Editorial

Measuring what counts in education: Monitoring the Sustainable Development Goal for education

In September 2015, the world's leaders gathered in New York to set ambitious goals for the future of the global community. Goal 4 of the Sustainable Development Goals (SDGs) seeks to ensure "inclusive and equitable quality education and promote lifelong learning opportunities for all". More specific targets and indicators spell out what countries need to deliver by 2030. The OECD regards the SDGs as an exceptional opportunity to promote the agenda of world-wide inclusive social progress and it will work together with other international organisations in implementing the goals and their targets, including by applying the OECD's unique tools to monitor and assess measures of social progress and providing country-specific policy advice.

Two aspects of Goal 4 distinguish it from the preceding Millennium Development Goals (MDGs) on education which were in place between 2000 and 2015. Firstly, Goal 4 is truly global. The SDGs establish a universal agenda; they do not differentiate between rich and poor countries. Every single country is challenged to achieve the SDGs. Secondly, Goal 4 puts the quality of education and learning outcomes front and centre. Access, participation and enrolment, which were the main focus of the MDG agenda, are still important. The world is still far from providing equitable access to high-quality education for all. An estimated 57 million children still don't have access to primary education and too many children continue to be excluded from the benefits of education because of poverty, gender, ethnicity, where they live, and armed conflicts.

But participation in education is not an end in itself. What matters for people and for our economies are the skills acquired through education. It is the competence and character qualities that are developed through schooling, rather than the qualifications and credentials gained, that make people successful and resilient in their professional and private lives. They are also key in determining individual well-being and the prosperity of societies.

The OECD's international assessments of learning outcomes and skills reflect the magnitude and importance of challenges faced in education. Across the 65 high- and middle-income countries that participated in the OECD Programme for International Student Assessment (PISA) in 2012, an average of 33% of 15-year-olds did not attain the baseline level of proficiency in mathematics and 26% did not attain that level in reading. This means that roughly 800 000 15-year-olds in Mexico, 168 000 in France, and around 1.9 million 15-year-olds in Brazil do not yet have the basic knowledge and skills needed to thrive in modern societies.

The shift from access and enrolment in the MDGs towards the quality of education in Goal 4 requires a system that can measure the actual learning outcomes of children and young people at various ages and levels of education. The OECD already offers measurement tools to this end and is committed to improving, expanding and enriching its assessment tools.

PISA, for example, assesses the learning outcomes of 15-year-old students in reading, mathematics, science and collaborative problem-solving. In December 2016, results from the most recent PISA cycle, involving more than 70 high- and middle-income countries, will become available. PISA offers a comparable and robust measure of progress so that all countries, regardless of their starting point, can clearly see where they are on the path towards the internationally agreed targets of quality and equity in education. Through PISA, countries can also build their capacity to develop relevant data; and while most countries that have participated in PISA already have adequate systems in place, that isn't true for many low-income countries. In this respect, the OECD PISA for Development initiative not only aims to expand the coverage of the international assessment to include more middle- and low-income countries, but it also offers these countries assistance in building their national assessment and data-collection systems.

PISA is also expanding its assessment domains to include other skills relevant to Goal 4. For 2018, for example, PISA is exploring an assessment of the "global competence" of 15-year-olds. This includes measuring their understanding of the "culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development".

Other OECD data, such as those derived from the Survey of Adult Skills (a product of the OECD Programme for the International Assessment of Adult Competencies [PIAAC]) and the OECD Teaching and Learning International Survey (TALIS), provide a strong evidence base for monitoring education systems. OECD analysis promotes peer learning across countries as new policy options are explored and experiences compared. Together, OECD indicators, statistics and analyses can be seen as a model of how progress towards the SDG education goal can be measured and reported.

Table 1 presents a synopsis of what the OECD can offer to the international community as it develops a set of global indicators to track progress towards achieving Goal 4. While the measurement and assessment tools for education may be better established than those for other areas included in the SDGs, they do not yet cover all of the concepts included in the related targets. In this respect, the OECD stands ready to work with UNESCO, which oversees the education SDG agenda, in building a comprehensive data system.

Each year, *Education at a Glance* presents the broadest set of education indicators available in the world. The indicators in this edition of *Education at a Glance* provide the elements to assess where OECD countries stand on their way to meeting the education SDG targets (Table 2). For each indicator, the OECD identifies a quantitative benchmark. In future editions of the report, more sophisticated approaches will be developed by integrating multiple indicators in a composite index to reflect the various facets of the targets and the global indicators that will be adopted by the United Nations General Assembly in September 2016.

Comparing data, benchmarking, learning from good practices and exchanging experiences are among the core missions of the OECD. Data collected and processed with the highest possible accuracy and reliability are indispensable for these activities. *Education at a Glance* has always focused on data collection and reporting; but now, in the service of Goal 4, our indicators can contribute to improving well-being and economic outcomes across many more countries, for many more people.

Making Goal 4 a reality will transform lives around the globe. Imagine a world where all children have the opportunity to develop basic literacy and numeracy skills after nine years of study. The rewards would accrue not only to the individual students, but to the economies and societies to which they will contribute as adults.

The economic output that is lost due to poor education policies and practices is immense. For lower middle-income countries, potential economic gains from ensuring that all 15-year-olds attain at least the PISA baseline level of proficiency in reading, mathematics and science are estimated at 13 times their current GDP; on average, 28% higher GDP over the next 80 years. For upper middle-income countries, which generally show better learning outcomes, the gains would average 16% higher GDP over the same period. In other words, the gains from tackling low performance not only dwarf any conceivable cost of improvement – but also improve people's well-being and stimulate economic growth.

The challenge is huge, but so is our commitment to succeed!

Angel Gurría
OECD Secretary-General

Table 1. OECD data to measure progress towards the education SDG targets

Education SDG targets*		Data the OECD can offer and help to develop
4.1	By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education, leading to relevant and effective learning outcomes	▪ Enrolment and completion rate data from administrative sources and INES data collections ▪ Reading and maths performance data for 15-year-olds in PISA ▪ Learning outcome assessments need to be developed for the end of primary school ▪ PISA for Development will improve methodologies for estimating the out-of-school populations
4.2	By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education	▪ Administrative data collected through the INES surveys on enrolment in early childhood development and pre-primary education ▪ An Early Learning Outcomes assessment project is under development and will generate data on the development of young children's cognitive, social and emotional skills
4.3	By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university	▪ Enrolment rates from the INES data collections for tertiary education and upper secondary vocational education programmes, by gender ▪ Participation in formal and non-formal adult education from the Survey of Adult Skills (PIAAC)
4.4	By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship	▪ Data on proficiency in digital problem-solving skills among 16-65 year-olds from the Survey of Adult Skills (PIAAC) ▪ Data on proficiency in literacy and numeracy among 16-65 year-olds from the Survey of Adult Skills (PIAAC)
4.5	By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations	▪ Enrolment, graduation and attainment data for all ISCED levels from the INES data collections, by gender ▪ Educational attainment data for ISCED levels 3 and higher, by gender, immigrant background, parents' educational attainment, language spoken at home, from the Survey of Adult Skills (PIAAC) ▪ Data on public and private financial investments in education from the INES data collections ▪ Data on equity policies related to access and funding for disadvantaged populations from the country studies in the OECD project on Efficient Resource Allocation in Education ▪ Data on aid to education compiled by the Development Assistance Committee (DAC) of the OECD
4.6	By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve proficiency in literacy and numeracy	▪ Literacy and numeracy proficiency data from the Survey of Adult Skills (PIAAC), by age and gender ▪ Participation in basic skills training activities from the Survey of Adult Skills (PIAAC)
4.7	By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development	▪ Global competence proficiency data from the 2018 PISA cycle ▪ Science proficiency and environmental awareness data from the 2015 PISA cycle ▪ Data on interpersonal trust and various other social outcomes from the Survey of Adult Skills (PIAAC) ▪ INES/NESLI surveys on curricula, subject fields and learning time in schools
4.a	Build and upgrade education facilities that are child-, disability- and gender-sensitive, and provide safe, nonviolent, inclusive and effective learning environments for all	▪ Data on learning environments, resources and equipment (including ICT and connectivity) from PISA surveys ▪ School-climate indicators, including violence and disruptive behaviour by students, from the Teaching and Learning International Survey (TALIS)
4.b	By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least-developed countries, small-island developing states and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries	▪ Data compiled by the Development Assistance Committee (DAC) of the OECD on scholarships included in development aid programmes
4.c	By 2030, substantially increase the supply of qualified teachers, including through international co-operation for teacher training in developing countries, especially least-developed countries and small-island developing states	▪ Data on teachers from the INES/NESLI surveys ▪ Data on teachers, teacher training and teachers' professional development from the TALIS surveys and PISA teacher questionnaire ▪ Data from the forthcoming Initial Teacher Preparation (ITP) study

*For detail on the Education SDG targets, please see the legend under Table 2 on the next page.

A corrigendum has been issued for this page. See:
http://www.oecd.org/about/publishing/Corrigendum-Education-at-a-Glance2016.pdf

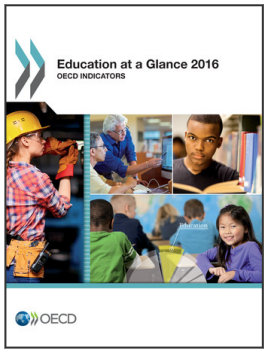
Table 2. OECD countries' progress towards the education SDG targets

Education SDG targets*	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.a	4.b	4.c
Benchmark	80	95	60	60	75	50	70	0.7	0	95
Australia	80	101		66	77	58	71	1.5	38	98
Austria	81	96	70	61	71	45	64	1.5	-19	
Belgium[1]	81	98	67	65	72	53	67	0.7	0	98
Canada[1]	86	93		65	83	51	75	0.8	13	98
Chile	48	94	87	34	47	13	44	0.5		86
Czech Republic	79	89	69	59	76	49	66	0.9	1	77
Denmark	83	98	89	70	82	50	63	0.8	0	94
Estonia	89			51	82	51	75	0.7		94
Finland	88	79	53	67	91	62	80	0.5		92
France	78	101				40	62	0.6	-10	90
Germany	82	99	64	64	74	47	68	0.7	-50	
Greece	64	91		39	73	31	58	0.2	-52	
Hungary	72	96	42		63		67	0.6		
Iceland	79		86		86		60	0.6		92
Ireland	83	100		51	80	45	66	0.6	1	
Israel	66	98	70	50	75	38	50	0.4		94
Italy	75	97	44		76	29	53	0.5	-2	79
Japan	89	96	80	53	78	72	75	0.6	-1	88
Korea	91	94		55	78	46	72	0.4	8	96
Latvia	80	96			75		63	1.0		91
Luxembourg	76	99	32		74		59	0.9	1	
Mexico	45	113	38		57		34	0.3		62
Netherlands	85	99	70	73	82	60	70	0.7	-30	92
New Zealand	77	98	96	75	78	58	68	1.1	7	
Norway	78	98	81	72	91	58	59	0.8	1	93
Poland	86	95	74	32	76	42	66	0.4		99
Portugal	75	96	65		69		54	0.5	-1	82
Slovak Republic	73	81	59	50	64	51	61	0.8		89
Slovenia	80	90	72	49	75	35	71	0.6	2	
Spain	76	97	72		75	32	62	0.7	-7	97
Sweden	73	95	62	72	87	58	62	0.6	9	90
Switzerland	88	98	80		83		66	0.7	-1	
Turkey	58	71	94	22	72	12	38	0.1	134	
United Kingdom[1]	78	99	61		79		64	1.0	-7	92
United States	74	90	52	64	74	48	58	1.0		
OECD average	**77**	**95**	**68**	**57**	**76**	**46**	**63**	**0.7**	**1**	**90**
EU22 average	**79**	**95**	**63**	**57**	**76**	**46**	**65**	**0.7**	**-10**	**90**

Notes: Figures above the benchmark are coloured light blue. Mismatches between the coverage of the population data and the enrolment data may result in enrolment rates of over 100%.
1. For targets 4.4, 4.6 and 4.c, Belgium is Flanders only. For target 4.c, Canada is Alberta only, and the United Kingdom is England only.

* Legend to the Education SDG targets

4.1	Percentage of 15 year-old students performing at Level 2 or higher on the math scale (PISA, 2012)
4.2	Enrolment rate in pre-primary and primary education at age 5 (INES, 2014)
4.3	First-time tertiary entry rates (INES, 2014)
4.4	Percentage of 24-64 year-olds in Group 3 or 4 of skills and readiness to use information and communication technologies for problem solving scale (PIAAC, 2012/2015)
4.5	PISA Inclusion Index (PISA, 2012)
4.6	Percentage of adults performing at Level 3 or higher on the literacy scale (PIAAC, 2012/2015)
4.7	Percentage of students at level A, B and C in the environmental science performance index (PISA, 2006)
4.a	Computers for educational purposes per student. Mean index (PISA, 2012)
4.b	Scholarships and student costs in donor countries (US$, millions, difference between 2012 and 2014)
4.c	Percentage of ISCED 2 teachers having completed teacher education or training programme (TALIS, 2013)



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