4

Fostering collaboration to improve professionalism

This chapter describes the different ways in which teachers collaborate in classrooms, schools and professional development avenues. It explores how often teachers engage in collaborative activities and how that shapes the wider dimensions of the teaching profession, such as expertise and job satisfaction. It further examines teachers' collegiality, i.e. the quality of interpersonal relationships between colleagues in schools, which provide the basis for a collaborative working environment. The second part of the chapter discusses feedback received by teachers, a unique form of collaboration, and examines how specific types of feedback can help teachers to improve their practices.

Highlights

- Teachers collaborate with their colleagues in a number of ways. On average across OECD countries and economies participating in the Teaching and Learning International Survey (TALIS), the two most commonly reported types of collaboration are "discussing the learning development of specific students" (61% of teachers) and "exchanging teaching materials with colleagues" (47%).
- Professional collaboration that involves more interdependence between teachers, such as observing other teachers and providing feedback, participating in collaborative professional learning and team teaching is less frequent. For example, only 9% of teachers in OECD countries and economies in TALIS report providing observation-based feedback to colleagues at least once a month.
- Teachers who take part in the more interdependent forms of collaboration also tend to report using cognitive activation practices more frequently for teaching. They also report higher levels of job satisfaction and self-efficacy.
- Positive views on collegiality (i.e. having good interpersonal relationships with colleagues) are widespread across OECD countries and economies in TALIS. An average of 81% of teachers report that they work in a collaborative school culture characterised by mutual support, and 87% of teachers agree that teachers in their school can rely on each other. Teachers who report that their school involves staff in school decision making also tend to engage in professional collaboration more frequently in most countries and economies participating in TALIS.
- Teachers across the OECD receive feedback in a number of different ways; about half of teachers (52%) report having received feedback through at least four different methods. The most cited forms of feedback are based on classroom observations and students' school-based and classroom-based results. However, 9% of teachers report that they have never received feedback in their school.
- On average across OECD countries and economies in TALIS, 71% of teachers who have received feedback found it useful for their teaching practice. Compared to older and more experienced teachers, a significantly higher share (9 percentage points) of novice teachers and younger teachers report that the feedback they received had a positive impact on their teaching practice.
- Of the teachers who say that they received feedback, an average of 55% across OECD countries and economies in TALIS report that such feedback was particularly useful for improving their pedagogical competencies in teaching their subject.
- In all countries and economies participating in TALIS, teachers who report receiving multiple different forms of feedback are more likely to find that the feedback they received had a positive impact on their teaching practice.

INTRODUCTION

TALIS identifies teaching as a multifaceted profession. Therefore, in addition to examining the instructional role of teachers, TALIS encourages enquiry into the professional practices of teachers, aiming to capture their work in a more holistic manner (Ainley and Carstens, 2018[1]). One main focus of teachers' professional practices in TALIS is collaboration. TALIS also examines the role of collaboration in teachers' professional development and in their experimentation with innovative pedagogies (Ainley and Carstens, 2018[1]).

The idea of teacher collaboration stems from the concept of two or more individuals interacting or working together to accomplish a specific goal. TALIS identifies collaboration as a distinctive aspect of the professionalism of teachers (Ainley and Carstens, 2018[1]; Goddard et al., 2015[2]). Research points to the value of collaboration enabling teacher learning, stemming from the exchange of ideas and interactions (Goddard, Goddard and Tschannen-Moran, 2007[3]). Therefore, collaboration allows for organisational communication between teachers and helps them to learn from each others' practices and experiences, which could help improve their own practices (Reeves, Pun and Chung, 2017[4]). It can also be viewed as a support mechanism for teachers working in difficult environments, by offering interdependence and help among colleagues (Johnson, Kraft and Papay, 2012[5]). Collaboration among teachers can also facilitate the implementation of certain teaching practices, such as group work among students (Shachar and Shmuelevitz, 1997[6]).

One perspective on teacher collaboration has been studied under the research literature on professional learning communities (PLCs). PLCs can be defined as a routine of teacher collaboration for knowledge sharing, structured and purposeful interactions, and collective improvement (Antinluoma et al., 2018[7]; Lomos, Hofman and Bosker, 2011[8]; Spillane, Shirrell and Hopkins, 2016[9]).

These kinds of collaborative activities among teachers are even more relevant in today's educational context, as education systems move towards co-operative learning and focus on building collaborative skills among students (OECD, 2012[10]).

The goal of this chapter is to explore collaboration as a prominent and essential pillar of teacher professionalism. In line with this objective, the first section offers insights on how teachers collaborate with their colleagues, as well as the quality of their interpersonal relationships. It further examines how indicators of teacher collaboration relate to teaching practices, innovation and teachers' job satisfaction. Next, the chapter focuses on a specific form of collaboration, feedback received by teachers from different sources and through different methods. Last, it provides unique information on how teachers perceive the value of the feedback they receive for improving their teaching practices.

HOW DO TEACHERS COLLABORATE?

Collaborative activities can be viewed on a continuum ranging from one-off interactions to strong and regular co-operative actions between teachers (Vangrieken et al., 2015[11]). Professional collaboration for teachers can also be defined as collective goal-oriented activities aiming to achieve specific improvements in the teaching and learning processes for a single student, class or entire school, based on available research on PLCs – for example, Lomos, Hofman and Bosker (2011[8]).

TALIS explores a broad conception of collaborative activities among teachers. It includes the different opportunities where teachers interact with each other and where teachers take actions about instructional decision making and their own practice. There is not yet a consistent understanding of which collaborative activities are most beneficial to learning for teachers and students, especially because of the different ways collaboration can be structured (Reeves, Pun and Chung, 2017[4]). However, when collaborative activities focus on instructional changes, they can produce shared learning among teachers (Levine and Marcus, 2010[12]). For example, when teachers engage in professional communities to discuss evidence of student learning, or receive feedback based on teachers' actions after classroom observations, teachers have an opportunity to reflect on their instruction and consider specific changes. Therefore, such collaboration can help teachers to collectively learn from each other. Levine and Marcus (2010[12]) also found that the benefits of collaboration for teachers depend on the time spent on collaborative activities and the objective of a certain collaborative meeting.

This section describes the different opportunities for collaboration among teachers, how often these opportunities are leveraged and how these collaborative activities shape the wider dimensions of teachers' work. It then analyses a specific form of collaboration, which involves international mobility, by describing teachers' activities when they stay abroad for professional purposes. It goes on to explore teachers' collegiality, based on teachers' views of their school culture and their relationships with colleagues, as well as the role of school leaders in fostering collaboration.

Teachers' collaborative activities

Teachers have many opportunities to interact and work with their colleagues. Some can be formal, arising from job requirements for teachers in certain systems. But they can also be informal and voluntary interactions between colleagues that can be triggered by situations or challenges teachers collectively feel the need to address (Ainley and Carstens, 2018[1]),

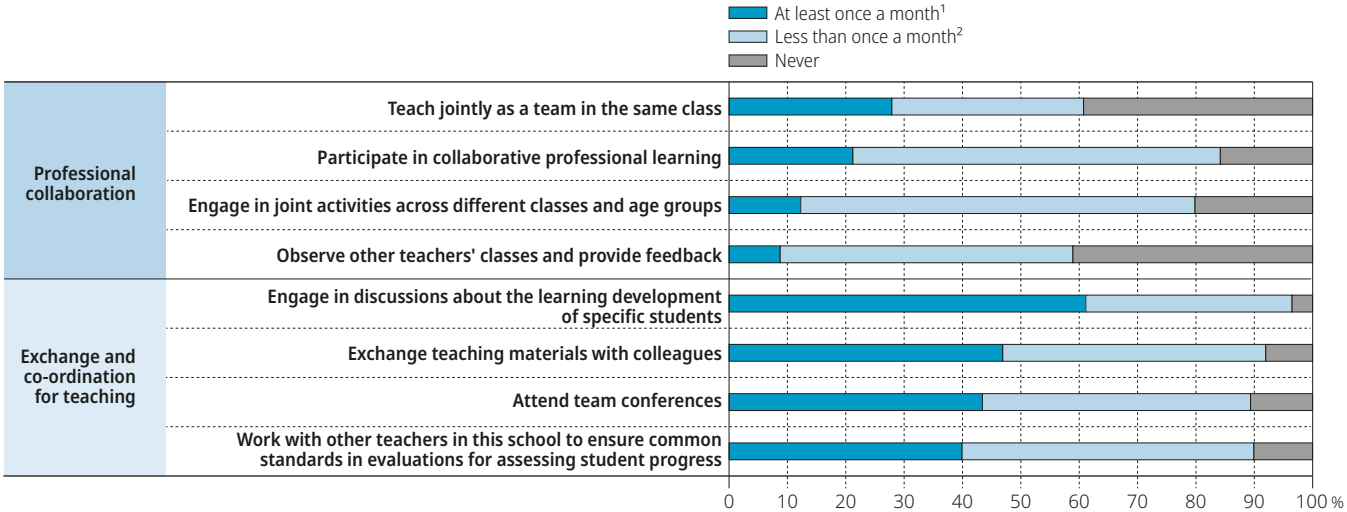
TALIS provides a unique opportunity to identify the different ways in which teachers work with their colleagues for instructional purposes and how often they engage in these activities. The frequency with which teachers report engaging in collaborative activities also signals how they use their time for professional purposes outside classroom teaching. TALIS asks teachers how often ("never"; "once a year or less"; "2-4 times a year"; "5-10 times a year"; "1-3 times a month" or "once a week or more") they do the following: "teach jointly as a team in the same class"; "observe other teachers' classes and provide feedback"; "engage in joint activities across different classes and age groups"; "take part in collaborative professional learning"; "exchange teaching materials with colleagues"; "engage in discussions about the learning development of specific students"; "work with other teachers in the school to ensure common standards in evaluations for assessing student progress" and "attend team conferences".

These collaborative activities can be categorised into two groups (as shown in Figure II.4.1), based on the nature of interaction among teachers. Some collaborative activities imply a deeper level of co-operation among teachers and a high degree of interdependence among participants (Little, 1990[13]). These are identified under TALIS as professional collaboration. Other forms of interaction include simple exchanges or co-ordination between teachers (OECD, 2014[14]; OECD, 2009[15]).

In line with the findings of previous TALIS cycles, TALIS 2018 shows that deeper forms of collaboration, grouped under the term "professional collaboration" (team teaching, providing feedback based on classroom observations, engaging in joint activities across different classes and participating in collaborative professional learning) are less prevalent than simple exchanges and co-ordination between teachers (exchanging teaching materials, discussing the learning development of specific students, working with other teachers to ensure common standards in evaluations and attending team conferences) (Figure II.4.1).

Figure II.4.1 **Teachers' collaboration with colleagues**

Percentage of lower secondary teachers who report engaging in the following collaborative activities in their school with the following frequency (OECD average-31)



1. "At least once a month" covers the following response options: "1-3 times a month", "Once a week or more".
2. "Less than once a month" covers the following response options: "Once a year or less", "2-4 times a year", "5-10 times a year".

Values are grouped by type of collaborative activity and, within each group, ranked in descending order of the collaborative activities in which lower secondary teachers report to engage at least once month.

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

StatLink http://dx.doi.org/10.1787/888934083715

Exchange and co-ordination for teaching

On average, across the OECD,[1] the most common form of collaboration among teachers is discussing the learning development of specific students: 61% of teachers, report doing so at least once a month, and only 4% of teachers report never doing so (Figure II.4.1, Table II.4.1). This is not surprising, as this type of discussion is generally part of teachers' everyday workplace interactions. In fact, discussions about specific students are crucial for student-centred instruction. They also provide opportunities for teachers to learn from each others' experiences and adapt their instructional approaches for specific students. At least 75% of teachers in Alberta (Canada), Australia, France, New Zealand, Norway and Sweden report engaging in this type of discussion at least once a month (Figure II.1.2). At the other end of the spectrum, 30% of teachers or less report engaging in such discussions at least once a month in the Flemish Community of Belgium and Viet Nam.

Exchanging teaching materials with colleagues is an opportunity for teachers to work together with the aim of sharing knowledge by brainstorming instructional plans. It also helps them to support one another in delivering lessons that might be challenging to teach, thereby gaining efficiency in lesson preparation. However, on average across the OECD, only 47% of teachers report that they frequently ("at least once a month") engage in this form of collaboration (Figure II.4.1, Table II.4.1). In Australia, Austria and England (United Kingdom), at least 70% of teachers report that they exchange teaching materials with colleagues at least once a month. In Korea and Saudi Arabia, less than 25% of teachers report doing so (Figure II.4.2).

Other simple forms of collaboration among teachers are less directly related to teachers' instruction in the classroom, but still provide opportunities for teachers to interact and share their knowledge and expertise. On average across the OECD, 43% of teachers report attending team conferences at least once a month and 40% of teachers report working with other teachers in their school at least once a month to ensure common standards in the evaluation of students' progress (Figure II.4.1, Table II.4.1). Attendance at team conferences at least once a month is particularly prevalent in Sweden (93%), Norway (92%), Spain (76%), Denmark (75%) and Iceland (71%) (Figure II.4.2). The eventual benefits of engaging in such collaboration, however, depend on the concrete exchanges that took place during these collaborative activities (Reeves, Pun and Chung, 2017[4]).

Professional collaboration

Frequent and regular engagement in deeper forms of collaboration among teachers may be desirable for education systems in order to reap the benefits of collaboration. These activities are key opportunities for teachers to collaborate directly to improve instructional processes in the classroom and should, therefore, be leveraged by educators (Ronfeldt et al., 2015[16]). However, on average across the OECD, teachers' engagement in these activities at least once a month is less prevalent: "teach jointly as a team in the same class" (28%); "participate in collaborative professional learning" (21%); "engage in joint activities across different classes and age

groups" (12%); and "observe other teachers' classes and provide feedback" (9%). (Figure II.4.1, Table II.4.1). In fact, large proportions of teachers report that they never engage in these forms of collaboration: 39% of teachers report never teaching jointly, 16% of teachers report never participating in collaborative professional learning, 20% of teachers report never engaging in joint activities across different classes and age groups, and 41% of teachers report never observing other teachers' classes and providing feedback.

Teaching jointly in teams is one of the deeper forms of collaboration between teachers, given that teachers have a high degree of interdependence in this kind of joint work (Johnston and Tsai, 2018[17]; Little, 1990[13]). The value of team teaching in support structures for teachers is especially promising as TALIS 2018 results show team teaching with experienced collegues as an induction provision is associated with higher levels of self-efficacy and job-satisfaction, see Tables I.4.53 and I.4.54 in *TALIS 2018 Results (Volume I)* (OECD, 2019[18]). Therefore, it merits further examination. Teachers' self-reports of teaching jointly in teams in the same class can take different forms in different countries. In some contexts, team teaching could be a characteristic feature when two or more classrooms are combined but, in other contexts, it could take place in single classrooms. However, the bottom line for team teaching is the high degree of interdependence and shared responsibility for the class (Krammer et al., 2018[19]; Villa et al., 2008[20]).

Teaching jointly as a team at least once a month is reported by more than 50% of teachers in Austria, Italy, Japan and Mexico, but by less than 10% of teachers in Bulgaria, Croatia, the Czech Republic, Lithuania, Malta and the Russian Federation (Figure II.4.2). In nearly a third of participating countries and economies, team teaching is particularly rare, with more than 50% of teachers reporting that they never teach jointly as a team in the same class. This is true for Belgium, Bulgaria, Croatia, the Czech Republic, England (United Kingdom), the Flemish Community of Belgium, France, Iceland, Israel, Malta, the Netherlands, South Africa, Spain, the United States and Viet Nam (Table II.4.1).

There are differences by gender with respect to engaging in team teaching in some countries and economies that participate in TALIS. In Austria, Brazil, Hungary, Korea, Portugal and the Slovak Republic, a significantly higher share (5 percentage points or more) of female teachers than male teachers report engaging in team teaching at least once a month (Table II.4.6). By contrast, the opposite pattern is observed in Bulgaria, Kazakhstan, Malta, the Russian Federation, Singapore, Slovenia, and the United Arab Emirates, where a significantly higher share (5 percentage points or more) of male teachers engage in team teaching at least once a month, compared to their female peers.

Another form of professional collaboration with direct links to classroom insruction is providing observation-based feedback to teachers (Vangrieken et al., 2013[21]). Teachers' engagement in "observing other teachers' classes and providing feedback" at least once a month is reported by a large proportion of teachers in Viet Nam (78%), Kazakhstan (61%) and Shanghai (China) (40%) (Figure II.4.2). In some countries and economies, the majority of the teaching workforce has never provided feedback on the observation of other teachers' classes in their school. This includes at least 75% of teachers in the French Community of Belgium and Spain, between 60% and 74% of teachers in Belgium (and the Flemish Community), Brazil, Ciudad Autónoma de Buenos Aires (hereafter CABA [Argentina]), Chile, Croatia, Finland, Iceland, Malta and Portugal, and between 50% and 59% of teachers in Alberta (Canada), Austria, Colombia, Denmark, Israel, Italy, Mexico and Turkey (Table II.4.1).

While professional collaboration is less prevalent compared to collaboration that entails simple exchange and co-ordination, it also varies across school characteristics in certain education systems. On average across the OECD, the share of teachers who report engaging in team teaching at least once a month is 6 percentage points higher among those working in publicly managed schools than among those in privately managed schools (Figure II.4.3, Table II.4.7). There are 16 countries and economies with significant positive differences, and those with the largest significant differences are Italy (42 percentage points), Austria (33 percentage points), Japan (29 percentage points), Singapore (24 percentage points), Chile (23 percentage points) and CABA (Argentina) (21 percentage points). Similarly, there are 14 countries and economies where the share of teachers who engage in providing observation-based feedback is significantly higher among those working in publicly managed schools than the share of their peers in privately managed schools (Table II.4.9).

Evidence from literature suggests teacher collaboration could be impeded in high-poverty schools, with limited capacity to support teacher professional learning (Johnston and Tsai, 2018[17]; Stosich, 2016[22]). However, TALIS findings suggest the opposite pattern in several countries and economies: teachers working in more challenging environments are more likely to report engaging in team teaching and observation-based feedback. In about one-third of the countries and economies with available data, the share of teachers who report that they engage in team teaching at least once a month is significantly higher for those who teach in schools with more than 30% of students from socio-economically disadvantaged homes (Figure II.4.3, Table II.4.7). Similarly, in a quarter of countries and economies with available data, observing other teachers' classes and providing feedback at least once a month is more common among teachers working in schools with more than 30% of students from socio-economically disadvantaged homes (Table II.4.9). Education systems may extend special support to schools in socio-economically disadvantaged contexts that entail specific forms of teacher collaboration that could explain this pattern (for example, the Empowered Management Program in Shanghai [China] [Box II.4.1] and the Educational Priority Networks in France [Box II.4.5]).

Figure II.4.2 **Professional collaboration and exchange and co-ordination for teaching**

Percentage of lower secondary teachers who report engaging in the following collaborative activities in their school at least once a month

Countries and economies are ranked in descending order of the percentage of lower secondary teachers who report teaching jointly as a team in the same class at least once a month.

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

StatLink http://dx.doi.org/10.1787/888934083734

Figure II.4.3 **Teaching as a team, by school characteristics**

Results based on responses of lower secondary teachers and principals

+ Positive difference
– Negative difference
Difference is not significant
Missing values

	Difference by school characteristics				
	City – rural area	Private – public schools	High – low concentration of disadvantaged students[1]	High – low concentration of immigrant students[2]	High – low concentration of students with special needs[3]
Austria	-	-	+	+	+
Italy		-	+		+
Japan		-			
Mexico					
Sweden				+	+
Singapore		-		-	
Norway	-				+
Denmark		-			+
Finland		-		+	
Slovak Republic		+			
Iceland					
Chile	-	-	+		+
OECD average-31	-	-	+	+	+
Colombia			+		
United Arab Emirates		-			
Hungary					
French Comm. (Belgium)		+			+
Georgia					
Australia*				+	+
New Zealand	-	-			
Portugal		-	+		
Turkey		+			
CABA (Argentina)		-		+	
Alberta (Canada)	+			+	
Israel			+		
Estonia	+		-		
United States	+				
Spain					
Belgium			+		
Brazil	-	-	+		
Slovenia					
Korea		-			
Flemish Comm. (Belgium)		-	+		
Latvia					
Kazakhstan	-	-			
Netherlands					+
France		-	+	+	
Saudi Arabia	-				
England (UK)					
Romania					
Viet Nam					
South Africa					
Shanghai (China)					
Malta					
Bulgaria	+		-		
Czech Republic		+			
Russian Federation				+	
Lithuania	+				
Croatia					
Education systems with a positive difference	**5**	**4**	**10**	**8**	**9**
Education systems with no difference	**25**	**16**	**24**	**19**	**30**
Education systems with negative difference	**7**	**16**	**2**	**1**	**0**

* For this country, estimates for sub-groups and estimated differences between sub-groups need to be interpreted with great care. See Annex A for more information.

1. High concentration of disadvantaged students refers to schools with more than 30% of students from socio-economically disadvantaged homes.

2. High concentration of immigrant students refers to schools with more than 10% of immigrant students.

3. High concentration of students with special needs refers to schools with more than 10% of students with special needs.

Countries and economies are ranked in descending order of the percentage of lower secondary teachers who report teaching jointly as a team in the same class at least once a month.

Source: OECD, TALIS 2018 Database, Table II.4.7.

StatLink http://dx.doi.org/10.1787/888934083753

Austria stands out with respect to team teaching (Box II.4.2), while England (United Kingdom) stands out with respect to feedback based on observations of other teachers' classes. In both systems, there are large significant differences (13 percentage points or more in Austria and 7 percentage points or more in England [United Kingdom]) in favour of teachers who work in schools with higher concentrations of students from socio-economically disadvantaged homes, immigrant students and students with special needs (Tables II.4.7 and II.4.9).

Box II.4.1. **Inter-school professional collaboration in Shanghai (China)**

In Shanghai, the school structure allows for teachers to collaborate on a daily basis as a part of their continuous professional learning. The system allows for this to happen by limiting the teaching time to 12 hours per week to leave room for collaborative time. During this time, teachers are involved in observing other teachers' lessons or taking up mentorship duties for new or struggling teachers. A key part of Shanghai's collaborative professional development is the sharing of best practices among teachers.

The Empowered Management Program in Shanghai allows for further inter-school collaboration aimed at supporting and improving low-performing schools. 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 the 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

Source: 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-in-shanghai.

Teachers can also collaborate through the professional development opportunities they participate in (Darling-Hammond, 2017[24]). Collaboration as a "contextual factor" in professional development opportunities can be particularly useful for enhancing teacher learning, compared to professional development undertaken individually (Bakkenes, Vermunt and Wubbels, 2010[25]; Little, 2002[26]; Warwick et al., 2016[27]). TALIS 2018 results show that 74% of teachers who report that their professional development had a positive impact on their teaching practice cite "opportunities for collaborative learning" as a key characteristic of their professional development – see Table I.5.15 in *TALIS 2018 Results (Volume I)* (OECD, 2019[18]). Moreover, professional development can offer a structured forum in which teachers can collaborate that, in turn, can induce broader collaboration among teachers in their everyday practice. Regression analysis indicates that teachers who had more opportunities to participate in collaborative forms of professional development (such as a network of teachers, peer observation and coaching) also report higher and more frequent engagement in deeper forms of collaboration in their everyday practice, after controlling for teacher characteristics (gender, age, work experience as a teacher at current school and working full-time) (Table II.4.10).

However, participation in collaborative professional learning is not a common practice across the countries and economies participating in TALIS. On average across the OECD, only 21% of teachers report participating in collaborative professional learning at least once a month (Figure II.4.2, Table II.4.1). Shanghai (China) and the United Arab Emirates are the only systems where more than 50% of teachers report taking part in collaborative professional learning at least once a month. By contrast, more than 30% of teachers report never participating in this kind of collaborative activity in the Slovak Republic (57%), the Flemish Community of Belgium (49%), Belgium (39%) and Finland (31%).

Similar to other forms of professional collaboration, such as team teaching and observation-based feedback, in certain education systems it is more common to participate in collaborative professional learning on a regular basis among teachers who work in more challenging environments. In almost a fifth of the countries and economies with available data, the share of teachers who report that they participate in collaborative professional learning at least once a month is significantly higher for those who teach in schools with more than 30% of students from socio-economically disadvantaged homes (Table II.4.11). The two economies with the largest differences (15 percentage points) are CABA (Argentina) and England (United Kingdom).

Overall, the examination of teachers' collaborative practices highlights that the extent of teacher collaboration varies greatly between countries, depending on the types of collaborative activities (Figure II.4.2, Table II.4.1). This could be explained by cultural and country-specific contextual factors, such as the structural opportunities that might be available to teachers to collaborate and what forms of interaction teachers might find valuable for their practice in different national contexts

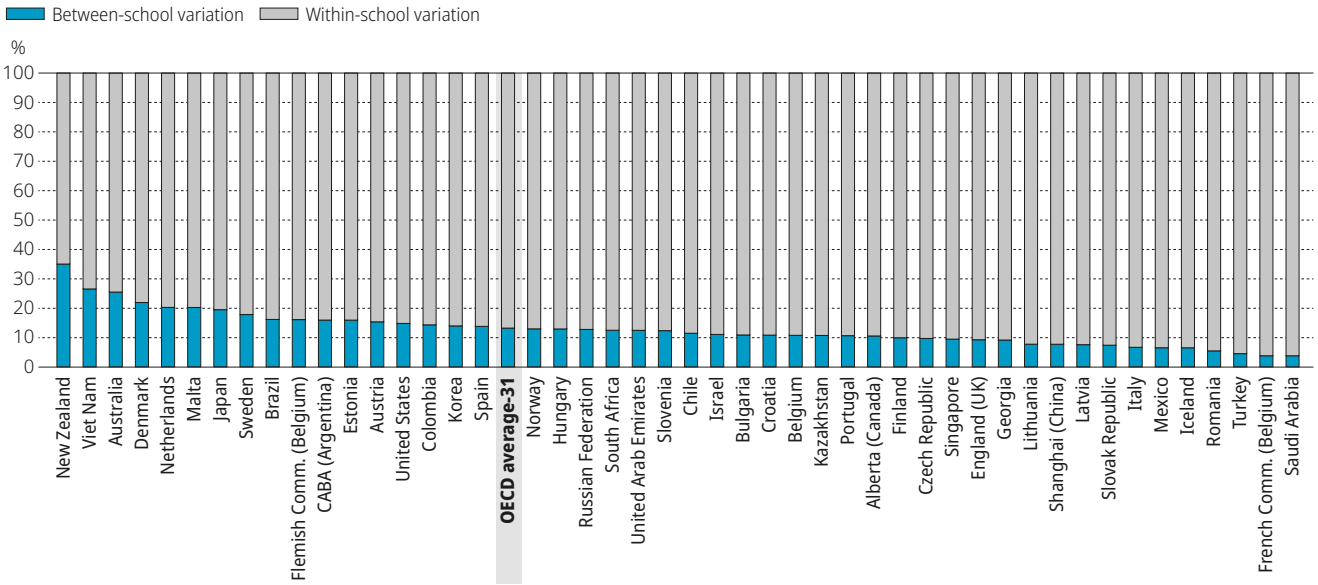
(IBF International Consulting, 2013[28]; Lortie, 1975[29]; Ostovar-Nameghi and Sheikhahmadi, 2016[30]). Indeed, TALIS 2013 found that some of the variation in teacher collaboration is explained at the country level, signalling that cultural and contextual factors could shape in what ways and how often teachers collaborate in different countries (OECD, 2014[15]).

It is still useful to analyse the share of variance in teacher collaboration that lies at the school and teacher levels to understand, from a policy perspective, whether collaboration is a school-driven phenomenon within education systems. Whether levels of collaboration differ a lot between schools or if teachers' responses vary considerably within schools, policies need to be designed and targeted accordingly (OECD, 2014[15]).

Results indicate that, while most of the variance is at the individual (teacher) level, the share of variation lying at the school level is not negligible. On average across the OECD, 87% of the variation in teachers' responses regarding their engagement in deeper forms of collaborative activities lies across teachers, within schools, while the rest (13%) is accounted for by differences in the average level of collaboration between schools (Figure II.4.4, Table II.4.12). These results suggest that, when a teacher collaborates within a school, that teacher does not collaborate with all teachers of the school but only with a few, while other colleagues from the same school do not collaborate at all, hence the high within-school variation. In certain countries and economies, including Australia, Denmark, Malta, the Netherlands, New Zealand and Viet Nam, 20% or more of the variation in teacher collaboration lies at the school level. This suggests that teacher collaboration is more prevalent in some schools than others in these countries.

Figure II.4.4 **Variation in professional collaboration**

Distribution of variance in lower secondary teachers' professional collaboration[1] between and within schools



1. The index of professional collaboration measures teachers' engagement in deeper forms of collaboration, 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.

Countries and economies are ranked in descending order of the share of the total variance in the index of professional collaboration that lies between schools.

Source: OECD, TALIS 2018 Database, Table II.4.12.

StatLink http://dx.doi.org/10.1787/888934083772

Change in collaborative activities over time

TALIS results show that patterns of teacher collaboration have shifted across most education systems in the last decade. Among the most visible increases in teacher collaboration, Austria and Turkey stand out with large, significant increases in the share of teachers reporting to engage in collaborative activities since 2008 across all the different forms of collaboration examined by TALIS (Table II.4.4). In Austria, the highest increases observed are for: "work with other teachers in the school to ensure common standards in evaluation for assessing student progress" (+33 percentage points) and "teach jointly as a team in the same class" (+24 percentage points). In Turkey, the largest increases are for: "work with other teachers in the school to ensure common standards in evaluation for assessing student progress" (+26 percentage points) and "take part in collaborative professional learning (+24 percentage points).

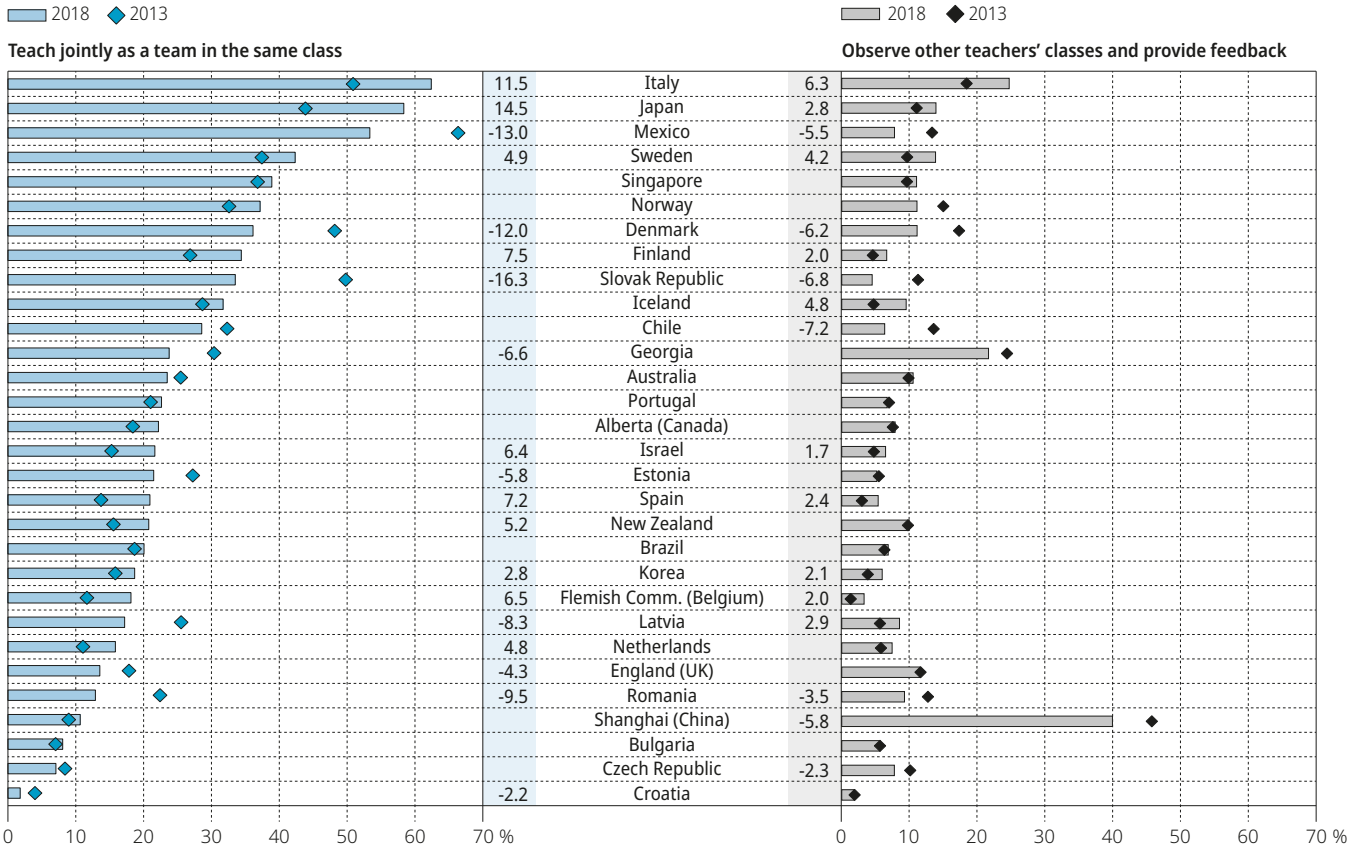
Box II.4.2. **Structured team teaching in New Secondary Schools in Austria**

Austria has introduced several opportunities for its teachers to collaborate as a part of the New Secondary School Reform (*Neue Mittelschule*, NMS). Several structures in the NMS allow for teachers to lead and work with their colleagues, through the creation of new roles, such as learning designers, subject co-ordinators and school development teams. The NMS also includes additional teaching resources for teachers to work jointly as teams in a single classroom. The team teaching approach was first piloted in the Austrian context in only a few subjects and later expanded to all the subjects of the lower secondary curriculum. This approach had implications on increasing the number of staff for each subject area in Austrian schools, while keeping the overall number of teaching hours the same. It allowed teachers to learn from each other by working in the same class and also to provide more student-centred instruction, especially additional support for low-achieving students. Some of this team teaching also allows teachers from different schools and varying education levels to come together and share best practices. The foundation of these structures was laid in 2008 with the introduction of the NMS Reform, but it applies to all teachers from the academic year 2019-20 onwards.

Source: Nusche, D. et al. (2016[31]), *OECD Reviews of School Resources: Austria 2016*, OECD Reviews of School Resources, https://doi.org/10.1787/9789264256729-en.

Figure II.4.5 **Change in teacher collaboration from 2013 to 2018**

Percentage of lower secondary teachers who report engaging in the following collaborative activities in their school at least once a month



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

Statistically significant changes between 2013 and 2018 (TALIS 2018 – TALIS 2013) are found next to the category and the country/economy name (see Annex B).

Countries and economies are ranked in descending order of the percentage of lower secondary teachers who report teaching jointly as a team in the same class at least once a month in 2018.

Source: OECD, TALIS 2018 Database, Table II.4.4.

StatLink http://dx.doi.org/10.1787/888934083791

The pattern of change in collaborative activities between 2013 and 2018 varies both by education systems and by the different forms of collaboration. Since 2013, in 10 of the 32 countries and economies with available data, there has been a significant increase in the share of teachers engaging at least once a month in team teaching and in providing feedback based on observation of other teachers' classes, while there has been a significant decrease for team teaching in 9 countries and economies and for providing feedback in 7 countries and economies (Figure II.4.5, Table II.4.4). Finland, the Flemish Community of Belgium, Israel, Italy, Japan, Korea, Spain and Sweden have experienced a significant increase in these two activities since 2013, while Denmark, Mexico, Romania and the Slovak Republic have experienced a significant decrease.

Over the past five years, there has been a rise in participation in collaborative professional learning at least once a month in 12 out of the 32 countries and economies with available data (Table II.4.4). The largest significant increases between 2013 and 2018 are in Shanghai (China) (+37 percentage points), Norway (+29 percentage points), Sweden (+28 percentage points) and Iceland (+17 percentage points). However, there have been significant decreases over the same period in New Zealand (-14 percentage points), Israel (-12 percentage points), Georgia (-6 percentage points), Portugal (-5 percentage points) and Romania (-4 percentage points).

Interestingly, TALIS data show small changes within education systems in the amount of time teachers report spending on collaborative activities. Over the past five years, in less than half of the countries and economies with available data, there has been a significant but minor change[2] in the average number of hours teachers report spending on teamwork and dialogue with colleagues within the school (Table II.4.5). Therefore, the changes in teachers' engagement in different collaborative activities do not mirror an overall increase or decrease in the time spent on collaboration. This indicates that teachers' time for collaboration, which is a part of their non-teaching time, stays largely unchanged and, instead, teachers redistribute their time between different collaborative activities. In other words, in identifying which collaborative activities may best suit their professional needs, they could choose to engage in some forms of collaboration at the cost of ending their engagement in another form of collaboration.

Box II.4.3. **Teacher collaboration from primary to upper secondary education**

TALIS data show that the different ways in which teachers collaborate with their colleagues on a regular basis vary by the level of education they teach. Overall, teacher collaboration is more prevalent and frequent among primary teachers than among lower secondary teachers in the 13 countries and economies with available data for ISCED 1 and 2. For example, teaching jointly in teams in the same class at least once a month is reported by a significantly larger share of primary teachers in 11 countries and economies. The largest differences (more than 25 percentage points) are seen in the Flemish Community of Belgium and Spain (Table II.4.2). Similarly, monthly engagement in joint activities across different classes and age groups, discussing the learning development of specific students, working with other teachers in the school to ensure common standards in evaluations of student progress and participating in collaborative professional learning are also reported by a larger share of primary teachers in at least 11 out of 13 countries and economies with available data.

Teachers in upper secondary education appear to work less collaboratively and more in isolation than their lower secondary counterparts in most of the 11 countries and economies with available data for ISCED 2 and 3. The largest differences are observed in Denmark, where the share of upper secondary teachers reporting their engagement at least once a month in each of the eight collaborative activities is significantly lower than that of their lower secondary counterparts (Table II.4.3). However, the opposite pattern is seen in Croatia, where collaboration through team teaching and providing observation-based feedback is more prevalent among upper secondary teachers (a small but significant difference of 2 percentage points).

How teacher collaboration relates to other dimensions of teacher professionalism

Teachers' collegial contact and engagement through different collaborative activities can define their everyday working conditions, which, in turn, determine satisfaction with their jobs, especially their current working environments (IBF International Consulting, 2013[28]). In addition, teachers could also view collaboration as an opportunity to consult with colleagues and a form of professional support (IBF International Consulting, 2013[28]).

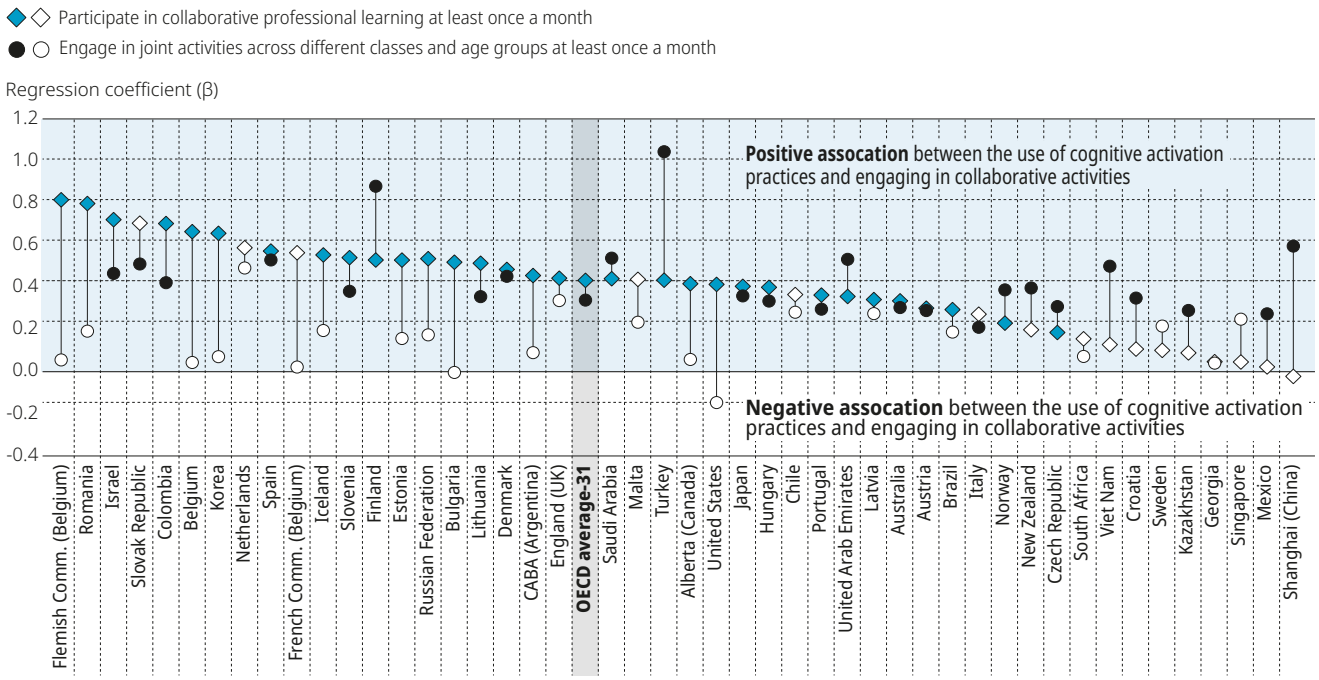
Based on regression analyses, in all countries and economies participating in TALIS with available data, except Malta, teachers who report engaging in professional collaboration with their peers more often tend to report higher levels of job satisfaction, after controlling for teacher characteristics (gender, age, work experience as a teacher at current school and working full-time) (Table II.4.13). Similarly, in all countries and economies participating in TALIS with available data, teachers who report engaging in professional collaboration on a regular basis also tend to report higher levels of self-efficacy, after controlling for teacher characteristics (Table II.4.15).

TALIS also finds a significant positive association between teacher collaboration and the use of cognitive activation practices in the classroom,[3] practices that allow students to evaluate, integrate and apply knowledge within the context of problem solving (Lipowsky et al., 2009[32]). Therefore, the use of cognitive activation practices is one of the key indicators of instructional quality in the classroom. In all countries and economies participating in TALIS with available data, regression analysis shows that, irrespective of teacher characteristics (such as gender, age, work experience as a teacher at current school and working full-time), teachers who report engaging more often in deeper forms of collaboration also tend to report using cognitive activation practices more frequently (Table II.4.17) implying better instructional quality and innovativation in the practices of these teachers.

The use of cognitive activation practices by teachers is not only a sign of instructional quality but also indicates teachers' predisposition towards innovation in their work, as these practices deviate from the traditional lecture model and are focused on creating cross-curricular skills among students (OECD, 2019[33]). Yet, TALIS 2018 results show that these practices are underutilised across the education systems participating in TALIS (OECD, 2019[18]).

Figure II.4.6 **Relationship between the use of cognitive activation practices and engagement in collaborative activities**

Change in the index of cognitive activation practices[1] associated with engaging in the following collaborative activities at least once a month[2, 3, 4, 5]



1. The index of cognitive activation practices measures the frequency with which a teacher uses cognitive activation practices in the classroom, including giving tasks that require students to think critically, having students work in small groups to come up with a joint solution to a problem or task, asking students to decide on their own procedures for solving complex tasks and presenting tasks for which there is no obvious solution. These data are reported by teachers and refer to a randomly chosen class they currently teach from their weekly timetable.

2. Results of linear regression based on responses of lower secondary teachers.

3. The analysis is restricted to teachers reporting that their teaching in the target class is not directed entirely or mainly at special need students.

4. The predictors are dummy variables: the reference category refers to teachers engaging in the respective collaborative activity less than once a month or never.

5. Controlling for the following teacher characteristics: gender, age, years of experience as a teacher at current school, working full-time; for collegiality as measured by collaborative school culture characterised by mutual support and teachers' mutual reliance; and for engaging at least once a month in other forms of collaboration: team teaching, providing feedback based on classroom observations, exchanging teaching materials with colleagues, working with other teachers in the school to ensure common standards in evaluations for assessing student progress and attending team conferences.

Note: Statistically significant coefficients are marked in a darker tone (see Annex B).

Countries and economies are ranked in descending order of the change in the index of cognitive activation practices associated with engaging in participating in collaborative professional learning at least once a month.

Source: OECD, TALIS 2018 Database, Table II.4.19.

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Therefore, it becomes imperative to further dissect the relationship between collaboration and use of cognitive activation practices by examining which specific collaborative activities are more strongly associated with the use of cognitive activation practices. The collaborative activities that particularly stand out from the eight activities covered in TALIS are teachers' engagement in collaborative professional learning and in joint activities across different classes and age groups (both these activities are a part of professional collaboration). Regression results show that, in 33 countries and economies participating in TALIS, after controlling for teacher characteristics, teachers' interpersonal relationships and other forms of collaboration, teachers who participate in collaborative professional learning at least once a month tend to use cognitive activation practices in their classroom more often (Figure II.4.6, Table II.4.19). Moreover, in around half of the countries and economies participating in TALIS with available data, there is a significant positive association between teachers' use of cognitive activation practices and their engagement in collaborative activities, such as joint activities across different classes and age groups and working with other teachers in the school to ensure common standards in evaluations, at least once a month.

These findings indicate the importance of collaborative professional learning for instructional improvements and innovation in teaching. Implementing innovative practices requires teachers to continuously reflect on their existing teaching methods and consider changing their knowledge and beliefs (Bakkenes, Vermunt and Wubbels, 2010[25]). Collaborative professional development can allow for these kind of interactions between teachers.

Teachers' international mobility

Teachers' international mobility not only fosters collaboration beyond national borders, but it can also enhance teachers' general interpersonal skills, which, in turn, can positively affect teachers' collaborative endeavours. Teachers can benefit from professional experience in a foreign country in multiple ways. International academic mobility can have an impact on teachers' beliefs and practices, including collaboration. By examining a study abroad programme designed for in-service teachers, He, Lundgren and Pynes (2017[34]) found that teacher participants benefitted from direct interactions and collaborations, both within the group of participants and with teachers in the host countries, through school visits or teaching opportunities. Moreover, a stay abroad for professional purposes can also improve the intercultural competences required to excel when teaching in a multicultural setting – see Chapter 4 of *TALIS 2018 Results (Volume I)* (OECD, 2019[18]), as well as Rundstrom Williams (2005[35]).

The definition of international academic mobility used in TALIS 2018 is a period of study, teaching or research in a country other than the teacher's country of residence that is of limited duration and assumes that the teacher will return to his or her country at the end of the designated period (Ainley and Carstens, 2018[1]). To examine international academic mobility, TALIS asks teachers whether they have been abroad for professional purposes in their career, either as a teacher or as a student, as part of their teacher education or training.[4] Overall, the percentage of teachers who have been abroad for professional purposes in their career as a teacher or during teacher education or training ranges from 2% in Viet Nam to 82% in Iceland (Table II.4.20). The eleven countries and economies with the highest shares of teachers with professional experience abroad (over 45% of teachers) are a part of the European Union/European Economic Area,[5] hence eligibile for EU mobility schemes.

TALIS also asks teachers about the specific objectives of their stays abroad for professional purposes.[6] These objectives include studying as part of education, language learning, learning in other subjects, accompanying visiting students, establishing contact with schools abroad and teaching. In particular, one of the objectives for participating in professional visits in other countries, as reported by teachers, is establishing contact with schools abroad, which is a special form of collaboration. The percentage of teachers who report that establishing contact with local schools was one of the professional purposes of their visit abroad ranges from 12% in Georgia to 63% in Romania (Table II.4.21). The countries where more than 50% of teachers report establishing contact with local schools as one of the professional purposes of their visit abroad include Estonia, Finland, Hungary, Latvia, Romania and Slovenia.

TALIS data allow the relationship between teachers' international mobility and their engagement in professional collaboration, as well as teachers' perceived self efficacy, to be examined. Regression analysis shows that, in more than half of the countries and economies with available data, teachers who have been abroad for professional purposes in their career as a teacher or during teacher education or training, tend to engage in professional collaboration more often after controlling for teacher characteristics, such as gender, age, work experience as a teacher at current school and working full-time (Table II.4.22). The only country that participates in TALIS where a significant negative association is observed between international mobility and engagement in professional collaboration is the United Arab Emirates. Similarly, in about half of the countries and economies with available data, teachers with international professional experience tend to report higher levels of self-efficacy after controlling for teacher characteristics such as gender, age, work experience as a teacher at the current school and working full-time (Table II.4.23). However, these results need to be interpreted with caution, as the explanatory power of the models are limited (the coefficients of determination R^2 are low).

Teachers' collegial relationships

Collegiality can be understood as positive interpersonal relationships among teachers and a sign of an environment conducive to collaboration (Jarzabkowski, 2002[36]). Interpersonal relationships, including mutual support, trust and solidarity, are essential building blocks of a collaborative school culture that is, in turn, integral to effective collaboration (Hargreaves and Fullan, 2012[37]; Hargreaves and O'Connor, 2018[38]). However, the relationship between collegiality and collaboration works in both directions. Through increased interactions and interdependence, frequent collaborative actions among colleagues also reinforce positive relationships, strengthen trust, and support and enhance the overall school climate (Rutter, 2000[39]; Rutter and Maughan, 2002[40]).

TALIS allows in-depth exploration across participating countries and economies of the quality of interpersonal and working relationships among staff members in a school, which can be grouped under collegiality (Hargreaves, 1992[41]; Kelchtermans, 2006[42]). This kind of inquiry is imperative, as TALIS acknowledges that collegiality and collaboration are closely related (Ainley and Carstens, 2018[1]).

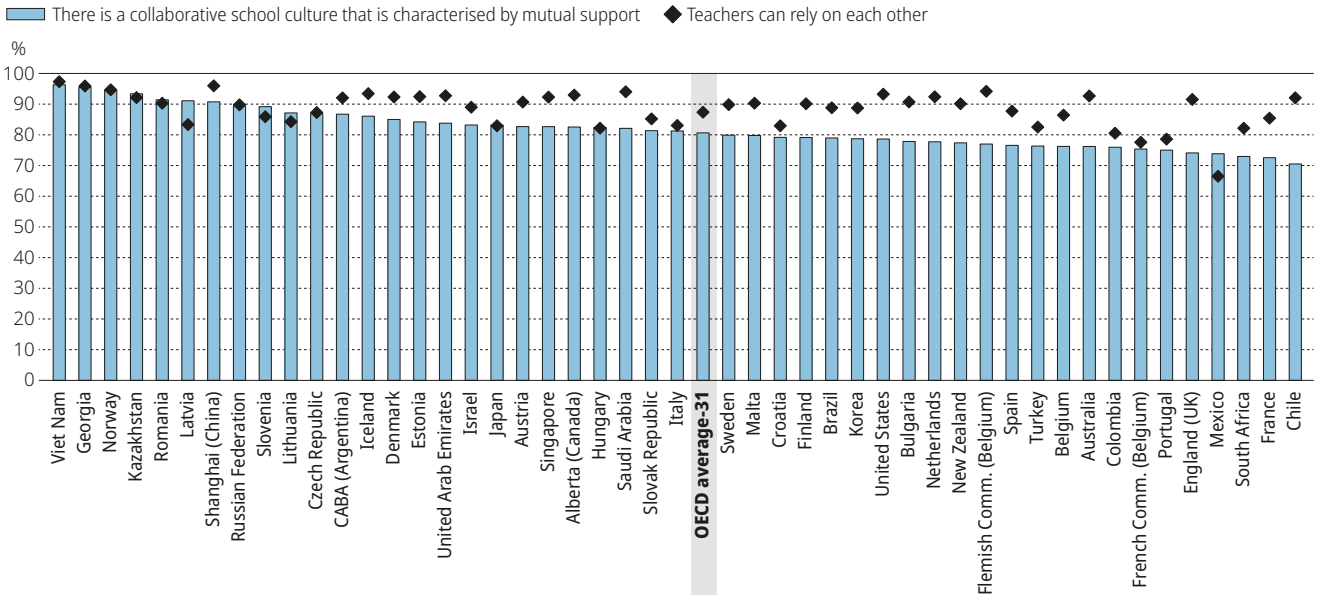
In order to capture collegiality, TALIS asks teachers and principals about their views ("strongly disagree"; "disagree"; "agree"; or "strongly agree") on a series of indicative statements: "the school has a culture of shared responsibility for school issues"; "there is a collaborative school culture characterised by mutual support"; "the school staff share a common set of beliefs about teaching and learning"; "the school encourages staff to lead new initiatives"; and "teachers can rely on each other".

On average across the OECD, 87% of teachers "agree" or "strongly agree" that "teachers can rely on each other" in the schools they work in (Figure II.4.7, Table II.4.24). However, in some countries and economies, a relatively low share of teachers report that "teachers can rely on each other", especially in Mexico (66%), the French Community of Belgium (78%) and Portugal (79%). On the other hand, in Georgia, Shanghai (China) and Viet Nam, more than 95% of teachers report that "teachers can rely on each other" in their current schools.

Teachers' agreement that their school has "a collaborative school culture which is characterised by mutual support" is widespread in most countries and economies participating in TALIS with, on average across the OECD, 81% of teachers who "agree" or "strongly agree" with the statement (Figure II.4.7, Table II.4.24). The three countries with the highest proportion of teachers reporting a collaborative culture in their school are Viet Nam (96%), Georgia (95%) and Norway (95%). However, in some countries and economies, this opinion is less prevalent. In Chile, England (United Kingdom), France, Mexico and South Africa, less than 75% of teachers "agree" or "strongly agree" that there is a collaborative culture in their school characterised by mutual support.

Figure II.4.7 **Teacher collegiality**

Percentage of lower secondary teachers who "agree" or "strongly agree" with the following statements



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.

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

StatLink http://dx.doi.org/10.1787/888934083829

On average across the OECD, the proportion of teachers reporting that the school has a culture of shared responsibility for school issues and the proportion of teachers agreeing that the school staff share a common set of beliefs about teaching and learning are both 76% (Table II.4.24). In Belgium and in its French Community, Chile, England (United Kingdom), France, and the Slovak Republic, less than 70% of teachers "agree" or "strongly agree" that their "school has a culture of shared responsibility for school issues". Only in Georgia, Lithuania and Viet Nam is this view shared by 90% or more of the teachers. The variation across countries and economies is even higher in terms of the share of teachers reporting that school staff share a common set of beliefs about teaching and learning. In Georgia, Kazakhstan, Lithuania, the Russian Federation, Saudi Arabia, Shanghai (China) and Viet Nam, 90% of teachers or more agree that "the school staff share a common set of beliefs about teaching and learning", while in Austria, Croatia, the French Community of Belgium and the Slovak Republic, less than 65% of teachers share that view.

On a positive note, over the past five years, views on collegiality have been on the rise in around one-third of the TALIS countries and economies with comparable data. Teachers' agreement with the presence of "a collaborative school culture characterised by mutual support" has increased significantly in 11 of the 32 countries and economies with comparable data between 2013 and 2018 (Table II.4.27). Similarly, the proportion of teachers reporting that "the school has a culture of shared responsibility for school issues" has increased in 8 of the 32 countries and economies with comparable data between 2013 and 2018. England (United Kingdom), Mexico and Sweden have experienced a significant increase of 5 percentage points or more in the share of teachers reporting a collaborative school culture and also in the share of teachers who agree that "the school has a culture of shared responsibility for school issues". Chile is the only country where collegiality, as reported by teachers in these two indicators, has decreased over the past five years.

TALIS data also make it possible to explore the level of mutual support among teachers from the viewpoint of innovation. On average across the OECD, 78% of teachers report that "most teachers in [their] school provide practical support to each other for the application of new ideas." This view of collegiality seems to be more pronounced in Georgia, Kazakhstan, Shanghai (China) and Viet Nam (where more than 90% of teachers so reported) and less prominent in Belgium and Portugal (where less than 70% of teachers so reported) – see Table I.2.35 in *TALIS 2018 Results (Volume I)* (OECD, 2019[18]). Similarly, about 81% of teachers, on average across the OECD, report that their school encourages staff to lead new initiatives (Table II.2.24).

Literature suggests that teacher collegiality may be driven by the social contexts of schools within education systems; for example, collegiality may be stronger in more remote schools, given the interdependence of teachers facing an often more challenging setting (Avalos-Bevan and Bascopé, 2017[43]; Jarzabkowski, 2003[44]). However, TALIS data find this true only in a few countries and economies, and it is not possible to draw conclusions from an international perspective. The countries where the share of teachers who work in rural schools report to "agree" or "strongly agree" that there is a collaborative school culture characterised by mutual support is significantly higher than among their colleagues working in cities include Alberta (Canada), Bulgaria, Chile, Hungary, New Zealand, Portugal, the Russian Federation, Saudi Arabia, Spain, Turkey and the United Arab Emirates (Table II.4.28). One feature of rural schools that could explain this pattern could be their smaller size compared to urban schools (Avalos-Bevan and Bascopé, 2017[43]).

The type of school (publicly managed versus privately managed) seems to matter for collegiality. In 15 countries and economies participating in TALIS, the share of teachers reporting the presence of a "collaborative school culture characterised by mutual support" is significantly higher among teachers working in privately managed schools than among those working in publicly managed schools (Table II.4.28). There are only three countries, Chile, Japan and the United Arab Emirates where teachers in publicly managed schools are more in agreement than their peers in privately managed schools with the statement that "there is a collaborative school culture characterised by mutual support". There is a similar overall pattern when looking at teachers' views on mutual reliance. In 14 countries and economies, the share of teachers who report that "teachers can rely on each other" is higher among private school teachers than among public school teachers (Table II.4.29). Only in Japan, Korea and the United Arab Emirates is the share higher among public school teachers than among private school teachers.

TALIS data make it possible to test the relationship between the frequency with which teachers engage in deeper forms of collaborative activities and teacher collegiality. Teachers' engagement in professional collaboration is regressed on teachers' perceptions of collaborative school culture characterised by mutual support and the possibility of teachers relying on each other. As expected, in all countries and economies participating in TALIS, teachers who agree that "there is a collaborative school culture characterised by mutual support" also tend to engage more often in professional collaboration (Table II.4.30). Moreover, in around two-thirds of the countries and economies participating in TALIS, there is a significant positive relationship between teachers' reliance on each other and teachers' engagement in professional collaboration after controlling for collaborative school culture characterised by mutual support. These results hold even after controlling for teacher characteristics (gender, age, work experience as a teacher at current school and working full-time) (Table II.4.31).

Looking at the association between teacher characteristics and teachers' engagement in collaborative activities reveals that, in more than one-fourth of the countries and economies participating in TALIS, male teachers tend to engage more often in deeper forms of collaboration (Table II.4.31). Moreover, while there is a significant negative association between age and engagement

in professional collaboration in around one-fourth of the countries and economies participating in TALIS, once age is accounted for, the relationship between experience at the current school and collaborating with peers is positive in more than one-third of the participating countries and economies. This implies that teachers with more years of experience tend to collaborate more frequently than teachers of the same age with fewer years of experience. Teachers who work full-time also tend to engage in professional collaboration more often, after controlling for other teacher characteristics and teachers' interpersonal relationships, in more than one-third of the countries and economies participating in TALIS.

Regression analyses were conducted to further examine the assumption that teachers' interpersonal relationships matter for collaboration. As already discussed above, in all countries and economies participating in TALIS with available data (except Malta, in the case of the association between collaboration and job satisfaction) teachers who report engaging in professional collaboration on a regular basis tend to report higher levels of job satisfaction and self-efficacy (Tables II.4.13 and II.4.15). In a second step, the two indicators of collegiality (teachers' views on collaborative school culture characterised by mutual support and on teachers' reliance on each other) are introduced in the two separate regression models examining the relationship of professional collaboration with job satisfaction and self-efficacy (Tables II.4.14 and II.4.16). Results of this second regression show that the relation between teachers' engagement in deeper forms of collaboration and job satisfaction is still significantly positive in all countries and economies participating in TALIS with available data, except Malta and the Netherlands, but that the strength of the relationship diminishes in all countries and economies (the size of the regression coefficient is lower) (Table II.4.14). The same pattern arises after introducing indicators of collegiality into the regression model examining the relationship between collaboration and self-efficacy (Table II.4.16). This suggests that parts of the positive relationships between professional collaboration and job satisfaction and professional collaboration and self-efficacy are attributable to teachers' interpersonal relationships.[7]

Positive views on interpersonal relationships among teachers in their working environments can enable teachers to feel more resilient against the demanding and challenging aspects of their work (Desrumaux et al., 2015[45]) TALIS results show that, even after controlling for teacher characteristics, such as gender, age, work experience as a teacher at current school and working full-time, teachers who report that, in their school, there is a collaborative school culture characterised by mutual support and that teachers can rely on each other tend to report having better well-being and less stress at work (Table II.4.32).

Box II.4.4. **Teacher collegiality from primary to upper secondary education**

TALIS findings show that teachers' agreement with the presence of collegiality within their school decreases as the level of education they teach increases. In 9 of the 13 countries and economies with available data for ISCED 1 and 2, teacher collegiality is more prevalent among primary teachers than among lower secondary teachers, as measured by the presence of a school culture of shared responsibilities for school issues, by mutual support and by school staff sharing a common set of beliefs about teaching and learning (Table II.4.25). Large significant differences for these indicators (10 percentage points or more depending on the indicator) are observed in England (United Kingdom), the Flemish Community of Belgium and France. CABA (Argentina) and Denmark are the only countries and economies with available data where there is no significant difference found in the views on collegiality of primary and lower secondary teachers.

The difference between primary and lower secondary teachers' views on collegiality decreases when looking at whether teachers in the school can rely on each other. In 6 of the 13 countries and economies with available data for ISCED 1 and 2, a significantly larger share of primary teachers than their peers in lower secondary education report teachers' mutual reliance: Japan (difference of 6 percentage points), Korea (6 percentage points), France (5 percentage points), Sweden (4 percentage points), England (United Kingdom) (3 percentage points) and the Flemish Community of Belgium (2 percentage points) (Table II.4.25).

Overall, teacher collegiality is more prevalent among lower secondary teachers than among upper secondary teachers in most countries and economies with available data for ISCED 2 and 3. Collegiality is measured by the presence of a school culture of shared responsibility for school issues and by mutual support and school staff sharing a common set of beliefs about teaching and learning, as well as by teachers' mutual reliance on each other. In Croatia, Slovenia and Turkey, the share of teachers reporting the presence of collegiality in their school is significantly larger among lower secondary teachers than among upper secondary teachers (difference of 3 percentage points or more, depending on the indicator) (Table II.4.26). On the other hand, in the United Arab Emirates, collegiality is more prevalent among upper secondary teachers than among their colleagues at lower secondary level, while in Alberta (Canada), there is no significant difference between lower and upper secondary levels. Although other countries and economies with available data for ISCED 2 and 3 display mixed patterns, depending on the indicator being considered, the overall tendency is towards higher levels of collegiality in lower secondary education compared to upper secondary level.

The role of school leaders in fostering collaboration

School leadership can shape the degree of collaboration as well as the culture of collaboration in the school. Collaboration that is mandated by school leaders (contrived collegiality) may lead to reduced collaboration among teachers (Hargreaves, 1994[46]; Hargreaves and Dawe, 1990[47]), but school leaders have other means of facilitating collaboration, such as building relationships within the school community and promoting distributed leadership characterised by collaborative and collective decision making (Ainley and Carstens, 2018[1]). Research based on a transformational leadership perspective shows that leadership actions of school leaders are strong predictors of collaborative actions between teachers (Leithwood, Leonard and Sharratt, 1998[48]; Marks and Printy, 2003[49]; O'Donnell and White, 2005[50]).

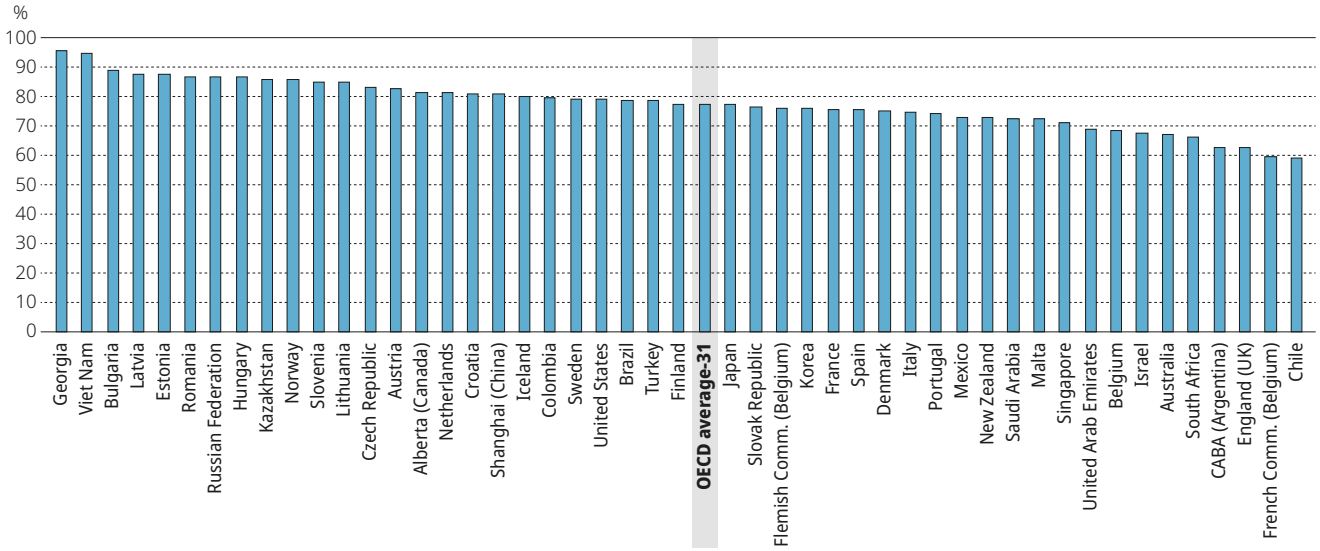
Principals who promote distributed decision making among a wide range of stakeholders in the school, including teachers, parents and students, may also foster teacher collaboration within the school. Based on the findings of TALIS 2013, there is a positive relationship between the opportunities for stakeholders (such as staff, parents and students) to participate in school decisions and teacher collaboration (OECD, 2014[15]). Regression analysis further supports these findings, as it shows that teachers who report that their school provides staff with opportunities to participate in school decisions also tend to engage in deeper forms of collaborative activities more frequently in most countries and economies participating in TALIS, after controlling for teacher characteristics, such as gender, age, work experience as a teacher at current school and working full-time (Table II.4.33). Providing opportunities for parents and students also matters for professional collaboration, albeit to a lesser extent. In around two-thirds of the countries and economies participating in TALIS, there is a significant positive association between offering students the chance to participate in school decision making and the frequency with which teachers collaborate, after accounting for other factors, such as the involvement of staff and parents in school decisions, as well as other teacher characteristics.

TALIS provides information on the prevalence of distributed school decision making by asking both teachers and principals the extent to which they agree ("strongly disagree" "disagree"; "agree"; or "strongly agree") that the school provides staff, students and parents with "opportunities to actively participate in school decisions".

The opportunity for staff, parents and students to participate in school decisions varies by countries and economies. On average across the OECD, 77% of teachers report that they "agree" or "strongly agree" that their school provides staff and parents with "opportunities to "actively participate in school decisions", while 71% of teachers report that students can participate in decision making (Table II.4.24). However, in Australia, Belgium and its French Community, CABA (Argentina), Chile, England (United Kingdom), Israel, South Africa and the United Arab Emirates, less than 70% of teachers agree that the school provides staff with "opportunities to actively participate in school decisions" (Figure II.4.8).

Figure II.4.8 **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.

StatLink http://dx.doi.org/10.1787/888934083848

Opportunities for staff and parents to actively participate in school decisions have increased significantly (by 2-13 percentage points) in 13 countries for staff, in 13 countries for parents, and (for both staff and parents) in 9 of the 32 countries and economies with comparable data between 2013 and 2018 (Table II.4.27). There are only two countries, Chile and Singapore, where the proportion of teachers reporting opportunities for staff and parents to participate in school decisions has decreased significantly over the past five years. Students' prospects of actively taking part in decisions related to their schools have increased by 5 percentage points or more in 18 of the 32 countries and economies with comparable data between 2013 and 2018. Singapore is the only country where the proportion of teachers who report that the school provides students with opportunities to actively participate in school decisions has declined significantly over the past five years.

In many countries and economies participating in TALIS, school decision making is more distributed in rural schools than in city schools. On average across the OECD, 83% of teachers in rural schools report that the school provides staff with opportunities to participate in decision making, while 76% of teachers working in cities share the same view (Table II.4.34). Similarly, a significantly higher proportion of teachers in rural schools (75%) than teachers working in cities (70%), tend to consider that students have an opportunity to be involved in school decisions (Table II.4.35).

Moreover, TALIS data also show that school decision making tends to be more distributed in publicly managed schools than in privately managed schools. On average across OECD countries and economies in TALIS with available data, the share of public school teachers who report staff and students have opportunities to actively participate in school decisions is 3 percentage points higher than the share of their peers working in private schools who report this (Table II.4.34; Table II.4.35). Large significant differences (over 15 percentage points) are observed in CABA (Argentina), Chile, Japan and Spain.

Box II.4.5. **School-based structures for teacher collaboration in Kazakhstan and France**

In Kazakhstan, all schools have at least one methodological association in which teachers meet regularly to discuss instructional methods – 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 group-based resolutions of such problems. School leaders play a key role in fostering this form of collaboration among teachers, which is also evident in their instructional leadership activities (see Chapter 5). Therefore, one of the key competencies in the professional development framework for school leaders is developing skills to foster collaboration with teachers and other stakeholders. For Kazakh teachers, this school-based approach to professional development creates ample opportunities for collaboration within their school, and that is reflected in the high prevalence of frequent collaboration in Kazakhstan.

The French government has identified the need to reduce the impact of social and economic inequalities that affect student achievement and attainment. Therefore, in 2015, they introduced reforms to the "Educational Priority" policy for challenging schools, those that have the greatest number of students from disadvantaged backgrounds. Key measures introduced in these reforms focus on having trained, stable and well supported teaching teams in schools that are a part of the Educational Priority Networks. In these schools, teachers' schedules are differently organised to give them more non-teaching time, and allow for greater teamwork with colleagues, continuous professional development, devising innovative lessons and monitoring students, and collaborating with parents. They also receive the support of specially trained teacher trainers. The programme also has implications on additional teacher recruitment to create the possibility of team teaching in classrooms.

Source: Ministère de l'Éducation nationale, de l'Enseignement supérieur et de la Recherche (2015[51]), *Educational priority – A government programme to cut the impact of social inequalities*, https://cache.media.eduscol.education.fr/file/dossiers/39/1/EDUCATIONAL_PRIORITY_527796_759391.pdf; OECD/The World Bank, (2015[52]), *OECD Reviews of School Resources: Kazakhstan 2015*, OECD Reviews of School Resources, https://doi.org/10.1787/9789264245891-en.

The large majority of school leaders agree that their school is generally characterised by the presence of distributed decision making and collegiality. On average across the OECD, almost all principals (98%) report that they "agree" or "strongly agree" that "the school provides staff with opportunities to actively participate in school decisions" (Table II.5.9 in Chapter 5). Similarly, on average across the OECD, 95% of principals agree that "there is a collaborative school culture which is characterised by mutual support" and that "teachers can rely on each other".

TALIS provides an opportunity to compare teachers' and school leaders' perceptions of the presence of distributed leadership and collaborative school climate in their schools. TALIS data reveal that the majority of teachers across the OECD have the same opinion as their principals[8] regarding opportunities for staff, parents and students to participate in school decisions, as well as collegiality. On average across OECD countries and economies in TALIS, 77% of teachers report agreeing with their principals

regarding opportunities for staff to actively participate in school decisions (Table II.4.36). Moreover, 79% of teachers have the same view as their principals concerning the presence of a collaborative school culture characterised by mutual support, and 85% of teachers agree with their principals regarding teachers' reliance on each other. It is noteworthy that education systems in which a lesser proportion of teachers share the same views on distributed leadership with their principals are also those in which distributed leadership is least prevalent, based on teachers' reports.

HOW DO TEACHERS MAKE USE OF FEEDBACK?

Teacher feedback is an important lever to improve teaching quality, since it aims to improve teachers' understanding of their methods and practices. Feedback can improve teachers' effectiveness by both recognising teachers' strengths and addressing weaknesses in their pedagogical practices (OECD, 2014[15]; OECD, 2013[53]). Ultimately, teachers' improved instructional capacity translates into better student outcomes. Indeed, there is ample research evidence asserting a strong association between teaching quality and student learning outcomes (Darling-Hammond, 2000[54]; Hanushek, 2010[55]; Hanushek and Rivkin, 2010[56]; Hattie, 2009[57]; Rivkin, Hanushek and Kain, 2005[58]; Rockoff, 2004[59]; Rowe, 2003[60]). Research also shows that providing teachers with constructive feedback based on teaching and learning in their classrooms has the largest impact on student performance of any school intervention (Hattie, 2009[57]).

Peer feedback from other teachers is a particularly important and unique form of collaboration between educators as it involves close contact and interaction between colleagues, driven by the purpose of learning from colleagues' expertise and suggestions. It can be conducive to further collaborative activities among teachers by having a positive impact on the overall collaborative culture, through teachers' exchanges and interactions (Jensen and Reichl, 2011[61]; OECD, 2014[15]).

Besides being a collaborative activity, feedback to teachers can affect teaching quality through channels of evaluation and appraisal. While the goal of appraisal systems is to measure teachers' performance, a feedback component can add further value to the process by making it more improvement-driven for teachers (Ainley and Carstens, 2018[1]; Feeney, 2007[62]; OECD, 2014[15]). Teacher feedback can be also considered a key feature of effective professional development (Ingvarson, Meiers and Beavis, 2005[63]) and of continuous learning, through the process of seeking, receiving, and responding to feedback (Jensen and Reichl, 2011[61]).

In TALIS, feedback is defined as any communication teachers receive about their teaching, based on some form of interaction with their work (e.g. observing teachers while teaching students, discussing the curriculum taught by teachers or students' results). Feedback can be provided through informal discussions with teachers or as part of a more formal and structured arrangement. Following this definition of feedback, TALIS asks teachers whether they have received feedback in their school and, if so, through which methods and from whom they received it.

This section first describes the degree to which teachers receive feedback and the sources and methods through which teachers receive feedback. It then discusses how teachers view the value of feedback for improving their practice. Finally, the section concludes with a discussion of the conditions under which the impact of feedback is maximised for teachers.

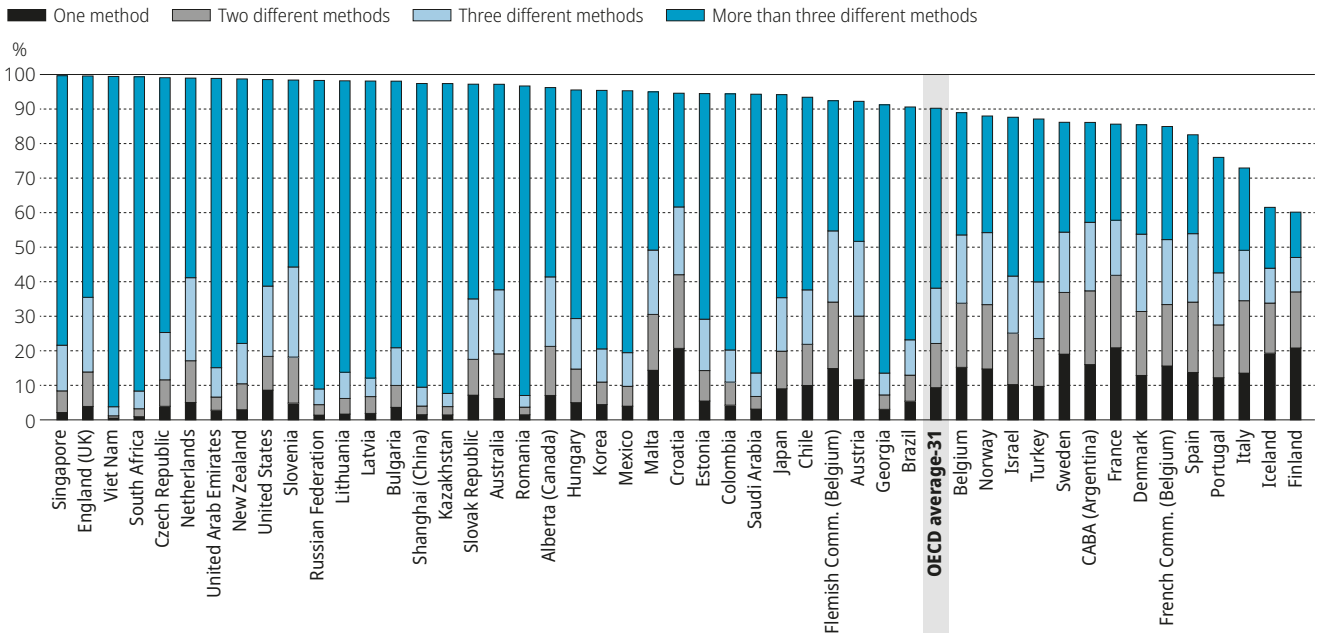
Prevalence of feedback

With respect to the prevalence of feedback in schools, most teachers have received feedback at some point in the countries and economies participating in TALIS. On average across the OECD, 90% of teachers report having received feedback from at least one of the individuals or bodies considered ("external individual or bodies"; "school principal or member(s) of the school management team"; and "other colleagues within the school") and through at least one of the six methods (observation of teachers' classroom teaching; student survey responses related to teachers' teaching; assessment of teachers' content knowledge; external results of teachers' students; students' school-based and classroom-based results and self-assessment of teachers' work) included in the TALIS questionnaire (Figure II.4.9). In the Czech Republic, England (United Kingdom), Singapore, South Africa and Viet Nam, feedback is almost universal, with more than 99% of teachers who report having received feedback in their school. However, feedback is still rare in certain countries and economies, where a considerable share of teachers report never receiving any feedback in their school, as in Finland (40%), Iceland (38%), Italy (27%) and Portugal (24%) (Table II.4.37).

In certain education systems, the prevalence of feedback received varies according to teachers' years of teaching experience. In a third of the countries and economies participating in TALIS, the share of teachers who report receiving feedback in their school is significantly higher for experienced teachers (more than five years of experience) than for novice teachers (less than or equal to five years of experience) (Table II.4.37). The difference could be explained by the simple fact that experienced teachers have been in the profession for a longer time and typically have more years of experience at their current school – Table I.3.9 in *TALIS 2018 Results (Volume I)* (OECD, 2019[18]) – hence they have had more opportunities to receive feedback at some point at the school.[9] In the French Community of Belgium, CABA (Argentina), Estonia, Finland, France, Iceland, Italy and Sweden, the proportion of teachers who report receiving feedback is more than 6 percentage points higher among more experienced teachers than among novice teachers.

Figure II.4.9 **Feedback received by teachers, by number of methods**

Percentage of lower secondary teachers who have received feedback based on the following number of different methods[1]



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 lower secondary teachers who have received feedback in their school.

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

StatLink http://dx.doi.org/10.1787/888934083867

Only in Alberta (Canada), the Flemish Community of Belgium and Shanghai (China) is there a significantly higher share of novice teachers than their experienced peers who report having received feedback at their school. It is noteworthy that, in these three countries, more than 80% of teachers report that supervision by the school principal and/or experienced teachers was included in their induction at their current school, which could be an important channel for feedback to novice teachers – Table I.4.42 in *TALIS 2018 Results (Volume I)* (OECD, 2019[18]).

Sources of feedback

It is possible to identify the different sources from whom teachers have received feedback, both at the school level and externally from individuals or bodies. School-level sources of feedback include the school principal, members of the school management team or other colleagues within the school. Information provided by TALIS on the different sources of feedback makes it possible to analyse how feedback is organised within different education systems in terms of distribution of responsibilities and school autonomy, as well as school-level actions aimed at improving teaching and learning processes (OECD, 2014[15]). Education systems where external individuals or bodies are the most common source of feedback tend to reflect a more centralised and accountability-driven system of teacher feedback. The prevalence of feedback from the school principal, members of the school management team or other colleagues within the school signals a more decentralised approach, with schools having more responsibility and autonomy in designing and executing their own feedback system. The prevalence of different sources of feedback may also reflect the general state of collaboration between different stakeholders within an education system.

TALIS results show that teachers receive feedback from multiple sources. On average across the OECD, 21% of teachers report receiving feedback from the three sources listed in the questionnaire (external individuals or bodies, the school principal or member of the school management team and other colleagues within the school who are not part of the school management team), 39% of teachers report two different sources of feedback out of the three, while 30% report only a single source (Table II.4.43). However, there is great variation across countries and economies in terms of the number of different sources of feedback for teachers. In CABA (Argentina), Korea and Turkey, feedback tends to be confined to certain stakeholders, with at least 50% of teachers who report receiving feedback from a single source, whereas, more than 30% of teachers report getting

feedback from the three different sources considered in TALIS in 11 countries and economies (Bulgaria, the Czech Republic, England [United Kingdom], Hungary, Latvia, Lithuania, Romania, the Russian Federation, Slovenia, the United Arab Emirates and Viet Nam). Central and Eastern Europe stands out as the region where having multiple sources of feedback seems to be the norm for most education systems.

School-level feedback (received from the school principal, members of the school management team and other colleagues in the school) is the most prominent source of feedback for teachers, as reported by 87% of teachers, on average across the OECD (Table II.4.40).[10] TALIS results also show that feedback from external individuals and bodies is less prevalent, as 38% of teachers report receiving feedback from these entities, on average across the OECD. The only exception to this pattern is France, where feedback from external individuals or bodies (70%) is more common than school-level feedback (63%). In addition to France, at least 60% of teachers report receiving feedback from external sources in Romania (64%), Bulgaria (61%) and Viet Nam (60%).

Methods of feedback

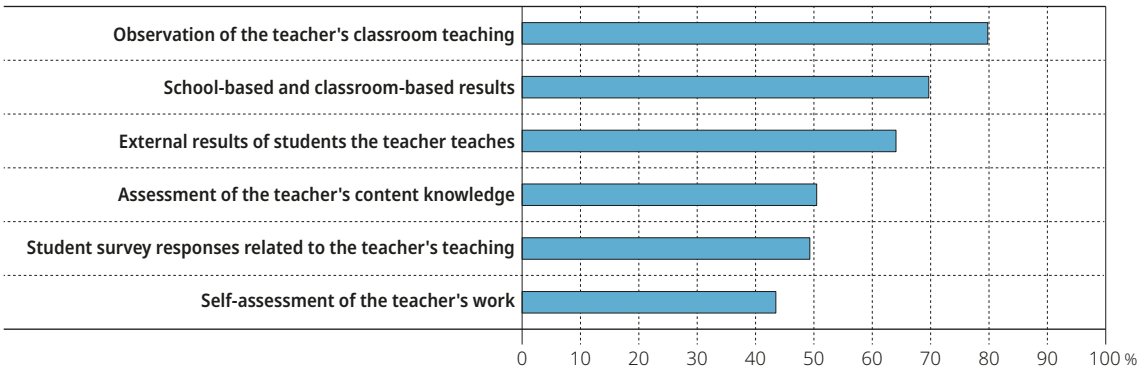
It is worth analysing the types of information based on which teachers receive feedback, as each has its own characteristics and advantages. TALIS reveals that teachers receive feedback based on different types of information (referred to as methods based on which teachers report to receive feedback), but it is difficult to evaluate the effectiveness of specific methods. Research suggests that more frequent and specific feedback based on evidence from classroom practice may lead to improvements in teacher performance and student achievement (Steinberg and Sartain, 2015[64]; Taylor and Tyler, 2012[65]). Teachers' self-assessment and parent surveys are more loosely associated with student achievement because they can offer less standalone evidence on classroom teaching compared to other methods of feedback (such as peer observations, student performance and teacher assessments) (Jensen and Reichl, 2011[61]). Feedback based on assessments and student performance is important, as it provides evidence on the outcomes of teachers' classroom instruction[11] but, to provide teachers with more holistic information on their teaching practice, it should not be a stand-alone method of providing feedback (Jensen and Reichl, 2011[61]). Thus, the different methods of offering feedback can provide valuable complementary information to teachers about their teaching processes and outcomes.

TALIS covers a range of different methods through which teachers receive feedback: observation of classroom teaching; student survey responses related to teaching; assessment of teachers' content knowledge; external results of students taught by the teacher (e.g. national test scores); school-based and classroom-based results (e.g. performance results, project results, test scores); and self-assessment of teachers' work (e.g. presentation of a portfolio assessment, analysis of teaching using video).

Classroom observation and students' results, whether school-based, classroom-based or external, are common types of evidence based on which teachers receive feedback. Out of all the teachers who responded to the survey, on average across the OECD, the majority of teachers report having received feedback at some point in time in their school,[12] through classroom observations (80%), students' school-based and classroom-based results (70%) and external results of students the teacher teaches (64%) (Figure II.4.10, Table II.4.44). On the other hand, on average across OECD countries and economies in TALIS, 50% or less of the teachers report receiving feedback based on teachers' self-assessment of their work (43%), student survey responses related to teaching (49%) or assessment of the teachers' content knowledge (50%).

Figure II.4.10 **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.

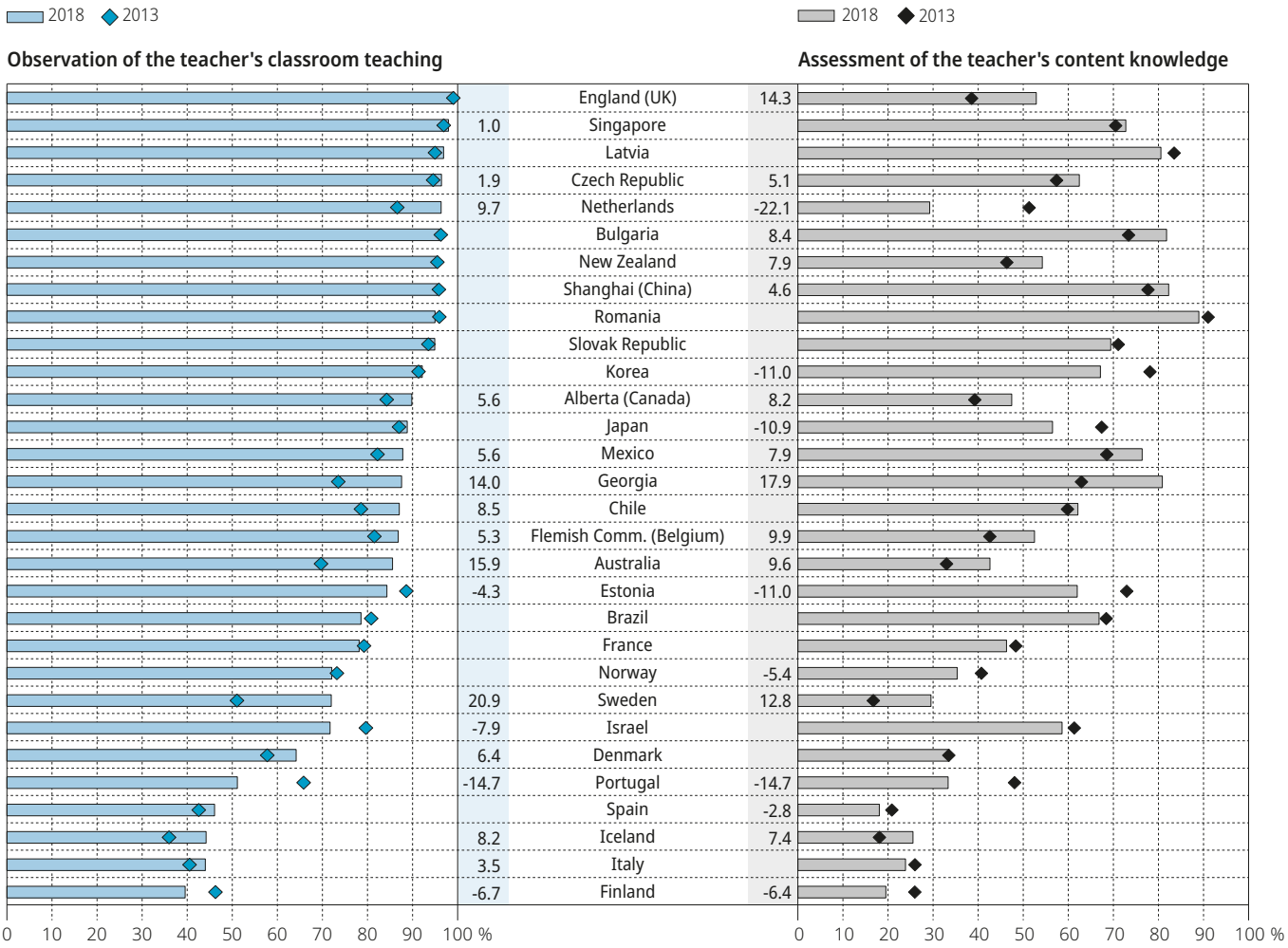
StatLink http://dx.doi.org/10.1787/888934083886

The prevalence of using classroom observation to provide feedback is desirable, since it is evidence-based and directly provides information on practitioners' teaching processes. Although some may find it intimidating, teachers say that this method improves teaching and learning as well as collegiality (Kumrow and Dahlen, 2002[66]). However, it is not common practice in all of the countries and economies participating in TALIS. At least 25% of teachers report never having received feedback at their school via classroom observation in CABA (Argentina), Colombia, Denmark, Finland, Iceland, Israel, Italy, Norway, Portugal, Spain and Sweden (Table II.4.44). It is apparent that classroom observation is underutilised in all Nordic countries, where teachers are generally less likely to receive feedback using this method.

Moreover, comparing these teachers' reports on feedback received with teachers' reports on providing feedback to other teachers based on observations (discussed in the first section of this chapter) underlines that this practice is still far from being mainstreamed and part of teachers' routine activities. Indeed, observing other teachers' classes and providing feedback to peers is not a regular practice for teachers in most countries and economies participating in TALIS. On average across the OECD, only 15% of teachers report providing feedback based on observation of other teachers' classes more than four times a year (Table II.4.8). The majority of teachers engage in observing the classes of their peers and providing feedback at least five times a year in Viet Nam (90%), Kazakhstan (79%) and Shanghai (China) (70%).

Figure II.4.11 **Change in feedback received by teachers from 2013 to 2018**

Percentage of lower secondary teachers who have received feedback based on the following methods



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

Statistically significant changes between 2013 and 2018 (TALIS 2018 – TALIS 2013) are found next to the category and the country/economy name (see Annex B).

Countries and economies are ranked in descending order of the percentage of lower secondary teachers who have received feedback based on observation of the teacher's classroom teaching in 2018.

Source: OECD, TALIS 2018 Database, Table II.4.39.

StatLink http://dx.doi.org/10.1787/888934083905

In the past five years, observation of teachers' classroom teaching has increased as a method based on which teachers receive feedback in most countries and economies with available data. The countries with the largest significant increases include Sweden (+21 percentage points), Australia (+16 percentage points) and Georgia (+14 percentage points) (Figure II.4.11, Table II.4.39). However, in Estonia, Finland, Israel and Portugal, the share of teachers who report receiving feedback based on classroom observation decreased between 2013 and 2018. In Portugal, this trend was particularly marked as the share of teachers who report receiving feedback based on classroom observation dropped from 66% in 2013 to 51% in 2018.

Using students' school-based and classroom-based results is the most direct feedback method indicative of student learning. The prevalence of this method varies considerably across countries. TALIS data shows that there are nine countries and economies where at least 90% of teachers report receiving feedback based on students' results: Kazakhstan, Latvia, Romania, the Russian Federation, Shanghai (China), Singapore, South Africa, the United Arab Emirates and Viet Nam (Table II.4.44). Feedback using students' school-based and classroom-based results is less prevalent in countries and economies such as Finland (29%), Iceland (32%), France (43%) and Sweden (47%), where the prevalence of feedback in general is also comparatively lower.

It can be valuable for teachers to receive feedback based on assessment of their content knowledge as it is a potential opportunity for teachers to enhance their role as "learning specialists" working in a knowledge-rich profession (OECD, 2014[67]). More than 90% of teachers report that they receive feedback based on assessment of their content knowledge in Kazakhstan, the Russian Federation, and Viet Nam, and more than 80% teachers report so in certain Eastern European (Bulgaria and Romania) and Baltic countries (Latvia and Lithuania), as well as in Georgia, Saudi Arabia, Shanghai (China), South Africa and the United Arab Emirates (Table II.4.44). This method of feedback seems least prevalent in Finland, Iceland, Italy, the Netherlands, Spain and Sweden, where less than 30% of the teachers report receiving feedback based on assessment of their content knowledge.

The pattern of change in feedback received via assessment of the teacher's content knowledge varies by countries. Feedback based on this method has risen significantly in 13 countries and economies between 2013 and 2018, while the reverse pattern is observed in 8 countries and economies (Figure II.4.11, Table II.4.39). England (United Kingdom) and Georgia experienced significant increases of more than 14 percentage points, while in Estonia, Japan, Korea, the Netherlands and Portugal, the proportion of teachers who report receiving feedback based on assessment of the teacher's content knowledge has decreased by more than 10 percentage points.

Students can provide unique information on both the quality of their teachers and their own learning achievements and needs. However, in some education systems, students' inputs are rarely considered for feedback received by teachers. In about one-third of countries and economies that participate in TALIS, less than 40% of teachers report receiving feedback based on students' survey responses related to their teaching (Table II.4.44). Nevertheless, over 80% of teachers report receiving feedback on their teaching via student survey responses in the Czech Republic, Kazakhstan, Korea, Romania, the Russian Federation, Saudi Arabia, Shanghai (China) and Viet Nam.

The pattern in feedback received via student survey responses related to teachers' teaching varies by countries and does not reveal an overall tendency among countries and economies. Feedback based on students' inputs has risen significantly in 13 countries and economies between 2013 and 2018, while the reverse pattern is observed in 12 countries and economies (Table II.4.39). Australia, the Czech Republic, Georgia and Sweden experienced significant increases of 15 percentage points or more. The proportion of teachers who report receiving feedback based on student survey responses has decreased between 11 and 13 percentage points in Chile, Croatia and Israel, while it has dropped by 20 percentage points in Norway and 29 percentage points in the Slovak Republic.

Box II.4.6. **Feedback from primary to upper secondary education**

TALIS findings show that the prevalence of teachers receiving feedback is similar across education levels. In 4 of the 13 countries and economies with available data for ISCED 1 and 2 (CABA [Argentina], Denmark, the Flemish Community of Belgium and Korea), a significantly larger share of lower secondary teachers than their colleagues at primary level report never having received feedback in their current school (Table II.4.41). The opposite pattern is observed in Spain.

Moreover, significant differences between lower and upper secondary teachers' reports on receiving feedback are observed in only 2 of the 11 countries and economies with available data for ISCED 2 and 3. In Denmark, feedback is more prevalent among lower secondary teachers (difference of 7 percentage points), while the opposite pattern is observed in Slovenia (2 percentage points) (Table II.4.42).

Sources of feedback

Based on TALIS results, external sources of feedback (from individuals or bodies) are more prevalent among primary teachers than among lower secondary teachers in England (United Kingdom) (difference of 11 percentage points), France (9 percentage points), CABA (Argentina) (8 percentage points) and Spain (6 percentage points) (Table II.4.41). In France, school-based sources of feedback (from school principals, members of the school management team or other colleagues within the school) are reported by a significantly higher share of lower secondary teachers (21 percentage points) compared to their counterparts at primary level.[13]

There is little variation on sources of feedback between lower and upper secondary teachers. External sources of feedback are more common among upper secondary teachers in Croatia (difference of 4 percentage points) and the United Arab Emirates (3 percentage points), while the opposite pattern is observed in Viet Nam (15 percentage points), Slovenia (12 percentage points) and Sweden (4 percentage points).

Methods of feedback

TALIS findings suggest that the methods based on which teachers receive feedback vary by levels of education. Some methods tend to be more prevalent among primary teachers compared to their colleagues in lower secondary education. This is the case for observation of teachers' classroom teaching in 8 of the 13 countries and economies with available data for ISCED 1 and 2 (Table II.4.45). Similarly, self-assessment of teachers' work is more common at primary level than at lower secondary level in 5 of the 13 countries and economies with available data for ISCED 1 and 2.

In contrast, the opposite pattern is observed in relation to feedback based on student survey responses related to teachers' teaching, which tends to be more prevalent among lower secondary teachers than among their colleagues in primary education in 6 of the 13 countries and economies with available data (Table II.4.45). The only countries and economies with available data where student survey responses related to teachers' teaching are more commonly used as a method of feedback among primary teachers than among teachers at lower secondary level are Sweden (difference of 10 percentage points) and Viet Nam (2 percentage points).

Receiving feedback based on student survey responses related to teachers' teaching is even more prevalent among upper secondary teachers than among their peers at lower secondary level in 7 of the 11 countries and economies with available data for ISCED 2 and 3, especially in Denmark (difference of 28 percentage points), Slovenia (26 percentage points) and Sweden (20 percentage points) (Table II.4.46).

The diversity of methods based on which teachers receive feedback can be indicative of education systems that make the most of teacher feedback, even though TALIS does not directly provide information on the quality and frequency of feedback received by teachers. For instance, according to Jensen and Reichl (2011[61]), schools should apply at least four different methods for providing feedback. On average across the OECD, about half of the teachers (52%) report that they receive feedback through at least four different methods (Figure II.4.9, Table II.4.47). About 9% of teachers report that they receive feedback through only one method, while 13% of teachers report that they receive feedback through two different methods.

In Finland, France, Croatia, Iceland and Sweden, at least 19% of teachers report receiving feedback through only one method (Figure II.4.9, Table II.4.47). Hence, these countries, especially Finland and Iceland, are characterised not only by the relatively low prevalence of teacher feedback in general, but also by the fact that the feedback received by teachers tends to be based on a single method. At the other end of the spectrum, the large majority of teachers report receiving feedback based on more than three different methods in Viet Nam (96%), South Africa (91%) and Kazakhstan (90%), suggesting that feedback in its multiple forms is more ingrained in the school culture of these countries.

Teachers' perceptions on the impact of feedback

Feedback plays a vital role in improving instructional practices – the primary work of teachers – and it can help teachers develop a more purposeful knowledge base (Erickson et al., 2005[68]). It is, therefore, worth examining whether teachers themselves find the feedback received useful for improving their work. TALIS asks teachers whether the feedback they received in the 12 months prior to the survey had a positive impact on their teaching practice.[14] The information gathered offers an indication of the quality and nature of the feedback that teachers receive. Moreover, by capturing how welcoming teachers are to feedback, TALIS also offers an indication of their growth mindset towards improving their practice. Whether teachers receive positive or negative feedback on their practices and how they process it with respect to their self-efficacy beliefs and respond to it in their teaching practices can shape teachers' reports on whether the feedback they received had a positive impact on their teaching practice (Nease, Mudgett and Quiñones, 1999[69]).

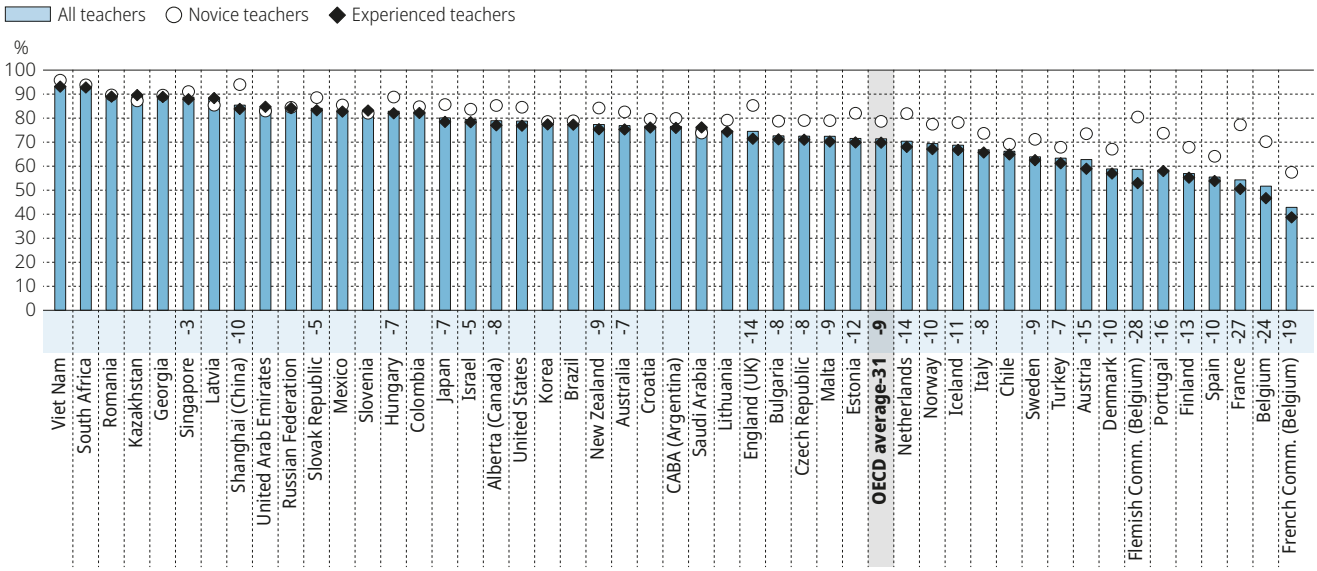
On average across the OECD, 71% of teachers who received feedback in the 12 months prior to the survey report that it had a positive impact on their teaching practice (Figure II.4.12, Table II.4.48). In Georgia, Kazakhstan, Latvia, Romania, Shanghai (China), Singapore, South Africa and Viet Nam, at least 85% of teachers who received feedback find it impactful. However, less than 60% of teachers share that view in Belgium and its Flemish and French Communities, Denmark, Finland, France, Portugal and Spain. It is interesting to note that the education systems where feedback is not so prevalent are also the systems where teachers do not find it useful.[15] There may, therefore, be an interplay in some education systems between the culture and openness to feedback and how teachers make sense of the feedback they receive in these environments, eventually manifesting in limited utility value of feedback for teachers.

In many of the countries and economies that participate in TALIS, teachers' perceptions of the impact of feedback seem to be associated with age and teaching experience. On average across the OECD, 79% of younger teachers (under age 30) who received feedback in the 12 months prior to the survey report that it had a positive impact, compared to 70% of teachers age 50 and above (Figure II.4.12, Table II.4.48). Similarly, novice teachers (less than or equal to five years of experience) are also more likely to find feedback useful than experienced teachers (more than five years of experience). The perceived impact can also be explained by the extent to which novice teachers have access to more structured forms of feedback than the overall teaching population, through mentoring and induction programmes – Tables I.4.39 and I.4.64 in *TALIS 2018 Results (Volume I)* (OECD, 2019[18]). Interestingly, the three countries and economies with the largest significant differences (above 20 percentage points by both age and experience) are Belgium and its Flemish Community and France. In fact, differences in the perception of the impact of feedback are high in general in Western European countries. Novice teachers clearly have much to gain from feedback at the early stages of their career, it is, thus, somewhat worrisome that the perceived impact of feedback is low for novice teachers in some education systems, with less than 70% of novice teachers in the French Community of Belgium, Chile, Denmark, Finland, Spain and Turkey reporting that feedback received has had a positive impact on their teaching.

On average across the OECD, female teachers tend to have a relatively more positive view than their male colleagues of the feedback they received. Based on TALIS results, a significantly higher share of female teachers than male teachers report that the feedback they received in the 12 months prior to the survey had a positive impact on their teaching practice in around one-third of the countries and economies participating in TALIS. The largest differences (7-10 percentage points) are observed in Brazil, Colombia, Georgia, Latvia, the Russian Federation and Saudi Arabia (Table II.4.48). The only countries where male teachers have a more positive view on feedback are Bulgaria, Korea and Turkey.

Figure II.4.12 **Impact of feedback on teaching, by teachers' teaching experience**

Percentage of lower secondary teachers who report that the feedback they received in the 12 months prior to the survey had a positive impact on their teaching practice[1]



1. The analysis is restricted to the subset of teachers who report having received feedback at their current school.

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 (see Annex B).

Countries and economies are ranked in descending order of the percentage of lower secondary teachers who report that the feedback they received in the 12 months prior to the survey had a positive impact on their teaching practice.

Source: OECD, TALIS 2018 Database, Table II.4.48.

StatLink http://dx.doi.org/10.1787/888934083924

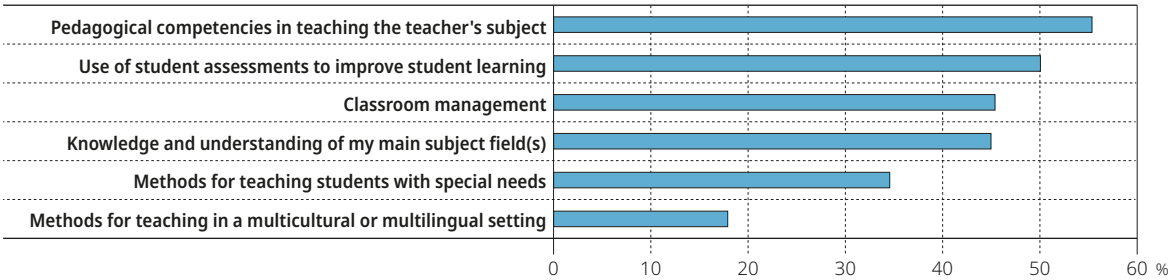
Beyond the question of whether feedback received in the 12 months prior to the survey had a positive impact on teachers' teaching practice, TALIS also asks teachers who report having received useful feedback about the different aspects of their teaching practice that improved. More specifically, teachers are asked if the feedback they received led to a positive change in any of the following aspects of their teaching: knowledge and understanding of main subject field(s); pedagogical competencies in teaching a subject; use of student assessments to improve student learning; classroom management; methods for teaching students with special needs; and methods for teaching in multicultural or multilingual settings. This can provide key information for policy makers, because it reveals the utility value of feedback as a potentially useful intervention in educations systems or schools where teachers face challenges related to their classroom instruction.

As outcomes of impactful feedback, teachers most commonly report improvements in pedagogical competencies in teaching and the use of student assessments to improve student learning. On average across the OECD, 55% of teachers who report receiving feedback report that it led to a positive change in their pedagogical competencies to teach their subject, and 50% report that it led to a positive change in their use of student assessments to improve student learning (Figure II.4.13, Table II.4.50). Forty-five percent of teachers who report receiving feedback report that it led to a positive change in their classroom management and knowledge and understanding of their main subject(s).

Based on TALIS results, feedback seems to have less impact on methods for teaching in specific settings. On average across the OECD, about 35% of teachers who received feedback report that their feedback led to a positive change in teaching students with special needs (Figure II.4.13, Table II.4.50), and only 18% of teachers who received feedback considered that it led to a positive change in methods for teaching in multicultural and multilingual settings. Although working with diverse student populations is no longer exceptional (depending on which aspect of diversity is considered, 17% to 31% of teachers on average across the OECD work in schools with a diverse student composition, as reported by school principals), not all teachers work in multicultural settings or with special needs students – Table I.3.25 in *TALIS 2018 Results (Volume I)* (OECD, 2019[18]). Therefore, it is not surprising that feedback is reported to be less impactful for these specific methods related to diverse classes compared to general aspects of teaching. Thus, the impact of feedback on these specific aspects of teaching that do not apply to all teachers need to be interpreted cautiously and should not be compared directly to general aspects of teaching.

Figure II.4.13 **Impact of feedback on different aspects of teaching**

Percentage of lower secondary teachers who report that the feedback they received in the 12 months prior to the survey led to a positive change in the following aspects of teaching[1] (OECD average-31)



1. The analysis is restricted to the subset of teachers who report having received feedback at their current school.

Values are ranked in descending order of the aspects of teaching that were impacted positively by feedback received in the 12 months prior to the survey, as reported by lower secondary teachers.

Source: OECD, TALIS 2018 Database, Table II.4.50.

StatLink http://dx.doi.org/10.1787/888934083943

In the participating countries and economies, TALIS results show a significant positive association between teachers who find the feedback they received impactful and their feelings of satisfaction with their job for all participating countries and economies, after controlling for teacher characteristics, such as gender, age, work experience as a teacher at current school and working full-time (Table II.4.53). This relationship remains positive after controlling for teachers' collegiality (quality of interpersonal relationships with their colleagues) in all of the countries and economies except the Netherlands (Table II.4.54).

Forms of impactful feedback for teachers

It is possible to model the possible conditions under which the impact of feedback for teachers is maximised, based on TALIS data. This can be done by jointly analysing teachers' responses on the methods by which they receive feedback and on how they perceive the impact of feedback on their teaching practice. This final section presents two regression models to examine the likelihood of teachers finding feedback impactful, as associated with the number of and specific methods of feedback.

Box II.4.7. **Impact of feedback from primary to upper secondary education**

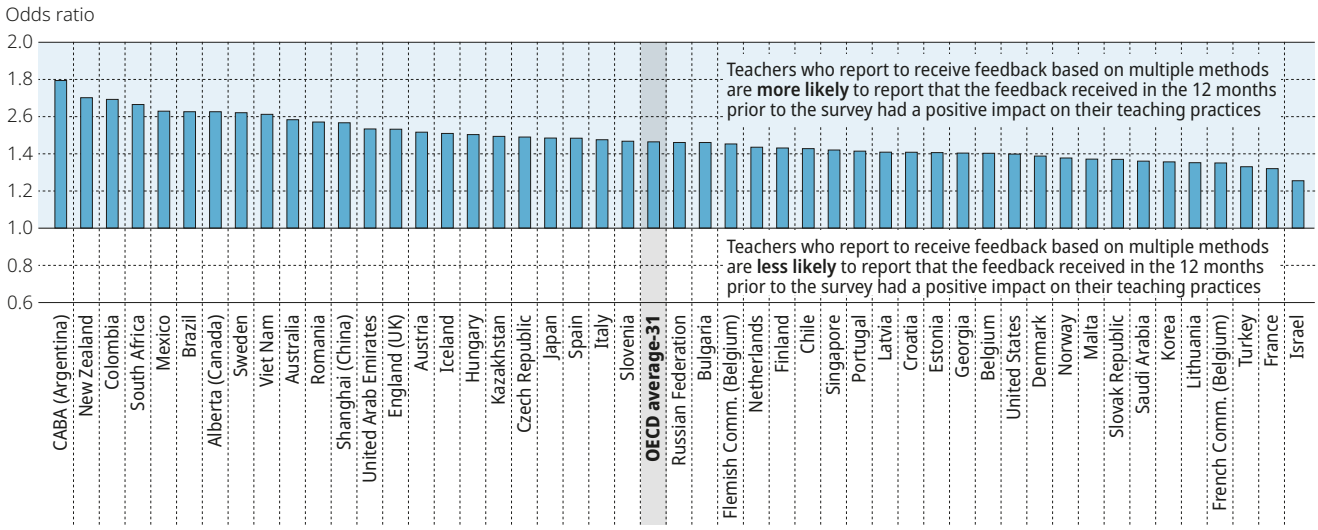
Primary teachers tend to perceive the feedback they received in the 12 months prior to the survey more impactful for the teaching practices examined by TALIS. In CABA (Argentina), the Flemish Community of Belgium, Japan, Spain and Sweden, among those who received feedback, a significantly higher share of primary teachers than lower secondary teachers report a positive change in different aspects of teaching following the feedback (Table II.4.51). In the 13 countries and economies with available data for ISCED 1 and 2, the impact of feedback on methods for teaching students with special needs stands out, with a significantly higher share of primary teachers than lower secondary teachers reporting positive change in this aspect of teaching following feedback. The largest differences are observed in Japan (22 percentage points), the Flemish Community of Belgium (19 percentage points) and CABA (Argentina) (13 percentage points).

There is little variation in the perceived impact of feedback between lower and upper secondary teachers. For instance, there are no countries and economies with available data for ISCED 2 and 3, with significant differences between lower and upper secondary teachers' views on the impact of feedback on pedagogical competencies in teaching. The only aspect of teaching where teachers' perceptions vary by education levels is the impact of feedback on methods for teaching students with special needs. In 9 of the 11 countries and economies with available data for ISCED 2 and 3, a significantly larger share of lower secondary teachers than of upper secondary teachers find that the feedback led to a positive change in terms of methods for teaching students with special needs (Table II.4.52). The largest differences (13 percentage points) are observed in Denmark and Slovenia.

Logistic regression analysis shows that teachers are more likely to find feedback useful for their teaching practice, when it is based on multiple evidence and, therefore, less likely to find feedback useful when it is based on only one source of information. This holds true even after controlling for teacher characteristics, such as gender, age, work experience as a teacher at current school and working full-time (Figure II.4.14, Table II.4.55).

Figure II.4.14 **Relationship between impactful feedback and number of feedback methods**

Likelihood of reporting feedback to have a positive impact related to the number of different methods based on which teachers received feedback[1, 2, 3, 4, 5]



1. Results of binary logistic regression based on responses of lower secondary teachers.
2. An odds ratio indicates the degree to which an explanatory variable is associated with a categorical outcome variable. An odds ratio below one denotes a negative association; an odds ratio above one indicates a positive association; and an odds ratio of one means that there is no association.
3. The analysis is restricted to the subset of teachers who report to have received feedback at their current school.
4. The predictor refers to the number of feedback methods ranging from 1 to 6 (continuous).
5. Controlling for the following teacher characteristics: gender, age, years of experience as a teacher at current school, working full-time.

Note: Statistically significant coefficients are marked in a darker tone (see Annex B).

Countries and economies are ranked in descending order of the likelihood of receiving impactful feedback related to the number of different methods based on which teachers received feedback.

Source: OECD, TALIS 2018 Database, Table II.4.55.

StatLink http://dx.doi.org/10.1787/888934083962

Further analysis indicates that, on average across the OECD, 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 having received feedback from other methods and irrespective of the teachers' characteristics (Table II.4.56). Notably, the likelihood of teachers finding feedback impactful is significantly associated with observation-based feedback in 34 countries and economies participating in TALIS, and with assessment of the teachers' content knowledge in 37 countries and economies. Feedback based on external results of students is rarely associated with teachers' finding feedback impactful (only in Shanghai [China] and Sweden), while in Singapore, teachers are less likely to find feedback impactful when it is based on the external results of students after controlling for other methods of feedback and for teacher characteristics such as gender, age, work experience as a teacher at current school and working full-time.

Whether teachers find feedback impactful or not is also significantly associated with their perceptions of the quality of their interpersonal relationships with other colleagues in their school. Teachers are more likely to report that the feedback they received had a positive impact on their teaching practice when they hold positive views on collegiality in all the countries and economies participating in TALIS (in every education system, the coefficient for at least one of the two indicators of collegiality is significant, except in Norway), after controlling for teacher characteristics, such as gender, age, work experience as a teacher at current school and working full-time (Table II.4.57). This suggests that teachers may hold a more positive attitude towards feedback when they have more positive views about their relationships with other colleagues.

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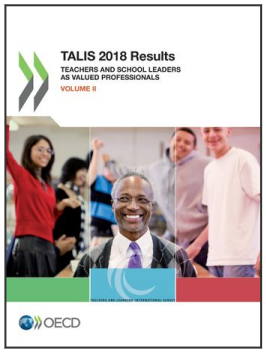
Notes

1. The OECD average corresponds to the arithmetic mean of the estimates of the OECD countries and economies that participate in TALIS, with adjudicated data.
2. Regarding the average number of hours teachers report spending on teamwork and dialogue with colleagues within the school, in 10 countries and economies with available data, there has been a significant but minor decrease, while in 6 countries and economies with available data, there has been a significant but minor increase over the past five years (Table II.4.5).
3. Cognitive activation practices covered in TALIS include giving tasks that require students to think critically, having students work in small groups to come up with a joint solution to a problem or task, asking students to decide on their own procedures for solving complex tasks and presenting tasks for which there is no obvious solution (OECD, 2019[18]).
4. Thirty-eight countries and economies participating in TALIS administered this optional question.
5. As a result of opportunities such as Erasmus+, offered by the European Commission to enable students to study abroad and teachers to teach abroad, the countries and economies belonging to the European Union/European Economic Area present the highest shares of teachers with professional experience abroad (OECD, 2019[18]).
6. Thirty-four countries and economies participating in TALIS administered this optional question.
7. Collegiality seems to matter less as a mediator when it comes to the association between deeper forms of teacher collaboration and the frequency of use of cognitive activation practices. Introducing indicators of collegiality into the model examining the relationship between the frequency of engaging in professional collaboration and the use of cognitive activation practices does not result in a clear pattern of change in the coefficients of the index of professional collaboration (Tables II.4.17 and II.4.18).
8. Teachers are considered to be in agreement with their principals if both the teacher and the principal "agree" or "strongly agree" with a given statement, or if both "disagree" or "strongly disagree".
9. The difference between the shares of novice and experienced teachers receiving feedback can also be explained by the specific methods through which a larger share of experienced teachers report receiving feedback. These methods are: external results of students the teacher teaches (a difference of 14 percentage points); school-based and classroom-based results (7 percentage points); and student survey responses related to the teachers' teaching (7 percentage points) (Table II.4.44).
10. For further distinctions between different sources of feedback, see Table II.4.40.
11. It should be noted that student outcomes cannot be solely attributed to teachers' classroom instruction. Other factors, such as student's socio-economic background, level of effort and prior knowledge also affect student outcomes.
12. It should be noted these estimates do not provide information on whether teachers receive feedback as a regular practice or not, due to the wording of the questionnaire.
13. At the primary level in France, there is no hierarchical relationship between school principals and teachers.
14. The analysis of teachers' opinions on the usefulness of the feedback they received in the 12 months prior to the survey is restricted to the subset of teachers who report having received feedback at their current school.
15. Belgium, the French Community of Belgium, Denmark, Finland, France, Iceland, Italy, Norway, Portugal, Spain, Sweden, Turkey are below the OECD average in terms of both the percentage of teachers who received feedback and the percentage of teachers who found that the feedback they received in the 12 months prior to the survey had a positive impact on their teaching practice (Tables II.4.37 and II.4.48).



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