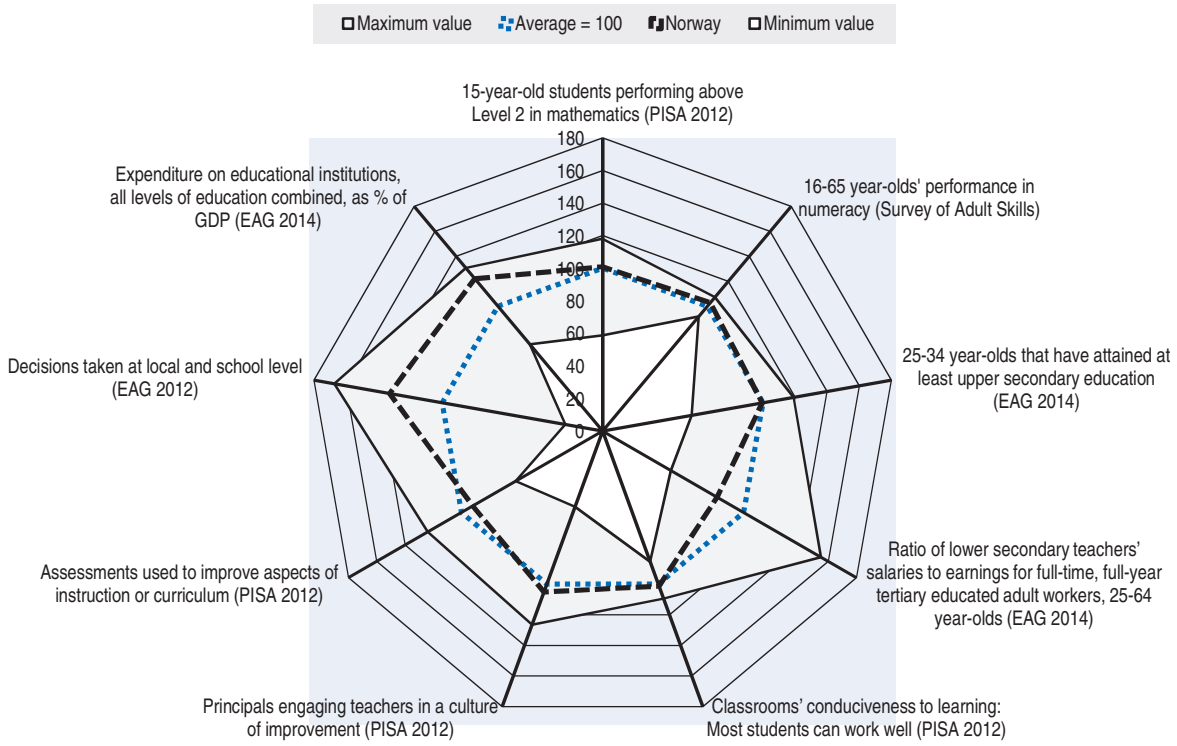
Students: Norway performs above the OECD average in reading, at around average in mathematics and below the OECD average in science in PISA 2012, with the lowest impact on socio-economic factors on students' performance among OECD countries and unchanging performance across PISA cycles. Some system-level policies help enhance equity in Norway. Early childhood education and care (ECEC) usually starts at age 1 (the earliest age across OECD countries), and the enrolment rate of 3-4 year-olds in ECEC is above the OECD average. Norway has comprehensive and compulsory education from age 6 to 16. At upper secondary level, attainment rates are around the OECD average, and there is a strong supply of upper secondary vocational education and training (VET), with an above-average enrolment rate. Tertiary education attainment rates are higher than the OECD average, resulting in a highly skilled workforce. Adults (16-65 year-olds) have above-average proficiency levels in literacy and numeracy compared to other countries participating in the Survey of Adult Skills, with younger adults (16-24 year-olds) scoring lower than the average and, unlike the situation in most other countries, lower literacy skill levels than the adult population as a whole. Norway has the lowest rate of unemployment among OECD countries.

Institutions: In Norway, schools' autonomy over resource allocation (such as hiring and dismissal of teachers) is around the OECD average, while autonomy over curriculum and assessment is below average. Learning environments in schools are less positive than the OECD average, according to views of students at age 15. Lower secondary teachers are required to follow four years of pre-service training including mandatory teacher training. In secondary education, teaching time is lower than the OECD average, while in primary education it is higher than the OECD average. In both primary and secondary education, salaries are above average, and class size is on average smaller than in other OECD countries. A lower proportion of teachers in Norway than the TALIS average consider that the teaching profession is valued in society and would choose to work as teachers if they could decide again. Also, school leaders focus more on administrative than pedagogical tasks. When appraisal takes place, it often leads to opportunities for professional development activities or a role in school development initiatives. Norway has developed a multi-faceted system for evaluation and assessment in schools, including quality assessment, which can be completed and made more coherent to support effective evaluation and assessment practices. The *Norwegian Agency for Quality Assurance in Education* (NOKUT), an independent government agency, provides quality control for tertiary education.

System: Governance of the education system is shared between the central government and local authorities. Norway's central government sets the goals and framework, while municipalities run primary and lower secondary schools and counties run upper secondary schools. Municipalities also fulfil the right to a place in pres-school for all children from age 1. Lower secondary schooling decisions are mostly taken at the local level, with just a few

decisions taken at the state level, while tertiary institutions are mostly autonomous in their decisions, including those on how they allocate resources. Norway has generous funding at all levels of the education system. Public education is free, except at pre-primary level where parents pay fees. Expenditure on education institutions as a percentage of GDP (for all educational levels combined) is one of the highest among OECD countries.

Figure 12.24. **Selected indicators compared with the average: Norway**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.
Source: The Norway Snapshot was produced combining information from the *Education Policy Outlook: Norway* (OECD, 2013) with OECD data. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink http://dx.doi.org/10.1787/888933171813

Key issues and goals

Students: Norway faces the challenge of ensuring that students remain in school until the end of upper secondary education. Continuing to promote equity while fostering student motivation and excellence is also of high interest.

Institutions: Efforts have been made to improve learning conditions for students by enhancing pedagogical support and strengthening assessment.

System: Norway aims to ensure capacity-building and consistent implementation across all municipalities. Optimising resources and policy implementation strategies in a context of decentralised decision-making is also key. Norway also needs to improve the coherence and responsiveness of its skills system, focus on developing relevant skills to achieve its economic and social goals, and on activating and using these skills effectively.

Selected policy responses

- Norway has carried out multiple efforts in ECEC, such as providing the legal right for all children to a place in ECEC from age 1 (2009).
- Efforts have been made to improve the quality of teachers, notably through the *GNIST initiative* (*GNIST* is Norwegian for spark). This national partnership between the Ministry of Education, the main stakeholders and municipalities/counties (2009-14) aims to increase the quality and status of the teaching profession, teacher education, and school leadership. A yearly teacher recruitment campaign is an important component. Also, the *National Guidelines for Differentiated Primary and Lower Secondary Teacher Education Programmes* for Years 1 to 7 and Years 5 to 10 (2010 and 2013) aim to support implementation of the new teacher education reform.
- Efforts to strengthen assessment have been made since the launch of the *Knowledge Promotion Reform* (2006), a curriculum complementing the National Quality Assessment System (NKVS, 2004) to support effective evaluation and assessment practices in schools. Furthermore, Assessment for Learning (2010), a national programme to improve formative assessment at the school level, is already showing positive results and has been extended from 2014 until 2017.
- The *New Possibilities-Ny GIV initiative* (2010-13) aims to boost the completion rate from 70% to 75%, with specific measures for low-performing students, and to motivate participation in education among 16-21 year-olds who are neither in school nor in employment. An action plan to raise performance in lower secondary education has been launched from the school year 2012/13 to improve mastery of basic skills, boost students' motivation for learning and develop structures for effective implementation.
- The OECD and Norway are collaborating on a cross-ministerial project to build an Effective Skills Strategy for Norway. In 2015 the government will follow up with the implementation process of a Norwegian Skills Strategy based on the strategic approach for developing, activating and using skills that the project has already provided.

Spotlight: Raising performance in lower secondary education

To raise performance in lower secondary education, *an action plan* was developed by 30 key Norwegian education policy makers to work on two basic goals: 1) improving student outcomes in literacy and numeracy; and 2) improving teachers' classroom practices. Four key actions to implement these objectives were also agreed. Defining and communicating the action plan and its strategy for implementation were the first step before implementing the following actions:

1. Define measure and communicate what good literacy, numeracy and classroom practices mean.
2. Identify effective practices for teachers, school leaders and municipalities to improve literacy and numeracy.
3. Develop support strategies for teachers to deliver improved outcomes in literacy and numeracy.
4. Strengthen school leadership to deliver improved outcomes in literacy and numeracy (define and communicate the role of instructional leaders; provide school leaders with training, support and capacity enhancement; and develop networks for school leaders to share and work together).

This draft action plan has been used by Norwegian stakeholders to guide further discussions and to shape new education policy efforts. Norwegian Education Authorities have launched a strategy for implementing the action plan over the period 2012-17 (*Motivasjon og mestring for bedre læring*, 2012).

The detailed policy profile is available at: *http://dx.doi.org/10.1787/9789264225442-29-en*

POLAND

Context

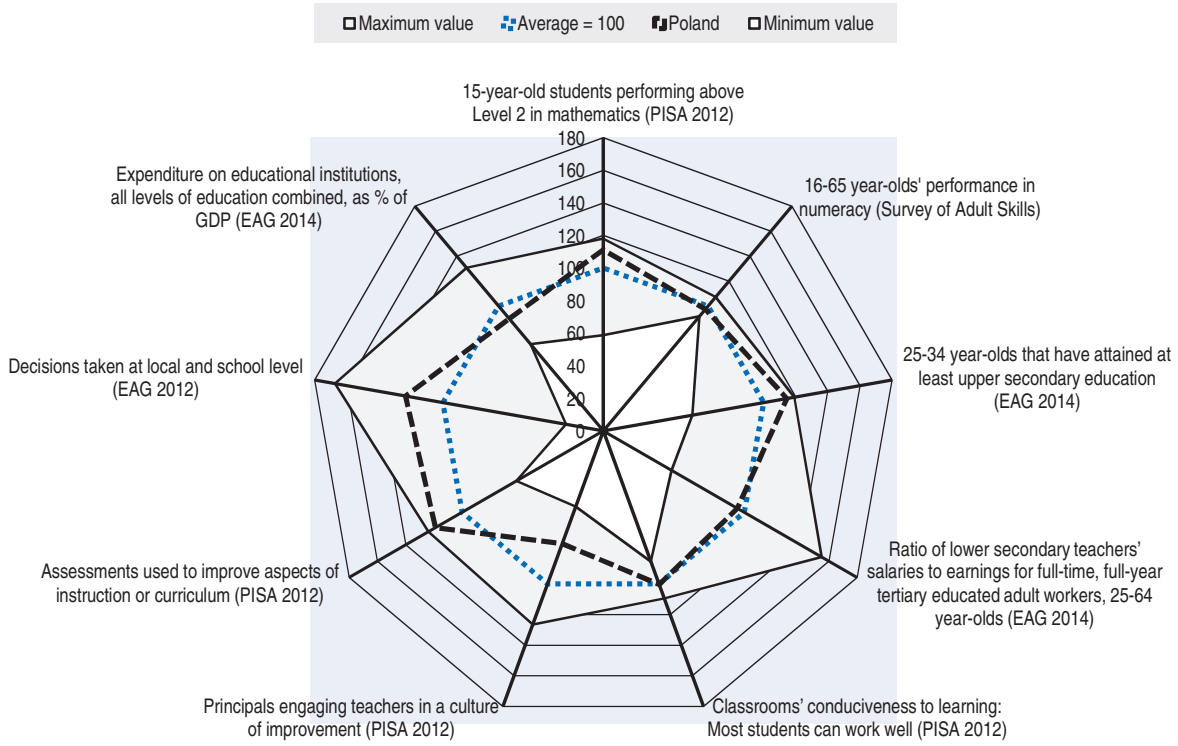
Students: Poland's performance is above the OECD average in PISA 2012, with improvements in mathematics, reading and science across PISA cycles. The impact of socio-economic background on students' performance in mathematics is at around the OECD average. Early childhood education in Poland usually starts at age 3. The enrolment rate of 3-4 year-olds is below the OECD average, but increases with age from around half of 3-year-olds to most 6-year-olds. Education is compulsory from age 5 to 16, including the final year of pre-primary education, six-year primary education and three-year lower secondary education. Part-time compulsory education, received in school or non-school settings, targets young people aged 16-18. Some characteristics of Polish education include low grade repetition, comprehensive schooling and tracking from age 16. Student selection mechanisms such as school choice and the possibility for schools to apply selective admission criteria can hamper equity, if not managed adequately. The country has one of the highest upper secondary attainment rates in OECD countries and an above-average proportion of students enrolled in the different vocational education and training (VET) programmes, with transition possible to tertiary education. Tertiary attainment is below the OECD average for 25-65 year-olds, while the attainment rate of younger adults (25-34 year-olds) is above the OECD average. Literacy and numeracy skills of adults (16-65 year-olds) in Poland are below the average of countries participating in the Survey of Adult Skills, but literacy skills of youth (16-24 year-olds) are above average, and their numeracy skills are around average. Unemployment in Poland is higher than the OECD average.

Institutions: The level of autonomy over curriculum and assessment in schools in Poland is above the OECD average, and autonomy over resource allocation is below average. Practically all lower secondary teachers participated in a pre-service teacher training programme of five years including a mandatory teaching practicum, although only tertiary level education (bachelor's degree) is required. Teaching conditions for primary and secondary teachers include below-average class size, teaching time and salaries. Compared to the TALIS average, a higher-than-average proportion of teachers in Poland would choose to work as teachers again, while a lower-than-average proportion of teachers consider that the teaching profession is valued in society. Schools have a high level of autonomy over hiring and dismissing teachers as well as over curricula and assessments.

System: Governance of the education system in Poland is shared between central and local authorities. The national education policy is developed and implemented centrally. Local authorities run primary and lower secondary schools, while districts run schools above lower secondary level. Schools take slightly less than half of decisions at lower secondary level. Expenditure on education institutions as a percentage of GDP (for all education levels combined) is below the OECD average, and the share of private

expenditure is slightly below the OECD average. Poland had one of the greatest increases in expenditure per student among OECD countries during 2005-11 at primary, secondary and post-secondary non-tertiary levels of education.

Figure 12.25. **Selected indicators compared with the average: Poland**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.
Source: The Poland Snapshot was produced combining information from the country's response to the Education Policy Outlook Snapshot Survey received in December 2013 with OECD data. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink http://dx.doi.org/10.1787/888933171823

Key issues and goals

Students: Poland reports aiming to ensure equal educational opportunities for all children through universal access to good quality early childhood education and care as well as to initial school education, especially for children of disadvantaged socio-economic backgrounds. Promoting VET as an attractive alternative to the academic track at upper secondary education level is also considered important, to ensure that vocational education provides for both good employment perspectives and continuation of education within formal or non-formal/informal frameworks.

Institutions: Poland reports the need to strengthen school autonomy and collaboration (networking) among schools and to support teachers' professional development to enable them to apply innovative practices and provide individualised support to students of diversified background and educational needs. It is also viewed as important to build capacities of local and regional authorities to manage resources efficiently and to use information and data effectively to implement local strategies in line with national policy.

System: Among key issues and goals are facilitating evidence-informed policy development at all levels of administration based on various sources of information (inspection results from school self- and external evaluation, the examination system, statistical data collection and research findings) and further developing the system of validation.

Selected policy responses

- *Lowering the age of primary education* from 7 to 6 began in 2009 and was made compulsory in 2014, with progressive implementation. By 2015/16, all 6-year-olds are expected to start primary school. Similarly, attending early childhood education became compulsory for 5-year-olds in 2011.
- The Minister of National Education redefined the functions of school inspection (2009) to include evaluation (including self-evaluation), control (compliance auditing) and support (aiming at the professional development of staff).
- The Parliament amended the School Education Act (*Ustawa o systemie oświaty*, 2013) to:
  - introduce a limit of PLN 1 per hour for the fee paid by parents for pre-primary education attended beyond the five free compulsory hours (local governments receive ear-marked grants from the state budget to compensate additional costs)
  - provide that from September 2015, every 4-year-old will have a right to participate in pre-primary education, and from September 2017, every 3-year-old will have a place in a pre-primary education institution.

Spotlight: Shifting to transversal skills and learning outcomes

In 2008, the Ministry of National Education started modification of the national core curriculum for general education and school vocational training programmes. The new curriculum aims to shift from narrow, subject-related requirements (earlier described by the intended content of instruction) to more general, transversal skills and competences defined by learning outcomes. The focus is now on experiments, scientific inquiry, problem-solving, reasoning and collaboration. The learning outcomes determine the examination standards, which also shifted from assessment of knowledge to evaluation of more general skills.

The new curriculum framework for general education sets the same programme requirements for the first grade of all types of upper secondary schools (vocational and general).

In VET, a new classification of occupations was adopted during consultations with social partners. Each occupation is divided into a specific set of partial qualifications which are the subjects of validation and certification through exams organised by the Examination Boards. Partial qualification exams can be taken by students during their studies (not necessarily at the end of the programme) or by adults who gained experience through practice or who have completed out-of-school courses.

The new regulations also increased the autonomy of schools to develop their own sets of programmes instead of referring only to programmes (and textbooks) from the list accepted by the ministry. School principals were granted flexibility in managing the instruction time defined for subjects in the curriculum framework. They are only required to ensure that outcomes defined in the national curriculum are attained.

PORTUGAL

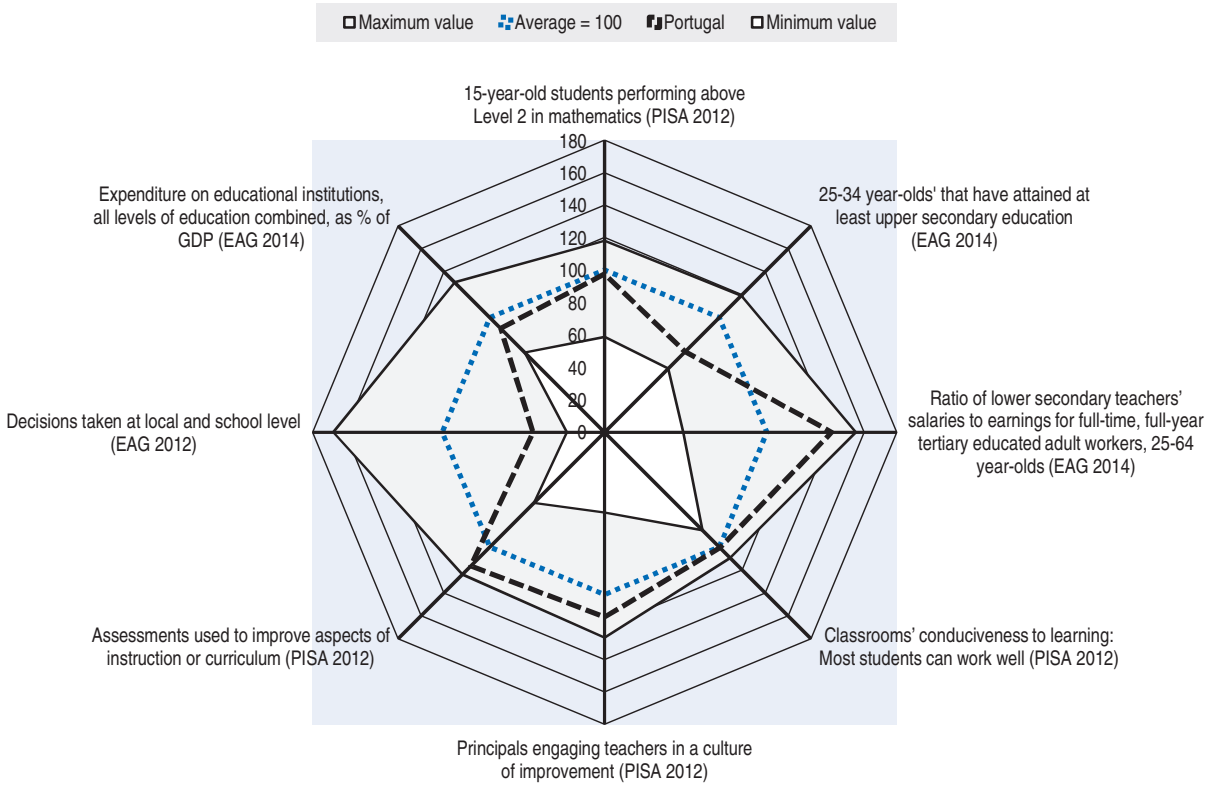
Context

Students: Portugal performs at around the OECD average in mathematics in PISA 2012 and below the OECD average in reading and science, and has made improvements overall across PISA cycles in mathematics, reading and science. The impact of students' socio-economic background on their mathematics' performance in PISA was higher than the OECD average. Portugal has some positive system-level policies. Early childhood education and care (ECEC) usually starts at age 3, and enrolment rates for 3-4 year-olds in early childhood education are above the OECD average. Portugal also has universal enrolment for 5-14 year-olds and recently extended compulsory education to 12 years, from age 6 to 18 (one of the longest periods of compulsory schooling among OECD countries). Some system-level policies may hinder equity, such as above-average grade repetition rates and high dropout rates. Attainment rates at upper secondary and tertiary levels are below the OECD average, and enrolment in upper secondary vocational education and training (VET) is around average. Portugal has decreased dropout since 2000, while unemployment remains above average and youth unemployement is one of the highest in the OECD area.

Institutions: Schools' autonomy over curriculum and assessment and resource allocation in Portugal is below the OECD average. Lower secondary teachers in Portugal undertake initial training of five years including a mandatory teaching practicum with compulsory continuous training. Working conditions for primary and secondary teachers include teaching time in primary education that is above the OECD average, below-average teaching time in secondary education (with time reductions in some cases for teachers from age 50), and below-average class size. In PISA 2012, school leaders report a level of instructional leadership slightly higher than the OECD average, and they now follow specialised mandatory training. Teacher appraisal is recent and focuses more on accountability for career progression than on improvement purposes. Schools' self-evaluations and external evaluations are also new, and not all schools carry out self-evaluations. Internal student assessments (for all subjects) and external student assessments (for mathematics and Portuguese) are organised in schools. At upper secondary level, external assessments include other subjects corresponding to each student's path and are used for admission to tertiary education.

System: The Ministry of Education and Science is responsible for education and science policies, and some decentralising trends are taking place at school and municipality levels. At tertiary level, the Assessment and Accreditation Agency for Higher Education (*Agência de Avaliação e Acreditação do Ensino Superior*, A3ES) evaluates the creation of tertiary education graduate programmes, based on EU guidelines. The share of GDP devoted to education institutions (for all educational levels combined) is below the OECD average, with a higher share of public funding than the OECD average.

Figure 12.26. **Selected indicators compared with the average: Portugal**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.

Source: The Portugal Snapshot was produced combining information from the country's response to the Education Policy Outlook Snapshot Survey received in December 2013 with OECD data. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink http://dx.doi.org/10.1787/888933171832

Key issues and goals

Students: Portugal faces the challenges of ensuring that all students complete compulsory education and increasing attainment rates in upper secondary and tertiary education as well as achieving quality and inclusive education for all students.

Institutions: Portugal needs to continue working on defining more clearly the professional pathways for teachers and school principals, providing relevant training and implementing the reform of the teacher training system. Further developing an integrated evaluation and assessment framework that places students' learning at the centre would also provide clearer information on how schools, leaders and teachers can improve in the classroom, going beyond the objective of accountability.

System: Increasing school autonomy and sub-national levels of governance while optimising the use of financial resources are also of high importance.

Selected policy responses

- The Third Generation of the Education Territories of Priority Intervention Programme (*Territórios Educativos de Intervenção Prioritária*, TEIP 3, 2012) targets geographical areas with socially disadvantaged background population and early school leaving rates higher than the national average. It aims to promote student success by improving quality of learning; tackling disciplinary issues, early school leaving and absenteeism; improving transitions to the labour market; promoting co-ordination among schools, civil society and training institutions; and providing more adaptability to students' needs. TEIP covers 16% of Portuguese schools.
- The network of Centres for Qualification and Vocational Education (*Centros para a Qualificação e o Ensino Profissional*, CQEP, 2013) was created to bridge the gap between education, training and employment. This network replaced the *New Opportunities Programme (Programa Novas Oportunidades*, 2005), which had been adjusted in 2013 (based on an impact evaluation study) to focus more on job market requirements and professional retraining and to align it more closely with the guidelines of the European Alliance for Apprenticeships.
- The Reform of School Leadership (2008) modified selection processes and responsibilities for principals, from *primus inter pares* (teachers elected to the position by their peers) functioning mainly as administrators, towards professionally selected and accountable school leaders with clearly identified authority and responsibilities. *Specialised mandatory training for school leaders* (2012) was also reinforced .
- *Several measures* aim to strengthen the teaching profession, such as: 1) introducing more *stringent admission conditions in Teacher Education Programmes* (2014); 2) *reinforcing the scientific curricula in Teacher Education Programmes* (2014); 3) introducing an evaluation exam for teachers with professional qualification and/or fixed-term contracts with less than five years of practice (*Prova de avaliação de conhecimentos e capacidades*); and 4) introducing a lifelong training framework for teachers (2014) that links continuing professional development to career progression and aims to improve teaching quality.
- The Directorate-General for Innovation and Curriculum Development set *evaluation and monitoring guidelines for pre-school education* (2011). An external evaluation of pre-school education was undertaken in 2013 and led to a revision of the curriculum.
- At the tertiary education level, cost revision *measures* included reduction of operating costs, and revision of the *criteria for setting the number of vacancies in public tertiary institutions*, while trying to adjust the educational offer to the country's needs (2014). Two public universities in the Lisbon Region, the University of Lisbon (*Universidade de Lisboa*) and the Technical University of Lisbon (*Universidade Técnica de Lisboa*), were merged into a single institution. Finally, to limit the impact of current budget cuts due to the financial crisis on academic research and R&D, Portugal has developed the Graduate Studies Grant Programme (*Bolsas de Formação Avançada*, 2013), managed by the Foundation for Science and Technology.
- The OECD and Portugal collaborate on a cross-ministerial project to build an Effective Skills Strategy for Portugal (2014). It will provide a strategic approach for developing, activating and using skills, and for strengthening the effectiveness of its overall skills system to boost employment, economic growth and promote social inclusion.

Spotlight: Combatting school failure and school dropout

The Programme to Combat School Failure and School Dropout (*Programa de Combate ao Insucesso e Abandono Escolar*, 2012) builds on a series of measures designed to prevent school dropout, by providing extra support to students at risk of failing in primary and secondary education and developing vocational education and training (VET) in upper secondary education as an equal alternative to the general programme. Portugal has aimed to create more vocational courses in secondary education and provide for a coherent national VET strategy to guide students and involve the business sector, mainly through: the reformulation of VET upper secondary syllabi (2013); *Centres for Qualification and Vocational Education* (CQEP, 2013); specific Vocational Programmes (2012) providing pilot *vocational courses* in primary education (2nd cycle) and lower secondary education (starting at age 13); and Vocational Reference Schools (*Escolas de Referência do Ensino Profissional*, EREP, 2012).

The detailed policy profile is available at:
http://dx.doi.org/10.1787/9789264225442-30-en

SLOVAK REPUBLIC

Context

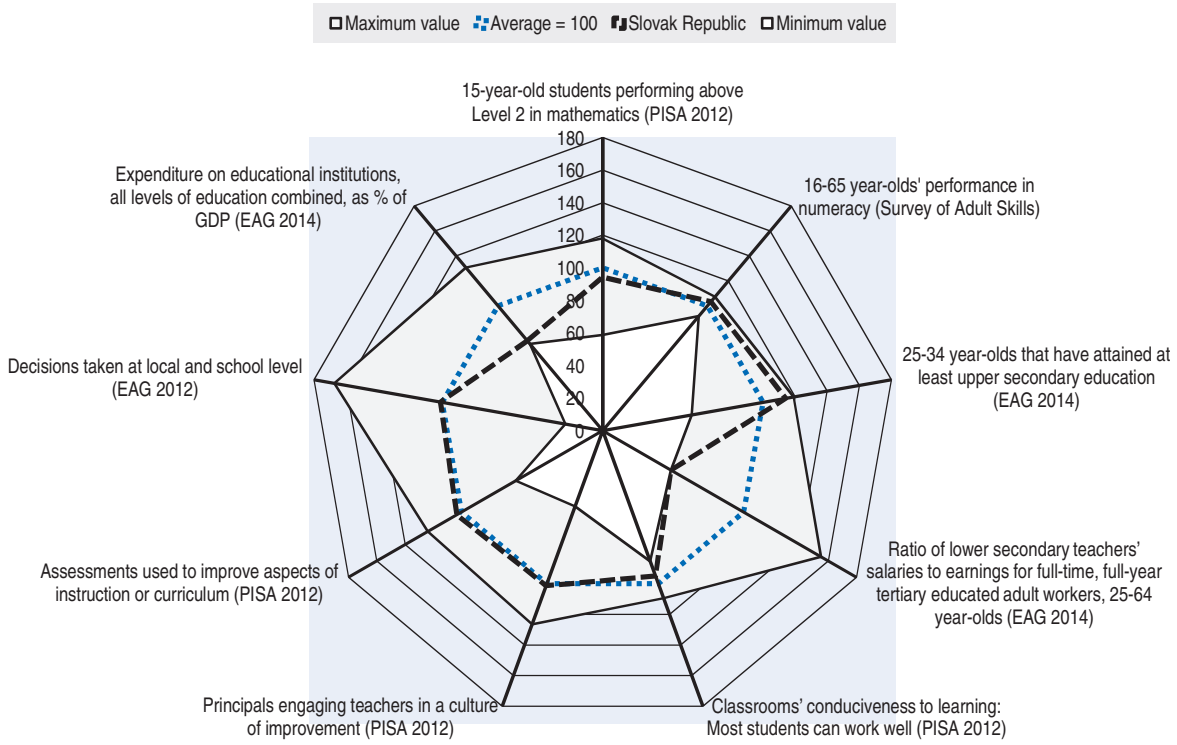
Students: The Slovak Republic performs below the OECD average in mathematics, reading and science in PISA 2012, and performance has decreased in mathematics and science across PISA cycles and remained unchanged in reading. The effect of socio-economic background on performance in mathematics is the highest among OECD countries. Early childhood education usually starts at age 3, and enrolment rates of 3-4 year-olds is at around the OECD average. Compulsory education lasts from age 6 to 16 (10 years) and includes primary and lower secondary education as a single structure and the first year of upper secondary education. The Slovak Republic has low grade repetition rates. Some student selection mechanisms, such as early tracking at the age of 11 (one of the earliest among OECD countries), ability grouping and school choice, could hamper equity if not managed appropriately. The upper secondary attainment rate is one of the highest among OECD countries, and enrolment rates in vocational education and training programmes (VET) in upper secondary education are also high, with transition to tertiary ensured upon completion. Practically no professionally oriented study programmes exist in Slovak higher education. Tertiary attainment rates remain below the OECD average, with large increases since 2000. The literacy and numeracy skills of 16-65 year-olds are above average when compared to other countries participating in the Survey of Adult Skills. The literacy skills of 16-24 year-olds are slightly lower than average. Unemployment rates are above the OECD average and reached the highest level in OECD countries for those without an upper secondary qualification and those in the 25-34 age group.

Institutions: The level of responsibility for resource allocation in Slovak schools (such as on hiring and dismissing teachers) is above the OECD average, and their autonomy over curriculum decision and assessment has increased to the OECD average. Lower secondary teachers are required to follow a pre-service teacher training programme of five years including a mandatory teaching practicum. Teaching conditions include below-average class size for primary and secondary teachers, with below-average teaching time in secondary education and above-average teaching time in primary education. A lower proportion of teachers in the Slovak Republic than the TALIS average consider that the teaching profession is valued in society and would choose to work as teachers if they could decide again. There is no coherent school evaluation and assessment system, while there has been an increase in importance of evaluation and assessment in recent years.

System: Governance of the education system is shared between the central government and local authorities. The national Ministry of Education, Science, Research and Sports develops educational goals, content and methods, while municipalities are responsible for local administration and provide most of pre-primary, primary and lower secondary education. Administration of regional education (the name used for pre-primary, primary and secondary education) is a combination of activities by the state administration, regional (municipal) administration and self-governance by schools. Most schooling decisions in lower secondary

education are taken at school level, with the rest taken by the central government. Expenditure on educational institutions as a percentage of GDP (for all education levels combined) is one of the lowest among OECD countries, with a higher share of private funding than the OECD average. The Slovak Republic had one of the largest increases in expenditure per student among OECD countries from 2005-11 at primary, secondary and post-secondary non-tertiary levels of education.

Figure 12.27. **Selected indicators compared with the average: Slovak Republic**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.
Source: The Slovak Republic Snapshot was produced combining information from the country's response to the Education Policy Outlook Snapshot Survey received in December 2013 with OECD data. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink http://dx.doi.org/10.1787/888933171844

Key issues and goals

Students: The Slovak Republic reports an aim to ensure better access to quality education for children from disadvantaged socio-economic backgrounds. Some issues under consideration include increasing the quality of VET to attract more students and to better prepare them for entering the labour market; introducing professionally oriented programmes in Slovak Higher Education Institutions (HEI); and revising the current system of social support for students in tertiary education.

Institutions: The Slovak Republic considers it important to increase teachers' salaries to a competitive level to improve the attractiveness of the teaching profession. The Slovak Republic also considers that the current model of HEI self-governance and internal organisation as well as internal and external monitoring and assessment of quality in regional education could be improved. It is also of prime interest for the Slovak Republic to

implement an effective and internationally accepted method of quality assurance in Slovak Higher Education.

System: The Slovak Republic aims to increase the effectiveness and quality of the education system on several fronts, such as improving regional education administration, simplifying higher education legislation, increasing education funding to the average level of OECD countries by 2020, and adjusting the funding allocation system for HEIs to provide adequate incentives for improvement.

Selected policy responses

- The *Education Act* (2008) aims to increase equity and quality of the education system and prepare students for the future.
- The Pedagogical and Specialised Employees Act (2009) defines the role, rights and duties of teachers, the qualifications needed to enter the profession and the teachers' appraisal process, and introduces a continuing professional development process. In addition, in recent years, the Slovak government passed decrees to increase teachers' salaries between 2011 and 2013.
- The Higher Education Act (2012) was amended and approved by the Slovak Parliament to reorganise the self-governance of HEIs.
- Every year since 2011, the Slovak Republic has been increasing funding of primary and secondary education in the state budget to reach the OECD average level of expenditure in education (Report on the State of Education in Slovak Republic, 2013).
- The *system of funding in higher education* introduced in 2002 and the system of funding in regional education introduced in 2003 are further developed on a yearly basis through an update of the corresponding lower-level legislation.

Spotlight: Promoting a new system for funding higher education

The new HEI financing system was introduced by the Higher Education Act (2002). It sets out two categories of changes in financing HEIs: 1) the overall change of financial management of HEIs; and 2) the change of the allocation of funds from the state budget to HEIs.

New financial management of HEIs includes: 1) introduction of multi-source financing with funds coming mostly but not completely from the state budget; 2) allowing transfer of unspent state subsidies to the following year; 3) subsidies in the form of block grants; 4) the possibility for HEIs to own property; and 5) visualisation of the true economic state of HEIs by introduction of fully accrual accounting, which has enabled the recent start of a full costing project.

A new system of allocation from the state budget to HEIs introduced four kinds of subsidies: 1) for realisation of accredited study programmes, depending on the teaching performance of the HEI; 2) for research, depending on the research performance of the HEI; 3) for further development of the HEI, for accepted development projects; and 4) for social support of students in the form of grants, accommodation, meals, sport and culture.

Some strengths of the system identified by the Slovak Republic are the clear rules and transparency of allocation of subsidies from the state budget; the motivation for HEIs to increase teaching and research activities; the specific and focused support for development in selected areas; the support of access to higher education through the system of social scholarships; and the incentives for students through motivation scholarships.

SLOVENIA

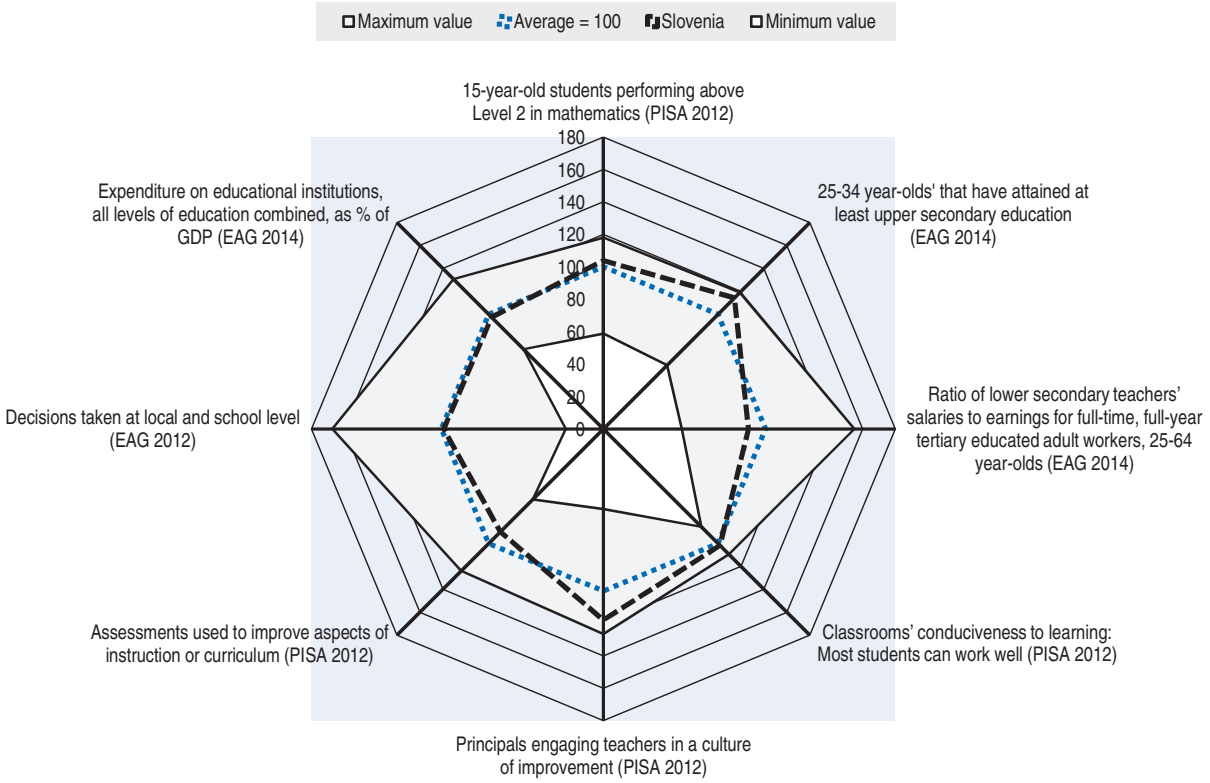
Context

Students: Slovenia performs above the OECD average in mathematics and science in PISA 2012 and below the OECD average in reading, with decreased performance in reading and unchanged performance in mathematics and science across PISA cycles. The impact of students' socio-economic background on performance is similar to the OECD average in PISA 2012, with high performance differences between schools. Slovenia has an integrated system of early childhood education and care (ECEC) for children age 1 to 6 and the enrolment rate of 3-4 year-olds is above the OECD average. Compulsory basic education is organised into a single 9-year structure called basic school, attended by students age 6 to 15. Grade repetition rates are low, and tracking starts at age 15 (the OECD average). Attainment rates in upper secondary education and enrolment in vocational education and training (VET) in upper secondary education are above average. Transitions between general and vocational upper secondary programmes are ensured, as well as access to tertiary education upon completion of an upper secondary VET programme. However, fewer students than the OECD average attain tertiary education. Unemployment in Slovenia is slightly above the OECD average.

Institutions: Slovenian schools have an overall average level of autonomy, with high levels of autonomy over hiring and dismissing teaching staff compared to other OECD countries, but a below-average level of autonomy over curriculum decisions and student assessment. Lower secondary education teachers in Slovenia are required to have five years of pre-service training including a mandatory teaching practicum. Teaching conditions for primary and lower secondary teachers include below-average class size and teaching time. Evaluation and assessment of educational institutions and the education system as a whole are used for improvement purposes.

System: Governance of the education system in Slovenia is shared between the central government and the school level. Municipalities establish public kindergartens, music schools, basic schools, student residence halls and adult education organisations. The central government establishes public upper secondary and tertiary institutions, educational institutions for Special Education Needs (SEN) students and student dormitories. Private kindergartens, schools and tertiary institutions can be founded by domestic or foreign persons or legal entities. The Ministry of Education, Science and Sport is responsible for drafting, evaluating and implementing regulations, and has authority over pre-school, compulsory basic school, upper secondary, adult and higher education. Most schooling decisions in primary and secondary education are taken at school level. Expenditure on educational institutions as a percentage of GDP (for all levels of education combined) is around the OECD average, with a higher share of funding from private sources than the OECD average.

Figure 12.28. **Selected indicators compared with the average: Slovenia**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.

Source: The Slovenia Snapshot was produced combining information from the country's response to the Education Policy Outlook Snapshot Survey received in December 2013 with OECD data. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink http://dx.doi.org/10.1787/888933171856

Key issues and goals

Students: Slovenia reports a need to address achievement gaps between specific student-population groups and to improve the responsiveness of the education system to the changing skills requirements of the labour market, economy and society.

Institutions: Slovenia aims to improve the efficiency of school leadership and governance by introducing more flexibility in the organisation of pedagogical work and in the implementation of curricula.

System: Slovenia aims to ensure an effective system of quality assurance in education and to further improve evidence-based policies and implementation processes.

Selected policy responses

- The Kindergarten Act 2008 and the Exercise of Rights to Public Funds Act 2012 grants payment to parents with two or more children enrolled in pre-primary education to improve access to ECEC. An amendment to the Kindergarten Act (2010) allows municipalities to provide ECEC in buildings not constructed for this purpose. Also, the Child-minders at Home programme (2008) is a special grant for parents who did not get a spot in public pre-primary institutions. Information on available spots in pre-primary institutions is centralised.
- The Ministry of Education, Science and Sports, with the help of the European Structural Funds, implemented several programmes to support low-performing students and schools. The measures target mainly students from disadvantaged socio-economic, immigrant or Roma backgrounds. Examples of such programmes include the *Liven Up the School initiative* (*Popestrimo šolo*, 2011), the *Programme of Education for Professionals' Skills Improvement for the Successful Integration of Immigrant Students in Education* (2013), the *Projects for the Successful Integration of Roma Students in Schools* (2008-15) and the *Project raising the social and cultural capital in areas inhabited by members of the Roma community* (2011-13). This last project introduced methods of work with Roma children, youth and parents in Roma settlements to increase participation and success of Roma children in education. Measures and guidelines also aim for the integration of immigrant children in kindergartens and schools (2012).
- The Ministry of Labour, Family, Social Affairs and Equal Opportunities set the *Youth Guarantee* (2014) to guarantee a job, formal education or a training opportunity to any 15-29 year-old registering in Slovenia's Employment service. Slovenia has allocated EUR 157.7 million to this programme. The target population comprises those currently unemployed, as well as 37 000 people in that age range who register annually for this service.
- Slovenia introduced a competence-based approach in VET curricula (2008-11), with a modular structure in teaching and learning, and increased the share of practical training. The updated subject curricula in general upper secondary schools (*gimnazija*) (2008/09) and the updated curricula in basic schools (2011/12) also introduced core competencies in general education. Following the *reform of vocational education* (2008-11), practical training in the work place increased, and 20% of the curriculum can now be designed in co-operation with social partners, particularly local companies.
- Slovenia aims to promote quality across the education system. The *Slovenian Qualification Framework* (SQF), which is in process of being adopted, was developed in reference to the European Qualification Framework (EQF) with the support of the European Union. At tertiary level, the Slovenian Quality Assurance Agency for Higher Education (2010) was established as an independent agency according to Standards and Guidelines in quality assurance in the European Higher Education Area. It is listed in the European Quality Assurance Register for Higher Education (EQAR).

Spotlight: Using data to monitor and steer education

The Ministry of Education, Science and Sport set up a database called the Central Register of Participants in Education Institutions (CEUVIZ, 2011) which compiles individual, school and education outcome data on students in pre-primary, primary and secondary education, as well as short-cycle higher vocational education. CEUVIZ is linked to other databases such as the Ministry's Register of Institutions and Programmes, the Central Population Register, the Register of Social Rights and the Register of Spatial Units. CEUVIZ is used to follow up on key education goals and objectives, make decisions with regard to rights to public funding and provide evidence for scientific research and statistical work. The use of CEUVIZ is restricted to schools and the ministry.

The ministry also established the Electronic Higher Education Information System (*Evš*, 2012), which includes data on higher education institutions, publicly verified study programmes, students and graduates. The *Evš* is an analytical tool that facilitates regular monitoring of the system's operations and the development and streamlining of higher education policies. As a central source of data on student status, the *Evš* also helps to verify the right of students to public subsidies and different forms of financial aid instruments.

SPAIN

Context

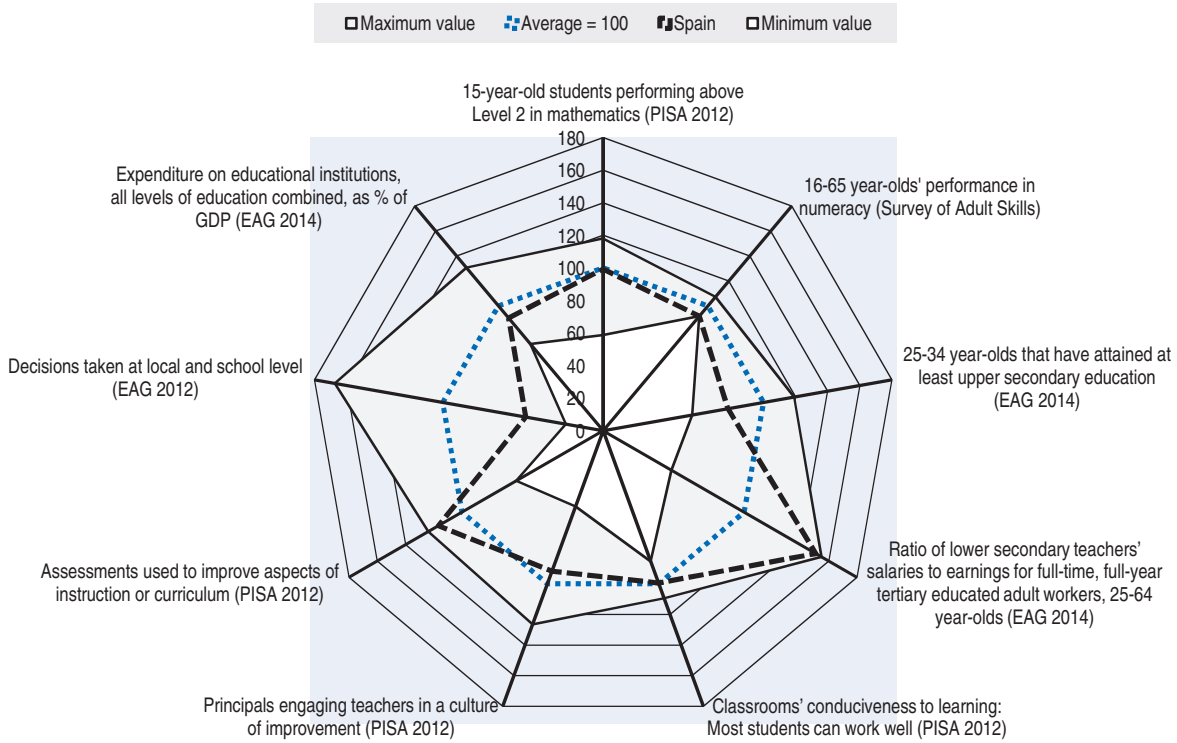
Students: Spain performed below the OECD average in reading, mathematics and science in PISA 2012, with unchanged performances across PISA cycles. The impact of socio-economic background on mathematics performance is at the OECD average in PISA 2012. Early childhood education tends to start at the age of 2 to 3 and the enrolment rate of 3-4 year-olds is above average. School is compulsory from age 6 to 16, and Spain has comprehensive education for all students until age 16. Grade repetition can hamper equity and completion, and dropout rates from upper secondary education are high among students from disadvantaged socio-economic backgrounds. The attainment rate in upper secondary is below the OECD average, with lower-than-average enrolment in vocational education and training (VET). Tertiary attainment has increased to the OECD average. Spanish 16-24 year-olds are more proficient in numeracy and literacy than the overall adult population (16-65 year-olds) and perform below the average of their peers in other countries participating in the Survey of Adult Skills. Spain has the highest unemployment rate among OECD countries, and those with lower educational attainment are affected more than in most OECD countries. Also, the proportion of youth that were neither employed nor in education or training in 2012 is above the OECD average.

Institutions: Schools have below-average autonomy over curriculum and assessment and allocation of resources. Spanish learning environments are positive, according to the views of 15-year-olds. Lower secondary teachers undergo a five-year pre-service training including mandatory teacher practicum. The ratio of students per teacher is below the OECD average at all levels of education, and salaries for teachers are competitive in relation to workers with similar experience. At primary and secondary level, teaching time is above the OECD average. Spanish teachers have access to professional development, but appraisal opportunities seem less common than for their counterparts in other countries. Compared to the TALIS average, a higher proportion of teachers in Spain would choose to work as teachers again, while a lower-than-average proportion of teachers consider that the teaching profession is valued in society. Principals are elected or selected from among teaching staff and then follow a short training course. They tend to focus more on administrative tasks than pedagogical leadership. Evaluation and assessment is organised partly at the central government level (in co-ordination with regions) and partly at the regional level.

System: The education system is steered jointly by the national government in agreement with states, with the national level defining the overall framework and guidelines. Education objectives are aligned to EU 2020 priorities. Most schooling decisions in lower secondary education are taken at the regional level and to a lesser extent by the central government, with limited autonomy for individual schools. Also, funding is

determined and mainly distributed by the regional governments. Although public funding decreased due to the economic crisis, expenditure per student continues to be above the OECD average. Expenditure on educational institutions is funded less from private sources than the OECD average.

Figure 12.29. **Selected indicators compared with the average: Spain**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.
Source: The Spain Snapshot was produced combining information from the *Education Policy Outlook: Spain* (OECD, 2014) with OECD data. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink *http://dx.doi.org/10.1787/888933171860*

Key issues and goals

Students: Spanish system-level policies, such as grade repetition, have the potential to hinder equity and can contribute to student dropout. High dropout and youth unemployment rates require efforts to consolidate basic skills and better match labour market needs, focusing on quality of education and provision of VET. This includes aligning education and training to promote better links with the labour market.

Institutions: With increased school autonomy, quality of teachers and school leadership can be improved through more targeted initial and continuing training. Schools in Spain also require sustained support to respond to the rapid and large increase in the share of immigrant children they are experiencing. Also important is achieving a balanced evaluation and assessment framework that sets national education goals and standards to help students and teachers to improve.

System: Spain faces a major challenge to continue delivering and raising the quality of education and skills. This is especially important for more disadvantaged groups, because higher education attainment and skills generally translate into higher labour force participation and wages. Spain could also benefit from improving consistency across regions to meet national and regional education priorities, building on evidence of what impacts learning, and reviewing expenditures and allocating funds where most needed.

Selected policy responses

- An annual National Reform Programme (*Programa Nacional de Reformas*, 2012) presents objectives to meet the European Union 2020 strategy and proposes to reduce dropout rates to 15% by 2020.
- The Programme to reduce early dropout in education and training (*Programa para la reducción del abandono temprano de la educación y la formación*, 2008) which provided funding for preventive measures, has shown a *small impact* on reducing dropout.
- A dual VET system, developed in 2012, combines training with employment in companies. The aim is to provide a professional qualification by harmonising teaching and learning processes between training institutions and workplaces. Basic requirements for the dual system are regulated by the Ministry of Education, Culture and Sports (*Ministerio de Educación, Cultura y Deporte*), with implementation by regional governments. In only one year, the new system has doubled the number of students and companies.
- A measure to respond to the economic crisis (*Real Decreto-ley 14/2012*) addresses the rational use of resources in education, allowing for an increase in teaching hours per teacher, reviewing class size, adjusting education to demand and reviewing university fees. Some of these measures are temporary, and regional authorities can decide on their application.
- The OECD and Spain are collaborating to build an Effective Skills Strategy for Spain (2014). It will provide a strategic approach for developing, activating and using skills to boost employment and economic growth.

Spotlight: Targeting completion and transition

A new reform in process of implementation, the Organic Law for the Improvement of Educational Quality (*Ley Orgánica para la Mejora de la Calidad Educativa*, LOMCE, 2013), proposes to introduce greater flexibility in student pathways at age 15 instead of 16, ease the transition into upper secondary vocational education programmes, provide more autonomy to schools and school leaders, and strengthen external student assessments. To raise students' outcomes, LOMCE aims to define core common basic education throughout the country, while taking into account the special requirements of regional governments. Together with evaluations for the entire national territory, the aim is to tackle the large differences among regions. It also introduces a new Diploma on Basic VET, which lasts two years for students between 15 and 17, ends with a professional certificate and gives access to Intermediate Level VET (*ciclos formativos de Formación Profesional*). Students can also take the final examinations to obtain one of the two diplomas in Compulsory Secondary Education (*Educación Secundaria Obligatoria*, ESO).

Spotlight: Targeting completion and transition *(cont.)*

To enhance quality of schools, LOMCE establishes greater autonomy for schools in schedule, content and pedagogical approach and will allow further autonomy in co-operation with regional administrations. It also modifies the selection process for school leaders to require candidates to have taken a specialised training course, to value previous experience and to consider candidates from any school (in the past, priority was given to internal school candidates). It also introduces external assessments at the end of each stage of education. The tests will be for diagnostic purposes in primary education, and for high stakes in lower and upper secondary education.

Under this reform, students in the last year of lower secondary education can choose either general academic courses or more vocationally oriented courses that combine academics with specific training in one or more professional profiles. At the end of the year, students can take either the academic or the vocational examination, leading to a diploma that will give them access to their chosen pathway, either Baccalaureate or VET.

The detailed policy profile is available at:.

http://dx.doi.org/10.1787/9789264225442-31-en

SWEDEN

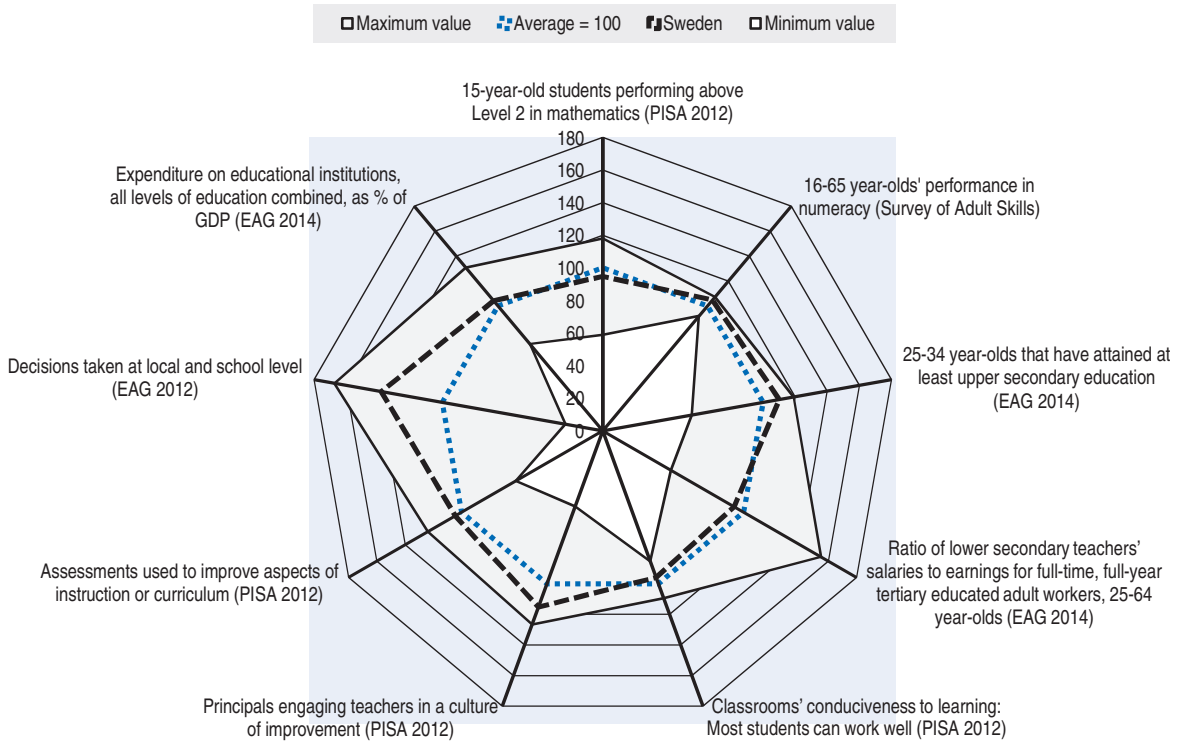
Context

Students: Sweden performed below the OECD average in PISA 2012, with performance in mathematics, science and reading decreasing throughout PISA cycles. The impact of students' socio-economic background on mathematics is below the OECD average. Early childhood education usually starts between the ages of 2 and 3, and most 3-4 year-olds are enrolled in pre-primary education. Schooling is compulsory from age 7 to 16, organised in a single structure corresponding to primary and lower secondary education, and there is no provision for grade repetition unless parents specifically ask for it. School choice and student selection mechanisms, such as ability grouping, can hamper achieving greater levels of equity. Sweden has above-average upper secondary and tertiary attainment rates. The country also has a slightly above-average enrolment rate in vocational education and training VET programmes in upper secondary education, with transitions possible from upper secondary VET programmes to tertiary education. Greater differentiations between VET and general upper secondary paths have taken place as part of broader reforms in 2011. The literacy and numeracy skills of Swedish adults (16-65 year-olds) are higher than in other countries participating in the Survey of Adult Skills, with younger adults (16-24 year-olds) scoring even higher in literacy and problem solving than other adults. Unemployment is lower than the OECD average. The economic crisis has had a large impact on those who did not reach upper secondary level.

Institutions: Schools have less positive than average learning environments. Autonomy over resource allocation in Swedish schools such as hiring and dismissal of teachers is above the OECD average, and autonomy over curriculum and assessment is below average. Lower secondary teachers are required to follow a pre-service teacher training programme of 4.5 years, including a mandatory teaching practicum. Teaching conditions include below-average salaries and below-average ratios of students to teaching staff in primary and secondary institutions. A much lower proportion of teachers in Sweden than the TALIS average consider that the teaching profession is valued in society and would choose to work as teachers if they could decide again. Moreover, evaluation mechanisms exist at each level of governance. A national framework for evaluation and assessment clarifying the roles among governance levels could improve the education system and reduce variation between municipalities.

System: The education system is steered by the central government and local authorities. The central government defines goals and learning outcomes and has overall responsibility for education. The municipalities are responsible for providing and operating primary and secondary schools, and most of the decisions in lower secondary education are taken by schools or local governments. Post-secondary and vocational education (ISCED 4) is organised and run by a specialised agency. Expenditure on educational institutions as a share of GDP (for all education levels combined) is above the OECD average, with a higher share of funding from public sources than the OECD average.

Figure 12.30. **Selected indicators compared with the average: Sweden**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.
Source: The Sweden Snapshot was produced combining information from the country's response to the Education Policy Outlook Snapshot Survey received in December 2013 with OECD data. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink http://dx.doi.org/10.1787/888933171872

Key issues and goals

Students: Among the key targets reported by Sweden are increasing students' performance and reducing dropout rates to achieve greater equity and quality.

Institutions: Sweden aims to provide secure and positive learning environments in schools, as well as to make the teaching profession more attractive and recruit more skilled teachers into the profession. Another priority reported is improving equity in assessment and grading.

System: Sweden could benefit from a more overarching vision of education, of its priorities, and of developing a stronger and clearer steering system that is aligned to the complex structure of the school system.

Selected policy responses

- A *new curriculum* for pres-chool, compulsory and upper secondary education, introduced in 2011, aims to provide general goals, guidelines and syllabi for each core subject, and to define clearer knowledge requirements. Students' progress is now assessed on national tests in Grades 3, 5 and 9 and two additional tests in Grades 6 and 9 (2011). In addition, a new grading scale has been implemented, beginning in 2011, to improve quality assessment in primary and secondary schools.

- The Education Act was implemented in 2011, aiming to provide all students with the opportunity to reach achievement targets and complete upper secondary school with improved skills, both for the labour market and further studies. Students who run the risk of not achieving the targets have the right to receive individual support. Other objectives include: 1) to give school leaders and teachers greater authority to provide students with better and more conducive learning environments; 2) to set stronger requirement for municipalities to provide greater access to student health facilities; and 3) to provide equal opportunities for all organisers of education.
- A new upper secondary education system (2011) aims to improve VET programmes by providing the option of apprenticeship.
- The Swedish Schools Inspectorate (2008) has authority to exert sanctions and can impose fines (through a strengthened role granted by the Education Act, 2011) to schools not complying with regulation and standards.
- The Swedish National Agency for Higher Vocational Education (NAHVE, 2009) administers a common framework of publicly funded vocational education at the post upper secondary level, decides which programmes will receive public funding and be included in the framework, audits the quality and outcomes of the courses, and analyses and assesses demand for qualified labour and trends in the labour market.
- The *OECD-Sweden Education Policy Review* analyses and proposes recommendations to increase student performance in Sweden.

Spotlight: Improving the attractiveness of the teaching profession

Sweden recently introduced some reforms to improve the attractiveness of the teaching profession:

1. In 2011, Sweden started *new teacher education programmes*, structured as four main degrees: a degree in pre-school education, a degree in primary school education, a degree in subject education and a degree in vocational education (*Bäst i klassen – en ny lärarutbildning* OBS Prop. 2009/10:89).
2. Teaching practice in initial teacher training will be carried out at specialised training schools (*övningsskolor, 2014*). More stringent requirements for admission in teacher education including aptitude tests have been set up, and a teacher registration system (2013) was also introduced.
3. Through a career development reform (2013), the government created advancement stages and provided salary increases for professionally skilled teachers in compulsory and upper secondary school. Two new career categories for teachers (senior master and lead teacher) were also created. Through this reform, teachers can receive a salary increase of about EUR 566 to EUR 1 132. Approximately one of six teachers qualifies for one of the positions.
4. The Boost for Teachers programme (*Lärarlyftet*) (2007-11) offered 30 000 teachers the possibility of following advanced continuing professional education at higher education institutions, and about 24 000 took part in this initiative. Boost for Teachers II offers the possibility for registered teachers without formal teaching qualification in a subject or age group they teach, to take specialised courses.
5. Training in effective teaching methods through peer learning has been introduced: all teachers in mathematics can participate in *Mattelyftet* (an in-service training about mathematics), while starting in 2015, teachers of Swedish can participate in *Läslyftet* (an in-service training about literacy). A Science Boost for science teachers has also been developed.

SWITZERLAND

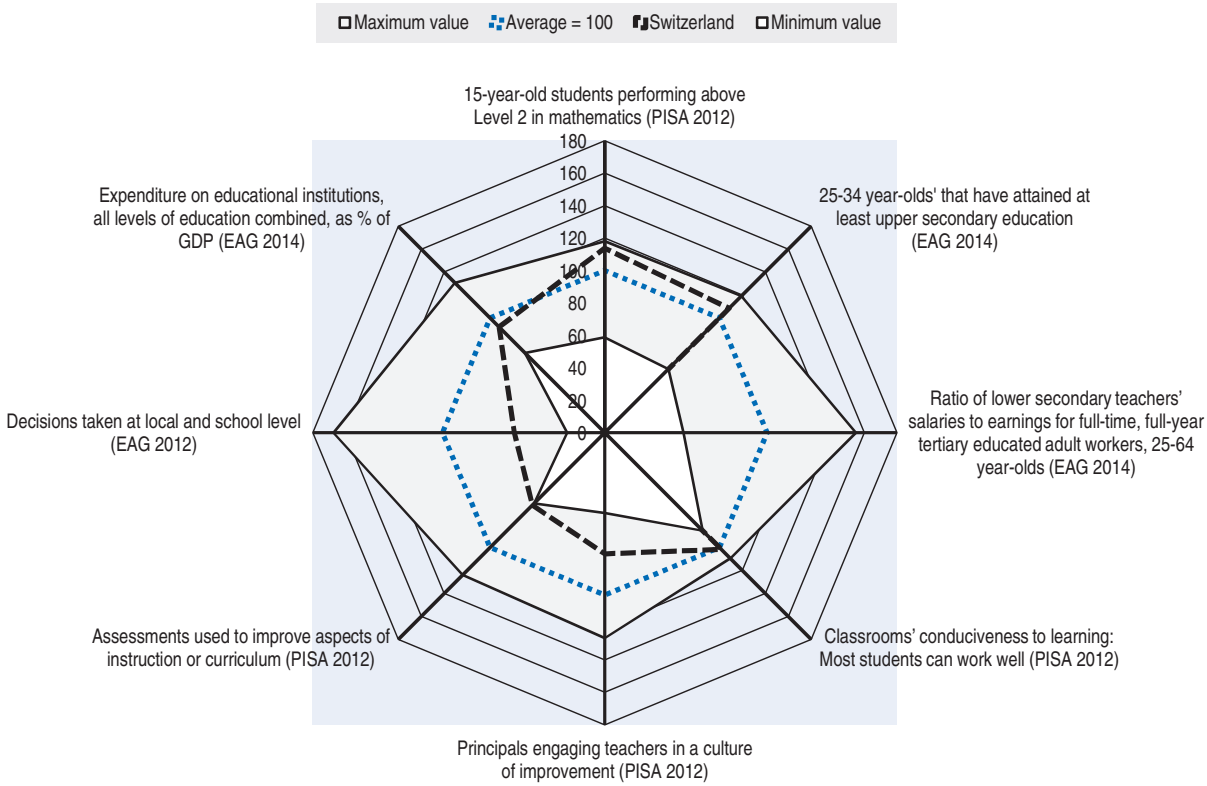
Context

Students: Switzerland performs above the OECD average in mathematics, reading and science in PISA 2012, with improvement in reading and unchanged performance in mathematics and science across PISA cycles. Students' socio-economic background had an average impact on mathematics performance compared to other OECD countries. Pre-primary education usually starts at age 5, and the proportion of 3-4 year-olds enrolled is lower than the OECD average. Compulsory education lasts at least nine years, from age 5 or 7 (depending on the canton) to age 15, and is subdivided into primary school and lower secondary education. Switzerland has limited school choice with one or two years of compulsory pre-primary school in some of the cantons. Student selection mechanisms, such as early tracking (from age 12) and grade repetition, may hamper equity if not managed appropriately. Switzerland has above-average upper secondary attainment and high enrolment rates in vocational education and training (VET) programmes. The VET system is well developed, and professional education and training (PET) is well articulated with upper secondary VET, offering a wide range of progression opportunities for graduate apprentices. Attainment rates in tertiary education are also higher than average. The economic crisis has had a small impact in Switzerland compared to other countries, as Switzerland's unemployment rate is below the OECD average.

Institutions: Schools have positive learning environments, with autonomy over resource allocation, curriculum decision and student assessment policies below the OECD average and more autonomy on selecting teachers. Lower secondary teachers are required to follow a pre-service teacher training programme of five years including a mandatory teaching practicum. School leaders have lower-than-average involvement in improving teaching practices and the working environment within the school.

System: Governance of the education system is regional in Switzerland, and there is no national education ministry. Each of the 26 cantons is responsible for pre-primary, primary and lower secondary education, whereas the competence for post-compulsory and tertiary education is shared between cantons and the confederation. Most of the decisions in lower secondary education are taken at the canton level; upper secondary education and VET are regulated by the confederation, and cantons are responsible for enforcement. The share of GDP devoted to education institutions (for all levels of education combined) is below the OECD average.

Figure 12.31. **Selected indicators compared with the average: Switzerland**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.

Source: The Switzerland Snapshot was produced using OECD data. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink http://dx.doi.org/10.1787/888933171885

TURKEY

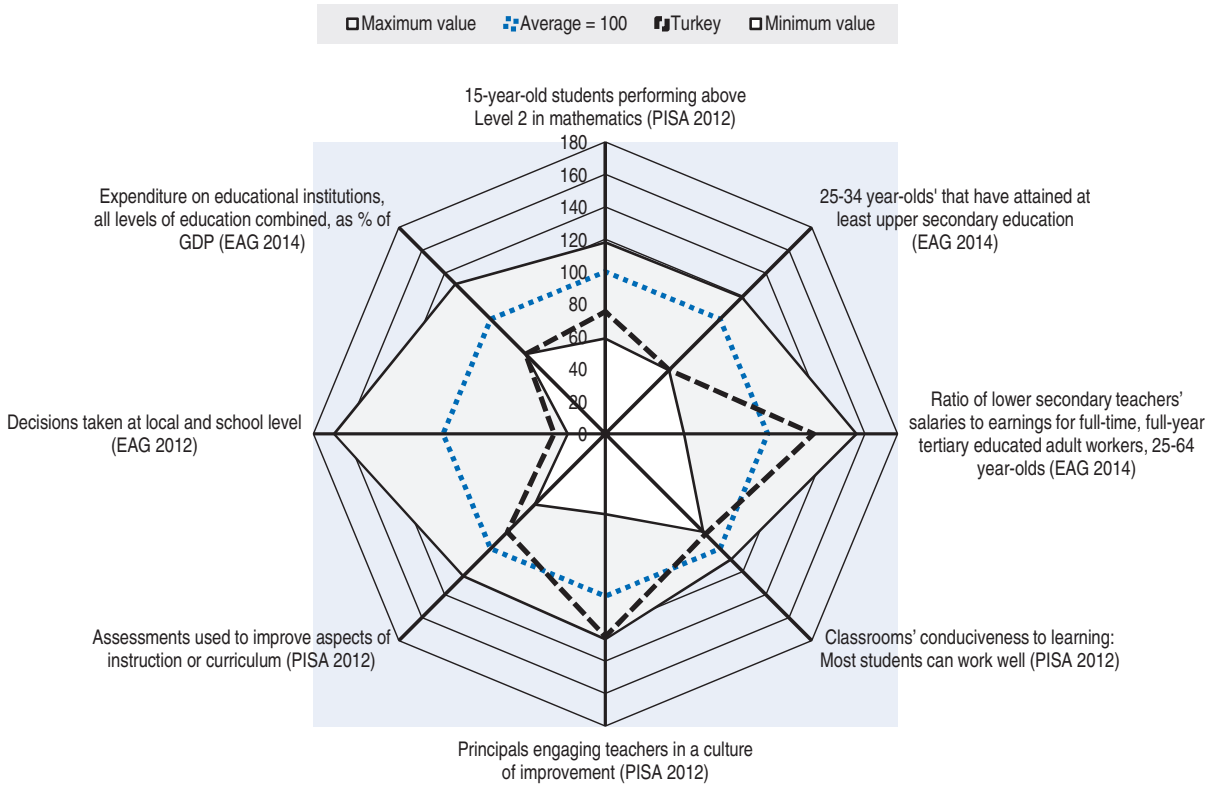
Context

Students: Turkey performs below the OECD average in PISA 2012, while the country has achieved improvements in mathematics, reading and science across PISA cycles, and the impact of socio-economic background on mathematics performance is around the OECD average. The country is working to improve children's access to education. Turkey also has a higher-than-average proportion of students with particularly low achievement amongst students from disadvantaged low socio-economic backgrounds. Enrolment in early childhood education and care (ECEC) is still low compared to the OECD average (the lowest rate for 3-4 year-olds in OECD countries), and early childhood education usually starts at age 5. System-level policies, such as early tracking (at age 11, one of the earliest among OECD countries) can hamper equity if not managed appropriately. The transition into upper secondary education and tertiary education is also highly selective. At upper secondary level, attainment rates are below average and enrolment in vocational education and training (VET) is at the OECD average. Attainment rates in tertiary education are below the OECD average, and have increased significantly since 2000. Unemployment in Turkey is at the OECD average.

Institutions: Schools in Turkey have the lowest levels of autonomy over curriculum and assessment and resource allocation among OECD countries. Turkish students have a positive view of their teachers and learning environments. Schools and their learning environments face many challenges, including a population influx from rural to urban areas. The capacity of school leaders and teachers to respond to school needs can be limited by weak initial education and training, teachers' lack of experience and the low autonomy accorded to schools. Lower secondary teachers undergo a four-year pre-service training, including a mandatory teaching practicum. Teaching conditions in primary and secondary education include teaching time below the OECD average and above-average class size. At both system and school levels, evaluation and assessment tools are used to ensure quality in terms of compliance with central regulations rather than for student improvement.

System: Governance of the education system in Turkey is the responsibility of the central government. Education policy in Turkey is steered by the Ministry of National Education (MoNE) and, at the tertiary level, by the Council of Higher Education (YÖK). Schools have little autonomy and limited capacity to respond to their needs. The central and provincial governments are responsible for personnel and financial management of schools. The central government makes a majority of schooling decisions, with some decisions taken at provincial and school levels in lower secondary education. Education is publicly funded, but schools can receive contributions from parents through their school-parent associations. Tertiary institutions have more autonomy than schools to address their needs, but central authorities oversee funding and student entrance exams for tertiary institutions. The share of GDP devoted to education institutions (for all levels of education combined) is one of the lowest among OECD countries.

Figure 12.32. **Selected indicators compared with the average: Turkey**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.
Source: The Turkey Snapshot was produced using information from the *Education Policy Outlook: Turkey* (OECD, 2013) and OECD data. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink http://dx.doi.org/10.1787/888933171897

Key issues and goals

Students: Turkey has one of the largest shares of population below age 15 among OECD countries, and ensuring education completion and preparation for the labour force and further learning is important. Equity and quality remain a challenge. Some of Turkey's priorities include: improving access and completion of upper secondary education, VET and tertiary education; addressing the needs of disadvantaged students; and improving equity between regions and urban and rural areas.

Institutions: Preparing quality teachers and school leaders is of high importance in Turkey. It is also a priority to enhance evaluation and assessment tools within a comprehensive framework aligned with educational goals to improve student outcomes.

System: Adequately funding the education system is of high interest. In addition, Turkey aims to give provincial authorities and education institutions the capacity to address local challenges while aligning with national priorities.

Selected policy responses

- The recent *law numbered 29072* (26.07.2014), aims to provide more pre-school opportunities, for example, by allowing clubs to support social and personal development of children (in their spare time) if requested by parents and where conditions permit; allowing children to use pre-school institutions during the summer, especially those who cannot attend during the regular educational term; and opening free mobile classes, especially for economically disadvantaged students in rural areas.
- The *Secondary Education Project* with the World Bank (2006-11) aimed to improve quality, economic relevance and equity in secondary education and develop life-long learning. According to the *Implementation, Completion and Results Report*, the project partially achieved its objectives: revision and implementation of general and vocational curricula, public availability of student achievement results, distribution of materials for teachers, improvement of vocational teachers' skills, introduction of an online Career Information System, training of school management teams on school development plans, and distribution of grants to schools in low enrolment areas.
- The 4 + 4 + 4 policy (2012) increases the number of compulsory years from 8 to 12 and redefines the education system into three levels (primary, lower and upper secondary education) of four years each.
- Three key development plans steer education in Turkey: the Strategic Plan for the Ministry of National Education (2010-14), the recent Tenth Development Plan (2014-18) and the *Lifelong Learning Strategy Document and Action Plan (2014-18)*.

Spotlight: Improving vocational education and training

To strengthen completion rates and develop skills for the labour market, Turkey aims to improve VET by targeting key areas, including links with the labour market, quality of teaching and of the curriculum.

More recently, the Specialised Vocational Training Centres Project (UMEM, 2010-15) aims to build capacity of youth and to increase employment rates and the Vocational Education Project for Employment (IMEP, 2009) intends to reduce unemployment rates by collaborating with the public sector. The Strengthening Special Education Project, financed by the European Union (2008 Financial Instrument for Pre-accession), aims to improve the quality of work and vocational training for individuals with special education needs by strengthening transition to work and vocational training.

MoNE and the Scientific and Technological Research Council of Turkey (TÜBİTAK) are also collaborating to support the vocational skills and entrepreneurship and leadership qualities of 15 000 VET school managers and teachers under the Teaching, Entrepreneurship and Leadership Training Co-operation Protocol for Managers and Teachers in Vocational and Technical Schools and Institutions.

To better match VET supply with the labour market, some projects focused on specific sectors, including tourism (the Culture, Art and Education Co-operation Protocol, 2004) and the Employment of Tourism Training Centres (TUREM Graduates Project), electricity (New Trends in Illumination Project, 2009) and railway (Railway Operation in European Credit System for VET project, 2011-13).

Data is collected through the Information System for Determining Educational Needs on Vocational and Technical Education Project (2005-13). A Follow-up Study of Graduates of Vocational and Technical Secondary Education Institutions (2007) tracked VET secondary graduates. Information on learning opportunities with medium- and long-term projections is also available in the Draft Turkey Vocational and Technical Education Strategy Paper and Action Plan.

The detailed policy profile is available at: *http://dx.doi.org/10.1787/9789264225442-32-en*

UNITED KINGDOM

Context

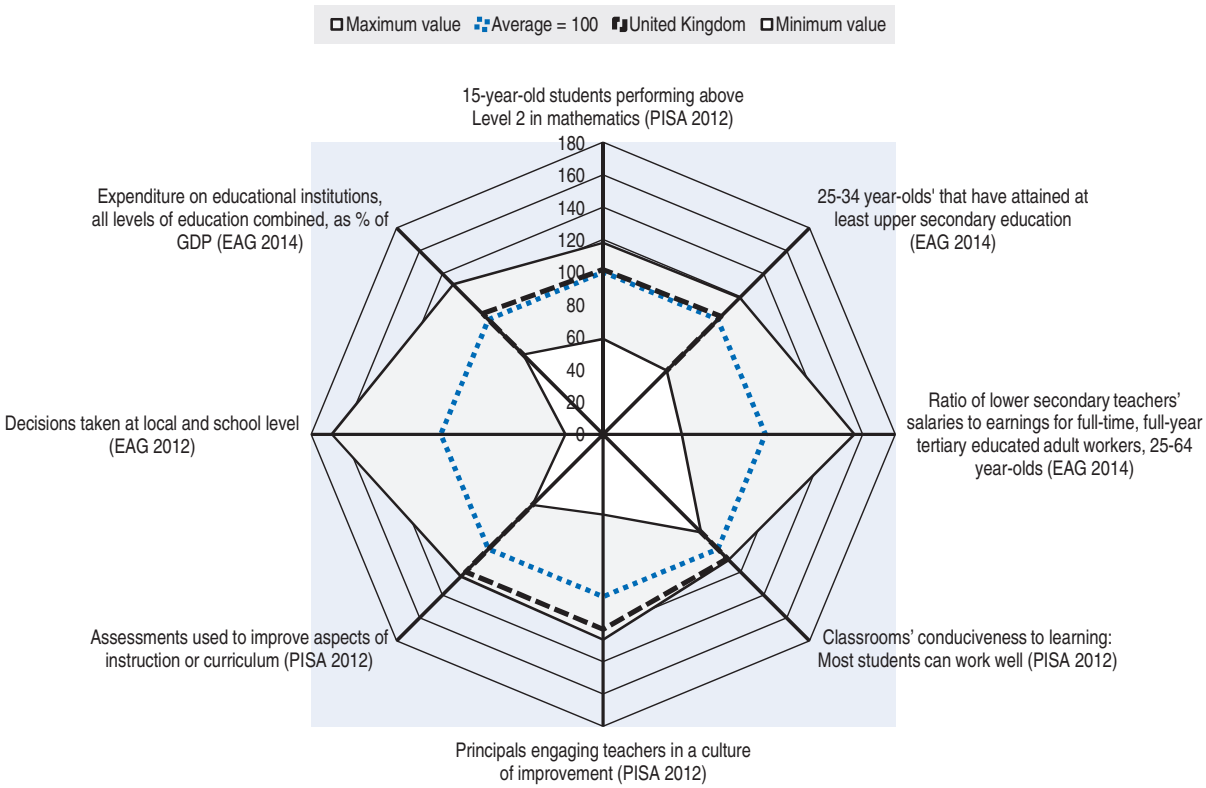
Students: The United Kingdom performs at around the OECD average in PISA 2012 in mathematics and reading, and shows above average performance in science. Student performance has remained unchanged across PISA cycles for the three assessment areas. The impact of students' socio-economic background on students' performance in mathematics for the United Kingdom is at the OECD average according to PISA 2012 (although higher than the OECD average in Northern Ireland). On average, across the United Kingdom, an above-average proportion of 3-year-olds are enrolled in pre-primary education, while 4-year-olds are enrolled in either pre-primary or primary education. Some system-level policies favour equity, such as low incidence of grade repetition and comprehensive schools, but others, such as within-school ability grouping or school choice could hinder equity if not well managed to mitigate possible negative impacts. At upper secondary level, attainment rates are around the OECD average, and the enrolment rate in vocational education and training (VET) is below average. Attainment and graduation from tertiary education in the United Kingdom are high compared to the average of OECD countries, with a comparatively higher share of international students. The graduation rate is one of the highest among OECD countries for tertiary type-A programmes. From the United Kingdom, England and Northern Ireland participated in the Survey of Adult Skills, and achieved below-average scores in literacy and numeracy amongst 16-65 year-olds, with younger adults (16-24 year-olds) performing lower than other adults in England. Work is in progress to reform the qualifications systems in England, Wales and Scotland. Youth unemployment in the United Kingdom is above the OECD average.

Institutions: Students in the United Kingdom report positive learning environments, and school leaders provide pedagogical direction, in a context of increasing autonomy. From the data available, schools in England and Scotland have among the highest levels of autonomy over resource allocation and curriculum and assessment in OECD countries. To teach at lower secondary education, teachers in England and Scotland are usually required to follow a pre-service teacher training programme (four years in England, five years in Scotland). More teachers in England than the TALIS average consider that the teaching profession is valued in society and would choose to work as teachers if they could decide again. Depending on the country, the evaluations that schools follow can have a greater focus on accountability through external evaluations (England), or be combined with internal self-evaluations (Northern Ireland and Scotland).

System: The United Kingdom is composed of four countries (England, Northern Ireland, Scotland and Wales) which each have responsibility for education policy. Each country in the United Kingdom has a different education governance system, but can have some similar governance structures. Most policies are defined within each of the four countries, and are designed to provide an increasing role to schools and teachers.

Expenditure on educational institutions as a percentage of GDP (for all levels of education combined) is above the OECD average and is funded more from private sources than the OECD average. Funding policies vary across the United Kingdom, with similarities in the range of funding allocations or grants for special groups.

Figure 12.33. **Selected indicators compared with the average: United Kingdom**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.

Source: The United Kingdom Snapshot was produced using information from the *Education Policy Outlook: United Kingdom* (OECD, 2015) and OECD data. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink *http://dx.doi.org/10.1787/888933171906*

Key issues and goals

Students: One of the main challenges across the United Kingdom countries is to raise student performance and decrease performance gaps between students of different socio-economic backgrounds.

Institutions: Another challenge is related to attracting high-quality teachers and school leaders and providing them with the tools to manage their improvement. Balancing accountability and improvement in schools is also important.

System: Ensuring efficient co-ordination among actors by reducing bureaucratic procedures and ensuring that sufficient funding reaches the most disadvantaged schools are also considered important by some of these countries. Providing qualifications for successful transition into the labour market is also an issue.

Selected policy responses

England:

- The *Pupil Premium* (2011) programme aims to reduce inequities between students through additional school funding to support disadvantaged students and close attainment gaps. It targets students who have received free school meals at any point in the last six years, with schools deciding how to use this funding. In 2014/15, the premium for primary school children will be GBP 1 300 per eligible child and GBP 1 900 for looked after children. Secondary school children will receive GBP 935. The programme has been recently extended to cover early childhood education.
- England is planning to *increase the number of academies and free schools* (2010) to give schools more control over their curriculum, budget and staffing. Academies are publicly funded independent schools, and free schools are all-ability state-funded schools set up in response to local needs for children in their community. They are academies by law and so are not under the control of their local authority. England considers it important to follow up on the impact of these developments on equity and quality of student outcomes.

Northern Ireland:

- In Northern Ireland, *Every School a Good School* (ESaGS) (2009) is a policy for school improvement which aims to support schools to raise standards and overcome barriers to higher student learning.
- The *Entitlement Framework* (introduced in 2007 and statutory since 2013) aims to guarantee that students age 14 and above can access a broad and balanced curriculum, by requiring the offer of a minimum number of courses in their geographic area. The intention is to help students reach their full potential by providing access to relevant and engaging courses that best suit their needs and aspirations. All post-primary schools and Further Education colleges are grouped into *Area Learning Communities* (ALC) established to help them work collaboratively in order to ensure that the courses offered in a given area meet students' needs and the minimum required by statute.

Scotland:

- *Curriculum for Excellence (CfE)* (2010) aims to transform learning for 3-18 year-olds by providing all learners with a range of personalised learning to develop skills and knowledge and by skilling teachers to assess a learner's progress based on a wide range of information. An OECD review of the Scottish education system will take place in 2015 and will examine the progress of implementation of CfE from Primary 1 to the third year in secondary school (Broad General Education phase).
- Created in 2011, *Education Scotland* is an independent agency whose goal is to support quality assurance and improvement in the Scottish education system. Education Scotland operates in the following areas: 1) providing support and resources for learning and teaching; 2) undertaking inspection and review at schools; 3) organising continuing professional development activities for teachers; 4) promoting positive relationships and behaviours in schools; 5) creating online support materials for teachers to support student improvement; 6) implementing *Teaching Scotland's Future* in collaboration with key partners; and 7) conducting education research.

Wales:

- The Improving Schools Plan (2012) introduced a National Literacy and Numeracy Framework (LNF, 2013) to provide a continuum of support to improve literacy and numeracy and reduce the impact of deprivation on educational outcomes for 5-14 year-olds. National Reading and Numeracy Tests for students from Year 2 to Year 9 have been introduced for formative and summative purposes. To support their reform, Wales undertook an OECD education policy review (2013-14), resulting in *Improving Schools in Wales: An OECD Perspective (*2014).
- Wales is implementing the recommendations of the *Review of Qualifications for 14-19 year-olds*, to ensure that qualifications are understood and valued and meet the needs of young people and the Welsh economy. Engagement and consultation with stakeholders is taking place and will include a revised, more rigorous Welsh Baccalaureate, new and revised GCSEs and A levels and stronger gatekeeping for vocational qualifications.

The detailed policy profile is available at:
http://dx.doi.org/10.1787/9789264225442-33-en

UNITED STATES

Context

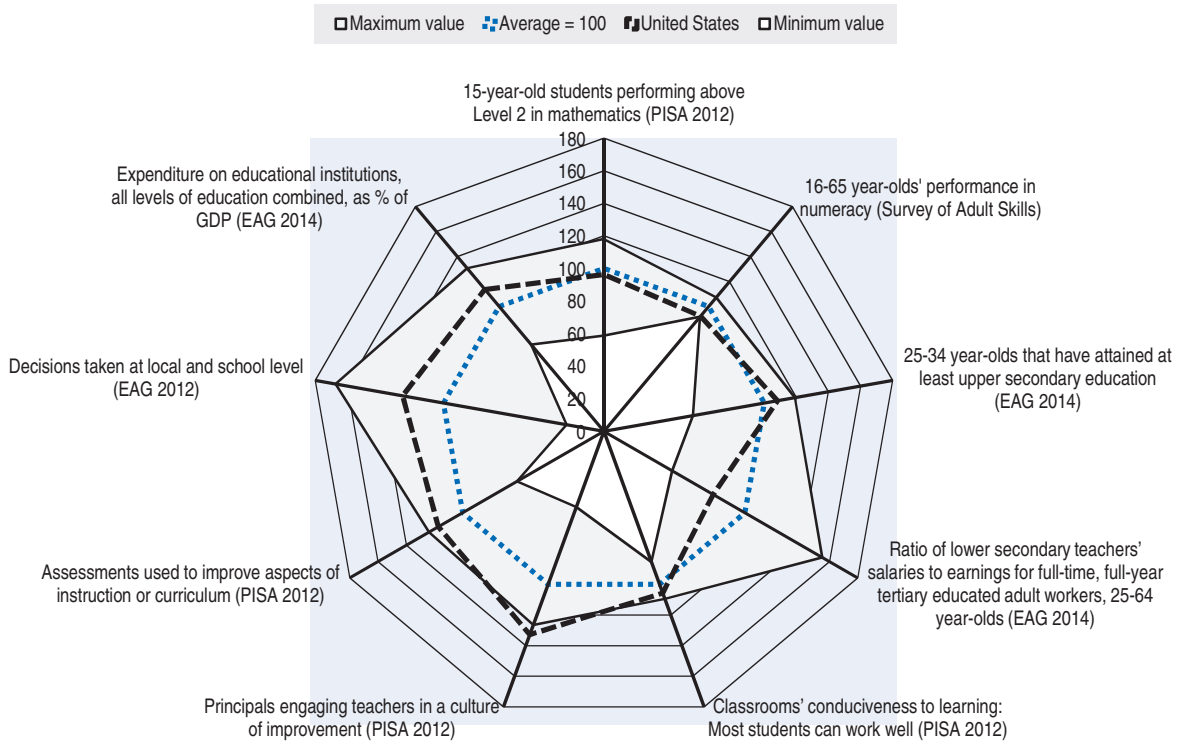
Students: The United States performs below the OECD average in mathematics in PISA 2012 and around the OECD average in reading and science, and had unchanged performance across PISA cycles. The impact of students' socio-economic background on performance in mathematics was similar to the average in other OECD countries. The United States has some policies that promote equity. Pre-primary education usually starts at age 4 with the proportion of 4-5 year-olds enrolled below the OECD average. Compulsory education starts between ages 4 and 6 depending on the state, and students attend secondary comprehensive school until age 17. Tracking starts at age 16, when students can begin vocational training (later than in most OECD countries). Grade repetition is slightly higher than the OECD average, and school choice is limited. The United States has above-average upper secondary and tertiary attainment rates. Vocational education and training (VET) is decentralised, and there is low participation in formal apprenticeships. Adults (16-65 year-olds) performed below average in literacy and numeracy compared to other OECD countries participating in the Survey of Adult Skills, with younger adults (16-24 year-olds) performing at a lower level than other adults. Low performance is mainly focused in specific population sub-groups. Unemployment is at the OECD average and remains lower for those with higher educational attainment in the context of the economic crisis.

Institutions: Schools have autonomy over hiring and dismissal of teaching staff, and responsibility for curriculum decision and assessment is below the OECD average. Regularly certified teachers are usually required to follow a pre-service teacher training programme including a teaching practicum, pass a competitive examination to enter the teaching profession and receive compulsory continuing education. Teachers are relatively younger than the OECD average, and teaching conditions for primary and secondary teachers include above-average class size and teaching time. Their salaries are lower compared to other OECD countries and to populations with similar education qualifications. One-third of US teachers in TALIS consider that the teaching profession is valued in society. The United States has invested in building state and local capacity to use relevant data so that students, teachers, parents and policy makers can make better education decisions, including better informed investments in post-secondary education.

System: The United States has regional governance of the education system, where state, local and federal governments guide and fund the education system. Public school curricula, funding, teaching, employment and other policies are set through locally elected school boards with jurisdiction over school districts. State governments manage educational standards and standardised tests for public school systems. Most decisions

in lower secondary education are taken at the local level of government. Expenditure on educational institutions as a percentage of GDP (for all levels of education combined) is above the OECD average, with a higher share of funding from private sources than the OECD average.

Figure 12.34. **Selected indicators compared with the average: United States**



Note: For each indicator, the absolute performance is standardised (normalised) using a normative score ranging from 0 to 180, where 100 was set at the average, taking into account all OECD countries with available data in each case. See *www.oecd.org/edu/policyoutlook.htm* for maximum and minimum value countries.

Source: The United States Snapshot was produced combining information from the country's response to the Education Policy Outlook Snapshot Survey received in December 2013 with OECD data. More information on the spider chart and sources is available at *www.oecd.org/edu/policyoutlook.htm*.

StatLink http://dx.doi.org/10.1787/888933171913

Key issues and goals

Students: The United States reported that the aim of providing access to a quality education to all students, regardless of where they live and their learning needs, is of prime importance. It aims to improve student achievement; reduce achievement gaps by ensuring all students, particularly high needs students, have access to a quality education; and increase upper secondary school graduation rates, college enrolment and completion rates. To that end, the United States has set as its goal to have the highest proportion of college graduates in the world by 2020.

Institutions: The United States reports that it is working to ensure that all students are taught by effective, well-supported teachers and attend schools with strong leaders. States are currently creating systems to assess differences in educators' skills and performance so that they receive the professional supports required to provide excellent instruction. The United States provides additional resources to schools serving high-needs students

and aims to turn around the lowest-achieving 5% of primary and secondary schools. In addition, the United States reports that it is supporting innovative practices in post-secondary education to increase college enrolment and competition rates, particularly for high-needs students.

System: The United States aims to support state and local capacity to provide high-quality early-learning education programs, to maintain high standards for kindergarten to Grade 12 learning that ensure that students graduate from high school college and career ready (CCR), and to assess students' progress according to rigorous standards along the way.

Selected policy responses

- *The pre-school Development Grants* (2013) and *Race to the Top – Early Learning Challenge* (2011) programmes support state and local efforts to create or expand high-quality early childhood opportunities for all children.
- To raise student outcomes, the *Common Core State Standards* (2009) have been adopted by 43 states, the District of Columbia, four territories and the Department of Defense Education Activity (DoDEA).
- The Department of Education (ED) created a *College Scorecard* (2013) to inform on college costs, graduation rates, loan default rates, amounts borrowed and employability. A *model financial aid disclosure form* (2011) aims to clarify to students the type of aid they qualify for and compares aid packages offered by colleges and universities.
- ED's *Teacher Incentive Fund Program* (2012) provides states and districts with grants to develop policies to recruit and retain effective teachers. The *Teacher Quality Partnership Program* (2012) aims to improve the quality of new teachers through partnerships among Higher Education Institutions, high-need districts and early childhood education programmes.
- ED aims to provide rigorous accountability and flexibility to states from the Elementary and Secondary Education Act of 1965 (ESEA). The *ESEA Flexibility Program* (2011) aims to move away from top-down accountability towards data-driven decisions and expertise at state and local levels. As of April 2014, 42 states, the District of Columbia and Puerto Rico have approved ESEA Flexibility plans and are adopting assessments for students and rigorous college-and-career-ready (CCR) standards.
- With assistance from ED, states are developing *longitudinal data systems* (2002) that provide educators and policy makers with access to real-time information to make better decisions and personalise instruction, so students can successfully make the transition at each education stage from pre-primary education to college and career.
- To improve access to tertiary education, the maximum *Federal Pell Grant* award increased by 19% since 2008, and the number of recipients has expanded by 50%. Also, the *Pay as You Earn* (2013) plan enables eligible students to cap student loan repayments at 10% of monthly income. Finally, the *American Opportunity Tax Credit* (2009) assists families with college costs.

Spotlight: Supporting reforms through competitive grants

Race to The Top (RTT, 2009) is a competitive grant programme designed to create incentives for comprehensive reforms and innovations, to improve student achievement for all and to promote attainment and graduation in upper secondary and tertiary education. The original RTT provided awards to states to advance reforms in four areas: 1) adopting and implementing standards and assessments that prepare students to succeed in college, the workplace and the global economy; 2) building data systems to measure student growth and success, and informing teachers and principals about how they can improve instruction; 3) recruiting, developing, supporting, rewarding and retaining effective teachers and principals, especially where they are needed most; and 4) turning around lowest-achieving schools. Awards went to states that had demonstrated a track record of success and that had developed ambitious yet achievable plans for implementing coherent, compelling and comprehensive education reforms. Winners received substantial grants to be used over four years and are helping to lead the way in terms of a variety of reforms for states and local school districts throughout the country.

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ANNEX A

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OECD PUBLISHING, 2, rue André-Pascal, 75775 PARIS CEDEX 16
(91 2015 01 1 P) ISBN 978-92-64-22094-2 – 2015

Education Policy Outlook 2015

MAKING REFORMS HAPPEN

The *Education Policy Outlook* is designed to help education policy makers with reform choices. It addresses the need for improvement in education in a comparative manner, while taking into account the importance of national context. Through a review of different countries' experiences in implementing education reform, the publication offers directions and strategies to facilitate future changes.

Given different national contexts, individual countries' reform challenges cannot be simply transposed into a different country or system. Nevertheless, countries face many similar challenges and implement reforms in similar areas. The 2015 edition of the *Education Policy Outlook* provides a comparative review of policy trends. It explores specific reforms adopted across the OECD over the past seven years to help countries learn from one another and choose the reforms best adapted to their needs and context.

The *Education Policy Outlook* will be of interest to policy makers, analysts and education practitioners alike.

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ISBN 978-92-64-22094-2
91 2015 01 1 P