



Teaching and Learning International Survey

TALIS 2018

Insights and Interpretations

Andreas Schleicher





Introduction

Many nations claim that education is a top priority. There are some simple questions one can ask to find out whether countries live by that claim. For example: What is the status of the teaching profession, and how do countries pay teachers compared to how they pay others with the same level of education? Would you want your child to become a teacher? How do the media report on teachers and schools? When it comes down to it, which matters more: where a country or community stands in the sports league tables, or where it stands in the academic league tables?

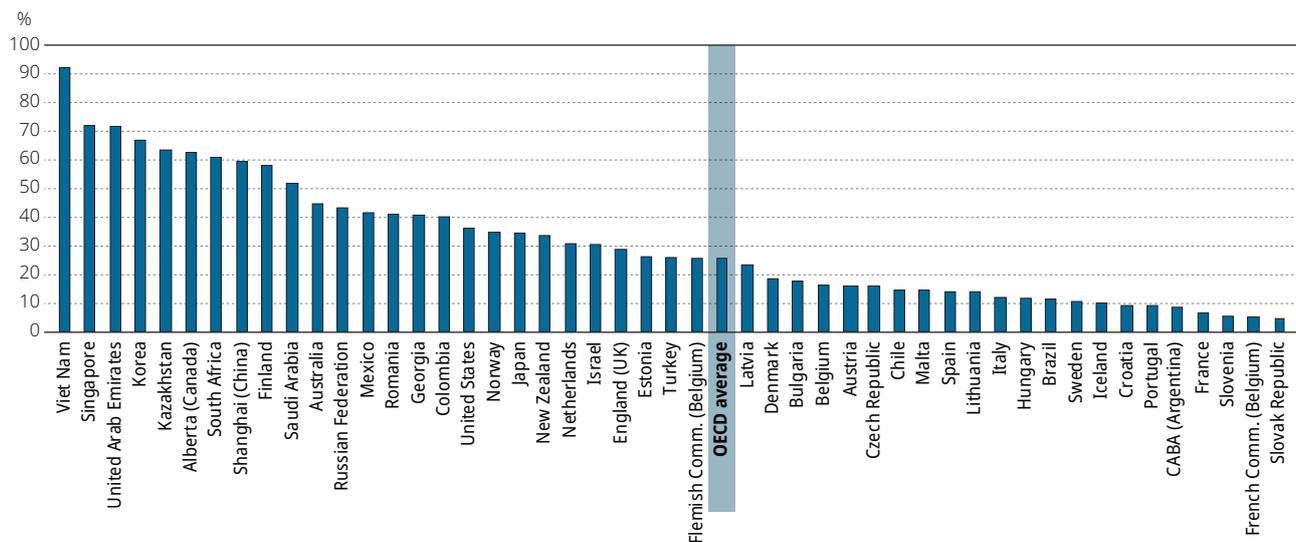
The value placed on education is likely to influence the decisions students make about what they want to study later on, and it will influence whether or not the most capable students consider a career in teaching. The value placed on education is also likely to have an effect on whether the public respects the opinion of professional educators, or whether it fails to take them seriously.

Data from the OECD's Teaching and Learning International Survey (TALIS) show that, on average across the OECD countries that took part, only 26% of teachers agree that their profession is valued in society (Figure 1). But this perception varies significantly across countries, from less than 7% in France, the French Community of Belgium, the Slovak Republic and Slovenia, to over 70% in

Singapore, the United Arab Emirates and Viet Nam, showing that it is quite possible to make the teaching profession highly prestigious, at least in the eyes of the incumbents. It may be true that some of this cross-country variation is the result of cultural differences in how teaching is viewed as a career. But it is also true that in a number of countries, teachers' beliefs about the status of their profession have changed over relatively short periods of time, suggesting that there is more to the story than just different cultures and contexts. Out of the 31 countries and economies with data from both the 2013 and 2018 cycles of TALIS, 7 have experienced a significant deterioration in the perceived prestige of the profession over the last five years (Chile, England (United Kingdom), the Flemish Community of Belgium, Iceland, Mexico, the Netherlands and New Zealand), while 12 have seen a significant increase in the share of teachers who say that their profession is valued in society (Alberta (Canada), Australia, Czech Republic, Estonia, France, Japan, Norway, Romania, Shanghai (China), Singapore, Spain and Sweden). Perhaps not surprisingly, in 27 of the TALIS 2018 participating countries, teachers who report feeling valued by society are more likely to have chosen teaching as their first-choice career, and this holds even after controlling for age, experience, type of contract and other relevant factors.

Figure 1 **Teachers' views of how society values their profession**

Percentage of lower secondary teachers who "agree" or "strongly agree" that the teaching profession is valued in society



Countries and economies are ranked in descending order of the percentage of lower secondary teachers who "agree" or "strongly agree" that the teaching profession is valued in society.

Source: OECD, TALIS 2018 Database, Table II.2.1.

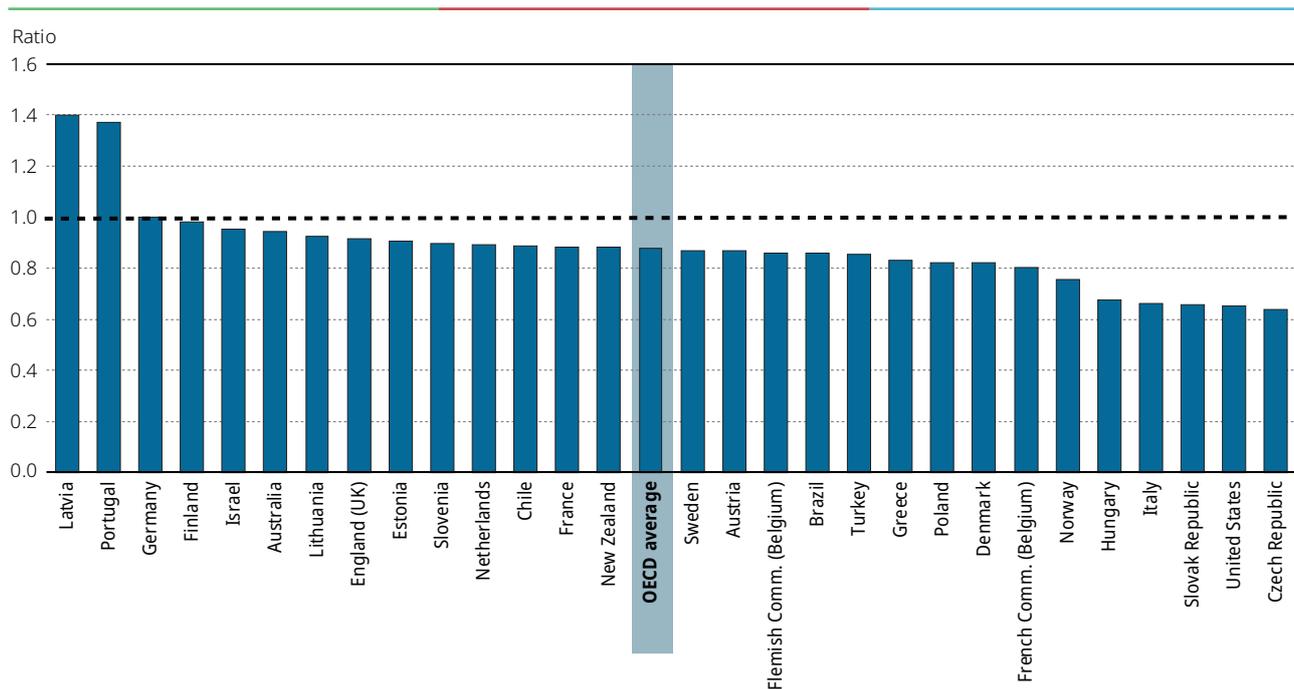
It is tempting to attribute the low perception of the status of teaching to issues around pay. OECD data have long shown that there are just a few countries in which teachers are paid roughly comparable amounts as other professionals with similar qualifications (Figure 2). But the relationship between teacher pay and the perceived status of the teaching profession, as measured by TALIS, or even the quality of educational outcomes for students, as measured by the Programme for International Student Assessment (PISA), is not clear-cut – students in Luxembourg, the OECD country with the highest teacher salaries, perform below the OECD average in PISA. Estonia is the OECD country with the highest levels of student performance in PISA, but teacher salaries are below average, while Estonian teachers' perceptions about the value of their work are about on par with the OECD average.

All of this highlights the need to look much more carefully at what makes the teaching profession attractive and productive, and this can only be done with and through the perspective of teachers. This is exactly what TALIS is about. TALIS is the world's first international survey that looks at the work of teachers and how it is organised, all from the perspective of teachers and school leaders themselves. Having access to this perspective reveals important insights.

For example, the overwhelming majority of teachers say they joined the profession to contribute to society and make a difference in the lives of children and youngsters; and for most teachers, high levels of admin work are a much greater source of stress than long hours teaching in the classroom. So it seems important to focus teachers on what they do best and what they see as relevant to their social mission. Likewise, job satisfaction is higher when teachers receive support for their professional growth, so it is worth transforming schools into intellectually attractive spaces where professional development can thrive. Beyond this, a collaborative culture in school shows a strong association with teacher self-efficacy, so schools can support teachers by encouraging more professional collaboration among them. According to TALIS, roughly 1 in 5 teachers do not feel that they work in a collaborative school culture characterised by mutual support, and only 28% run classes as a team at least once a month. TALIS also shows that almost three quarters of teachers who received feedback on their work found it useful for improving their practice, suggesting that a culture of regular feedback can help develop an ecosystem of continuous learning. And many countries could boost that ecosystem by improving appraisal systems so that teachers are better recognised for their efforts.

Figure 2 **Actual salaries of teachers relative to earnings of tertiary-educated workers**

Ratio of actual salaries of lower secondary teachers, relative to earnings for full-time, full-year workers with tertiary education (ISCED 5 to 8, 25-64 year-olds) (2017 or latest available)



Countries and economies are ranked in descending order of the ratio of actual salaries of lower secondary teachers, relative to earnings for full-time, full-year workers with tertiary education.

Source: OECD (2019), *Education at a Glance 2019: OECD Indicators*, Table D3.2a.

It is also revealing that while around 90% of teachers feel that what happens in class is in their hands, far less say they are involved in curriculum and school policy decisions. This too may warrant consideration because teacher autonomy and innovative teaching practices often go hand-in-hand. So giving teachers more room to teach, learn and adapt may all contribute to raising the status of the teaching profession.

All of this matters, because the quality of teachers and teaching can never exceed the support, work organisation and incentive structures operating within an education system, and, in turn, the quality of student learning outcomes can never exceed the quality of teachers.

Attracting, selecting, developing, supporting, empowering, fulfilling and retaining the best teachers, as well as matching the most effective teachers with the students who need their support most, are all essential prerequisites for education systems to deliver high-quality and equitable outcomes. To meet that challenge, school systems need to pay attention to how

the pool from which they recruit and select their staff is established; the kind of initial education their recruits get before they present themselves for employment; how new recruits are supported, mentored and inducted into their service; what kind of continuing education their teaching staff get; how their compensation is structured; how their best performers are rewarded and how the performance of those who are struggling can be improved; how the most talented teachers can be attracted to the most challenging classrooms; and how the best performers can be offered opportunities to acquire more status and responsibility.

TALIS sheds light on many of these aspects, and this brochure reviews them in turn.



Attracting high-calibre candidates into teaching

We demand a lot from teachers. We expect them to have a deep and broad understanding of what they teach and whom they teach, because what teachers know and care about makes such a difference to student learning. That entails professional knowledge (e.g. knowledge about a discipline, knowledge about the curriculum of that discipline, and knowledge about how students learn in that discipline), and knowledge about professional practice so they can create the kind of learning environment that leads to good learning outcomes. It also involves enquiry and research skills that allow them to be lifelong learners and grow in their profession. Students are unlikely to become lifelong learners if they do not see their teachers as lifelong learners.

But we expect much more from our teachers than what appears in their job description. We also expect them to be passionate, compassionate and thoughtful; to encourage students' engagement and responsibility; to respond to students from different backgrounds with different needs and promote tolerance and social cohesion; to provide continual assessments of students and give them feedback; to ensure that students feel valued and included; and to encourage collaborative learning.

And we expect teachers themselves to collaborate and work in teams, as well as with other schools and parents, to set common goals, and plan and monitor the attainment of those goals.

There are also aspects that make the job of teachers much more challenging and different from that of other professionals. For example, teachers need to be experts at multitasking as they respond to many different learner needs all at the same time. They also do their job in a classroom dynamic that is always unpredictable and that leaves teachers no second to think about how to react. Whatever a teacher does, even with just a single student, will be witnessed by all classmates and can frame the way in which the teacher is perceived in the school from that day forward. And most people remember at least one of their teachers who took a real interest in their life and aspirations, who helped them understand who they are and discover their passions, and who taught them how to love learning.

So what drives someone to become a teacher? Overall, around 90% of teachers say that serving a larger social purpose was a major motivation to enter the profession (Figure 3). This shows that education systems have access to a workforce that is highly committed to public service and the social value of developing young minds. This is an asset that should not be wasted, and it is fertile ground for cultivating a culture of enhanced professionalism among teachers, driven as they are by the overall goal of improving society through education. But to sustain that in the long run, education systems need to offer attractive working conditions and intellectually attractive careers to their prospective and serving teachers.

An overwhelming majority of teachers – 66% – also have no regrets about choosing a teaching career (Figure 4). That does, however, leave one third of teachers who wonder whether they should have taken a different path. TALIS data show that in 13 countries and economies, teachers who question their career choice are more likely to be younger (under age 30), relatively new to the job (i.e. novice teachers with five years' experience or less), or working in publicly managed schools, as compared to older and more experienced teachers or teachers in privately managed schools.

Like any profession, regrets about past career choices can eventually lead to a decision to leave the job altogether. But this is just one of many factors that can have an effect on attrition rates among teachers. For example, TALIS data show a strong relationship between job satisfaction and the risk of attrition. Nine out of ten teachers report that, all in all, they are satisfied with their job, but teachers under 30 and novice teachers report lower levels of satisfaction with the job and their work environment and are more likely to express a wish to change to another school, on average across the OECD. This is also the case for teachers working in schools with a relatively high concentration of students from socio-economically disadvantaged homes. Importantly, in 44 countries and economies, the higher the level of job satisfaction, the less likely teachers are to report an intention to leave their work prematurely. Fostering teachers' sense of fulfilment and satisfaction with their job should therefore be a shared goal of education systems.

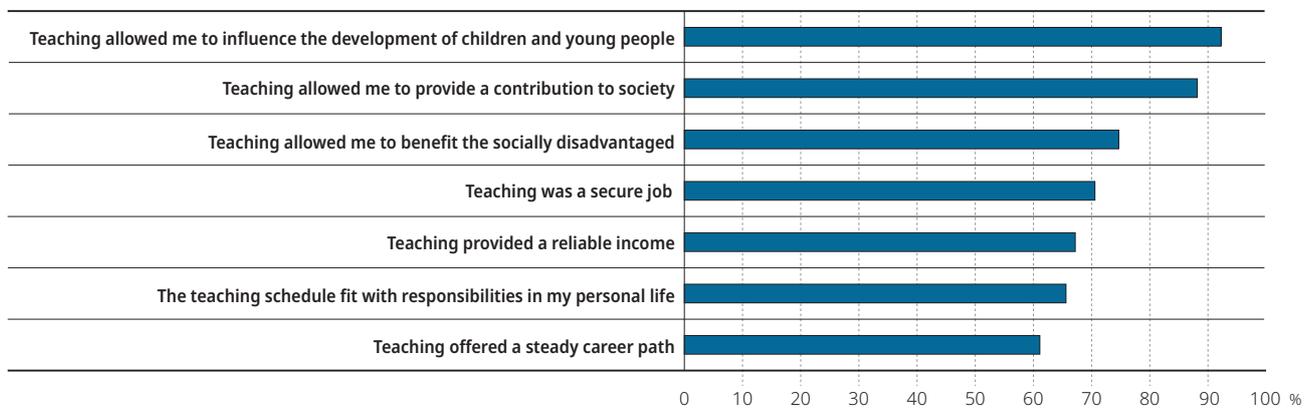
The higher risk of attrition of younger and novice teachers deserves attention, given the teacher shortages that a number of countries are facing. It seems important to give those in initial teacher training early exposure to work in school, so they know what to expect and can prepare for it. Some countries are also offering scholarships for pre-service teachers who commit to serve for a certain amount of time.

But perhaps most importantly, education systems need to acknowledge that, for the next generation, teaching is likely to be just one of a series of jobs in a lifetime, and therefore accommodate different entry, transition and exit points. In this spirit, some education systems now provide multiple ways into the profession, including fast track or alternative routes, while also establishing mechanisms to ensure that all teachers start their teaching career with adequate and quality training. **Sweden** is a good example: the Swedish National Agency for Education recently combined the promotion of alternative pathways into teaching with increased government grants for new teachers, with the ultimate goal of boosting entry into the profession from a wider pool of candidates. These measures were complemented by an information campaign entitled *Pass it on* (*För det vidare*), which was designed to attract more people to teaching, encourage retention of those already in the system, and boost the social prestige of the profession.

So what else can countries do to attract and retain high-calibre candidates? When any industry or organisation recruits professionals, they will do whatever is possible to create a pool of potential employees that comes from the highest-performing segment of the population. Most firms and industries rely heavily on schools and universities and the exam system to do that sorting for them. Since no industry can afford to source all of its professionals from among only the highest performing graduates, they also structure their operations so that they can put the best of the best in key positions and use others in supporting positions. More often than not, they use career structures that permit them to make the most of their most advanced professionals.

Figure 3 **Motivations to become a teacher**

Percentage of lower secondary teachers who report that the following elements were of “moderate” or “high” importance in becoming a teacher (OECD average-31)

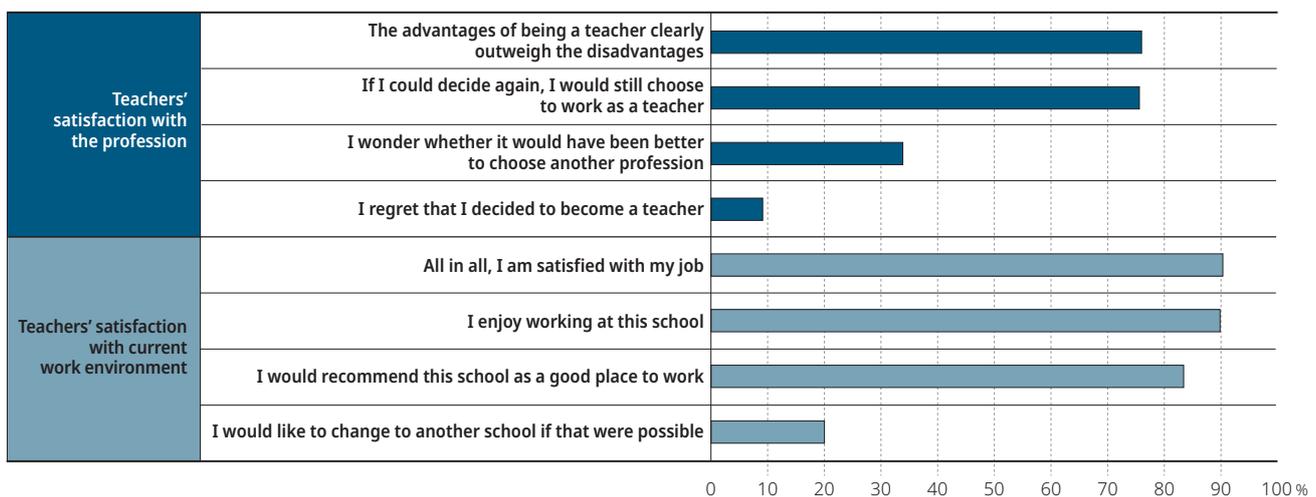


Values are ranked in descending order of the importance of the motivation for becoming a teacher.

Source: OECD, TALIS 2018 Database, Table I.4.1.

Figure 4 **Teachers' satisfaction with their profession and current work environment**

Percentage of lower secondary teachers who “agree” or “strongly agree” with the following statements (OECD average-31)



Values are grouped by type of satisfaction and ranked, within each group, in descending order of the proportion of lower secondary teachers who “agree” or “strongly agree” with each indicator.

Source: OECD, TALIS 2018 Database, Tables II.2.10 and II.2.16.

But what shapes the pool from which an industry selects its professionals? Generally it is a combination of the social status associated with the job, the contributions a candidate feels he or she can make while in the job, and the extent to which the work is both financially and intellectually rewarding. Teaching is among the most highly selective occupations in **Finland**, with highly skilled, well-educated teachers spread throughout the country. Few occupations in the country have a higher reputation. In the traditionally Confucian Asian cultures, teachers have long had higher social status than most of their counterparts in the West. In some East Asian countries, teachers' pay is fixed by law to make sure that teachers are among the highest paid of all civil servants.

Singapore is notable for its sophisticated approach to improving the quality of the pool from which it selects candidates for teacher education. The government carefully chooses candidates and offers them a monthly stipend during initial teacher education that is competitive with the monthly salary for fresh graduates in other fields. In exchange, these teachers-in-training must commit to teaching for at least three years. Singapore also keeps a close watch on starting salaries and adjusts the salaries for new teachers accordingly. In effect, the country wants its most qualified candidates to regard teaching just as financially attractive as other professions. TALIS and PISA data show that schools in Singapore have comparatively limited leeway in making hiring decisions, but the principal of the school to which teachers-in-training are attached will sit on the recruitment panel and weigh in on those decisions, well aware that wrong hiring decisions can result in 40 years of poor teaching. So it is not all just about your school, but about the success of the system.

Estonia has adopted an equally strategic approach to the recruitment and training of new teachers. The Youth to School programme (Noored Kooli) seeks to raise interest in teaching and education by awarding scholarships to those high-calibre university students (of any discipline) who opt to teach at school for two years, while also taking part in teaching and leadership training. Upon completion of the programme, students can keep working at school, return to university or work elsewhere. Estonia also introduced new teacher standards in 2013 to ensure that high-quality candidates

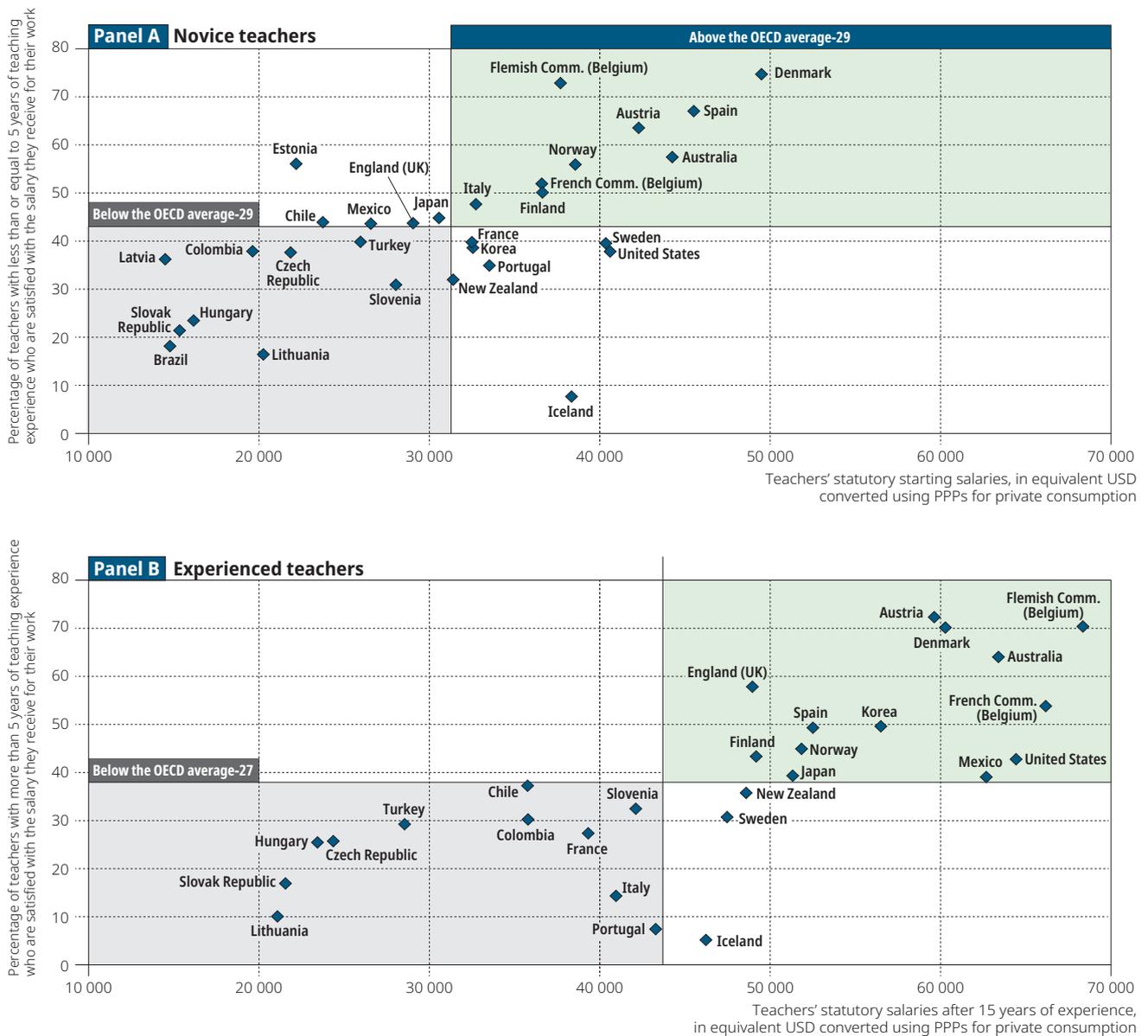
enter the profession. Central to these new standards is a detailed and expansive competency framework for teachers, which was then used to guide the curriculum of teacher education institutions and the assessment of graduating teacher candidates.

When candidates consider joining any profession, the earning potential of the job will always come into the decision-making process. In most education systems, governments set the framework and provide the funding for the employment and career progression of most teachers and principals, so it is often they who set the salaries. Given that teacher pay tends not to compare favourably with the average salaries of similarly-educated workers, it is not surprising that only 39% of teachers report satisfaction with their salary. Teachers' attitudes and demands concerning their pay follow fairly predictable patterns that relate to the purchasing power of their salary: the higher the statutory salaries of teachers in a country,ⁱ the more teachers report being satisfied with their salary; and within countries, teachers working in cities (where housing prices and the cost of living are typically higher) display lower satisfaction with their salary than their peers working in rural areas. Teachers' satisfaction with salaries also seems to be related to the experience of teachers and the degree of salary progression over the course of a teacher's career. When looking at publicly-managed schools, in nearly all education systems where the salary scale is relatively flatⁱⁱ (i.e. the ratio between statutory salaries after 15 years of experience and statutory starting salaries is below 1.25), more experienced teachers are, on average, less satisfied with their salaries than novice teachers (Figure 5).

But pay is not the only thing to consider when thinking about what makes teaching a satisfying and rewarding career. In order to better understand the factors that contribute to teachers' sense of fulfilment and satisfaction with their jobs, TALIS brings together a range of factors (outlined on page 12) that can help develop a better picture. However, it is important to note that some associations reported in the following should be interpreted with caution due to the limited explanatory power of some of the models.

Figure 5 Teachers' statutory salary and salary satisfaction, by work experience

Based on responses of lower secondary teachers working in publicly-managed schools and system-level data on statutory salaries



Note: Panel A shows only countries and economies with available data for starting teachers in lower secondary general programmes and percentage of teachers with working experience less than or equal to 5 years who are satisfied with the salary they receive for their work. Panel B shows only countries and economies with available data for teachers after 15 years of experience in lower secondary general programmes and percentage of teachers with working experience more than 5 years who are satisfied with the salary they receive for their work.

The OECD average-29 includes all TALIS 2018 OECD countries and economies, with the exception of Alberta (Canada), Belgium, Israel, and the Netherlands, while the OECD average-27 includes all TALIS 2018 OECD countries and economies, with the exception of Alberta (Canada), Belgium, Estonia, Israel, Latvia and the Netherlands.

Source: OECD, TALIS 2018 Database, Tables II.3.57; OECD, Education at a Glance 2019, Table D3.1a.

Figure 6 [1/2] **Relationship between TALIS predictors and job satisfaction**

Index of job satisfaction									
Dependent on:									
	Teaching as a first career choice ¹	Took part in any induction activities (formal or informal) at current school ²	Induction activities at current school included team teaching with experienced teachers ²	Professional development activities in the 12 months prior to the survey had a positive impact on teaching practice ³	The teaching profession is valued in society ⁴	Index of workplace well-being and stress ⁵	Index of professional collaboration ⁵	Receiving impactful feedback ⁵	Index of target class autonomy ⁴
	Vol I, Chapter 4	Vol I, Chapter 4	Vol I, Chapter 4	Vol I, Chapter 5	Vol II, Chapter 2	Vol II, Chapter 2	Vol II, Chapter 4	Vol II, Chapter 4	Vol II, Chapter 5
Alberta (Canada)	+	+		+	+	-	+	+	+
Australia	+	+	+	+	+	-	+	+	+
Austria	+	+		+	+	-	+	+	+
Belgium	+	+	+	+	+	-	+	+	+
<i>Flemish Comm. (Belgium)</i>	+	+		+	+	-	+	+	+
<i>French Comm. (Belgium)</i>	+	+		+	+	-	+	+	+
Brazil	+	+	+	+	+	-	+	+	+
Bulgaria	+		+	+	+	-	+	+	+
CABA (Argentina)	+	+		+		-	+	+	+
Chile	+	+	+	+	+	-	+	+	+
Colombia	+	+	+	+	+	-	+	+	+
Croatia	+	+	+	+	+	-	+	+	+
Czech Republic	+	+		+	+	-	+	+	+
Denmark	+	+	+	+	+	-	+	+	+
England (UK)	+	+	+	+	+	-	+	+	+
Estonia	+	+		+	+	-	+	+	+
Finland	+	+		+	+	-	+	+	+
France	+	+	+	+	+	-	m	+	+
Georgia	+		+	+	+	-	+	+	+
Hungary	+	+	+	m	+	-	+	+	+

1. Results of linear regression after controlling for teachers' gender, years of experience as a teacher and self-efficacy.
2. Results of linear regression after controlling for teachers' gender and years of experience as a teacher.
3. Results of linear regression after controlling for teachers' gender, years of experience as a teacher, working full-time and classroom characteristics.
4. Results of linear regression after controlling for teachers' gender, age, years of experience as a teacher, working full-time and classroom composition.
5. Results of linear regression after controlling for teachers' gender, age, years of experience as a teacher, working full-time, collaborative school culture and teachers' reliance on their each other.

Source: OECD, TALIS 2018 Database, Tables I.4.6, I.4.51, I.4.54, I.5.13, II.2.7, II.2.41, II.4.14, II.4.54 and II.5.41.

Figure 6 [2/2] **Relationship between TALIS predictors and job satisfaction**

+	Countries/economies with a positive association between the predictor and job satisfaction
	Countries/economies with no statistically significant association between the predictor and job satisfaction
-	Countries/economies with a negative association between the predictor and job satisfaction

	Index of job satisfaction								
	Dependent on:								
	Teaching as a first career choice ¹	Took part in any induction activities (formal or informal) at current school ²	Induction activities at current school included team teaching with experienced teachers ²	Professional development activities in the 12 months prior to the survey had a positive impact on teaching practice ³	The teaching profession is valued in society ⁴	Index of workplace well-being and stress ⁴	Index of professional collaboration ⁵	Receiving impactful feedback ⁵	Index of target class autonomy ⁴
	Vol I, Chapter 4	Vol I, Chapter 4	Vol I, Chapter 4	Vol I, Chapter 5	Vol II, Chapter 2	Vol II, Chapter 2	Vol II, Chapter 4	Vol II, Chapter 4	Vol II, Chapter 5
Iceland	+			+	+	-	+	+	+
Israel	+			+	+	-	+	+	+
Italy	+	+		+	+	-	+	+	+
Japan	+		+	+	+	-	+	+	+
Kazakhstan	+	+	+	+	+	-	+	+	+
Korea	+	+	+	+	+	-	+	+	+
Latvia	+	+	+	+	+	-	+	+	+
Lithuania		+		+	+	-	+	+	+
Malta	+	+		+	+	-		+	
Mexico	+	+		+	+	-	+	+	+
Netherlands	+				+	-	+		+
New Zealand	+	+	+	+	+	-		+	+
Norway	+	+		+	+	-	+	+	+
Portugal		+		+	+	-	+	+	+
Romania	+	+		+	+	-	+	+	+
Russia	m	+	+	+	+	-	+	+	+
Saudi Arabia	+	+	+	+	+	-	+	+	+
Shanghai (China)	+	+	+	+	+	-	+	+	+
Singapore	+	+	+	+	+	-	+	+	+
Slovak Republic	+		+	+	+	-	+	+	+
Slovenia	+		+		+	-	+	+	+
South Africa	+	+		+	+	-	+	+	+
Spain	+	+	+	+	+	-	+	+	+
Sweden	+	+	+	+	+	-	+	+	+
Turkey	+		+	+	+	-	+	+	+
United Arab Emirates	+	+	+	+	+	-	+	+	+
United States		+	+	+	+	-	+	+	+
Viet Nam	+			+	+	-	+	+	+
OECD average-31	+	+	+	+	+	-	+	+	+
No. of education systems with a positive significant relationship	44	37	29	45	47	0	45	47	47
No. of education systems with a negative significant relationship	0	0	0	0	0	48	0	0	0

- Results of linear regression after controlling for teachers' gender, years of experience as a teacher and self-efficacy.
- Results of linear regression after controlling for teachers' gender and years of experience as a teacher.
- Results of linear regression after controlling for teachers' gender, years of experience as a teacher, working full-time and classroom characteristics.
- Results of linear regression after controlling for teachers' gender, age, years of experience as a teacher, working full-time and classroom composition.
- Results of linear regression after controlling for teachers' gender, age, years of experience as a teacher, working full-time, collaborative school culture and teachers' reliance on their each other.

Source: OECD, TALIS 2018 Database, Tables I.4.6, I.4.51, I.4.54, I.5.13, II.2.7, II.2.41, II.4.14, II.4.54 and II.5.41.

Taken together, TALIS findings highlight the importance of five aspects that predict job satisfaction:

- Selection of candidates with strong motivation and the right attitudes to become lifelong learners and professional workers.
- A strong focus on induction and mentoring throughout the career.
- A strong focus on providing meaningful and impactful opportunities for professional learning.
- Working conditions and a school climate conducive to teacher well-being.
- The importance of a sense of trust and respect.

It warrants further study to understand what drives higher levels of job satisfaction among teachers in privately managed schools compared to those in publicly managed schools in a number of countries. Is this just about pay, or also about access to resources, more engaging work environments or greater professional autonomy? Or is it that these are two different groups of teachers?

Not least, the most disadvantaged schools, whose teachers consistently report a greater inclination to change schools, deserve attention. Experience shows that attracting the most talented teachers to the most challenging schools and classrooms will require more than financial incentives, in particular by providing teachers with the additional support, coaching and resources they need to meet the challenges, and by recognising their efforts throughout their careers.

Read more about these issues in Chapter 4 in *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*.

<https://doi.org/10.1787/1d0bc92a-en>

And in Chapters 1, 2, and 3 in *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*.

<https://doi.org/10.1787/19cf08df-en>



Educating high-quality teachers

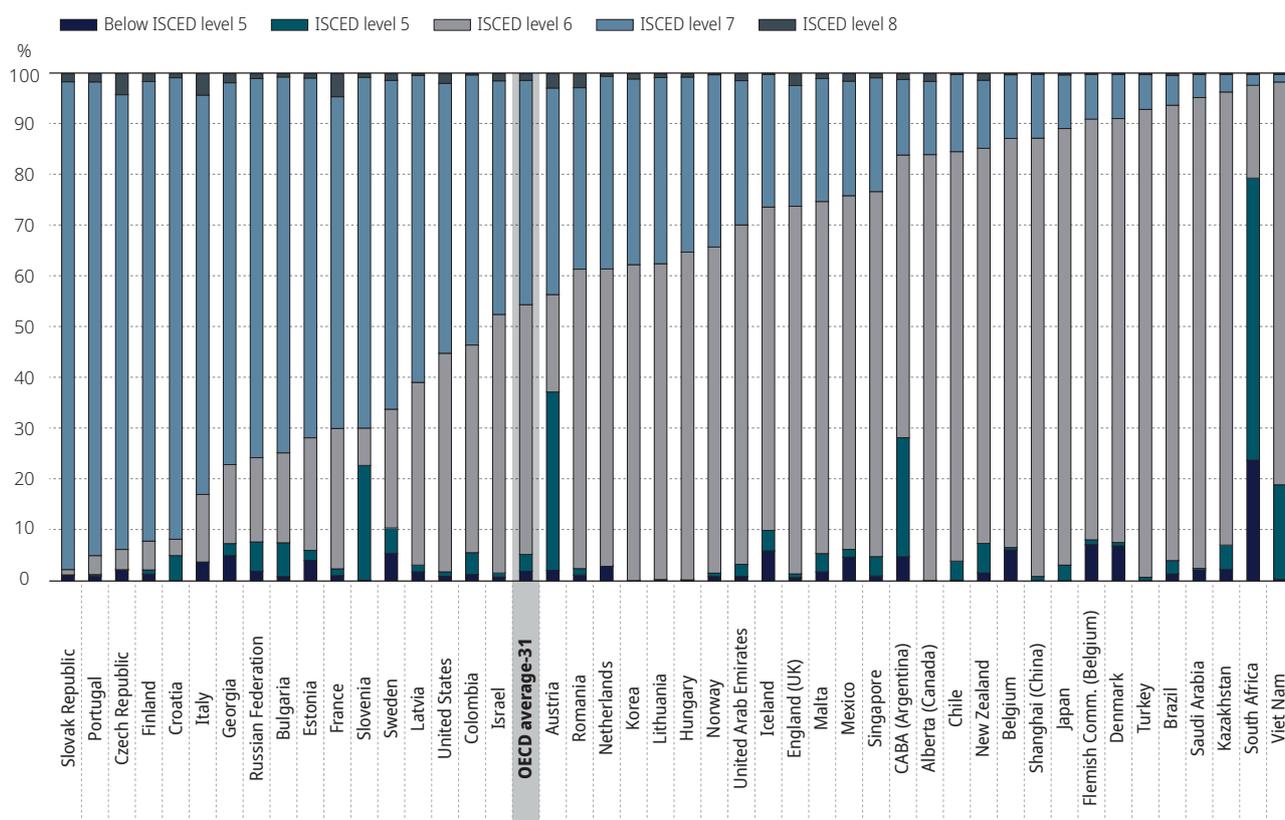
What makes an effective teacher? Education researchers Thomas L. Good and Alyson Lavigneⁱⁱⁱ summarise some key characteristics: effective teachers believe that their students are capable of learning and that they themselves are capable of teaching; they spend the bulk of their classroom time on instruction; they organise their classrooms and maximise student learning time; they use rapid curriculum pacing based on taking small steps; they use active teaching methods; and they teach students until the students achieve mastery over the subject at hand.

But how are such teachers trained and prepared for the job? In general, teachers are well educated: on average across OECD countries, 50% of teachers say they have a bachelor's degree or equivalent, while another 44% report holding a master's degree (Figure 7). Most teachers completed a regular concurrent (rather than consecutive) teacher education or training programme, and about 9 in 10 teachers report that their formal education or training included content, pedagogy and classroom practice in some or all of the subjects they teach. Note that TALIS findings suggest that receiving pre-service training and/or in-service training in a given area is associated with teachers' higher levels of self-confidence in that area, and/or a higher propensity for them to use related practices.

Aside from general levels of education, how can initial teacher preparation be organised for maximum effectiveness? Here is an analogy from nature: frogs release a very large number of eggs in the hope that some of their tadpoles will survive and ultimately metamorphose into the next generation of frogs; ducks lay a few eggs, protect and warm them until they hatch, then defend their ducklings with their life. In a way, these different philosophies are mirrored in the approaches towards teacher education in different countries. In some countries, teacher education is open to everyone, but it often becomes an option of last resort, and one with a high dropout rate. In other countries, teacher education is highly selective. In these countries, resources are focused on helping those who are admitted become successful teachers. In fact, many top-performing education systems have moved away from recruiting would-be teachers into a large number of specialised, low-status colleges of teacher education with relatively low entrance standards, and towards a smaller number of university-based teacher education colleges with relatively high entrance standards and a relatively high status within the university. In other words, they have made the teaching profession exclusive and teaching inclusive. By raising the bar to enter the teaching profession, these countries discourage young people with poor qualifications from becoming teachers.

Figure 7 **Highest educational attainment of teachers**

Percentage of lower secondary teachers, by highest level of formal education completed ^{1,2}



1. Education categories are based on the International Standard Classification of Education (ISCED-2011). ISCED levels 6 and 7 programmes are generally longer and more theory-based.

2. ISCED level 5 includes bachelor's degrees in some countries.

Countries and economies are ranked in descending order of the percentage of lower secondary teachers whose highest level of formal education is either ISCED level 7 or ISCED level 8.

Source: OECD, TALIS 2018 Database, Table I.4.8.

They understand that capable young people who could go into other high-status occupations are not likely to enter a profession that society perceives as easy to get into and therefore attractive to people who could not get into more demanding professions.

For example, **Finland** has made teacher education one of the most prestigious academic programmes. Each year there are typically nine applicants for every place in Finnish teacher education; those who are not admitted can still become attorneys or doctors. Applicants are assessed on the basis of their high school record and their score on the matriculation exam. But the more rigorous selection comes afterwards. Once applicants make it beyond the initial screening of their academic credentials, they are observed in teaching-like activity and interviewed. Only candidates with a clear aptitude for teaching in

addition to strong academic performance are admitted. A combination of raising the bar for entry and granting teachers greater autonomy and control over their classrooms and working conditions may have contributed to the high status of the profession in Finland. Finnish teachers have earned the trust of parents and the wider society, not least by showing that they can help virtually all students become successful learners.

Top-performing education systems often also work to move their initial teacher education programmes towards a model based less on preparing academics and more on preparing professionals in classroom settings – teachers get into schools earlier, spend more time there, and get more and better support in the process. These programmes put emphasis on helping teachers develop skills in diagnosing struggling students early and accurately, and

adapting instruction correspondingly. They want prospective teachers to be confident in drawing from a wide repertoire of innovative pedagogies that are experiential, participatory, image-rich and enquiry-based. **Estonian** initial teacher education contains some features that are key to providing this kind of strong start to new teachers. These include a minimum 50 days of practicum experience at a school site and a mandatory 12-month induction programme, including the support of a trained mentor who has at least three years of teaching experience. The mentor is responsible for providing feedback on the beginner teacher to the teacher education institution.

In some countries the initial preparation of teachers includes instruction in research skills. Teachers are expected to use those skills as lifelong learners to question the established wisdom of their times and contribute to improved professional practice. Research is an integral part of what it means to be a professional teacher. In Finland, every teacher finishes his or her initial education with a research master's degree thesis. Because Finland is at the frontier of curriculum design for supporting creativity and innovation, teachers' work has many of the attractions as those professions that involve research, development and design.

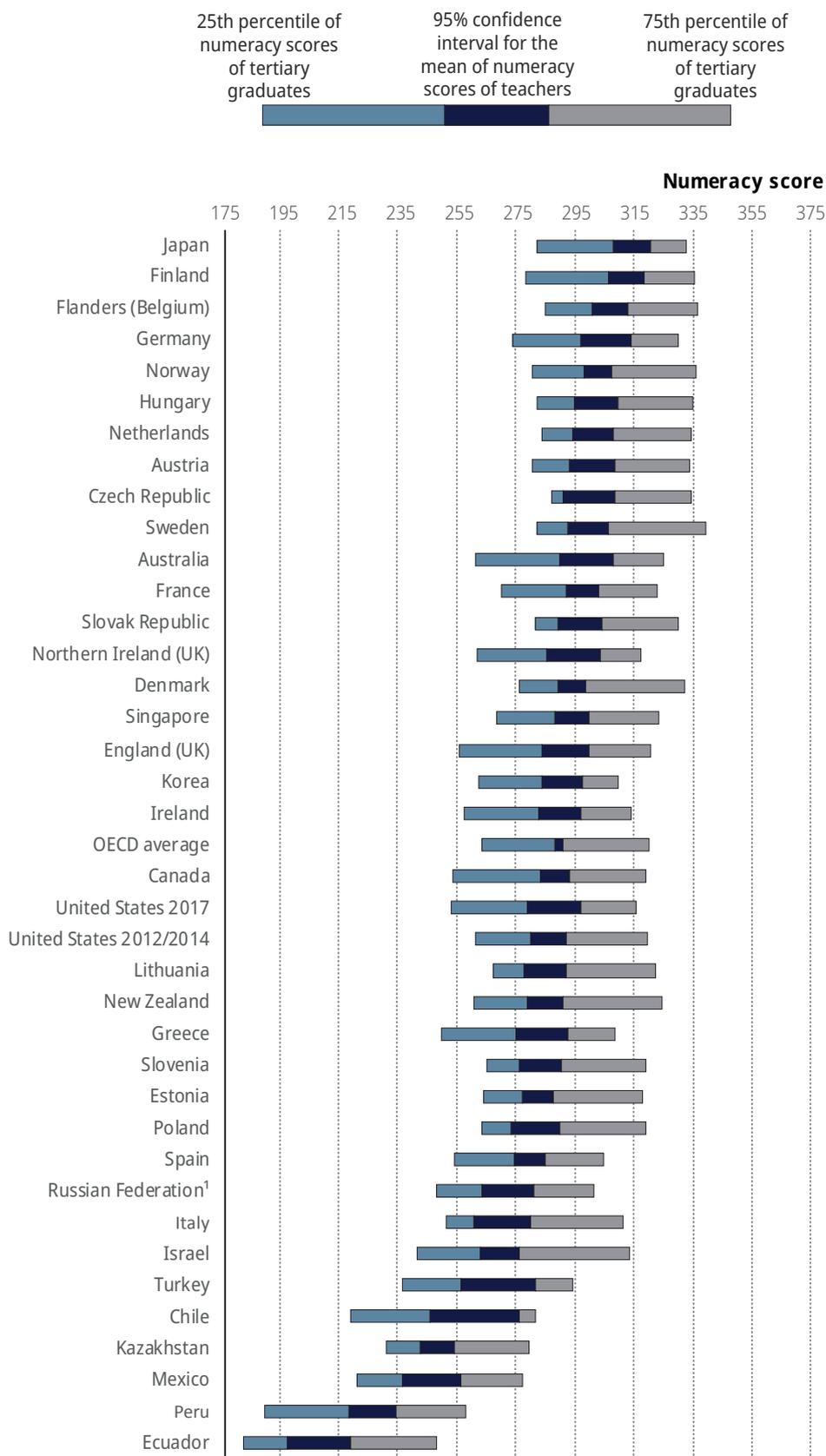
At the system level, a recent OECD review of initial teacher preparation identified a series of policies and initiatives to ensure the quality of initial training. These include the establishment of rigorous accreditation systems for the institutions monitoring the work of teacher education providers; teacher evaluation conducted at some point during teachers' initial training; and the establishment of teaching standards that define precisely what is required and expected of teachers when they enter training and when they are ready to start teaching. At the school level, schools also need to ensure that, regardless of local circumstances, all teachers are equipped with sufficient training in the content and pedagogy of the subjects they teach.

All this being said, on the literacy and numeracy tests of the OECD Survey of Adult Skills, teachers tend to come out remarkably similar to the average employee with a college or university degree (Figure 8). Even more interesting is that some of the countries where

the skills of teachers do not compare favourably – either internationally or with regard to the average college graduate (Poland is one such country) – have seen rapid progress. That shows that recruiting top-performing graduates is only one component of improving education; the investments countries make in teachers' continued professional development may be even more important. This is examined in the next section.

Read more about these issues in Chapter 4 in *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*.
<https://doi.org/10.1787/1d0bc92a-en>

Figure 8 **Distribution of numeracy proficiency scores among tertiary graduates and teachers**
 25th and 75th percentile of numeracy scores of tertiary graduates and the 95% confidence interval for the mean of teachers



1. The sample for the Russian Federation does not include the population of the Moscow municipal area.

Notes: Literacy-related non-response (missing) is excluded from the calculation of mean scores.

Source: OECD, Survey of Adult Skills (PIAAC) (2012, 2015, 2018).



Building an environment for teachers' lifelong learning

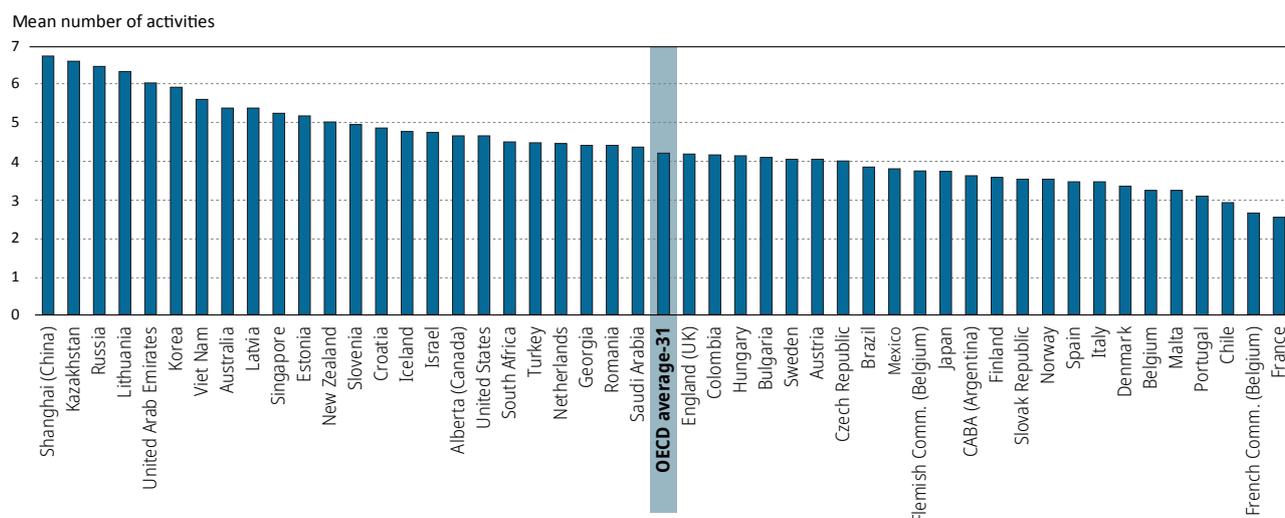
We used to learn to do the work. In this age of accelerations, learning has become the work – and that holds for students as it does for teachers and other workers. To ensure that schools support more powerful learning for students, education systems need to offer powerful learning opportunities for teachers. But how do good teachers become excellent teachers in a way that is consistent and can be repeated across schools?

Often, teacher development tends to still focus on initial teacher education, i.e. the knowledge and skills that teachers acquire before starting work as a teacher. Similarly, most of the resources for teachers' development tend to be allocated to pre-service education. But given the rapid changes in education and the long careers of many teachers, teachers' development must be viewed in terms of lifelong learning, with initial teacher education acting as the foundation for ongoing learning, not the summit of professional development. Think about the challenges teachers face as a result of technological innovations and new media, or those that European teachers face as a result of the recent influx of refugees. No initial teacher education programme could have predicted these challenges decades ago when today's teachers were prepared for their roles. Effective professional development needs to be continuous and include education, practice and feedback, and provide adequate time for follow-up. Successful programmes involve teachers in learning activities that are similar to those they will use with their students.

TALIS provides some measures on the frequency and intensity of teachers' continued professional development (Figure 9). The data show that, on average, teachers attended about four different types of continuous professional development activity in the 12 months prior to the survey, and 82% of teachers report that the professional development activities they participated in had an impact on their teaching practices. According to teachers, the most impactful professional development programmes are those based on strong subject and curriculum content and involve collaborative approaches to instruction, as well as the incorporation of active learning. But interestingly, teachers do not participate that much in the forms of training which include these impactful elements. The forms of professional development with the highest participation are courses or seminars attended in person (76% of teachers across the OECD) and reading professional literature (72%). Participation is also lower for more collaborative forms of professional development, with only 44% of teachers participating in training based on peer/self observation and coaching, learning and networking. We also know from the previous cycle of TALIS that teachers who had positive views of their self efficacy and job satisfaction are more likely to engage in more school embedded professional development activities.

Figure 9 Incidence of continued professional development

Average number of different professional development activities in which lower secondary teachers participated in the 12 months prior to the survey



Countries and economies are ranked in descending order of the average number of different professional development activities in which lower secondary teachers participated in the 12 months prior to the survey.

Source: OECD, TALIS 2018 Database, Table I.5.7.

Research evidence is, to a large extent, consistent with TALIS findings. It has been shown that although more traditional training like courses or seminars can be an effective tool for learning, school embedded professional development, for instance peer learning opportunities, tends to have a larger impact on teaching practices and can significantly reduce the cost of training. In particular, a recent meta analysis review of 60 studies found that teacher coaching (i.e. a school embedded approach to in-service training) had a positive impact on both teachers' instruction and students' achievement.^{iv}

Some countries already make significant investments in such school-embedded teacher development. Professional Learning Communities (PLCs) of teachers within and across schools can be an instrumental form of collaborative professional development. The strength of PLCs lies in their focus on collective, goal-driven professional development activities and routine collaboration between teachers for knowledge sharing and collective improvement. Past OECD research has pointed out the value that professional learning communities offer through the consistent feedback provided to teachers, thus supporting incremental change and positively affecting instructional quality and student achievement.

Singapore's approach to developing its in-service teachers provides an interesting model: teachers are entitled to 100 hours of professional development per year to stay up to date with their field and improve their practice, while teacher networks and professional learning communities encourage consistent peer-to-peer learning. It is interesting to note that the usual complaint about initial teacher education failing to provide sufficient opportunity for recruits to experience real students in real classrooms is not unknown in Singapore. It is difficult, disruptive and expensive to get an annual cohort of 2 000 teacher recruits into classrooms. To address this, on top of school teaching practice attachments of between 10 to 22 weeks, the National Institute for Education in Singapore uses digital technology to bring classrooms into pre-service education, with real-time access to a selection of the country's classrooms. The Institute also carries out an impressive range of classroom-based research to help teachers personalise learning experiences, deal with increasing diversity in their classrooms and differences in learning styles, and keep up with innovations in curricula, pedagogy and digital resources.

In **Kazakhstan**, all schools have at least one methodological association in which teachers meet regularly to discuss instructional practices (especially for specific topics), plan and prepare instructional materials together, and provide peer feedback based on classroom visits and observations. Groups of teachers who teach the same subject also come together to discuss the challenges of individual students and identify solutions. School leaders in Kazakhstan also play a key role in fostering this form of collaboration among teachers, which is evident in their instructional leadership activities.

Providing novice teachers with tailor-made support

Among all the steps of a teacher's career pathway, the early career years are those that deserve the greatest support and attention. TALIS data show that teachers in their early career years tend to work in more challenging schools, and 22% of them report that they would like to change to another school if that were possible. In addition, novice teachers feel less confident in their ability to teach, particularly in their classroom management skills and their capacity to use a wide range of effective instructional practices.

Induction to teaching and mentoring can support teachers new to the school or the profession. But despite empirical evidence showing that teachers' participation in induction and mentoring is beneficial to student learning, and the fact that school principals generally consider mentoring to be important to support less experienced teachers, induction and mentoring are not yet commonplace. On average, 51% of novice teachers report not having participated in any formal or informal induction at their current school, and only 22% have an assigned mentor (Figure 10).

In particular, “research-informed clinical practice” can have a strong impact because under this model mentors are expected to perform not only as supervisors of early career teachers, but as institutional agents that a) help new teachers develop alternative views and classroom practices, and b) engage critically with the research-informed perspectives that beginning teachers can evaluate in their practice.

At the system level, support can be provided by efficient mechanisms for teachers' allocation. Some countries with more centralised teacher allocation and compensation systems, assign recent graduates to schools that are less challenging. Complementary approaches create salary or career incentives for experienced teachers who are currently working in less challenging schools to accept teaching positions in more challenging environments. These approaches can also help to change mindsets so that teaching in more difficult schools is seen as a prestigious stage in a teacher's professional growth and career trajectory, rather than a necessary first ordeal, and would be recognised accordingly in financial terms.

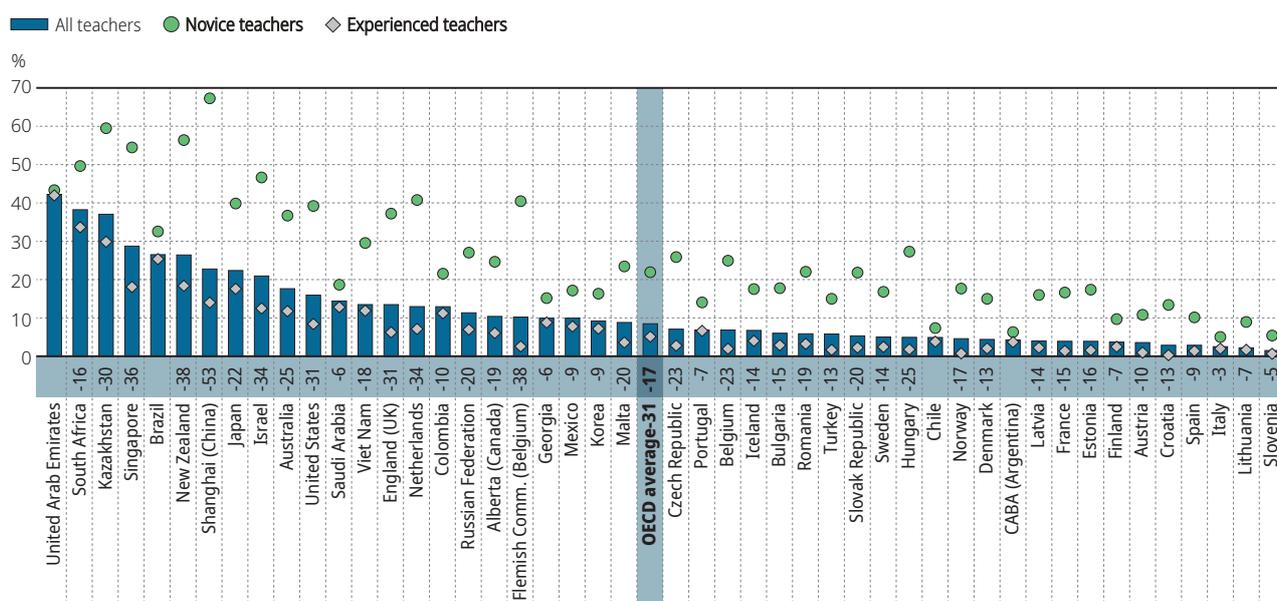
Matching participation in continuous professional development with needs

Teachers' reports on the types of professional development they need most highlight some of the areas that could be prioritised to build capacity among teachers and school leaders.

The area of development reported as a high need by the largest proportion of teachers (22%) is training for teaching students with special needs.^v Even though participation in professional development on this topic experienced one of the highest increases between 2013 and 2018, the percentage of teachers reporting a high need for it also experienced one of the highest increases over the same period (Figure 11). Reports from school leaders corroborate this potential gap in special needs training: 32% of school principals in TALIS report that the delivery of quality instruction in their school is hindered by a shortage of teachers capable of teaching students with special needs. This shortage ranks among the most frequent resource issues reported by school principals. As part of improving this situation, it is important for education systems to invest in diagnostic capacity; what teachers perceive as behavioural issues (misbehaviour, low performance) could have other explanations. Misdiagnosis is costly for students, teachers and education systems as a whole.

Figure 10 **Peer mentoring, by teachers' teaching experience**

Percentage of lower secondary teachers who have an assigned mentor as part of a formal arrangement at the school¹



1. Mentoring is defined as a support structure in schools where more experienced teachers support less experienced teachers.

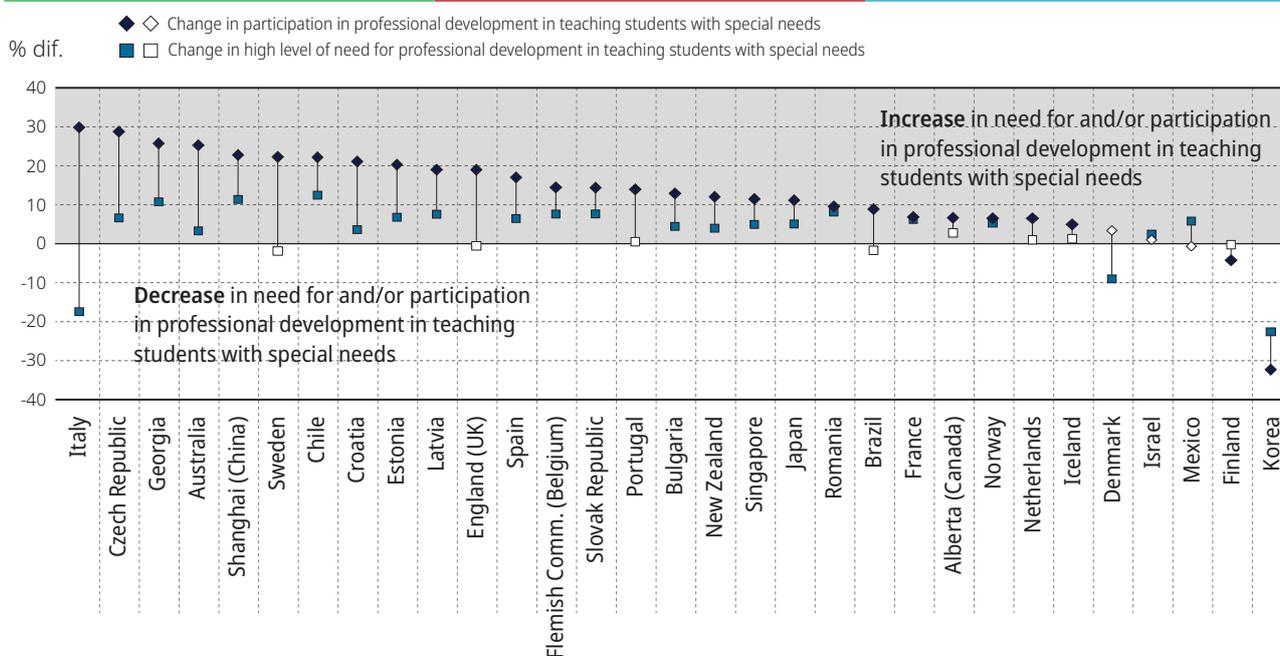
Note: Statistically significant differences between experienced teachers (with more than 5 years of experience) and novice teachers (with less than or equal to 5 years of experience) are shown next to the country/economy name.

Countries and economies are ranked in descending order of the percentage of lower secondary teachers who have an assigned mentor.

Source: OECD, TALIS 2018 Database, Table I.4.64.

Figure 11 **Change in participation in and need for professional development in teaching students with special needs from 2013 to 2018**

Percentage point differences between 2018 and 2013 in the share of teachers (i) having participated¹ in and (ii) reporting a high level of need for professional development in teaching students with special needs²



1. Refers to professional development activities in which teachers participated in the 12 months prior to the survey.

2. "Students with special needs" are those for whom a special learning need has been formally identified because they are mentally, physically, or emotionally disadvantaged.

Note: Values over zero reflect an increase in participation or need between 2013 and 2018 while values below zero reflect a decrease in participation or need between 2013 and 2018. Statistically significant values are marked in a darker tone.

Countries and economies are ranked in descending order of the change in the percentage of teachers reporting that teaching students with special needs was included in their professional development activities (TALIS 2018 - TALIS 2013).

Source: OECD, TALIS 2018 Database, Tables I.5.27 and I.5.28.

Use of information and communication technologies (ICT) for teaching is the second highest area of professional development that teachers (18%) report a high need for. The frequency with which teachers have students use ICT for projects or class work has risen in almost all countries since 2013, to a point where 53% of teachers across the OECD now report frequently or always using this practice. This reflects the broader trend of digitalisation and the spread of ICT across all spheres of society. But it also reflects the renewal of the teacher workforce, with younger teachers being more familiar with these technologies. However, only 56% of teachers across the OECD participated in training in the use of ICT for teaching as part of their initial education or training, and only 43% of teachers felt well or very well prepared for this element when they began teaching. Once again, school leaders' views corroborate the story: 25% of them say that inadequate use of digital technology for teaching is a hindrance to quality instruction, which suggests that teachers may be limited in their use of ICT. International surveys and studies conducted in international and national contexts also highlight that the effective use and integration of ICT in the classroom depends on teachers' training in ICT, collaboration with peers, teachers' beliefs about self-efficacy, and purposes of ICT use in teaching, as well as availability of support infrastructure.

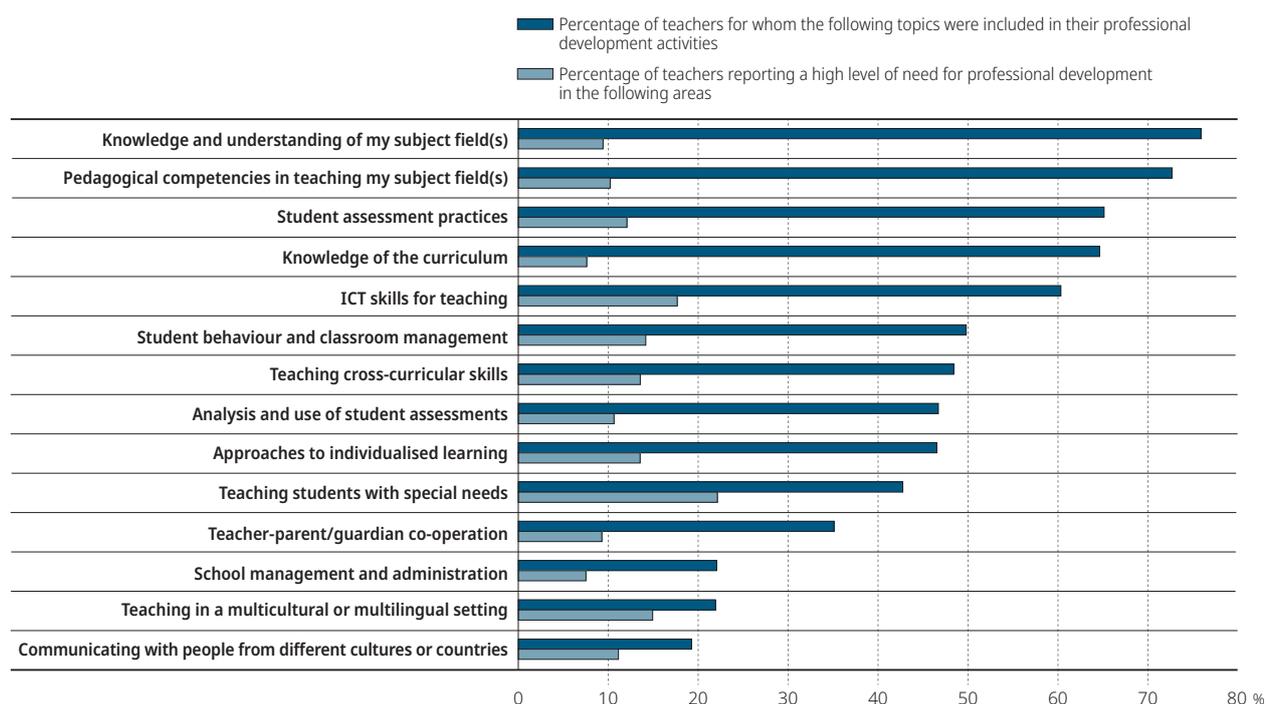
Teaching in a multicultural or multilingual setting is the next-highest area of high need for professional development for teachers (reported by 15% of them). Between 2013 and 2018, there has also been a global increase in the share of teachers expressing a high need for training in teaching in multicultural or multilingual settings. Added to this is the fact that 33% of teachers on average across the OECD report that they do not feel able to cope with the challenges of a multicultural classroom. This is an issue since the global integration of economies, large-scale migration and surges in refugee flows have all contributed to more ethnically, culturally and linguistically diverse learning environments: on average across the OECD, 17% to 30% of teachers teach in schools with a culturally or linguistically diverse student body (depending on the criterion considered).

To support teachers' development in this area, **Alberta** (Canada) has prioritised awareness, understanding and the need to support students from diverse ethnic and cultural backgrounds, with emphasis on Indigenous students. Alberta Education offers a series of resources to in-service teachers so they can learn about the Indigenous communities of Canada (First Nation, Métis and Inuit), as well as understand contemporary issues affecting students from these communities. It further supports teachers by providing a curriculum development tool, *Guiding Voices*, for the inclusion of Indigenous perspectives throughout the school curriculum. Teachers are guided to incorporate the history and contemporary realities of Indigenous peoples in programmes of study, assessments, and teaching and learning resources. For example, the toolkit includes examples of narratives and images of First Nation, Métis, Inuit and other Indigenous groups that could be included while teaching certain subjects in the classroom. It also provides guidelines on how teachers, through their classroom practices, can prevent social exclusion among students. This support mechanism stands out because it focuses on building a strong foundation of knowledge and awareness among teachers, followed by concrete teaching strategies and resources for reference, to encourage informed implementation of the recommended practices.

Sweden also stands out for its targeted professional development to help teachers teach in diverse environments. Capacity building in this area starts in pre-service training and continues into in-service professional development, with opportunities to practice and learn about strategies to manage diversity provided once they start teaching. The National Agency in Sweden offers courses in the needs of newly-arrived and multilingual children, offering guidance for supporting new arrivals, subject-specific instruction and acquisition of Swedish as a second language.

So how does the perceived need for professional development match actual participation? Certain areas still emerge as very common topics for in-service training. According to TALIS (Figure 12), training in subject matter knowledge and understanding the subject field and pedagogical competencies are the most frequent types of professional development that teachers participate in.

Figure 12 **Participation in professional development for teachers and need for it**
 Results based on responses of lower secondary teachers (OECD average-31)



Note: ICT: Information and communication technology.

Values are ranked in descending order of the percentage of teachers for whom the above topics were included in their professional development activities.

Source: OECD, TALIS 2018 Database, Tables I.5.18 and I.5.21.

Other elements often included in professional development relate to student behaviour and classroom management (across OECD countries and economies, 50% of teachers had such content covered); teaching cross curricular skills (48%), and use of ICT for teaching (60%). Conversely, teaching in multicultural or multilingual settings is more rarely included in continuous professional development (22%), albeit with large cross country variation.

Raising self-efficacy among teachers

Changing teachers' self-belief is perhaps the most important point of leverage for change in education, but also one of the most difficult ones to achieve. The TALIS indicator on this captures teachers' own perceptions on how effective they feel they are in the various aspects of their job. Raising self-efficacy often requires transforming a fear of failure into a willingness to try. Teachers with a very high or very low sense of self-efficacy may be less likely to use the new skills they have learned, while those with moderate confidence in their own ability might be the most likely to do so.

The “self” in “self-efficacy” can lead one to assume that this is an entirely individual endeavour, but TALIS shows that teachers' self-efficacy is in fact related to the way they collaborate with others in the field. For example, self-efficacy is linked with deeper forms of collaboration that involve more interdependence between teachers, including teaching jointly as a team in the same class, providing feedback based on classroom observations, engaging in joint activities across different classes and age groups, and participating in collaborative professional learning. A similar result was found in the previous cycle of TALIS: the more teachers observed other classrooms, engaged in collaborative professional development, and taught jointly, the more they perceived themselves as being effective teachers.^{vi}

So how can we raise teacher self-efficacy? TALIS identifies a range of factors that are associated with teacher self-efficacy, even if the relationships do not hold for all countries (Figure 13). Furthermore, some associations should be interpreted with caution due to the limited explanatory power of some of the models.

Figure 13 [1/2] **Relationship between TALIS predictors and self-efficacy**

+	Countries/economies with a positive association between the predictor and self-efficacy
	Countries/economies with no statistically significant association between the predictor and self-efficacy
-	Countries/economies with a negative association between the predictor and self-efficacy

	Index of self-efficacy								
	Dependent on:								
	Teacher characteristics: years of experience as a teacher ¹	Index of classroom disciplinary climate ²	Took part in any induction activities at current school ³	Induction activities at current school included team teaching with experienced teachers ³	Professional development activities in the 12 months prior to the survey did have a positive impact on teaching practice ²	Index of workplace well-being and stress ⁴	Fixed-term contract: less than or one school year ^{5, 6}	Index of professional collaboration ⁷	Index of target class autonomy ⁷
	Vol I, Chapter 2	Vol I, Chapter 3	Vol I, Chapter 4	Vol I, Chapter 4	Vol I, Chapter 5	Vol II, Chapter 2	Vol II, Chapter 3	Vol II, Chapter 4	Vol II, Chapter 5
Alberta (Canada)		-		+				+	+
Australia	+	-		+		-	-	+	+
Austria	+	-		+	+	-	-	+	+
Belgium	+	-	+		+	-	-	+	+
<i>Flemish Comm. (Belgium)</i>	+	-		+		-	-	+	+
<i>French Comm. (Belgium)</i>		-	+	+		-	-	+	+
Brazil		-	+	+	+	-		+	+
Bulgaria	+	-		+	+	-		+	+
CABA (Argentina)		-	+	+		-		+	+
Chile		-	+	+	+	-	-	+	+
Colombia		-		+	+	-		+	+
Croatia	+	-	+	+	+	-		+	+
Czech Republic	+	-	+	+		-	-	+	+
Denmark	+	-			+	-	-	+	+
England (UK)	+	-	+	+		-	-	+	+
Estonia	+	-	+	+	+			+	+
Finland	+	-	+		+	-	-	+	+
France	+	-	+		+	-		m	+
Georgia		-		+		-	-	+	+
Hungary	+	-	+	+	m	-	-	+	+
Iceland	+	-			+	-		+	+
Israel	+	-			+	-	w	+	+
Italy	+	-	+			-	w	+	+
Japan		-		+	+	-		+	+
Kazakhstan	+	-	+	+		-		+	+
Korea		-		+	+			+	+
Latvia		-	+	+	+	-	-	+	+
Lithuania	+	-			+	-		+	+

- Results of linear regression after controlling for classroom characteristics, teachers' gender and working full-time.
- Results of linear regression after controlling for teachers' gender, years of experience as a teacher, working full-time and classroom characteristics.
- Results of linear regression after controlling for teachers' gender and years of experience as a teacher.
- Results of linear regression after controlling for teachers' gender, age, years of experience as a teacher, working full-time and classroom characteristics.
- In Australia, the participation rate of principals is too low to ensure comparability for principals' reports and country estimates are not included in the OECD average.
- Results of linear regression after controlling for other employment characteristics, teachers' gender, age, years of experience as a teacher, working full-time, classroom characteristics and school type, size and location.
- Results of linear regression after controlling for teachers' gender, age, years of experience as a teacher, working full-time, collaborative school culture and teachers' reliance on their each other.

Source: OECD, TALIS 2018 Database, Tables I.2.25, I.3.57, I.4.47, I.4.53, I.5.14, II.2.42, II.3.28, II.4.16, and II.5.40.

Figure 13 [2/2] **Relationship between TALIS predictors and self-efficacy**

	Index of self-efficacy								
	Dependent on:								
	Teacher characteristics: years of experience as a teacher ¹	Index of classroom disciplinary climate ²	Took part in any induction activities at current school ³	Induction activities at current school included team teaching with experienced teachers ³	Professional development activities in the 12 months prior to the survey did have a positive impact on teaching practice ²	Index of workplace well-being and stress ⁴	Fixed-term contract: less than or one school year ^{5, 6}	Index of professional collaboration ⁷	Index of target class autonomy ⁷
	Vol I, Chapter 2	Vol I, Chapter 3	Vol I, Chapter 4	Vol I, Chapter 4	Vol I, Chapter 5	Vol II, Chapter 2	Vol II, Chapter 3	Vol II, Chapter 4	Vol II, Chapter 5
Malta	+	-		+	+			+	+
Mexico		-	+	+	+	-		+	+
Netherlands	+	-	+		+	-	w	+	+
New Zealand	+	-		+	+			+	+
Norway	+	-				-	-	+	+
Portugal		-	+		+	-		+	+
Romania	+	-	+	+	+	-	-	+	+
Russia	m	m	m	m	m	m	m	m	m
Saudi Arabia		-	+	+	+	-	c	+	+
Shanghai (China)		-	+	+	+	-		+	+
Singapore	+	-		+		-		+	+
Slovak Republic	+	-		+	+	-		+	+
Slovenia		-			+	-		+	+
South Africa		-		+	+	-		+	+
Spain	+	-	+	+	+	-		+	+
Sweden	+	-		+	+	-	-	+	+
Turkey		-		+	+	-		+	+
United Arab Emirates	+	-	+	+	+	-		+	+
United States		a		+		-		+	+
Viet Nam		c	+	+		-	-	+	+
OECD average-31	+	-	+	+	+	-	-	+	+
OECD average-30	-
No. of education systems with a positive significant relationship	29	0	25	35	33	0	0	46	47
No. of education systems with a negative significant relationship	0	45	0	0	0	42	15	0	0

- Results of linear regression after controlling for classroom characteristics, teachers' gender and working full-time.
- Results of linear regression after controlling for teachers' gender, years of experience as a teacher, working full-time and classroom characteristics.
- Results of linear regression after controlling for teachers' gender and years of experience as a teacher.
- Results of linear regression after controlling for teachers' gender, age, years of experience as a teacher, working full-time and classroom characteristics.
- In Australia, the participation rate of principals is too low to ensure comparability for principals' reports and country estimates are not included in the OECD average.
- Results of linear regression after controlling for other employment characteristics, teachers' gender, age, years of experience as a teacher, working full-time, classroom characteristics and school type, size and location.
- Results of linear regression after controlling for teachers' gender, age, years of experience as a teacher, working full-time, collaborative school culture and teachers' reliance on their each other.

Source: OECD, TALIS 2018 Database, Tables I.2.25, I.3.57, I.4.47, I.4.53, I.5.14, II.2.42, II.3.28, II.4.16, and II.5.40.

TALIS illustrates some factors that are related to teachers' self-efficacy. The results suggest the value of:

- Considering the intrinsic motivation and attitudes to become lifelong learners and professional workers as part of the criteria for selecting candidates in the teaching profession.
- A strong focus on induction and mentoring throughout the career.
- A strong focus on providing meaningful and impactful opportunities for professional learning.
- Working conditions and a school climate conducive to teacher well-being.
- The importance of a sense of trust and respect.

Linking teacher continuous professional development and career progression

The key to effective professional development is often not just the amount of class-taking by serving teachers; it is also the underlying career structures and how they inter-relate with the time teachers work together in a form of social organisation that both requires and provides new knowledge and skills that make the difference. An important part of this is the consideration and recognition of competencies acquired through participation in professional development in career progression, recruitments or school assignments.

In **Korea** for instance, teachers are eligible for 180 hours of professional development after 3 years of service, to obtain an advanced certificate, which can lead to a salary increase and eligibility for promotion.

In **Singapore** teacher development is encouraged through the Enhanced Performance Management System, which was first fully implemented in 2005 and forms part of the career and recognition system under the "Education Service Professional Development and Career Plan". This structure has three components: a career path, recognition through monetary rewards, and an evaluation

system. The plan recognises that teachers have different aspirations and provides three career tracks for teachers: the Teaching Track, which allows teachers to remain in the classroom and advance to the level of Master Teacher; the Leadership Track, which provides opportunities for teachers to assume leadership positions in schools and the ministry's headquarters; and the Senior Specialist Track, where teachers join the ministry's headquarters to become part of a "strong core of specialists with deep knowledge and skills in specific areas in education that will break new ground and keep Singapore at the leading edge", according to the government of Singapore. The Enhanced Performance Management System is competency-based and defines the knowledge, skills and professional characteristics appropriate for each track. The process involves performance planning, coaching and evaluation for teachers. During the performance-evaluation phase, decisions regarding promotions to the next level are made based on "current estimated potential", while the decision about a teacher's potential is made in consultation with senior staff who have worked with the teacher (based on observations, discussions with the teacher, portfolio evidence and the teacher's contribution to the school and community).

The **Italian** government has focused on school-level autonomy as a key lever for educational improvement. Reflecting this approach, in-service professional development provisions implemented at the school level and chosen by teachers are a key feature of the Good School reform (La Buona Scuola), introduced in 2015. The reform has made in-service training mandatory, permanent and structural – the changes were designed to respond to the low participation of Italian teachers in professional development activities. First, the Italian government made a large financial investment (EUR 1.5 billion) exclusively for training in areas of system skills (school autonomy, evaluation and innovative teaching) and 21st century skills (such as digital skills, schoolwork schemes) and skills for inclusive education. Second, the programme stands out because of its tailored approach and scope of choice for teachers to participate in professional development according to their needs.

This is done by providing teachers a sum of EUR 500 per year on their “Teachers Card” to participate in training activities, purchase resources (books, conference tickets, etc.), as well as providing matching processes to align training offers with training demands using a digital platform.

Read more about these issues in Chapters 2-5 in *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*.

<https://doi.org/10.1787/1d0bc92a-en>

And in Chapter 1 *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*.

<https://doi.org/10.1787/19cf08df-en>



Seeing teachers as independent and responsible professionals

The concept of “professionalism” historically referred to the level of autonomy and internal regulation exercised by members of an occupation. In 18th- and 19th-century Europe, the distinction between occupations and professions lay in the extent to which a profession required special knowledge, a formal code of conduct and a state-issued mandate to carry out particular services. Over time, the classic definition of the professions was expanded, and university professors and upper secondary teachers were recognised as experts in education.

In the course of the 20th century, the professionalism of teaching was countered by the growing standardisation of curricula and, with it, the emergence of an industrial work organisation in education. The expansion of education opportunities around the world during the past 100 years led not only to an increase in the number of teachers but also to more structured and scripted curricula and lesson plans.

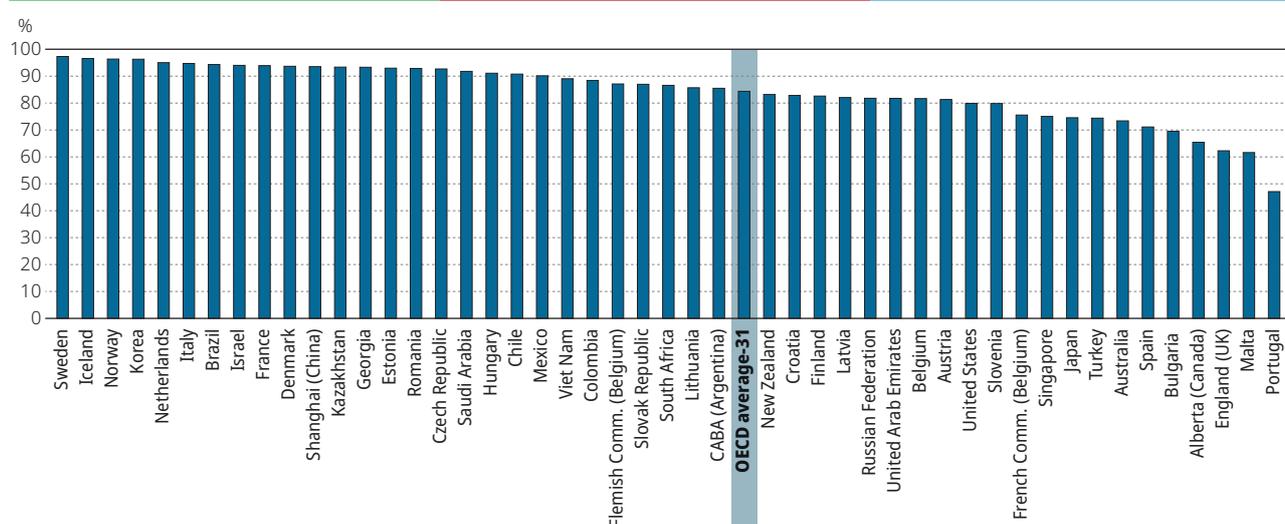
At the turn of the 21st century, however, there has been a renewed focus on teacher professionalism as key to education reform. As improving teacher quality became recognised as integral to student achievement, teacher professionalism gained prominence. Indeed, a strong and coherent body of professional knowledge owned by the teaching

profession, and to which teachers feel responsible and accountable, together with teachers’ continuous professional development, are now widely seen as essential for improving teachers’ performance and effectiveness.

But the meaning of teacher professionalism varies significantly across countries, and often reflects cultural and historical differences, as well as disparities in national and local policy priorities. In some countries, educators consider teaching to be entirely in the purview of the individual teacher in the sanctuary of his or her classroom; the TALIS data in fact suggest that in most countries, teachers have a large degree of autonomy over their practice in the classroom (Figure 14). However, this can lead to a profession without an accepted practice and collective responsibility and peer regulation. The challenge is moving from a system where every teacher chooses his or her own approach towards one where teachers choose from practices agreed by the profession as effective. Freedom should not be an argument to be idiosyncratic. What seems most important in this context is that professionalism and professional autonomy do not mean that teachers do what they think or feel is right in a given situation, but rather that they do what they know is right based on their deep understanding of professional practice. It means making teaching not less of an art, but more of a science.

Figure 14 **Teachers' autonomy in determining course content in their target class**

Percentage of lower secondary teachers who "agree" or "strongly agree" that they have control over determining course content in their target class¹



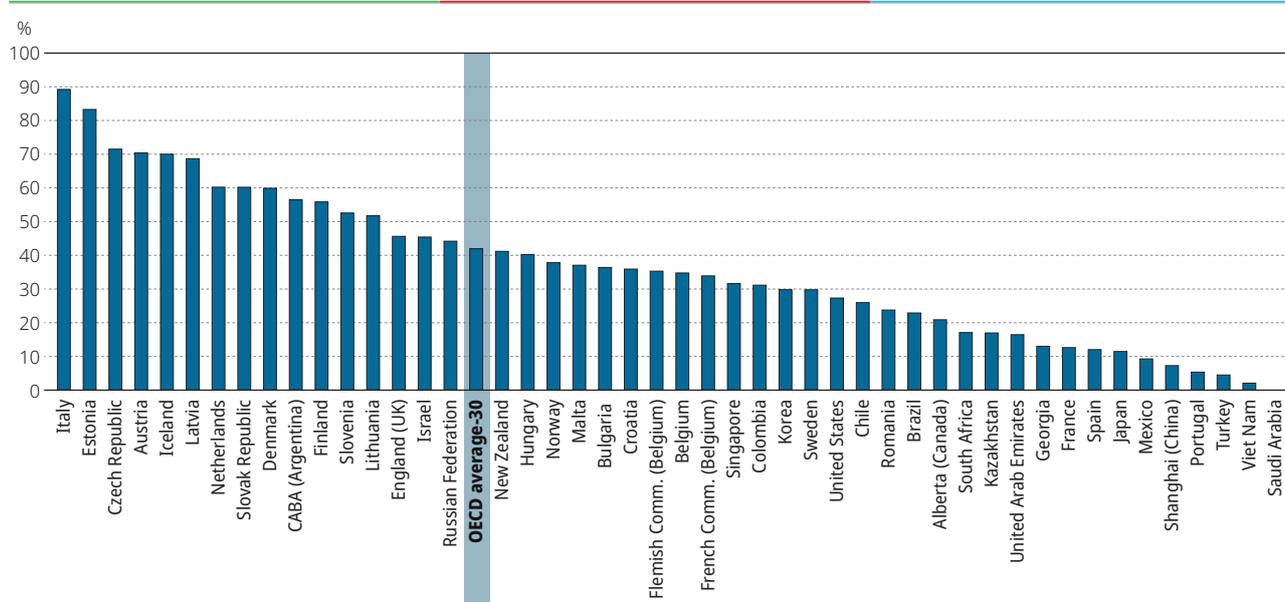
1. These data refer to a randomly chosen class that teachers currently teach from their weekly timetable.

Countries and economies are ranked in descending order of the percentage of lower secondary teachers who "agree" or "strongly agree" that they have control over determining course content.

Source: OECD, TALIS 2018 Database, Table II.5.32.

Figure 15 **Overall teachers' responsibilities for school policies, curriculum and instruction**

Percentage of lower secondary principals who report that teachers have significant responsibility in a majority of tasks related to school policies, curriculum and instruction¹



1. This percentage is calculated based on whether principals report that teachers have significant responsibility in at least 4 of the following 6 tasks: "establishing student disciplinary policies and procedures"; "approving students for admission to the school"; "establishing student assessment policies"; "choosing which learning materials are used"; "deciding which courses are offered" and "determining course content".

Countries and economies are ranked in descending order of the percentage of lower secondary principals who report that teachers have significant responsibility in a majority of tasks related to school policies, curriculum and instruction.

Source: OECD, TALIS 2018 Database, Table II.5.31.

As data from TALIS show, when rated on their professional knowledge base, their decision-making power over their work, and their opportunities for exchange and support, teachers still have significant challenges ahead of them. Rarely do teachers own their professional standards to the extent other professionals do, and rarely do they work with the level of autonomy and in the collaborative work culture that people in other knowledge-based professions take for granted (Figure 15).

A central attribute defining a profession is the contribution of its professionals to the pool of knowledge that forms the foundation of their practice. In **Finland**, teachers are encouraged to contribute to research on effective teaching practices throughout their career. The **Chinese** teacher education system also emphasises the importance of research, and improvement to the system relies on research conducted by teachers. Indeed, the amount of teacher-led research conducted in China is impressive. Schools are often given research grants to pilot new programmes or policies and to test their scalability in other schools. The most experienced teachers in those schools are then enlisted as co-researchers to evaluate the effectiveness of the new practices.

Elsewhere in Asia too, countries make the most of their top-performing teachers. The education authorities often identify the best teachers and relieve them of some of their teaching duties so that they can give lectures to their peers, provide demonstrations, and coach other teachers in their district, their province, or even across the country. At the school level, the best teachers typically lead the process of lesson development. Experienced teachers are also called upon to coach novice teachers and to play a key role in analysing why certain students are having difficulties learning.

These policies and practices influence the quality of the teaching workforce itself. For example, the **Japanese** tradition of lesson study means that Japanese teachers work together to improve the quality of the lessons they teach. Teachers whose practice is not on the same level as teacher leaders can see what good practice is. And since the structure of the profession provides opportunities for teachers to move up a ladder of increasing prestige and responsibility, it also pays for a good teacher

to become even better. The potential impact of teachers working together in this way can also be seen in the data: as mentioned previously, TALIS 2018 results tell us that teachers who participate in deeper forms of collaboration such as collaborative professional learning also show high levels of self-efficacy.

In the **United States**, teachers have leadership opportunities to be involved in education policy work offered by different levels of government. An example of this is the Chancellor's Teachers' Cabinet within the District of Columbia Public Schools (Washington, DC). This initiative is a year-long commitment for teachers to be a part of the district's work on education and improving the state of public schools in the area. The cabinet works as a forum where teachers reflect on their first-hand experiences, discuss the policy priorities and needs of the public schools, as well as the feasibility of new ideas. It also gives teachers the opportunity to interact with colleagues through a two-hour monthly cabinet meeting. In the past, the cabinet has discussed special education and changes to the teacher evaluation process to boost teachers' continuous improvement and learning.

Perhaps the most important reason why teachers need to assume ownership of the profession lies in the pace of change in 21st century school systems. Even the most urgent efforts to translate a government-established curriculum into classroom practice typically drag out over a decade, because it takes so much time to communicate the goals and methods through the different layers of the system, and to build them into teacher education programmes. When what and how students learn changes so rapidly, this slow implementation process leads to a widening gap between what students need to learn, and what and how teachers teach. The only way to shorten that timeframe is to professionalise teaching, ensuring that teachers have a deep understanding not only of the curriculum as a product, but of the process of designing a curriculum and the pedagogies that will best communicate the ideas behind the curriculum.

In many cases, countries concluded that top-down initiatives were insufficient to achieve deep and lasting changes in practice, because reforms were focused on things that were too distant from the instructional core of teaching

and learning; because reforms assumed that teachers would know how to do things they actually did not know how to do; because too many conflicting reforms asked teachers to do too many things simultaneously; or because teachers and schools did not buy into the reform strategy. Therefore, these countries opted to refocus public policy on creating strong social institutions that connect deeply with society, as opposed to assuming that government can directly interact with schools, teachers and other stakeholders.

The **Estonian** and **Finnish** systems of accountability are entirely built from the bottom up. Teacher candidates are selected, in part, based on their capacity to convey their belief in the core mission of public education. The preparation they receive is designed to build a sense of individual responsibility for the learning and well-being of all the students in their care. The next level of accountability rests with the school. Again, the level of trust that the larger community extends to its schools seems to engender a strong sense of collective responsibility for the success of every student. While every comprehensive school in Finland reports to a municipal authority, authorities vary widely in the quality and degree of oversight that they provide. They are responsible for hiring the principal, typically on a six- or seven-year contract, but the day-to-day responsibility for managing the schools is left to the teachers and other education professionals, as is the responsibility for assuring students' progress. In **Shanghai** (China), the municipal government designs the policies, manages the schools and works to improve instruction. Teachers in Shanghai are comprehensively and rigorously educated in pre-service programmes and subsequent regular professional development activities. They are expected to adhere to the standards and curricular approaches defined by the government, and generally have a narrower space for interpreting curricular objectives.

However, the impact of autonomy will always depend on the context. In countries where teacher education and selection procedures produce a well-prepared and independent teaching workforce, autonomy will allow creativity and innovation to flourish; in other cases, autonomy may simply amplify poor judgement and wrong decisions.

In some countries, great discretion is given to the faculty and its individual members; in others, more discretion is given to schools that are doing well and less to those that might be struggling. In some countries, the school head is little more than the lead teacher; in others, the authorities continue to look to the school head to set the direction and manage the faculty.

Read more about these issues in Chapter 5
*TALIS 2018 Results (Volume II): Teachers and School
 Leaders as Valued Professionals.*
<https://doi.org/10.1787/19cf08df-en>



Enhancing the quality of professional practice

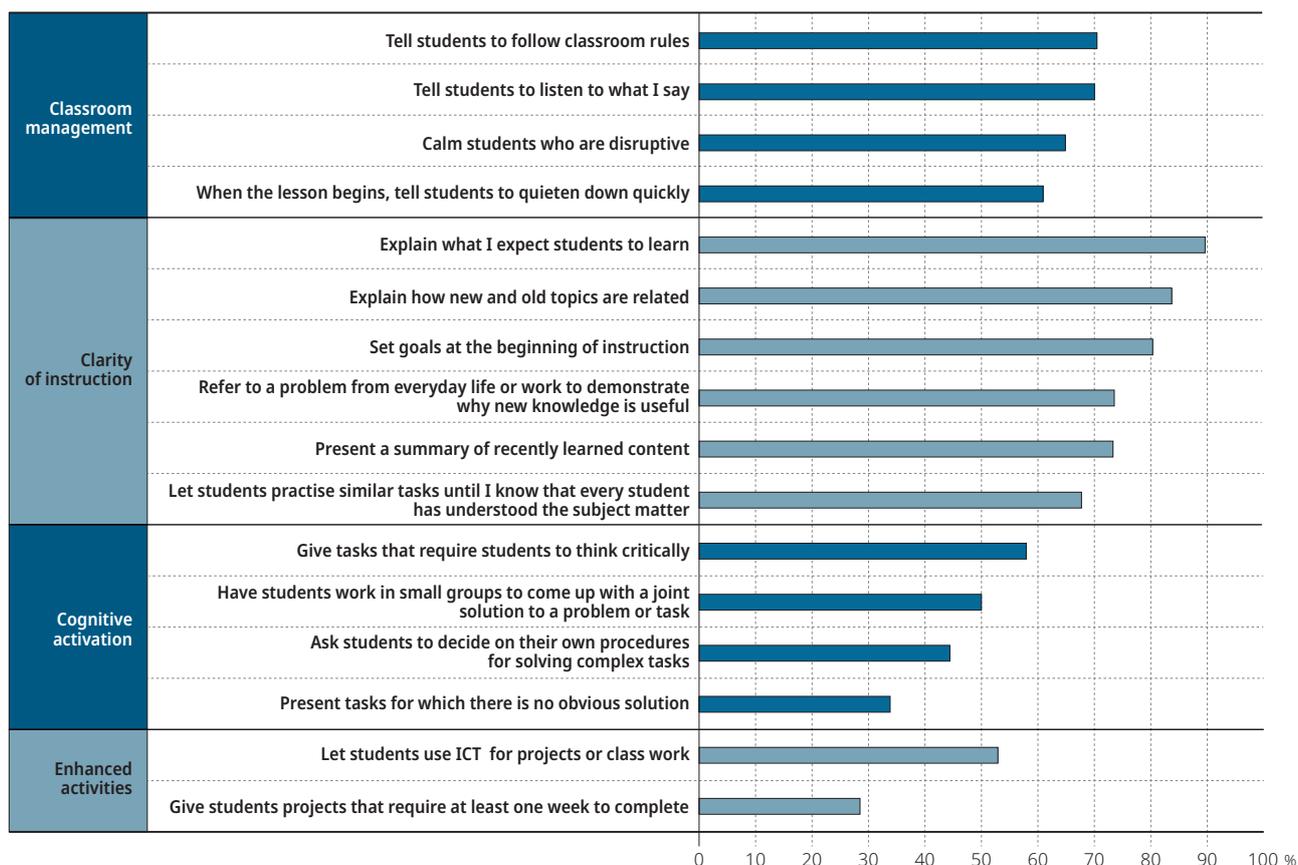
The frequent and widespread use of high leverage pedagogies and teaching practices is an important element of teaching quality. TALIS shows that, among the wide range of instructional practices used by teachers in class, those aimed at enhancing classroom management and clarity of instruction are widely applied. However, practices involving cognitive activation^{vii} are less widespread, with only about half of teachers using most of these methods frequently across the OECD (Figure 16). This is despite the fact that over 80% of teachers feel confident in their ability to vary instructional strategies in their classroom and help students think critically.

It is important that both initial teacher education and in-service training place sufficient emphasis on pedagogies related to cognitive activation as these tend to be the harder practices to implement in class, given that they address complex competencies such as students' critical thinking, problem solving and knowledge evaluation skills. Teachers need to be aware of the importance of these practices, feel able to use them, and have the space and working conditions to actually implement them. TALIS findings also suggest that teachers who frequently engage in professional collaboration, especially collaborative professional learning and joint activities across different classes and age groups, tend to use cognitive activation practices more often.

Technology can be a powerful ally in enhancing professional practice. Teachers in **Shanghai** (China) are judicious and selective in using technology in their classrooms, but they embrace technology when it comes to enhancing and sharing professional practice. Many teachers use a digital platform to share lesson plans. That in itself is not unusual; what makes it different from other places is that the platform is combined with reputational metrics: the more other teachers download, critique or improve lessons, the greater the reputation of the teacher who shares them. At the end of the school year, the principal will not just ask how well the teacher had taught his or her students, but what contribution he or she had made to improve the teaching profession and the wider education system. Shanghai's approach to the curated crowdsourcing of education practice is not just an interesting example of how to identify and share best practice among teachers; it may also be more powerful than performance-related pay as a way to encourage professional growth and development because it builds on the intrinsic rather extrinsic motivation of teachers, and thus circles back to the desire of most teachers to serve a social purpose. It might even be fairer, too, since the assessments are based on the views of the entire profession, rather than just on the views of a single superior who may be years removed from actual practice.

Figure 16 **Teaching practices**

Percentage of lower secondary teachers who “frequently” or “always” use the following practices in their class ¹ (OECD average-31)



1. These data are reported by teachers and refer to a randomly chosen class they currently teach from their weekly timetable.

Note: ICT: Information and communication technology.

Values are grouped by teaching strategy and ranked in descending order of the use of teaching practices within the respective teaching strategy.

Source: OECD, TALIS 2018 Database, Table I.2.1.

In this way, Shanghai created a giant open source community of teachers and unlocked teachers' creativity simply by tapping into the desire of people to contribute, collaborate and be recognised for their contributions. This is how technology can extend the reach of great teaching, recognising that value is less and less created vertically through command and control, but increasingly horizontally, by whom we connect and work with.

Shanghai's experience demonstrates that in the digital age, technology can help us open ourselves up to new sources of information and overcome our natural tendency to stick rigidly to what we know. When parents are surveyed about the quality of their children's schooling,

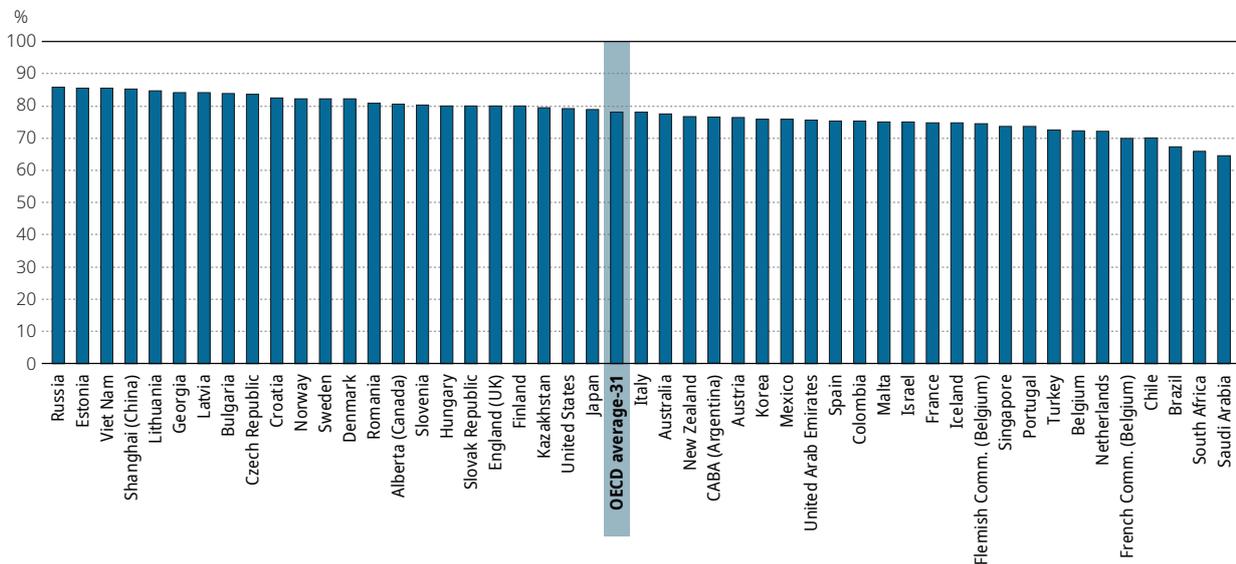
many rate the school system as poor, but the quality of their children's school as good, irrespective of schooling outcomes. We trust our children's schools because we know them, just as we trust the teachers in these schools because we know them. We have less trust in strangers. What reputational metrics, such as those used in Shanghai, do is give those strangers faces and identities, and because so many other people are doing the same, we learn whom we can trust.

A critical precondition for the use of quality teaching practices is to make the most of classroom time to implement them. On average across the OECD, teachers report spending 78% of classroom time on actual teaching

and learning (the equivalent of 47 minutes of a 60-minute lesson), with the rest of classroom time spent on keeping order (13%, or 8 minutes) and administrative tasks (8%, or 5 minutes) (Figure 17). It is noteworthy that 11 to 17% of teachers report low levels of self-efficacy with the various aspects of classroom management and discipline, and in most countries and economies that participate in TALIS, there is a significant inverse relationship between perceived self-efficacy in classroom management and class time spent on keeping order (although the direction of causality cannot be determined).

Read more about these issues in Chapter 2 in *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*.
<https://doi.org/10.1787/1d0bc92a-en>

Figure 17 **Time spent on actual teaching and learning**
 Average proportion of time lower secondary teachers spend on actual teaching and learning in a typical classroom



Countries and economies are ranked in descending order of the average proportion of time teachers report on spending on actual learning and teaching.

Source: OECD, TALIS 2018 Database, Tables I.2.10.



Building a collaborative culture in schools

To understand why people do the things they do, ask yourself what sort of incentives do they have to act that way. Examining whether the incentives that exist for students, parents and teachers in some countries are more likely to result in higher performance than the incentives in other countries can provide important insights into why some education systems perform better than others.

In repetitive, inflexible, industrial work environments, management rewards those whose output exceeds expectations. In those environments, workers compete against one another. Those who resent the co-worker who outperforms them are eventually likely to treat that co-worker as an outcast. But in professional work environments, the success of the whole group depends on maximising the output of each worker, so workers tend to collaborate. So school leaders who wish to see transformative change should not ask themselves how many of their teachers support their ideas, but how effectively their teachers collaborate.

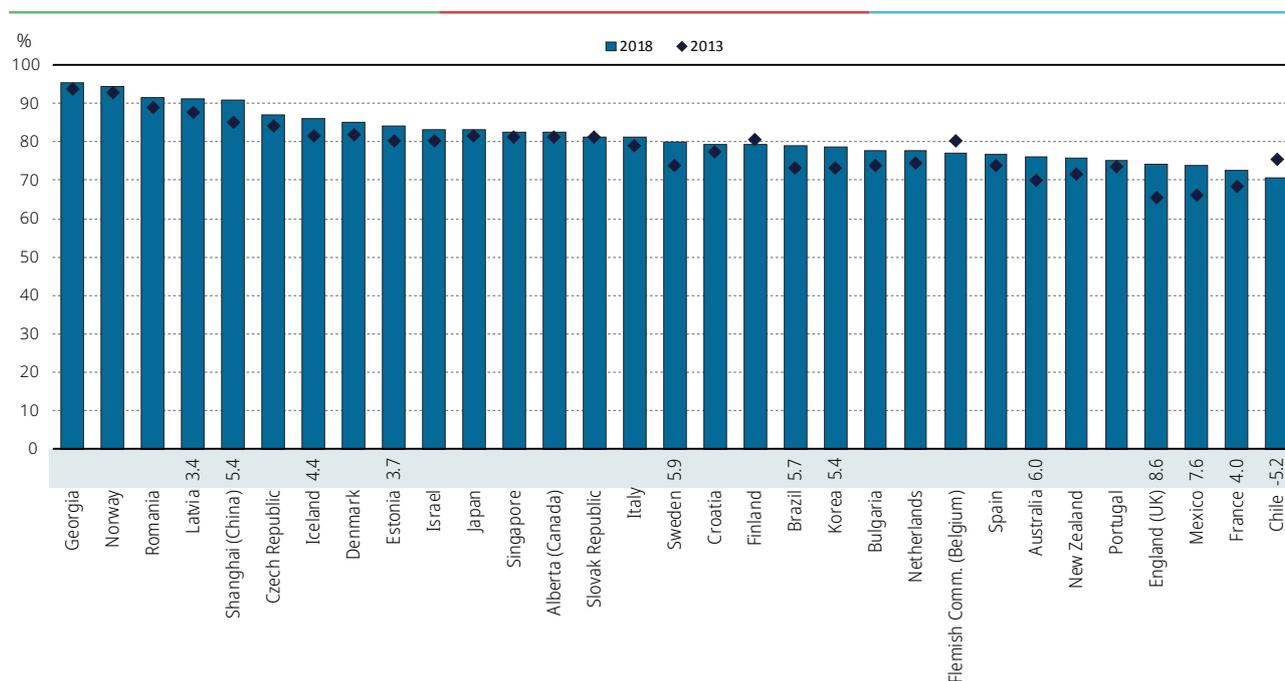
Collaboration among teachers takes many forms. For the purposes of measurement, we can categorise these into two groups based on the nature of teacher interactions. Some collaborative activities, identified in TALIS as “professional collaboration”,^{viii} imply a deeper level of co-operation among teachers and a high degree of interdependence among

participants, while other forms of interaction take the form of simple “exchanges and co-ordination”^{ix} between teachers. In line with previous TALIS findings, professional collaboration remains less prevalent in 2018 than simple exchanges and co-ordination between teachers. The data also show that large proportions of teachers report never engaging in these deeper forms of collaboration, and that older teachers tend to engage less often in professional collaboration in a number of countries and economies.

TALIS findings also reinforce the importance of a sense of collegiality for boosting collaboration, since teachers who say that they work in a collaborative school culture where teachers support each other also tend to engage more often in professional collaboration (Figure 18). In general, a large majority of teachers agree that their school has a climate of collegiality. More specifically, respondents agree that teachers can rely on each other (95% of principals and 87% of teachers) and that their school has a collaborative school culture characterised by mutual support (95% of principals and 81% of teachers). However, the latter opinion is less prevalent in a number of countries, where the percentage of teachers who believe this drops to less than 75%. Over the past five years, views on collegiality have improved in around one-third of the TALIS countries and economies with comparable data, and have deteriorated in only one country.

Figure 18 **Change in collaborative school culture from 2013 to 2018**

Percentage of lower secondary teachers who “agree” or “strongly agree” that there is a collaborative school culture that is characterised by mutual support



Notes: Only countries and economies with available data for 2013 and 2018 are shown.

Statistically significant changes in perceived societal value of teaching between 2013 and 2018 (TALIS 2018 - TALIS 2013) are found next to the country/economy name.

Countries and economies are ranked in descending order of the percentage of lower secondary teachers who “agree” or “strongly agree” that there is a collaborative school culture that is characterised by mutual support in 2018.

Source: OECD, TALIS 2018 Database, Table II.4.27.

The evidence from TALIS suggests that professional development activities that have a marked impact on teachers’ instructional practices are those that take place in schools and allow teachers to work in collaborative groups. Teachers who work with a high degree of professional autonomy and in a collaborative culture – characterised by high levels of co-operation and instructional leadership – report both that they participate more in in-school professional development activities and that those activities have a greater impact on their teaching. Turning this into practice is not easy. There is often a tension between bottom-up, teacher-led collaboration and guided, systemic improvement processes. In many schools, teachers appreciate opportunities to work together, but they do not maximise this time. On the other hand, attempting to overly steer the direction of professional collaboration can be poorly received by teachers.

Indeed, building a collaborative culture in schools is easier said than done. Many systems have found it difficult to build collaborative cultures in schools, and to extend these beyond a few enthusiastic well-led schools and school districts. There is always the risk of ending up with “contrived collegiality”, that is, collaboration imposed from above that, by crowding the collegial agenda with requirements about what is to be done and with whom, inhibits bottom-up professional initiative and true collaboration.

But policy can do a lot to encourage genuine collaboration, for example by establishing leadership-development strategies that create and sustain learning communities; building indicators of professional collaboration into school inspection and accreditation processes; linking evidence of commitment to professional learning communities to performance-related pay and measures of teacher competence; and by providing seed money for self-learning in and among schools.

Structures and processes that encourage teachers to co-operate, including providing time and opportunities for collective apprenticeships, are needed to foster collective teacher efficacy. Such activities can include teacher-initiated research projects, teacher networks, observation of colleagues, and mentoring or coaching. By supporting the conditions and activities most associated with effective teacher professional development, policy makers can increase the likelihood that students are positively affected too.

An interesting example in this respect is the Empowered Management Programme in **Shanghai** (China), which allows for inter-school collaboration aimed at supporting and improving low-performing schools. This is a noteworthy initiative as it both promotes collaboration among teachers and schools and also fosters equity. Under the programme, partnerships between high-performing and low-performing schools are set up for a period of two years. Teachers and school leaders from both schools work together closely, including visits across schools, discussing effective practices, observing classrooms and providing constructive feedback. The support given from partner schools also focusses on building research skills among teachers to help schools develop as learning organisations.

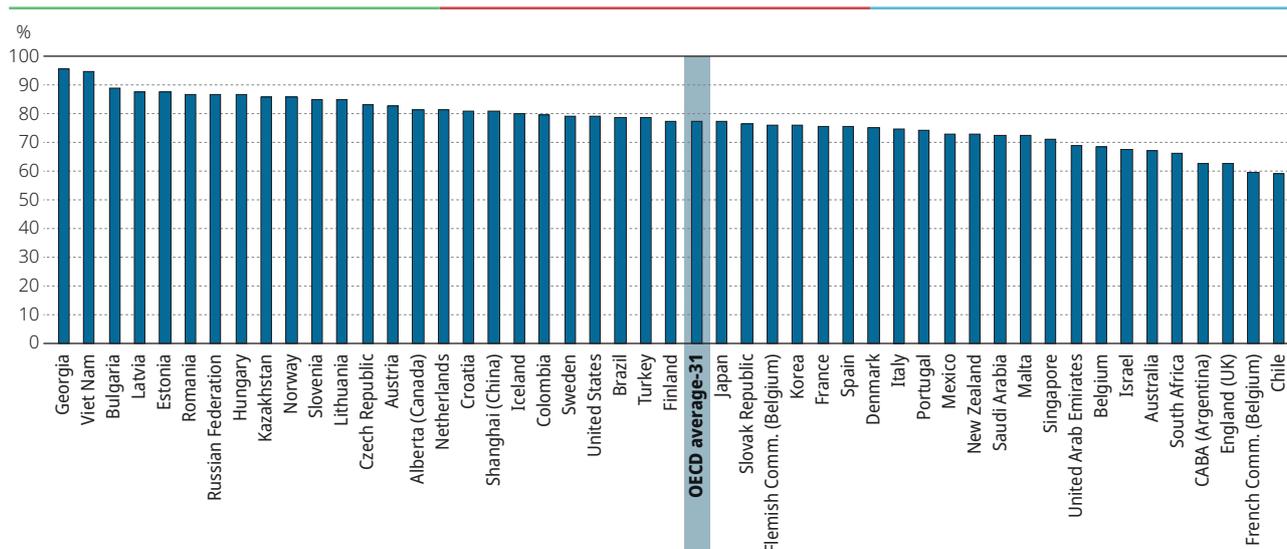
Another example of using teacher collaboration to address equity issues comes from **France**. The French government recognised the need to reduce the impact of social and economic inequalities that affect student achievement and attainment, so in 2015 they introduced reforms to the “Educational Priority” policy for challenging schools, i.e. those that have the greatest number of students from disadvantaged backgrounds. Key measures introduced in these reforms focused on having trained, stable and well-supported teaching teams in schools that are a part of the Educational Priority Networks. To achieve these goals, teachers’ schedules were organised differently to give them more non-teaching time and more space to work with colleagues, participate in continuous professional development, devise innovative lessons, monitor students, and collaborate with parents. They also received the support of specially-trained teacher trainers, and the programme also provides for additional teacher recruitment to create the possibility of team-teaching in classrooms.

Giving opportunities for staff to participate in school decisions is another way in which teachers can work with other teachers in their school (Figure 19). To this end, school leaders can promote collective decision-making among teachers, thereby creating a culture in which the core of teachers in a school have a degree of ownership over how it is managed. TALIS findings confirm that teachers whose school provides staff with opportunities to participate in school decisions also tend to engage in deeper forms of collaborative activities more frequently (Figure 20). TALIS also shows that, on average across the OECD, 77% of teachers agree that their school provides staff and parents with opportunities to actively participate in school decisions, and this proportion has increased significantly since 2013, whether in regards to the participation of staff or parents, in 13 countries and economies.

Read more about these issues in Chapter 5
*TALIS 2018 Results (Volume II): Teachers and School
 Leaders as Valued Professionals.*
<https://doi.org/10.1787/19cf08df-en>

Figure 19 **Opportunities for staff to participate in school decisions**

Percentage of lower secondary teachers who “agree” or “strongly agree” that their school provides staff with opportunities to actively participate in school decisions

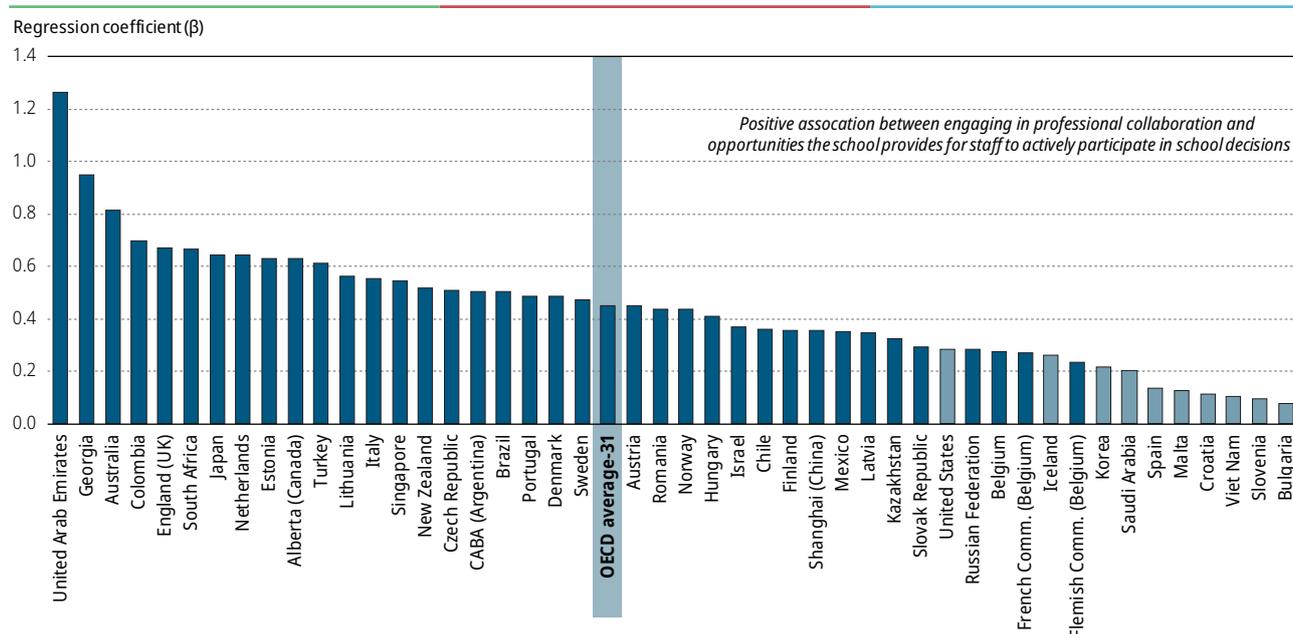


Countries and economies are ranked in descending order of the percentage of lower secondary teachers who “agree” or “strongly agree” that their school provides staff with opportunities to actively participate in school decisions.

Source: OECD, TALIS 2018 Database, Table II.4.24.

Figure 20 **Relationship between professional collaboration and distributed leadership**

Change in the index of professional collaboration¹ associated with opportunities the school provides for staff to actively participate in school decisions^{2,3,4}



1. The index of professional collaboration measures teachers’ engagement in deeper forms of collaboration that involve more interdependence between teachers, including teaching jointly as a team in the same class, providing feedback based on classroom observations, engaging in joint activities across different classes and age groups and participating in collaborative professional learning.
2. Results of linear regression based on responses of lower secondary teachers.
3. The predictor is a dummy variable: the reference category is to “strongly disagree” or “disagree” with the statement that the school provides staff with opportunities to actively participate in school decisions.
4. Controlling for the following teacher characteristics: gender, age, years of experience as a teacher at current school, working full-time; and for other elements of distributed leadership: school provides parents or guardians with opportunities to actively participate in school decisions, school provides students with opportunities to actively participate in school decisions.

Note: Statistically significant coefficients are marked in a darker tone.

Countries and economies are ranked in descending order of the change in the index of professional collaboration associated with the presence of collaborative school culture characterised by mutual support.

Source: OECD, TALIS 2018 Database, Table II.4.33.



Leveraging feedback and appraisal

Understanding the role of feedback for teachers

Giving teachers feedback on their work is another important lever to improve teaching quality, since it aims to improve teachers' understanding of their own methods and practices for the purpose of overall development. Some research suggests that providing teachers with constructive feedback on teaching and learning in their classrooms has the largest impact on student performance of any school intervention. Teacher feedback is thus a key feature of effective professional development. As such, peer feedback – defined in TALIS as any communication teachers receive about their teaching through informal discussions with their peers, or as part of a more formal and structured arrangement – is a critical attribute of professional work and an important policy lever to enhance teachers' professionalism.

TALIS data show that feedback is fairly prevalent in schools, with 90% of teachers saying they have received some kind of feedback, on average across the OECD (Figure 21).^x Feedback is provided to teachers based on a number of different methods: 80% of teachers receive feedback based on classroom observation, while 70% receive feedback based on students' results (whether school-based

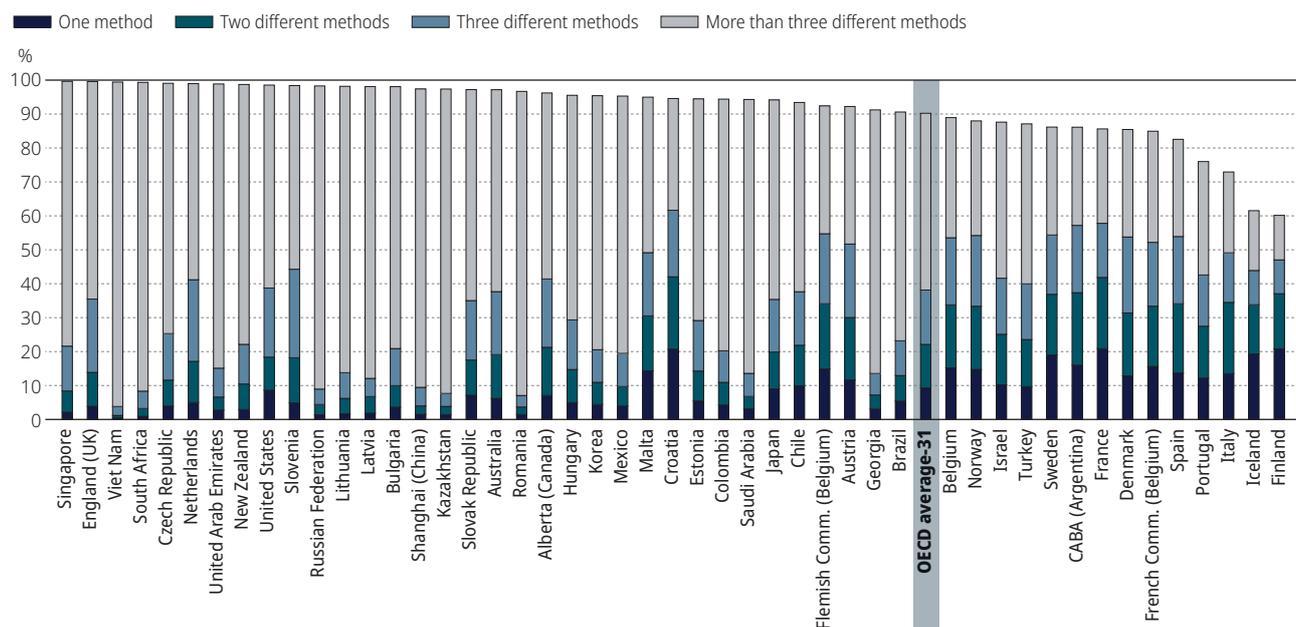
and classroom-based), and external results of students is the basis of feedback for 64% of teachers.

That said, one of the striking findings of TALIS with respect to feedback is that nearly three out of ten teachers did not seem to find feedback useful for improving their practice. This calls for a critical review of feedback processes currently in place, with a view to improving the quality of feedback.

Although TALIS does not provide information on the quality and frequency of feedback received by teachers, the number of different feedback methods used may be indicative of education systems that make the most of teacher feedback. For instance, according to Jensen and Reichl,^{xi} schools should apply at least four different methods for providing feedback. The results from TALIS also show that teachers are more likely to find feedback useful for their teaching practice when it is based on multiple methods. Yet, TALIS 2018 data show that only about half of teachers (52%) receive feedback through four or more different methods.

Figure 21 **Feedback received by teachers, by number of method**

Percentage of lower secondary teachers who have received feedback based on the following number of different methods¹



1. Different methods of feedback include: observation of the teacher's classroom teaching, student survey responses related to the teacher's teaching, assessment of the teacher's content knowledge, external results of students the teacher teaches (e.g. national test scores), school-based and classroom-based results (e.g. performance results, project results, test scores) and self-assessment of the teacher's work (e.g. presentation of a portfolio assessment, analysis of my teaching using video).

Countries and economies are ranked in descending order of the overall percentage of teachers who have received feedback in their school.

Source: OECD, TALIS 2018 Database, Table II.4.47.

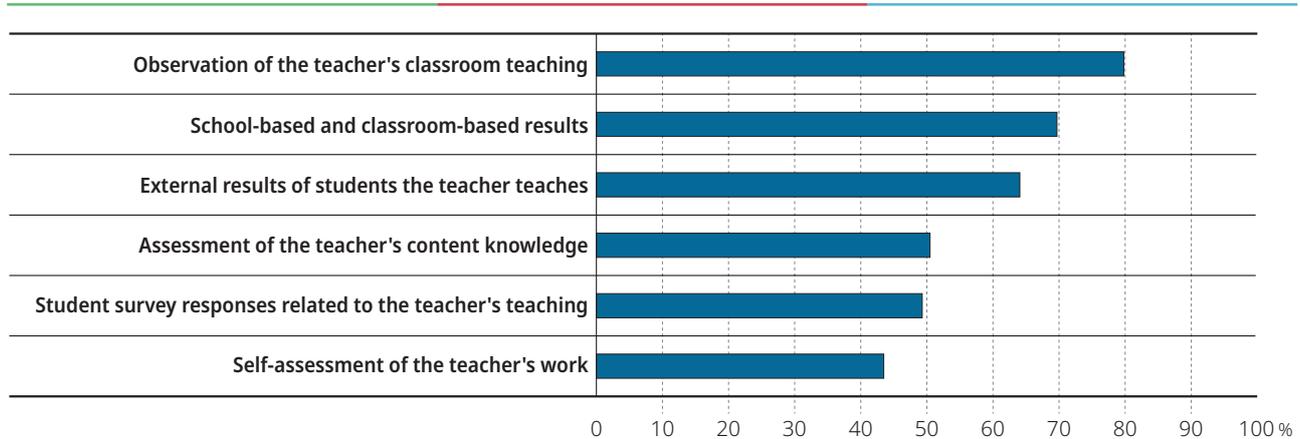
Feedback focused on the teaching process (i.e. classroom observation) is promising since it is evidence-based and directly related to teaching practice. Although some may find it intimidating, teachers say that this method improves teaching and learning as well as collegiality. But while the prevalence of classroom observation as a method of feedback has increased since 2013 in most countries and economies with available data, it is still not a common practice in all countries (Figure 22). In a number of countries, at least 25% of teachers say they have never received feedback from classroom observation at their school, and, on average across the OECD, only 15% of teachers report providing feedback after observing other teachers' classes more than four times a year. Further analysis also indicates that, for a large majority of countries, teachers who report receiving feedback based on classroom observations or assessment of the teachers' content knowledge are twice as likely to find the feedback received impactful, irrespective of whether or not they received feedback from other methods and irrespective of the teachers' characteristics.

Interestingly, the education systems where feedback is not so prevalent are also the systems where teachers do not find it useful. In many of the countries and economies that participate in TALIS, teachers' perceptions of the impact of feedback seem to be associated with their age and teaching experience, with younger and novice teachers more likely to find feedback useful. The effect of age and experience on teachers' views of the impact of feedback is more pronounced in Western European countries. Moreover, in around one-third of the countries, female teachers also tend to have a relatively more positive view of the feedback they received than their male colleagues.

TALIS findings also suggest that some aspects of teachers' work may be better suited to feedback than others. This is the case, for instance, for pedagogical competencies and the use of student assessments to improve student learning. Feedback also seems effective in primary education to address methods for teaching students with special needs, a challenge that many teachers struggle with. In designing feedback schemes, it would

Figure 22 **Methods of feedback received by teachers**

Percentage of lower secondary teachers reporting they have received feedback based on the following methods (OECD average-31)



Values are ranked in descending order of the prevalence of methods of feedback received by lower secondary teachers.

Source: OECD, TALIS 2018 Database, Table II.4.44.

thus seem advisable for school leaders to focus feedback on those aspects of teaching practice that have been proven to benefit from feedback as an effective support mechanism.

We can look to **Brazil** for an interesting example of the impact of teacher feedback. The Ceara programme in Brazil was conceived as a response to two key issues affecting the quality of teaching and learning: limited instructional time and low levels of student engagement. The nine-month-long coaching programme for secondary education teachers provided support and practical strategies on lesson planning, classroom management and keeping students engaged. The programme also consisted of school-level pedagogical co-ordinators providing feedback to teachers, based on classroom observations and self-help resources, such as books and online video examples. Moreover, the programme used one-on-one coaching for pedagogical co-ordinators via Skype, a video-conferencing software, which made the programme highly cost-effective. An impact evaluation of the Ceara programme revealed that the intervention resulted in: 1) teachers gaining more instructional time in the classroom by reducing the time spent on managing the class; 2) more frequent use of interactive strategies to improve student engagement; and 3) an overall improvement in the academic outcomes of students in state and national tests.

Any effort to professionalise teaching needs to place sufficient attention on encouraging teachers and school leaders to participate in mentoring and feedback at all stages of their career. TALIS data on mentoring show that few experienced teachers across the OECD have a mentor. This is a surprising finding, given that 71% of teachers across the OECD work in schools where appraisal can result in the appointment of a mentor to help them improve their teaching, and that two-thirds of principals say that mentoring is very important to improve teachers' pedagogical competence and collaboration with colleagues. Considering the available research showing the potential impact of the quality of mentoring, this low participation of experienced teachers in mentoring programmes is a missed opportunity. A similar pattern is observed with respect to peer feedback, as described above.

Maximising the impact of teacher appraisal

TALIS also looks at the more formal processes of teacher appraisal. This refers to the formal evaluation of teachers "to make a judgement and/or provide feedback about their competencies and performance".^{xii} The research literature suggests that teacher appraisal is an important building block of effective education systems. In its summative

form, it can be a tool for quality assurance, to ensure that required standards are met or recommended practices are followed. But appraisal can also take a more formative approach and provide an opportunity for teachers to reflect on their practice, strengths and weaknesses, in order to identify areas for improvement and grow in their career. To better understand how appraisal is used to support school and teacher improvement, TALIS 2018 asked principals whether each teacher is formally appraised in their school, and if so, with what frequency, by whom, and with which methods and potential consequences.

TALIS data show that teacher appraisal is a common feature in school systems (Figure 23). On average across the OECD, only a small proportion of teachers (7%) work in schools where teachers are never appraised, although this proportion is substantially larger in a few countries. Appraisals are most often conducted by the school principal (as is the case for 64% of teachers) or other members of the school management team (for 51% of teachers). In schools where appraisal procedures are in place, observation of classroom teaching is typically part of the process – in nearly all TALIS countries and economies, over 90% of teachers work in schools where this method is used for appraisal. Other commonly used methods rely on the analysis of school-based and classroom-based student results (for 94% of teachers) and students' external results (93%). Other methods rely on student survey responses related to teaching (for 82% of teachers), assessments of teachers' content knowledge (70%), or teachers' own self-assessments of their work (68%). TALIS findings indicate that, on average across the OECD, teachers work in schools using five of the six different methods that TALIS collects information on (excluding schools where no appraisal takes place).

Whether teacher appraisal is used as a formative tool to develop professionally or as an accountability mechanism to ensure adequate teacher performance or compliance with standards, it must lead to the right consequences to attain either of these goals. TALIS tells us that almost all teachers (98%) work in schools (among those that formally appraise teachers) where principals report that appraisal is “sometimes”, “most of the time”

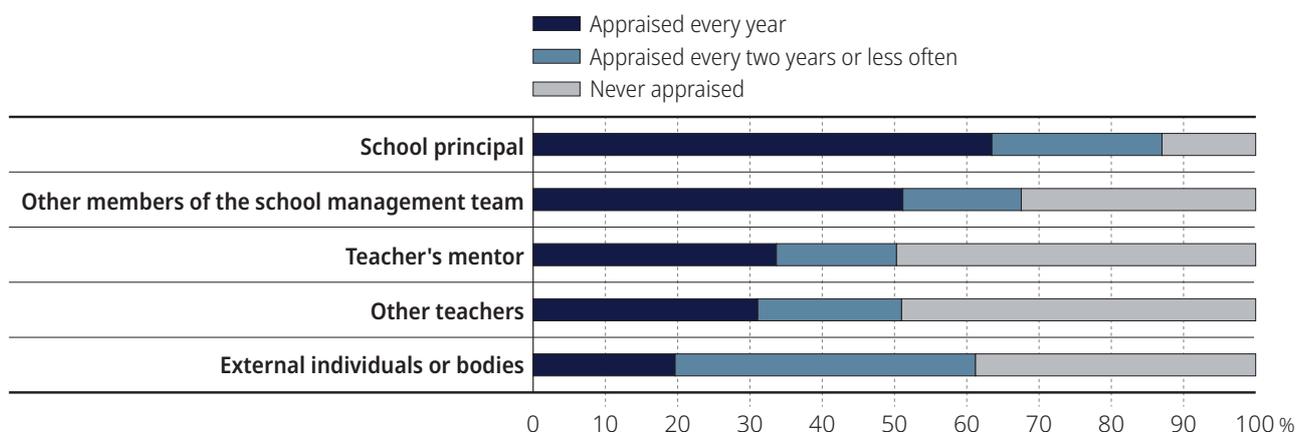
or “always” followed by a discussion with the teacher about how to remedy any weaknesses in teaching (Figure 24). Other common consequences of teacher appraisal include the creation of a professional development or training plan (90% of teachers), the appointment of a mentor (71%), or a change in work responsibilities (70%), albeit with important differences across countries and economies. High-stakes consequences are less common: changes in teachers' career prospects (53% of teachers); dismissals or non-renewal of teachers' contracts (51%); increases in salary or payment of financial bonuses (41%); and reduced annual pay increases (15%).

Another noteworthy finding from TALIS 2018 is that the consequences of teacher appraisal have changed between 2013 and 2018. In nearly all education systems with available data, there has been a significant change in the occurrence of at least one of the consequences examined by TALIS, with the most common changes involving tying appraisal to financial rewards and career advancement, which appears to have become more prevalent. Aside from financial and career incentives, other changes observed across participating countries and economies suggest a growing reliance on assigning a mentor after appraisal, and a declining reliance on altering teachers' work responsibilities, dismissing them, or not renewing their contracts. TALIS findings also show that appraisal is more likely to result in certain consequences if the school management team has “significant responsibility”^{xiii} for those consequences (i.e. if the principal or other members of the school management team play an active role in relevant decision-making).

The success of an appraisal system depends on clear alignment of its processes, methods and tools with the goals being pursued. The first step of any review of appraisal mechanisms should be for policy makers and school leaders to clearly prioritise and define the key objectives of appraisal in their system or school, based on policy priorities, such as formative development of teachers, steering of their careers, reward mechanisms for good performance, or ensuring compliance with standards.

Figure 23 Frequency of teacher appraisal

Percentage of lower secondary teachers whose school principals report that their teachers are appraised with the following frequencies by the following bodies (OECD average-30)

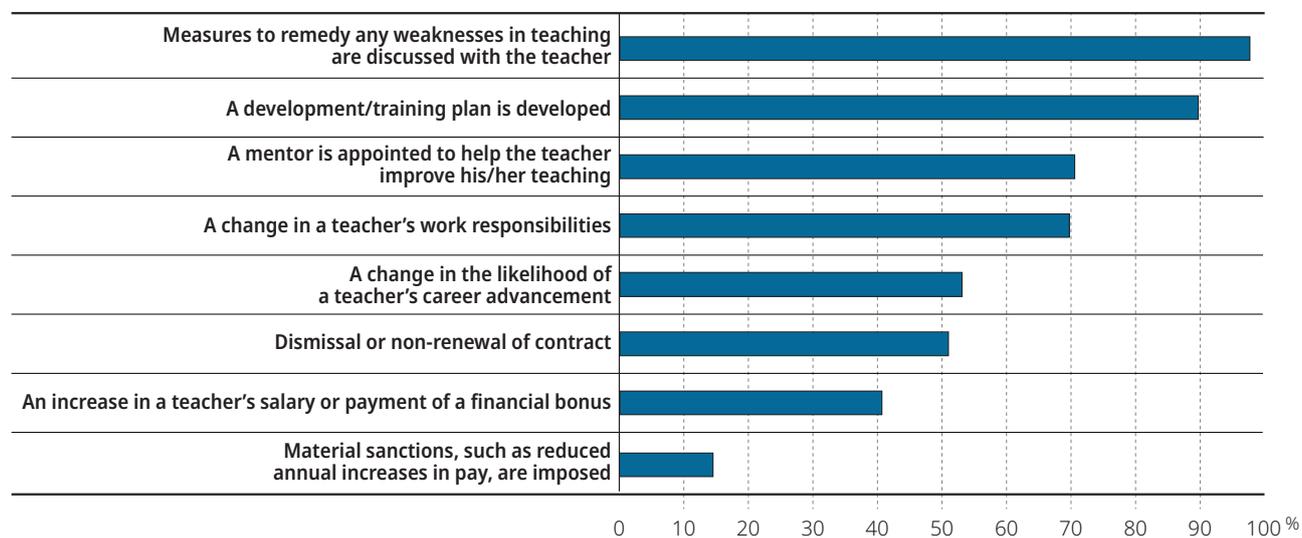


Values are ranked in descending order of the proportion of teachers in schools where teachers are appraised every year.

Source: OECD, TALIS 2018 Database, Table II.3.30.

Figure 24 Consequences of formal teacher appraisal

Percentage of lower secondary teachers¹ whose principals report that the following occurs after a formal teacher appraisal² (OECD average-30)



1. Excluding teachers whose principal reports that their teachers are never formally appraised by any of the sources on which TALIS collects information ("principal"; "other member(s) of the school management team"; "assigned mentors"; "other teachers (not part of the school management team)" or "external individuals or bodies").

2. Includes principals who report that the following occurs "sometimes", "most of the time" or "always"; excludes principals who report that it "never" occurs.

Values are ranked in descending order of the prevalence of consequences of formal teacher appraisal. Percentage of teachers whose school principals report that the following occurs after a formal teacher appraisal by lower secondary teachers.

Source: OECD, TALIS 2018 Database, Table II.3.42.

As a second step, the characteristics of the appraisal system should be in line with these key objectives and policy priorities, as the methods used and the consequences of appraisal are not neutral. For example, if the main function of teacher appraisal is to inform career decisions and strengthen accountability, then it must be based on defensible and comparable sources of evidence and combine multiple types of evidence to evaluate teachers accurately and fairly on the variety of tasks they face in their jobs. Caution is advised when using students' school or external results as a source of information for appraisal, as teachers' contributions to their students' learning outcomes are never directly observable and rely on a number of sensitive statistical assumptions. If, however, the main goal of appraisal is to inform professional development and promote learning, then teacher observations and self-evaluation can provide valuable tools to spur teachers' self-reflection and achieve this formative goal.

It is then important to ensure that the consequences of appraisal are also aligned with the overall goals being pursued, in order to incentivise teachers. For instance, consequences such as a follow-up exchange, establishing a professional development or training plan, or appointing a mentor are more likely to generate a virtuous cycle of formative appraisal and school improvement. Conversely, performance incentives such as wage increases, financial bonuses or even dismissal of a teacher are more likely to be effective if the goal pursued is to ensure good performance and compliance with standards. If the appraisal system aims to incentivise high performance in a transparent fashion, then the recent OECD review of human resources policies^{xiv} recommends establishing clear links between teachers' salary scales and the steps in their career structure, whereby appraisal has consequences for career progression on the basis of teaching standards and competency frameworks and teachers' demonstrated capacity to assume increasing levels of responsibilities.

In **Singapore**, the appraisal system combines a strong formative component with financial incentives. The process starts at the beginning of the year with performance planning, in which the teacher conducts a self-assessment

and develops goals for teaching, instructional innovations and improvements at the school, and professional and personal development. The teacher meets with his or her reporting officer, who is usually the head of a department, for a discussion about setting targets and performance benchmarks. Performance coaching then takes place throughout the year, particularly during the formal mid-year review, when the reporting officer meets with the teacher to discuss progress and needs. In the performance evaluation held at the end of the year, the reporting officer conducts the appraisal interview and reviews actual performance against planned performance. The grade given for performance influences the annual performance bonus received for the year's work.

In teacher appraisal, an important consideration is that the consequences of appraisals must be consistent with the distribution of responsibilities within the education system. TALIS evidence shows that the consequences of appraisal are related to school responsibilities. For instance, in some countries, the occurrence of salary-related consequences can vary by over 50 percentage points depending on whether the school management team has significant responsibility for these issues. An important issue, therefore, is for policy makers to create the framework conditions for these goals to be attained. One of these conditions is to grant more autonomy to school management teams for decisions on what to change. If certain consequences of appraisal are sought, TALIS evidence suggests that it is actually more effective to give schools autonomy for decisions on those issues, since consequences are more likely to happen when this is the case. This can be an important policy lever.

By the same token, if the appraisal system is deemed to foster school improvement, then it would make more sense to give schools more autonomy and leeway in defining their own goals, based on their specific context and challenges, and to grant them more autonomy in determining the consequences of appraisal.

The teacher appraisal system in **Shanghai** (China) is characterised by the establishment of a high-quality list of criteria for appraisal and the use of multiple sources and methods of appraisal. The aim is twofold: to evaluate teachers' performance and to collect

information on the issues and challenges faced by teachers. The wide use of teacher appraisal followed the introduction in 2009 of a performance-based component in the calculation of teachers' salaries. The new system splits teachers' salaries into a basic component and a bonus component. The bonus component, which makes up about 30% of the total salary, is based on factors such as workload, actual contribution and appraisal. In this case, evaluation of teacher performance has evolved towards an administrative and summative model. The model integrates both administrative and development components, which makes it valuable for schools and teachers alike. Individual schools are responsible for setting up their own teacher appraisal practices, thus preserving school autonomy and promoting school improvement. Rigorous technical standards and frequent evaluation of the process ensure the quality of the data collected, which means that the appraisal process is judged as fair and trustworthy by the teaching workforce. However, it is important to note that robust technical requirements are not sufficient if the appraisal system does not fit the psychological and social dynamics of the education system. This non-technical aspect of appraisal programmes is crucial to making a positive impact on teachers.

Read more about these issues in Chapter 4 in *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*.

<https://doi.org/10.1787/1d0bc92a-en>

And in Chapters 3 and 4 *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*.

<https://doi.org/10.1787/19cf08df-en>



Fostering a school and classroom climate conducive to learning and well-being

Everyone involved in education is looking for schools where the classroom climate is conducive to student learning, and where relationships among students and school staff encourage their development and well-being. On the one hand, in most countries schools are generally safe environments and teachers perceive the relations they have with their students as very positive. Teachers' belief in the importance of student well-being has also progressed in the vast majority of countries since 2008 (Figure 25).

On the other hand, reports of regular incidents related to intimidation or bullying among students occur at least weekly in 14% of schools. Teachers and school staff can play a crucial role in preventing bullying by working closely with students to build strong and healthy interpersonal relationships. Schools need to get better at systematically identifying and addressing cases of bullying.

Parents have a vital role to play too. Students participating in PISA whose parents report “spending time just talking to my child”, “eating the main meal with my child around a table” or “discussing how well my child is doing at school” daily or nearly every day are between 22% and 39% more likely to report high levels of life satisfaction. “Spending time just talking” is the parental activity most frequently and most strongly associated with students' satisfaction with life. And it seems to matter

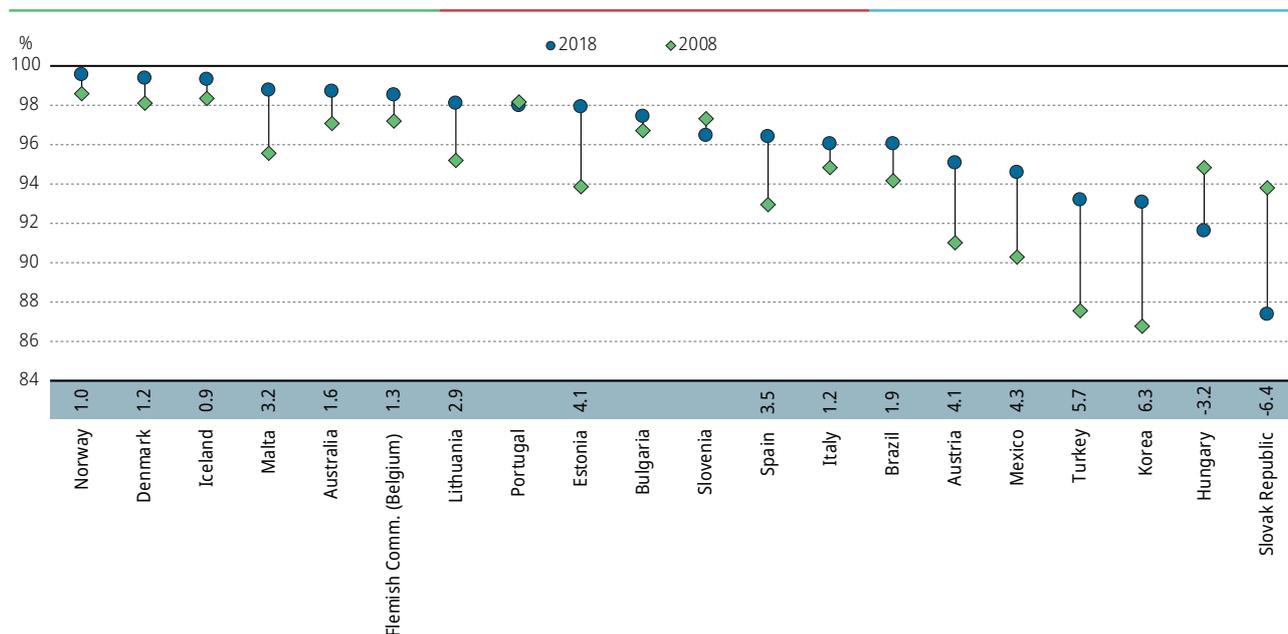
for performance too. Students whose parents report “spending time just talking” are the equivalent of two-thirds of a school year ahead in science performance. Even after accounting for socio-economic status, these students are still one-third of a school year ahead. The results are similar when considering parents who report that they eat meals with their children. This relationship is far stronger than the impact on students' performance of most of the school resources and school factors measured by PISA.

All in all, a clear way to promote students' well-being is to encourage all parents to be more aware of their children's interests and concerns, and show interest in their school life, including in the challenges children face at school. Schools can create an environment of co-operation with parents and communities. Teachers can be given better tools to enlist parents' support, and schools can address some critical deficiencies among disadvantaged children, such as the lack of a quiet space for studying. If parents and teachers establish relationships based on trust, schools can rely on parents as valuable partners in the education of their students.

In **Alberta** (Canada), teachers have access to a wealth of resources provided by the Ministry of Education in order to identify behavioural signs of bullying in the school, covering physical, social and cyberbullying. These resources also

Figure 25 **Change in teacher-student relations from 2008 to 2018**

Percentage of lower secondary teachers who “agree” or “strongly agree” that in their school most teachers believe that the students’ well-being is important



Notes: Only countries and economies with available data for 2008 and 2018 are shown.

Statistically significant changes between 2008 and 2018 (TALIS 2018 - TALIS 2008) are found next to the category and the country/economy name.

Countries and economies are ranked in descending order of the percentage of lower secondary teachers who “agree” or “strongly agree” that in their school most teachers believe that the students’ well-being is important in 2018.

Source: OECD, TALIS 2018 Database, Table I.3.49.

support teachers to develop a response plan for bullying-related situations and to involve parents and caregivers in these response plans. According to these resources, teachers should observe school incidents to track bullying behaviour, develop strategies for promoting positive behaviour, and create a general awareness in the school regarding the negative impact of bullying and what students can do if they witness bullying among their peers.

In **Chile**, the Education Superintendence (Superintendencia de Educación) is responsible for upholding the quality of school climates, based on the “Law of School Violence”, by monitoring school indicators developed by the Quality of Education Agency. These indicators include perceptions and attitudes that students, teachers and parents have regarding the presence of a respectful and safe environment. The Superintendence oversees the “School Internal Regulation”, which requires schools to define bullying prevention policies, as well as protocols of action when bullying patterns are identified. The Education Superintendence also provides citizens a way to report bullying, which

increases the citizens’ control over a school’s implementation of all protocols (which by law the school must have) in the event of bullying or any other action that affects the school environment. And in **Estonia**, strategic action to prevent bullying and respond to bullying incidents is a joint effort between the government ministries of welfare and health, academic institutions and non-profit foundations. Initiatives include bullying prevention and awareness campaigns at the school level and leading a public discourse in the media to involve community stakeholders. There are also special measures to combat cyberbullying, such as “web-constables”, which are police officers working on line to give advice to young users on the Internet.

Read more about these issues in Chapter 3 in *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*.
<https://doi.org/10.1787/1d0bc92a-en>



Empowering teaching professionals

In addition to the tangible support structures used within education systems and schools to support teachers' continuous professional growth, there are also a range of less tangible elements designed to empower teachers and school leaders and support their professionalism. The goal of these is to cultivate a sense of agency among education professionals. TALIS has developed a range of indicators on decision-making, distributed leadership and autonomy that shed light on these less tangible elements of professionalism, alongside opportunities for career progression in teaching.

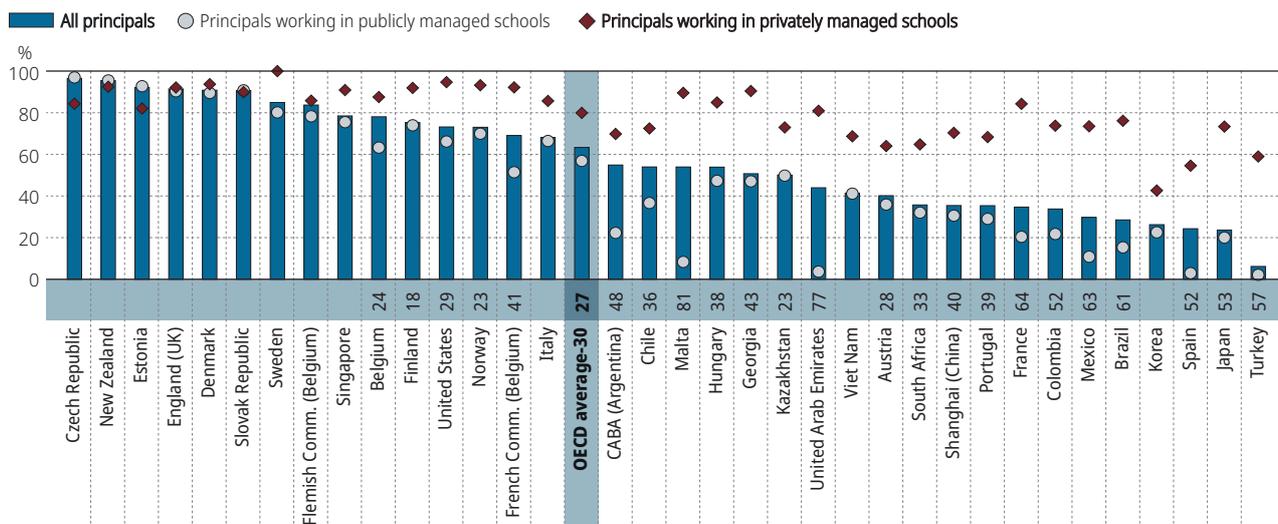
A crucial component of principals' and teachers' professionalism refers to their capacity to make discretionary judgements over their work and to display elements of leadership in their job. Enabling teachers and principals to effectively engage in leadership roles means that schools must have the autonomy necessary to make decisions on aspects that concern their day-to-day operations. In order to shed light on the distribution of responsibilities between schools and education authorities, TALIS 2018 asked school principals which actors had significant responsibility at the school level for a series of tasks related to staffing, budget, school policies, and curriculum and instructional policies (Figure 26).^{xv} On average across the OECD, 63% of principals report having significant responsibility for a

majority of these tasks, with large differences between publicly managed schools (57%) and privately managed schools (80%). This may reflect system-wide regulation or standards governing the tasks of principals.

Principals engage in different forms of leadership, be it the administrative responsibilities of running a school, or the instructional leadership involved in guiding teachers in their practice. With respect to administrative tasks, 65% of principals on average across the OECD report reviewing school administrative procedures and reports frequently, and 43% report frequently resolving problems with the lesson timetable in their school. Principals' engagement in instructional leadership deserves particular attention insofar as it refers to principals' efforts to focus on the instructional quality of their teachers' lessons. Over time, the emphasis has shifted from direct forms of instructional leadership towards indirect forms, referred to as transformational leadership. A relatively high proportion of principals report engaging in these indirect forms of instructional leadership, such as making sure that teachers feel responsible for their students' learning outcomes (68%) and that teachers take responsibility for improving their teaching skills (63%), as well as supporting co-operation among teachers to develop new teaching practices (59%). TALIS analyses tell us that, on average across the

Figure 26 **Overall responsibilities of principals, by school type**

Percentage of lower secondary principals who have significant responsibility in a majority¹ of school tasks



1. This percentage is calculated based on whether principals report having a significant responsibility for at least 6 of the following 11 tasks: “appointing or hiring teachers”; “dismissing or suspending teachers from employment”; “deciding on budget allocations within the school”; “establishing teachers’ starting salaries”; “determining teachers’ salary increases”; “establishing student disciplinary policies and procedures”; “approving students for admission to the school”; “establishing student assessment policies”; “choosing which learning materials are used”; “deciding which courses are offered” and “determining course content”.

Notes: Statistically significant differences between publicly managed schools and privately managed schools are shown next to the country/economy name.

Countries and economies are ranked in descending order of the percentage of lower secondary principals who have significant responsibility in a majority of school tasks.

Source: OECD, TALIS 2018 Database, Table II.5.11.

OECD, the principals who show higher levels of instructional leadership are those who report devoting more time to these tasks and having more responsibility for the curriculum.

In **Viet Nam**, the school governance charter clearly defines the role of principals as “leaders of teaching and learning”. Principals are required to maintain their teaching status with a minimum of two teaching periods per week. Therefore, principals are both teachers and leaders of teachers. This enables school leaders in Viet Nam to closely monitor the quality of teaching practice. To help them in that task, school leaders partner with subject heads and regularly carry out classrooms observations or collect observation reports from subject-group peer reviews. School principals also play a strong accountability role in the education system.

Teacher engagement in leadership hinges on teachers having concrete opportunities to express leadership, i.e. to be leaders not just within their classroom, but also by collaborating with their colleagues for the

overall improvement of their school. In that sense, it is interesting to explore the association of instructional leadership with distributed leadership, as measured by the participation of stakeholders (including teachers) in school decisions and the building of a culture of shared responsibility within the school. Results show that those principals who involve staff, parents and students in school decisions and have a school culture of collaboration and shared responsibility are more likely to report taking actions towards transformational leadership. However, nearly a quarter of teachers on average in the OECD still work in schools where such shared decision-making is not present. And even more teachers have no say in school decisions in systems where this proportion exceeds 30%.^{xvi} Policy makers and school leaders can enable and encourage distributed leadership wherever it is not already present, not only with teachers, but also with parents/guardians and students themselves, given the positive association between this form of school governance and collaboration among teachers.

A critical prerequisite for teacher leadership is for teachers to have the autonomy necessary for their work. The degree to which teachers are autonomous in making decisions on the job has been identified as a cornerstone of teachers' professionalism, along with development of knowledge and the capacities for collaboration at work. On average across the OECD, 84% of teachers feel that they have control over “determining course content”, and teachers with higher feelings of control over their class tend to report engaging more often in professional collaboration with their peers (after controlling for teacher and class characteristics). In addition, regression analyses show that teachers who feel a higher sense of control over their target class are more likely to report that they work in an innovative environment (again, after controlling for teacher and class characteristics).

Lastly, a big part of making teaching careers attractive and prestigious involves empowering teachers and school leaders to be actors of change in their profession through advocacy and advising on educational reform. In this respect, it is encouraging that, on average across the OECD, only 33% of principals consider that they cannot influence decisions that are important for their work, implying that two-thirds feel that they do have some influence. This sense of agency is, however, considerably lower for teachers (only 24%), albeit with important variation across countries.

Read more about these issues in Chapters 1 and 5 in *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*.
<https://doi.org/10.1787/19cf08df-en>

Figure 27 [1/2] **Empowering teaching professionals through autonomy, leadership and opportunities for career progression**

	<div style="display: flex; justify-content: space-between; font-size: 0.8em; margin-bottom: 5px;"> Countries/economies where the indicator is above the OECD average Countries/economies where the indicator is not statistically different from the OECD average Countries/economies where the indicator is below the OECD average </div>						
	Percentage of teachers whose school principals report that their teachers are never formally appraised	Percentage of teachers who have control over determining course content	Percentage of principals who “often” or “very often” took actions to support co-operation among teachers to develop new teaching practices in the 12 months prior to the survey	Percentage of teachers who “agree” or “strongly agree” that their school provides staff with opportunities to actively participate in school decisions	Percentage of principals who report that their schools have autonomy in determining teachers’ salary increases	Percentage of teachers in schools where formal appraisal can result in salary increases, by school management’s responsibility	
						School management has no responsibility over salary	School management has a responsibility over salary
	Vol II, Chapter 3	Vol II, Chapter 5	Vol II, Chapter 5	Vol II, Chapter 4	Vol II, Chapter 5	Vol II, Chapter 3	Vol II, Chapter 3
Alberta (Canada)	17	65	52	81	50	13	17
Australia*	2	73	60	67	40	3	24
Austria	11	81	61	83	6	16	c
Belgium	4	82	52	68	5	0	0
<i>Flemish Comm. (Belgium)</i>	4	87	51	76	3	0	c
<i>French Comm. (Belgium)</i>	4	76	53	59	7	0	c
Brazil	10	94	79	79	19	21	45
Bulgaria	8	69	63	89	43	81	87
CABA (Argentina)	4	85	67	63	13	a	a
Chile	4	91	79	59	44	10	65
Colombia	0	88	84	79	23	3	42
Croatia	4	83	62	81	2	a	a
Czech Republic	1	93	60	83	86	81	92
Denmark	8	94	45	75	49	12	37
England (UK)	0	62	51	63	77	c	83
Estonia	1	93	45	87	49	82	90
Finland	41	83	65	77	13	46	67
France	2	94	56	76	0	22	c
Georgia	1	93	75	95	21	84	92
Hungary	2	91	59	86	19	34	54
Iceland	8	96	59	80	3	10	c
Israel	2	94	62	68	12	11	54
Italy	36	95	66	75	9	87	54
Japan	9	75	31	77	11	19	43
Kazakhstan	0	93	86	86	23	42	74
Korea	1	96	46	76	7	47	49
Latvia	0	82	70	88	44	75	94
Lithuania	0	86	63	85	46	62	86
Malta	3	62	55	73	13	2	c
Mexico	7	90	71	73	31	20	51
Netherlands	1	95	39	81	76	26	61
New Zealand	0	83	57	73	43	8	46
Norway	15	96	65	86	8	3	4
Portugal	6	47	61	74	15	4	50

* Participation rate of principals is too low to ensure comparability for principals’ reports and country estimates are not included in the OECD average.

Source: OECD, TALIS 2018 Database, Tables II.3.30, II.5.32, II.5.12, II.4.24, II.5.1 and II.3.48.

Figure 27 [2/2] **Empowering teaching professionals through autonomy, leadership and opportunities for career progression**

	Countries/economies where the indicator is above the OECD average						
	Countries/economies where the indicator is not statistically different from the OECD average						
	Countries/economies where the indicator is below the OECD average						
Percentage of teachers whose school principals report that their teachers are never formally appraised	Percentage of teachers who have control over determining course content	Percentage of principals who “often” or “very often” took actions to support co-operation among teachers to develop new teaching practices in the 12 months prior to the survey	Percentage of teachers who “agree” or “strongly agree” that their school provides staff with opportunities to actively participate in school decisions	Percentage of principals who report that their schools have autonomy in determining teachers’ salary increases	Percentage of teachers in schools where formal appraisal can result in salary increases, by school management’s responsibility		
					School management has no responsibility over salary	School management has a responsibility over salary	
Vol II, Chapter 3	Vol II, Chapter 5	Vol II, Chapter 5	Vol II, Chapter 4	Vol II, Chapter 5	Vol II, Chapter 3	Vol II, Chapter 3	
Romania	0	93	77	87	8	31	52
Russian Federation	0	82	39	87	22	93	99
Saudi Arabia	2	92	72	73	2	11	c
Shanghai (China)	0	93	88	81	19	91	100
Singapore	1	75	51	71	23	64	72
Slovak Republic	0	87	65	77	44	97	96
Slovenia	0	80	69	85	25	12	20
South Africa	4	87	71	66	15	47	48
Spain	25	71	63	76	13	4	66
Sweden	5	97	54	79	81	c	78
Turkey	2	74	71	78	8	27	60
United Arab Emirates	0	82	86	69	55	14	78
United States	0	80	59	79	53	16	35
Viet Nam	0	89	84	95	36	81	90
OECD average-31	..	84	..	77
OECD average-30	7	..	59	..	32	30	55

* Participation rate of principals is too low to ensure comparability for principals’ reports and country estimates are not included in the OECD average.

Source: OECD, TALIS 2018 Database, Tables II.3.30, II.5.32, II.5.12, II.4.24, II.5.1 and II.3.48.



Cultivating effective system leadership

All that being said, the question of leadership goes well beyond individual teachers and school leaders. The status quo has many protectors, because school systems are rather conservative social systems. Everyone supports education reform – unless it affects their own children. Parents often get anxious when their children learn things they no longer understand, or when their children no longer learn things that were very important in their past. Teachers may teach how they were taught, rather than how they were taught to teach. And while policy makers may lose an election over education, they rarely win an election over education, simply because it takes so much time to translate good ideas into better outcomes.

The real obstacle to education reform is often not conservative followers but conservative leaders who stick to today's curriculum rather than adapt pedagogical practice to a changing world, because it is so much easier to stay within everybody's comfort zone; leaders who invest in popular solutions, like smaller classes, rather than take the time to convince parents and teachers of the benefits of spending money most effectively, including through investing in greater teacher professionalism.

Effective leadership is central to virtually every aspect of education, particularly when there is little coherence and capacity. While there are many amazing teachers, schools and education

programmes in every education system, it takes effective leadership to change the system.

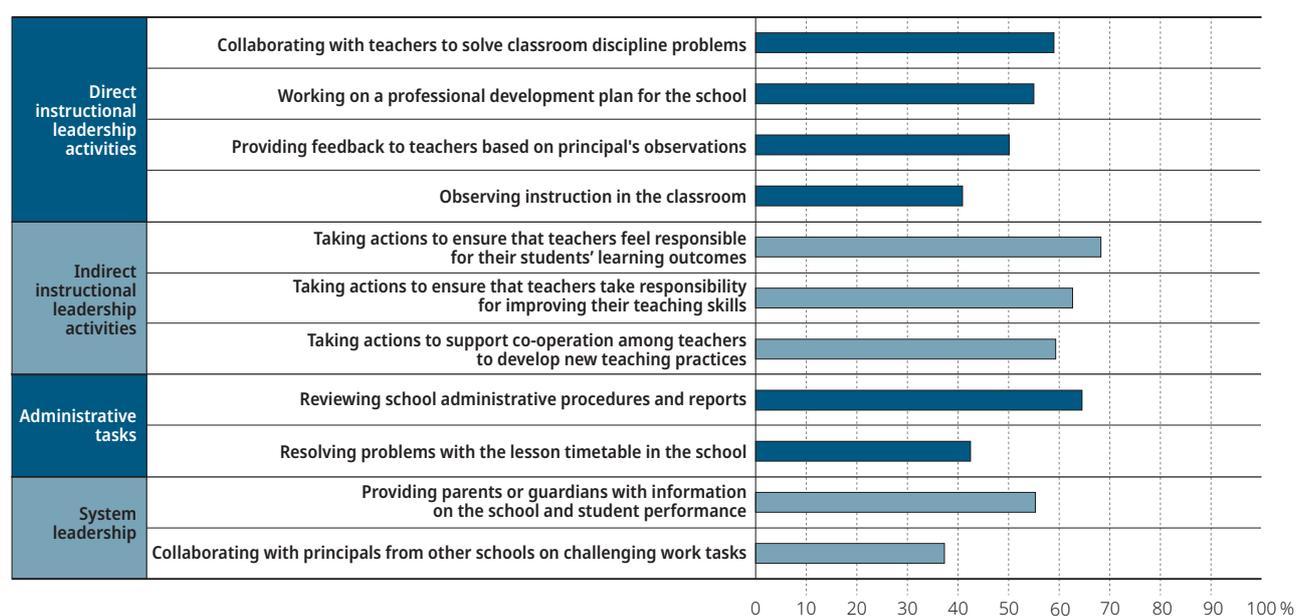
Pursuing isolated programmes for innovation is often not enough. Programmes typically do not scale; it is culture that scales, and culture is the hallmark of effective leadership. Culture is about system learning, system-wide innovation, and purposeful collaboration that can lead to large-scale and ongoing improvement.

The importance of system leadership, which also includes principals' ability to connect with other principals and parents, cannot be overstated and, in many systems, principals are increasingly encouraged to exercise leadership not only within their school, but also beyond their school. Yet, TALIS evidence suggests that a relatively low percentage of principals report engaging "often" or "very often" in system leadership activities such as providing parents or guardians with information on the school and student performance (55%) or collaborating with principals from other schools on challenging work tasks (37%) (Figure 28).

The education crisis, reflected in flat education outcomes despite rising investment, is partly a leadership crisis. Finding adequate and forward-looking responses to the inter-related changes in technology, globalisation and the environment is ultimately a question of leadership. Effective leadership is vital to creating an environment where

Figure 28 **Principals' leadership activities**

Percentage of low secondary principals who "often" or "very often" engaged in the following activities in their school in the 12 months prior to the survey (OECD average-30)



Values are grouped by leadership activity and, within each group, ranked in descending order of use of the practices.

Source: OECD, TALIS 2018 Database, Table II.5.12.

institutions, educators, researchers and other innovators can work together as professionals. These kinds of leaders should help people recognise what needs to change, mobilise support and share leadership responsibilities throughout the system.

Leaders who want to make forward-looking changes in their school systems have to do more than issue orders and try to impose compliance. They need to build a shared vision and understanding, make the case for change and build collective ownership over reforms, and offer support that will make change a reality, all while retaining credibility. They need to focus resources, build capacity, change work organisations, and create the right policy climate with accountability measures designed to encourage innovation and development, rather than just compliance. And they need to go against the dynamics of turf and hierarchical bureaucracies that still dominate educational institutions.

For schools to be entrepreneurial and able to adapt, system leaders need to be able to mobilise the human, social and financial resources and the governance ecosystem needed for innovation and professionalism to thrive. They also need to be able to build strong

linkages across sectors and countries, and establish partnerships with government leaders, social entrepreneurs, business executives, researchers and civil society.

It will be important for education policy to get beyond the unproductive wrangling between forces pushing for greater decentralisation and those aiming for greater centralisation of the school system. That debate detracts from the real question of what aspects of education are best managed at what level of the education system, and the overriding principle of subsidiarity, where every layer of the school system should continuously ask itself how it can best support learners and teachers at the frontline.

Recent reforms in **Austria** and **Portugal** can provide inspiration in this respect. In Austria, the New Education Reform Act of June 2017 included the autonomy package that allows teachers and school leaders to have greater scope for action. The package was put in place after the Austrian government identified that the school system needs to account for the unique and diverse needs of different student communities across all 5 800 Austrian schools. The goal of granting greater autonomy to schools was to expand every school's capacity

to innovate and manage regional education issues. The reforms offered schools freedom in terms of teaching organisation and flexible teaching time for teachers; the formation of groups across content and technical aspects (e.g. cross-class, interdisciplinary, etc.); professional and beneficial communication, including co-ordination of teachers with school partners, regional school partners, etc.; personnel selection and development; and also the use of diagnosis tools and advanced forms of teaching (e.g. project based lessons).

Likewise in Portugal, the Portuguese government introduced the Project for Autonomy and Curriculum Flexibility (PACF), a pilot programme for schools to build 21st century competencies for all their students. The foundations of the PACF are based on student outcomes that Portugal aims to achieve, in order to align with the National Skills Strategy of Portugal (2015), and they are describe in detail in Student's Profile by the End of Compulsory Schooling. The PACF implementation plan is both holistic and action-oriented. Firstly, the programme allows schools to make several curricular decisions. It includes citizenship education in its strategy to foster students' knowledge, skills and values in democratic institutions, the environment, sustainability, human rights and health, so that students graduate to be socially and culturally responsive individuals. Another key component of the PACF is the shift to formative and all-round assessments in Grades 4 and 6, including projects, art activities, presentations and group tasks to monitor student learning.

In advancing such transformative reforms, system leaders need to be aware of how organisational policies and practices can either facilitate or inhibit transformation. They need to be ready to confront the system when it inhibits change. They need to be able to recognise emerging trends and patterns and see how these might benefit or obstruct the innovation they want to achieve. They need to be politically savvy in working with other organisations and people. They need to use their knowledge about what motivates people to convince others to support their plans for change; and they need to use their understanding of power and influence to build the alliances and coalitions needed to get things done.

It is important for education leaders to be transparent with teachers and school leaders about where reform is heading and what it means for them. Success depends on having an inclusive style of leadership that fosters collaboration and allows staff to take risks, and that encourages staff to have the confidence to see problems from multiple perspectives and come up with new solutions. This is about achieving consensus without giving up on reform.

Many teachers and schools are ready for that. To encourage their growth, policy needs to inspire and enable collective responsibility and leadership by the profession, innovation, and the identification and sharing of best practice. That shift in policy will need to be built on trust: trust in education, in educational institutions, in schools and teachers, and in students and communities. In all public services, trust is an essential part of good governance. Successful schools will always be places where people want to work, and where their ideas can be best realised, where they are trusted and where they can put their trust.

We know too little about how trust is developed in education and sustained over time, or how it can be restored if broken. But trust cannot be legislated or mandated; that is why it is so hard to build into traditional administrative structures. Trust is always intentional; it can only be nurtured and inspired through healthy relationships and constructive transparency. That is the lesson we can all learn from Finland, where opinion polls consistently show high levels of public trust in education. At a time when command-and-control systems are weakening, building trust is the most promising way to advance and fuel modern education systems.

Read more about these issues in Chapter 5 in *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*.
<https://doi.org/10.1787/19cf08df-en>



Endnotes

ⁱ To enable international comparisons, data on statutory salaries are converted using purchasing power parities.

ⁱⁱ The Czech Republic, Denmark, Finland, France, Iceland, Italy, Lithuania, Norway, Spain, Sweden, Turkey.

ⁱⁱⁱ See Good, T. and A. Lavigne (2018), *Looking in Classrooms*, Routledge, New York.

^{iv} The meta-analysis consisted of a review of 60 studies that employ causal research designs of the effect of coaching programmes on teachers' instructional practice and students' academic achievement. Combining results across these 60 studies, the researchers found pooled effect sizes of 0.49 standard deviations (SD) on instruction and 0.18 SD on achievement. Much of this evidence came from literacy coaching programmes for pre-kindergarten and elementary school teachers in the United States (Kraft, Blazar and Hogan, 2018).

^v In TALIS, students with special needs are defined as “those for whom a special learning need has been formally identified because they are mentally, physically, or emotionally disadvantaged.

^{vi} See OECD (2014c), *TALIS 2013 Results: An International Perspective on Teaching and Learning*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264196261-en>.

^{vii} This refers to instructional activities that require students to evaluate, integrate and apply knowledge within the context of problem solving. They are more cognitively demanding but can challenge and motivate students and stimulate higher-order skills, such as critical thinking, problem solving and decision-making (Lipowsky et al., 2009).

^{viii} In TALIS 2018, “professional collaboration” includes team-teaching, providing feedback based on classroom observations, engaging in joint activities across different classes and participating in collaborative professional learning.

^{ix} In TALIS 2018, “exchanges and co-ordination” includes exchanging teaching materials, discussing the learning development of specific students, working with other teachers to ensure common standards in evaluations and attending team conferences.

^x TALIS questionnaires ask teachers whether they have received feedback from a range of different sources (“external individual or bodies”; “school principal or member[s] of the school management team”; and “other colleagues within the school”) and through six methods (observation of teachers’ classroom teaching; student survey responses related to teachers’ teaching; assessment of teachers’ content knowledge; external results of teachers’ students; and school-based and classroom-based results and self-assessment of teachers’ work).

^{xi} See Jensen, B. and J. Reichl (2011), *Better Teacher Appraisal and Feedback: Improving Performance*, Grattan Institute, Melbourne, https://grattan.edu.au/wp-content/uploads/2014/04/081_report_teacher_appraisal.pdf.

^{xii} See OECD (2013), *Synergies for Better Learning: An International Perspective on Evaluation and Assessment*, *OECD Reviews of Evaluation and Assessment in Education*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264190658-en>.

^{xiii} The word “significant”, as used here, does not refer to the statistical properties of the results, but to the wording used in the questionnaire to phrase the question to principals.

^{xiv} See OECD (2019), *Working and Learning Together: Rethinking Human Resource Policies for Schools*, *OECD Reviews of School Resources*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/b7aaf050-en>.

^{xv} The specific tasks concern having a considerable responsibility for appointing or hiring teachers, dismissing or suspending teachers from employment, establishing teachers’ starting salaries, determining teachers’ salary increases, deciding on budget allocations within the school, establishing student disciplinary policies and procedures, establishing student assessment policies, approving students for admission to the school, choosing which learning materials are used, determining course content and deciding which courses are offered.

^{xvi} Australia, Belgium and its French Community, CABA (Argentina), Chile, England (United Kingdom), Israel, South Africa and the United Arab Emirates.



For more info on countries' policies

Alberta (Canada)

- Alberta Education (2015), *Guiding Voices*
www.learnalberta.ca/content/fnmigv/index.html (accessed 1 March 2019)
- Government of Alberta (2019), *Bullying prevention for educators: Learn how to recognize, prevent and respond to signs of bullying in school.*
www.alberta.ca/bullying-prevention-for-educators.aspx (accessed 8 April 2019)

Austria

- Federal Ministry of Education, Science and Research of Austria (2020), Autonomiepaket [Autonomy package].
<https://www.bmbwf.gv.at/Themen/schule/zrp/bilref/ap.html>
- OECD (2019) *Working and Learning Together: Rethinking Human Resource Policies for Schools*, OECD Reviews of School Resources.
<https://doi.org/10.1787/b7aaf050-en>
www.alberta.ca/bullying-prevention-for-educators.aspx (accessed 8 April 2019)

Brazil

- Bruns B., L. Costa and N. Cunha (2018), "Through the looking glass: Can classroom observation and coaching improve teacher performance in Brazil?", *Economics of Education Review*, Vol. 64, pp. 214-250.
<https://doi.org/10.1016/j.econedurev.2018.03.003>

Chile

- Agencia de Calidad de la Educación, Gobierno de Chile (n.d) Desarrollo Personal y Social: Otros Indicadores de Calidad Educativa [Personal and Social Development: Other Indicators of Educational Quality].
http://archivos.agenciaeducacion.cl/Desarrollo_personal_social_OIC_25_11.pdf, information provided by the Ministry of Education, Chile, 9 April 2019

Estonia

- Estonian Union for Child Welfare (2015[91]), *Kiusamisest vabaks! (Free of Bullying)*. <http://kiusamisestvabaks.ee/about-us> (accessed 12 April 2019); information provided by the Ministry of Education, Estonia, 11 April 2019
- Ministry of Education and Research, Republic of Estonia (2014), *Estonian Lifelong Learning Strategy 2020*. <https://www.hm.ee/en/estonian-lifelong-learning-strategy-2020>
- Ministry of Education and Research, Republic of Estonia (2015), *OECD Review of Policies to Improve the Effectiveness of Resource Use in Schools: Country Background Report, Estonia*. http://www.oecd.org/education/school/EST_Country_background_report_final_30.11.15_Version2.pdf

Finland

- OECD (2011), *Lessons from PISA for the United States, Strong Performers and Successful Reformers in Education*, OECD Publishing, Paris. <https://doi.org/10.1787/9789264096660-en>
- Schleicher, Andreas (2018), “What makes high-performing school systems different”, in *World Class: How to Build a 21st-Century School System*, OECD Publishing, Paris. <https://doi.org/10.1787/9789264300002-3-en>

Italy

- *Education Policy Outlook: Italy*. www.oecd.org/education/Education-Policy-Outlook-CountryProfile-Italy.pdf

Japan

- OECD (2012), *Lessons from PISA for Japan, Strong Performers and Successful Reformers in Education*, OECD Publishing, Paris. <https://doi.org/10.1787/9789264118539-en>

Kazakhstan

- OECD/The World Bank, (2015), *OECD Reviews of School Resources: Kazakhstan 2015*, OECD Reviews of School Resources. <https://doi.org/10.1787/9789264245891-en>

Portugal

- OECD (2018), *Curriculum Flexibility and Autonomy in Portugal: An OECD Review*. www.oecd.org/education/2030/CurriculumFlexibility-and-Autonomy-in-Portugal-an-OECD-Review.pdf

Singapore

- Jensen B., J. Sonnemann, K. Roberts-Hull and A. Hunter (2016), *Beyond PD: Teacher Professional Learning in HighPerforming Systems*. www.ncee.org/beyondpd/
- Nusche, Deborah, et al. (2014), “Teacher appraisal”, in *OECD Reviews of Evaluation and Assessment in Education: Netherlands 2014*, OECD Publishing, Paris. <https://doi.org/10.1787/9789264211940-7-en>
- Schleicher, Andreas (2018), “What makes high-performing school systems different”, in *World Class: How to Build a 21st-Century School System*, OECD Publishing, Paris. <https://doi.org/10.1787/9789264300002-3-en>

- Schleicher, Andreas (2011), “Recruitment and initial preparation of teachers”, in *Building a High-Quality Teaching Profession: Lessons from around the World*, OECD Publishing, Paris.
<https://doi.org/10.1787/9789264113046-3-en>

Shanghai (China)

- Jensen B., J. Sonnemann, K. Roberts-Hull and A. Hunter (2016), *Beyond PD: Teacher Professional Learning in HighPerforming Systems*.
www.ncee.org/beyondpd/
- Jensen, B. and J. Farmer (2013[23]) *School Turnaround in Shanghai: The Empowered-Management Program Approach to Improving School Performance*.
<https://www.americanprogress.org/issues/education-k-12/reports/2013/05/14/63144/school-turnaround-inshanghai>
- Schleicher, Andreas (2018), “What makes high-performing school systems different”, in *World Class: How to Build a 21st-Century School System*, OECD Publishing, Paris.
<https://doi.org/10.1787/9789264300002-3-en>
- Zhang, X. and H. Ng (2016), “An effective model of teacher appraisal”, *Educational Management Administration & Leadership*, Vol. 45/2, pp. 196-218
- Zhang, X. and H. Ng (2011[54]), “A case study of teacher appraisal in Shanghai, China: In relation to teacher professional development”, *Asia Pacific Education Review*, Vol. 12, pp. 569-580

Sweden

- Cerna, L., et al. (2019), “Strength through diversity’s Spotlight Report for Sweden”, *OECD Education Working Papers*, No. 194.
<https://doi.org/10.1787/059ce467-en>
- Ministry of Finance (2015), *Budgetpropositionen för 2015: Prop. 2014/15:1 [Budget bill for 2015]*.
<http://www.regeringen.se/rattsdokument/proposition/2014/10/prop.-2014151/>
- Swedish National Agency for Education (2015), *An Assessment of the Situation in the Swedish School System 2015: Summary of Report 421*.
<https://www.skolverket.se/download/18.6bfaca41169863e6a65bba5/1553966393937/pdf3551.pdf>

United States

- Arizona Department of Education (2020), *Exceptional Student Services*.
<https://www.azed.gov/specialeducation/seap/>
- District of Columbia Public Schools (2020), *Chancellor’s Teachers’ Cabinet*.
<https://dcps.dc.gov/page/chancellors-teachers-cabinet>
- Pearson, M. (2018), “*The teacher effect: How teachers can impact education policies and initiatives*”, Room 241.
<https://education.cu-portland.edu/blog/leaders-link/teachers-impact-policy/>

Viet Nam

- McAleavy, T., T.H. Ha and R. Fitzpatrick (2018[43]), *Promising Practice: Government Schools in Vietnam*, Education Development Trust, Reading.
<https://files.eric.ed.gov/fulltext/ED588856.pdf>



Bibliography

- Ainley, J. and R. Carstens (2018), “Teaching and Learning International Survey (TALIS) 2018 Conceptual Framework”, *OECD Education Working Papers*, No. 187, OECD Publishing, Paris.
<https://dx.doi.org/10.1787/799337c2-en>
- Antinluoma, M. et al. (2018), “Schools as professional learning communities”, *Journal of Education and Learning*, Vol. 7/5, pp. 76-91.
<http://dx.doi.org/10.5539/jel.v7n5p76>
- Avalos, B. (2011), “Teacher professional development in Teaching and Teacher Education over ten years”, *Teaching and Teacher Education*, Vol. 27/1, pp. 10-20.
<http://dx.doi.org/10.1016/j.tate.2010.08.007>
- Bolam, R. et al. (2005), “Creating and Sustaining Effective Professional Learning Communities”, *DfES Research Report*, No. 637, University of Bristol, Bristol.
<http://dera.ioe.ac.uk/5622/1/RR637.pdf>
- Borko, H. (2004), “Professional development and teacher learning: Mapping the terrain”, *Educational Researcher*, Vol. 33/8, pp. 3-15.
<http://dx.doi.org/10.3102/0013189X033008003>
- Braun, H. (2005), “Using student progress to evaluate teachers: A primer on value-added models policy information”, *ETS Policy Information Center Reports*, No. 16, Educational Testing Service, Princeton.
http://www.ets.org/research/policy_research_reports/publications/report/2005/cxje
- Chapman, C. et al. (eds.) (2016), *Routledge International Handbook of Educational Effectiveness and Improvement Research: Research, Policy, and Practice*, Routledge, Abingdon; New York, NY.
- Cheng, M., A. Cheng and S. Tang (2010), “Closing the gap between the theory and practice of teaching: Implications for teacher education programmes in Hong Kong”, *Journal of Education for Teaching*, Vol. 36/1, pp. 91-104.
<http://dx.doi.org/10.1080/02607470903462222>
- Crossman, A. and P. Harris (2006), “Job satisfaction of secondary school teachers”, *Educational Management Administration and Leadership*, Vol. 34/1, pp. 29-46.
<http://dx.doi.org/10.1177/1741143206059538>

- Daresh, J. (2004), “Mentoring school leaders: Professional promise or predictable problems?”, *Educational Administration Quarterly*, Vol. 40/4, pp. 495-517.
<http://dx.doi.org/10.1177/0013161X04267114>
- Darling-Hammond, L. (2017), “Teacher education around the world: What can we learn from international practice?”, *European Journal of Teacher Education*, Vol. 40/3, pp. 291-309.
<http://dx.doi.org/10.1080/02619768.2017.1315399>
- Darling-Hammond, L. et al. (2009), *Professional Learning in the Learning Profession: A Status Report on Teacher Development in the United States and Abroad*, National Staff Development Council, Dallas, TX and and The School Redesign Network at Stanford University.
<https://learningforward.org/docs/default-source/pdf/nsdcstudy2009.pdf>
- Department for Education, UK (2019), *National Statistics. School workforce in England: November 2018*.
<https://www.gov.uk/government/statistics/school-workforce-in-england-november-2018> (accessed on 29 January 2020).
- Erickson, G. et al. (2005), “Collaborative teacher learning: Findings from two professional development projects”, *Teaching and Teacher Education*, Vol. 21/7, pp. 787-798.
<http://dx.doi.org/10.1016/j.tate.2005.05.018>
- Fraillon, J. et al. (2014), *Preparing for Life in a Digital Age: The IEA International Computer and Information Literacy Study International Report*, Springer International Publishing, Heidelberg.
https://www.iea.nl/fileadmin/user_upload/Publications/Electronic_versions/ICILS_2013_International_Report.pdf
- Gil-Flores, J., J. Rodríguez-Santero and J. Torres-Gordillo (2017), “Factors that explain the use of ICT in secondary-education classrooms: The role of teacher characteristics and school infrastructure”, *Computers in Human Behavior*, Vol. 68, pp. 441-449.
<http://dx.doi.org/10.1016/J.CHB.2016.11.057>
- Glazerman, S. et al. (2010), *Impacts of Comprehensive Teacher Induction: Final Results from a Randomized Controlled Study*, (NCEE 2010-4027), National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S., Washington, DC.
<https://ies.ed.gov/ncee/pubs/20104027/pdf/20104027.pdf>
- Goddard, Y., R. Goddard and M. Tschannen-Moran (2007), “A theoretical and empirical investigation of teacher collaboration for school improvement and student achievement in public elementary schools”, *Teachers College Record*, Vol. 109/4, pp. 877-896.
- Goldhaber, D. et al. (2015), “Crossing the Border? Exploring the Cross-State Mobility of the Teacher Workforce.”, *Educational Researcher*, Vol. 44/8, pp. 421-431.
<http://dx.doi.org/10.3102/0013189X15613981>
- Guerriero, S. (ed.) (2017), *Pedagogical Knowledge and the Changing Nature of the Teaching Profession*, Educational Research and Innovation, OECD Publishing, Paris.
<https://dx.doi.org/10.1787/9789264270695-en>
- Hallinger, P. (2018), “Bringing context out of the shadows of leadership”, *Educational Management Administration and Leadership*, Vol. 46/1, pp. 5-24.
<http://dx.doi.org/10.1177/1741143216670652>

- Hallinger, P. (2011), “Leadership for learning: Lessons from 40 years of empirical research”, *Journal of Educational Administration*, Vol. 49/2, pp. 125-142.
<http://dx.doi.org/10.1108/09578231111116699>
- Hallinger, P. and R. Heck (2010), “Leadership for learning: Does collaborative leadership make a difference in school improvement?”, *Educational Management Administration & Leadership*, Vol. 38/6, pp. 654-678.
<http://dx.doi.org/10.1177/1741143210379060>
- Hall, W. (2017), “The effectiveness of policy interventions for school bullying: A systematic review”, *Journal of the Society for Social Work and Research*, Vol. 8/1, pp. 45-69.
<http://dx.doi.org/10.1086/690565>
- Hargreaves, A. and M. Fullan (2012), *Professional Capital: Transforming Teaching in Every School*, Teachers College Press, New York, NY.
- Harris, A. and D. Muijs (2004), *School Improvement through Teacher Leadership*, Open University Press, Ballmoor, Buckinghamshire.
- Hattie, J. (2009), *Visible Learning: A Synthesis of over 800 Meta-Analyses Relating to Achievement*, Routledge, London.
- Helms-Lorenz, M., B. Slof and W. van de Grift (2013), “First year effects of induction arrangements on beginning teachers’ psychological processes”, *European Journal of Psychology of Education*, Vol. 28/4, pp. 1265-1287.
<http://dx.doi.org/10.1007/s10212-012-0165-y>
- Hoban, G. and G. Erickson (2004), “Dimensions of learning for long-term professional development: Comparing approaches from education, business and medical contexts”, *Journal of In-Service Education*, Vol. 30/2, pp. 301-324
<https://www.tandfonline.com/doi/pdf/10.1080/13674580400200247>
- Ingvarson, L., M. Meiers and A. Beavis (2005), “Factors affecting the impact of professional development programs on teachers’ knowledge, practice, student outcomes and efficacy”, *Education Policy Analysis Archives*, Vol. 13/10, pp. 1-28.
<http://dx.doi.org/10.14507/epaa.v13n10.2005>
- Jensen, B. and J. Reichl (2011), *Better Teacher Appraisal and Feedback: Improving Performance*, Grattan Institute, Melbourne
https://grattan.edu.au/wp-content/uploads/2014/04/081_report_teacher_appraisal.pdf
- Johnson, S. and M. Donaldson (2007), “Overcoming the Obstacles to Leadership”, *Educational Leadership*, Vol. 65/1, pp. 8-13.
- Johnson, S., M. Kraft and J. Papay (2012), “How context matters in high-need schools: The effect of teachers’ working conditions on their professional satisfaction and their students’ achievement”, *Teachers College Record*, Vol. 114, pp. 1-39.
<https://www.tcrecord.org/content.asp?contentid=16685>
- Kools, M. and L. Stoll (2016), “What Makes a School a Learning Organisation?”, *OECD Education Working Papers*, No. 137, OECD Publishing, Paris.
<https://dx.doi.org/10.1787/5jlw62b3bvh-en>

- Kraft, M., D. Blazar and D. Hogan (2018), “The effect of teacher coaching on instruction and achievement: A meta-analysis of the causal evidence”, *Review of Educational Research*, Vol. 88/4, pp. 547-588.
<https://doi.org/10.3102/0034654318759268>
- Kumrow, D. and B. Dahlen (2002), “Is Peer Review an Effective Approach for Evaluating Teachers?”, *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, Vol. 75/5, pp. 238-241.
<http://dx.doi.org/10.1080/00098650209603947>
- Lillejord, S. and K. Børte (2019), “Trapped between accountability and professional learning? School leaders and teacher evaluation”, *Professional Development in Education*.
<http://dx.doi.org/10.1080/19415257.2019.1585384>.
- Little, J. (1990), “The persistence of privacy: Autonomy and initiative in teachers’ professional relations”, *Teachers College Record*, Vol. 91/4, pp. 509-536.
<https://www.tcrecord.org/content.asp?contentid=406>
- Lomos, C., R. Hofman and R. Bosker (2011), “Professional communities and student achievement – a meta-analysis”, *School Effectiveness and School Improvement*, Vol. 22/2, pp. 121-148.
<http://dx.doi.org/10.1080/09243453.2010.550467>
- Louis, K. and H. Marks (1998), “Does professional community affect the classroom? Teachers’ work and student experiences in restructuring schools”, *American Journal of Education*, Vol. 106/4, pp. 532-575.
<https://doi.org/10.1086/444197>
- Marzano, R., T. Waters and B. McNulty (2005), *School Leadership That Works: From Research to Results*, Association for Supervision and Curriculum Development, Alexandria.
- OECD (2019), *A Flying Start: Improving Initial Teacher Preparation Systems*, OECD Publishing, Paris.
<https://dx.doi.org/10.1787/cf74e549-en>
- OECD (2019), *Education Policy Outlook 2019: Working Together to Help Students Achieve their Potential*, OECD Publishing, Paris.
<https://dx.doi.org/10.1787/2b8ad56e-en>
- OECD (2019), *More than the sum of their parts: Human resource policies for effective schools*, OECD Publishing, Paris.
- OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris.
<https://dx.doi.org/10.1787/1d0bc92a-en>
- OECD (2019), *Working and Learning Together: Rethinking Human Resource Policies for Schools*, OECD Reviews of School Resources, OECD Publishing, Paris.
<https://dx.doi.org/10.1787/b7aaf050-en>
- OECD (2018), *Curriculum Flexibility and Autonomy in Portugal-an OECD Review*, OECD Publishing.

- OECD (2018), *Effective Teacher Policies: Insights from PISA*, PISA, OECD Publishing, Paris.
<https://dx.doi.org/10.1787/9789264301603-en>
- OECD (2016), *School leadership for learning : insights from TALIS 2013.*, OECD, Paris.
- OECD (2015), *Students, Computers and Learning: Making the Connection*, PISA, OECD Publishing, Paris.
<https://dx.doi.org/10.1787/9789264239555-en>
- OECD (2014), *TALIS 2013 Results: An International Perspective on Teaching and Learning*, TALIS, OECD Publishing, Paris.
<https://dx.doi.org/10.1787/9789264196261-en>
- OECD (2013), *Synergies for Better Learning: An International Perspective on Evaluation and Assessment*, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris.
<https://dx.doi.org/10.1787/9789264190658-en>
- OECD (2009), *Creating Effective Teaching and Learning Environments: First Results from TALIS*, TALIS, OECD Publishing, Paris.
<https://dx.doi.org/10.1787/9789264068780-en>
- Opfer, D. (2016), “Conditions and Practices Associated with Teacher Professional Development and Its Impact on Instruction in TALIS 2013”, *OECD Education Working Papers*, No. 138, OECD Publishing, Paris.
<https://dx.doi.org/10.1787/5jlss4r0lrg5-en>
- Opfer, V. and D. Pedder (2011), “Conceptualizing Teacher Professional Learning”, *Review of Educational Research*, Vol. 81/3, pp. 376-407.
<http://dx.doi.org/10.3102/0034654311413609>
- Papay, J. (2012), “Refocusing the debate: Assessing the purposes and tools of teacher evaluation”, *Harvard Educational Review*, Vol. 2/1, pp. 123-141.
<https://doi.org/10.17763/haer.82.1.v40p0833345w6384>
- Paniagua, A. and A. Sánchez-Martí (2018), “Early Career Teachers: Pioneers Triggering Innovation or Compliant Professionals?”, *OECD Education Working Papers*, No. 190, OECD Publishing, Paris.
<https://doi.org/10.1787/4a7043f9-en>
- Reeves, P., W. Pun and K. Chung (2017), “Influence of teacher collaboration on job satisfaction and student achievement”, *Teaching and Teacher Education*, Vol. 67, pp. 227-236.
<http://dx.doi.org/10.1016/J.TATE.2017.06.016>
- Rockoff, J. (2008), “Does Mentoring Reduce Turnover and Improve Skills of New Employees? Evidence from Teachers in New York City”, *NBER Working Paper Series*, No. 13868, National Bureau of Economic Research, Cambridge, MA.
<http://dx.doi.org/10.3386/w13868>
- Sanders, W. and J. Rivers (1996), *Cumulative and Residual Effects of Teachers on Future Student Academic Achievement*, University of Tennessee Value-Added Research and Assessment Center, Knoxville, TN.
<https://www.beteronderwijsnederland.nl/files/cumulative%20and%20residual%20effects%20of%20teachers.pdf>

- Schleicher, A. (2011), *Building a High-Quality Teaching Profession: Lessons from around the World*, International Summit on the Teaching Profession, OECD Publishing, Paris.
<https://dx.doi.org/10.1787/9789264113046-en>
- Simmie, G. et al. (2017), “Discursive positioning of beginning teachers’ professional learning during induction: A critical literature review from 2004 to 2014”, *Asia-Pacific Journal of Teacher Education*, Vol. 45/5, pp. 505-519.
<http://dx.doi.org/10.1080/1359866X.2017.1280598>
- Southworth, G. (1995), “Reflections on mentoring for new school leaders”, *Journal of Educational Administration*, Vol. 33/5, pp. 17-28.
<http://dx.doi.org/10.1108/09578239510098509>
- Spillane, J., M. Shirrell and M. Hopkins (2016), “Designing and deploying a professional learning community (PLC) organizational routine: Bureaucratic and collegial arrangements in tandem”, *Les dossiers des sciences de l’éducation* 35, pp. 97-122.
<http://dx.doi.org/10.4000/dse.1283>
- Spooner-Lane, R. (2016), “Mentoring beginning teachers in primary schools: Research review”, *Professional Development in Education*, Vol. 43/2, pp. 253-273
<http://dx.doi.org/10.1080/19415257.2016.1148624>
- Steinberg, M. and L. Sartain (2015), “Does teacher evaluation improve school performance? experimental evidence from Chicago’s excellence in teaching project”, *Education Finance and Policy*, Vol. 10/4, pp. 535-572.
http://dx.doi.org/10.1162/EDFP_a_00173
- Taylor, E. and J. Tyler (2012), “The effect of evaluation on teacher performance”, *American Economic Review*, Vol. 102/7, pp. 3628-3651.
<http://dx.doi.org/10.1257/aer.102.7.3628>
- Urick, A. and A. Bowers (2014), “The Impact of Principal Perception on Student Academic Climate and Achievement in High School: How Does it Measure Up?”, *Journal of School Leadership*, Vol. 24/2, pp. 386-414.
<http://dx.doi.org/10.1177/105268461402400207>
- Vieluf, S. et al. (2012), *Teaching Practices and Pedagogical Innovations: Evidence from TALIS*, TALIS, OECD Publishing, Paris.
<https://dx.doi.org/10.1787/9789264123540-en>



This paper is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and the arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document, as well as any data and map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

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.

Note by Turkey: The information in this document with reference to “Cyprus” relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the “Cyprus issue”.

Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

Information on data for Israel: <https://oe.cd/israel-disclaimer>

For specific information regarding the scope and terms of the licence as well as possible commercial use of this work or the use of data please consult *Terms and Conditions* on www.oecd.org/termsandconditions

Photo credits

Cover©Hill Street Studios /Gettyimages



Teaching and Learning International Survey

TALIS 2018

Insights and Interpretations

For more information, contact

Andreas Schleicher
Andreas.Schleicher@oecd.org

edu.contact@oecd.org

<https://oecd.edutoday.com/>

<https://www.oecd-ilibrary.org/education>

www.oecd.org/education/talis

 @OECEduSkills |  OECD Education and skills |  @oecd_education_skills

