

Strengthening Teacher's Sense of Effectiveness

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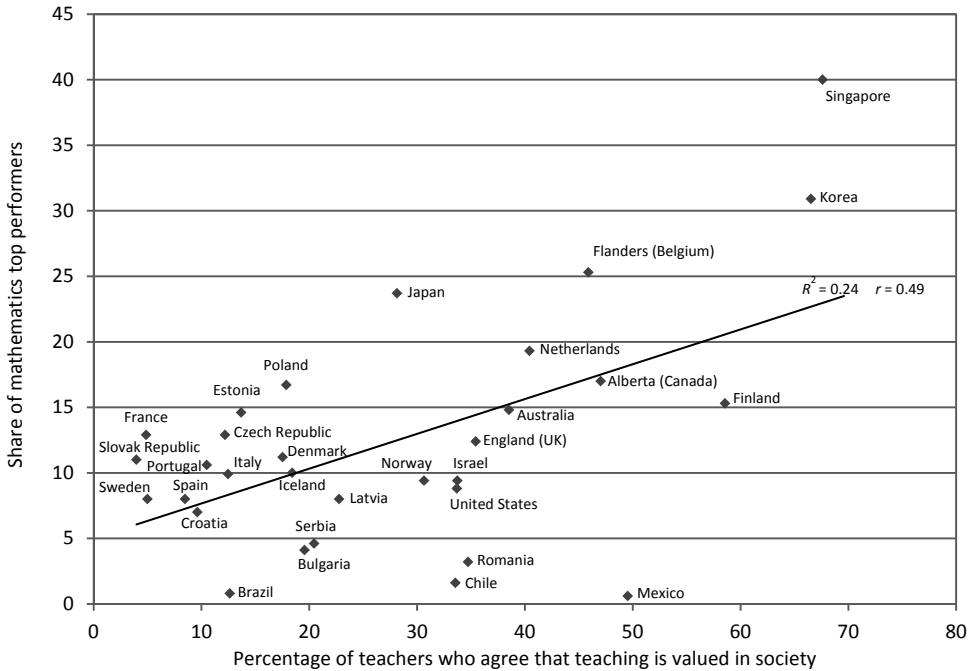
Teachers' sense of self-efficacy — their belief in their ability to teach, engage students and manage a classroom — has an impact on their own practices, enthusiasm, commitment, job satisfaction and behavior in the classroom. How can teachers develop a greater sense of self-efficacy? According to results from the 2013 OECD Teaching and Learning International Survey (TALIS), good relations between teachers and their colleagues, and between teachers and their students can boost teachers' self-efficacy and job satisfaction while mitigating the negative effects that challenging classrooms can have on teachers' beliefs in their own abilities. When teachers collaborate regularly with other teachers — by team teaching, observing and providing feedback on other teachers' classes, or participating in professional learning activities — they also tend to report greater self-efficacy. While TALIS finds that fewer than one in three teachers believes that teaching is a valued profession in society, in all but one of the countries/economies that participated in the survey, teachers who reported that they can participate in decision making at school tend to believe that society values teaching as a profession. And in most countries, these teachers also report a greater sense of self-efficacy.

Keywords: teachers; job satisfaction; self-efficacy; teaching

The skills that students need to contribute effectively to society are changing constantly, but our education systems are not keeping up. Most schools look much the same today as they did a generation ago, and teachers themselves are often not developing the practices and skills required to meet the diverse needs of today's learners. How can education systems best support the kind of teaching that develops those skills?

Evidence from the Programme for International Student Assessment (PISA) and the Teaching and Learning International Survey (TALIS) of the Organisation for Economic Co-operation and Development (OECD) suggests that the most successful education systems are those in countries/economies whose society values the teaching profession (Figure 1).

Figure 1: Relationship Between Lower Secondary Teachers' Views on the Value of Their Profession in Society and the Country's Share of Top Mathematics Performers in PISA 2012

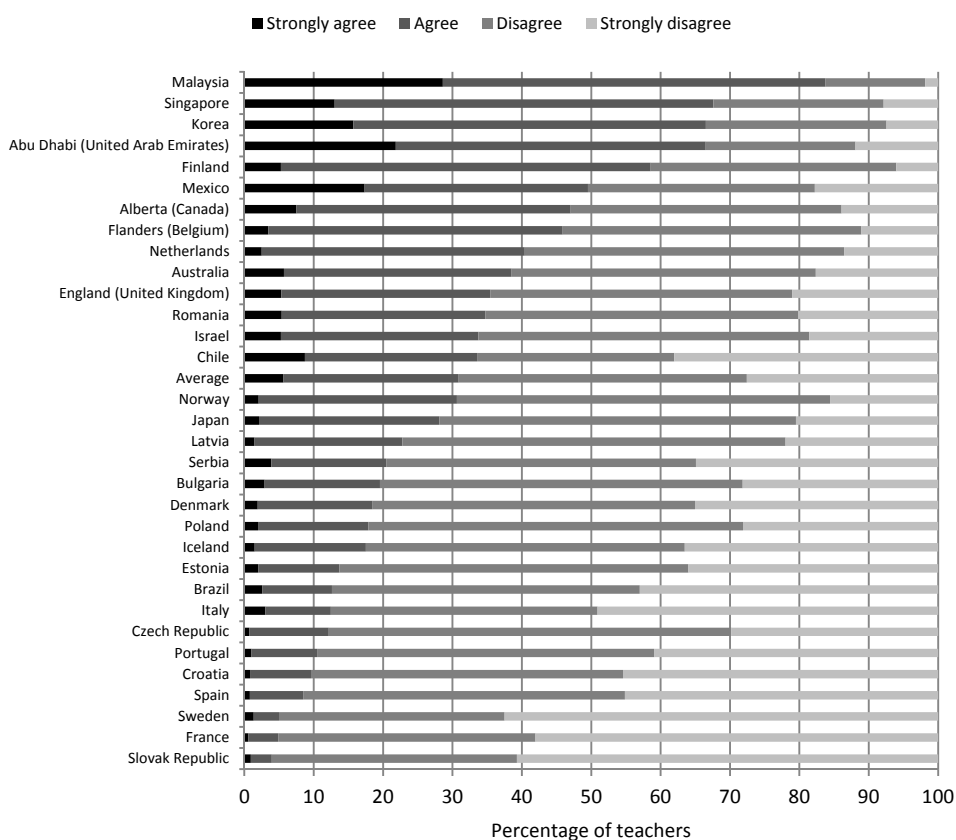


However, the TALIS 2013 survey finds that fewer than one in three teachers believes that teaching is a valued profession in society (Figure 2). In all but one of the countries/economies that participated in TALIS, the extent to which teachers can participate in decision making has a strong, positive association with the likelihood of reporting that teaching is valued by society.

In examining teachers' self-efficacy (teachers' self-confidence in their own ability to teach) and the factors that shape teachers' sense of self-efficacy, TALIS finds that:

- In all countries/economies surveyed, teachers who reported that they are given opportunities to participate in decision making at school also reported greater job satisfaction and, in most countries, greater self-efficacy. The relationship between job satisfaction and teacher participation in school decision making is particularly strong in all countries.
- With more teaching experience comes a greater sense of self-efficacy but, in some cases, less job satisfaction. In 26 countries, teachers with more than five years of work experience reported greater self-efficacy than their less-experienced colleagues; but in 12 countries, these teachers reported less job satisfaction.

Figure 2: Teachers' View of the Way Society Values the Teaching Profession



- Notes:
1. Countries are ranked in descending order, based on the percentage of teachers who "strongly agree" or "agree" that they think that the teaching profession is valued in society.
 2. The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Source: OECD (2014, p. 187).

- Challenging classroom circumstances can affect teachers' sense of self-efficacy and job satisfaction. In particular, in almost all countries, an increase in the percentage of students with behavioral problems is associated with a strong decrease in teachers' reported levels of job satisfaction.
- In nearly all countries, teachers' perception that appraisal and feedback lead to changes in their teaching practice is related to greater job satisfaction; but in every country and economy that participated in TALIS, teachers' perception that appraisal and feedback is performed merely for administrative purposes is related to less job satisfaction.

- Positive interpersonal relationships with the school leader, other teachers, and students can mitigate the otherwise detrimental effects that challenging classrooms might have on a teacher's satisfaction with his or her job or feelings of self-efficacy. Relationships between teachers and students are particularly strongly related to teachers' job satisfaction.
- Collaboration among teachers, whether through professional learning or collaborative practices, is also related to higher levels of both self-efficacy and job satisfaction. In particular, teachers who reported that they participate in collaborative professional learning activities five times a year or more also reported significantly higher levels of self-efficacy (in almost all countries) and greater job satisfaction (in two out of three of the participating countries/economies).

Why Self-efficacy Matters

PISA data show how students' self-efficacy — their belief in their own ability — has a significant influence on their academic achievement and behavior. Similarly, there is evidence that teachers' sense of self-efficacy — their belief in their ability to teach, engage students and manage a classroom — has an impact on student achievement and motivation, as well as on teachers' own practices, enthusiasm, commitment, job satisfaction and behavior in the classroom (Caprara, Barbaranelli, Steca, & Malone, 2006; Skaalvik & Skaalvik, 2007; Tschannen-Moran & Barr, 2004; Tschannen-Moran & Hoy, 2001). A poor sense of self-efficacy, for example, has been linked to teachers having more difficulties with student misbehavior, being more pessimistic about student learning, and experiencing higher levels of job-related stress and less job satisfaction (Caprara, Barbaranelli, Borgogni, & Steca, 2003; Caprara, Barbaranelli, Steca, et al., 2006; Collie, Shapka, & Perry, 2012; Klassen & Chiu, 2010). TALIS asked teachers a range of questions about specific aspects of their sense of self-efficacy (see Box 1).

The individual items that make up the indices discussed in Box 1 are interesting in and of themselves. Table 1 (1a & 1b) shows that in the majority of the countries/economies that participated in TALIS, most teachers reported holding beliefs that suggest high levels of self-efficacy. On average across countries, between 80% and 92% of teachers reported that they can often get students to believe they can do well in school, help students value learning, craft good questions for students, control disruptive behavior in the classroom, make clear their expectations for student behavior, help students think critically, get students

Box 1. Teacher Self-efficacy and Job Satisfaction Indices

TALIS measures three aspects of teacher self-efficacy: classroom management, instruction, and student engagement. Similarly, TALIS measures two aspects of teachers' job satisfaction: satisfaction with the current work environment and satisfaction with the profession.

Efficacy in classroom management

- Control disruptive behavior in the classroom
- Make my expectations about student behavior clear
- Get students to follow classroom rules
- Calm a student who is disruptive or noisy

Efficacy in instruction

- Craft good questions for my students
- Use a variety of assessment strategies
- Provide an alternative explanation, for example, when students are confused
- Implement alternative instructional strategies in my classroom

Efficacy in student engagement

- Get students to believe they can do well in school work
- Help my students value learning
- Motivate students who show low interest in school work
- Help students think critically

Satisfaction with the current work environment

- I would like to change to another school if that were possible
- I enjoy working at this school
- I would recommend my school as a good place to work
- All in all, I am satisfied with my job

Satisfaction with the profession

- The advantages of being a teacher clearly outweigh the disadvantages
- If I could decide again, I would still choose to work as a teacher
- I regret that I decided to become a teacher
- I wonder whether it would have been better to choose another profession

to follow classroom rules, calm a student who is disruptive, use a variety of assessment strategies, and provide alternative explanations when students are confused.¹ In comparison, motivating students who show low interest in school work (70%) and implementing alternative instructional strategies (77%) both seem relatively more difficult for teachers across TALIS-participating countries/economies to achieve.

Yet in some countries, teachers seem to believe significantly and consistently less in their abilities in these domains, compared with the average. Notably, teachers in Japan

Table 1a: Teachers' Self-efficacy: Percentage of Lower Secondary Education Teachers Who Feel They Can Do the Following "Quite a Bit" or "A Lot"

| | Get students to believe they can do well in school work | | Help my students value learning | | Craft good questions for my students | | Control disruptive behavior in the classroom | | Motivate students who show low interest in school work | | Make my expectations about student behavior clear | |
|----------------------------------|---|------------|---------------------------------|------------|--------------------------------------|------------|--|------------|--|------------|---|------------|
| | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE |
| Australia | 86.9 | 1.1 | 81.3 | 1.4 | 86.0 | 0.8 | 86.7 | 0.7 | 65.8 | 1.3 | 93.4 | 0.8 |
| Brazil | 96.5 | 0.2 | 94.8 | 0.3 | 97.5 | 0.2 | 89.7 | 0.5 | 87.6 | 0.6 | 96.8 | 0.3 |
| Bulgaria | 91.7 | 0.7 | 94.9 | 0.5 | 82.3 | 0.9 | 86.4 | 0.8 | 67.8 | 1.2 | 97.1 | 0.4 |
| Chile | 90.6 | 0.9 | 91.0 | 1.0 | 91.3 | 0.9 | 90.7 | 1.1 | 82.9 | 1.1 | 93.3 | 0.8 |
| Croatia | 68.6 | 1.0 | 52.1 | 0.9 | 90.3 | 0.5 | 83.0 | 0.7 | 50.7 | 1.0 | 93.6 | 0.4 |
| Cyprus ^{1,2} | 95.8 | 0.5 | 94.2 | 0.6 | 95.1 | 0.5 | 93.3 | 0.7 | 85.3 | 0.9 | 96.2 | 0.5 |
| Czech Republic | 50.5 | 0.9 | 39.0 | 1.0 | 70.9 | 1.0 | 77.1 | 0.9 | 30.0 | 1.0 | 71.9 | 0.9 |
| Denmark | 99.0 | 0.2 | 96.6 | 0.6 | 96.3 | 0.5 | 96.3 | 0.6 | 82.5 | 0.9 | 98.8 | 0.3 |
| Estonia | 81.3 | 0.8 | 86.0 | 0.6 | 74.4 | 0.9 | 76.7 | 1.0 | 75.0 | 0.9 | 86.9 | 0.7 |
| Finland | 83.9 | 0.8 | 77.3 | 0.8 | 90.1 | 0.5 | 86.3 | 0.8 | 60.4 | 1.1 | 92.7 | 0.5 |
| France | 95.2 | 0.5 | 87.1 | 0.7 | 93.8 | 0.5 | 94.6 | 0.5 | 76.6 | 0.9 | 97.7 | 0.3 |
| Iceland | 88.6 | 1.0 | 82.5 | 1.1 | 96.1 | 0.5 | 89.9 | 0.9 | 72.1 | 1.3 | 91.2 | 0.9 |
| Israel ³ | 92.1 | 0.5 | 85.4 | 0.9 | 89.8 | 0.8 | 85.0 | 0.9 | 74.9 | 1.1 | 94.1 | 0.5 |
| Italy | 98.0 | 0.3 | 95.6 | 0.3 | 93.8 | 0.5 | 93.5 | 0.5 | 87.3 | 0.7 | 93.4 | 0.5 |
| Japan | 17.6 | 0.7 | 26.0 | 0.9 | 42.8 | 1.0 | 52.7 | 1.0 | 21.9 | 0.8 | 53.0 | 1.0 |
| Korea | 78.7 | 1.0 | 78.3 | 0.9 | 77.4 | 0.9 | 76.3 | 1.1 | 59.9 | 1.0 | 70.5 | 1.1 |
| Latvia | 91.0 | 0.8 | 78.6 | 1.2 | 93.5 | 0.6 | 85.2 | 1.0 | 64.8 | 1.5 | 94.3 | 0.6 |
| Malaysia | 95.9 | 0.4 | 98.0 | 0.3 | 95.8 | 0.4 | 96.3 | 0.4 | 95.2 | 0.4 | 92.2 | 0.5 |
| Mexico | 87.8 | 0.6 | 91.0 | 0.6 | 85.2 | 0.8 | 86.0 | 0.7 | 79.1 | 0.9 | 87.4 | 0.8 |
| Netherlands | 90.0 | 0.9 | 70.2 | 1.6 | 88.2 | 1.1 | 89.2 | 0.9 | 62.5 | 1.5 | 95.3 | 0.6 |
| Norway | 79.9 | 1.0 | 60.9 | 1.9 | 79.0 | 1.4 | 83.8 | 0.7 | 38.8 | 1.0 | 89.7 | 0.7 |
| Poland | 80.7 | 0.8 | 67.7 | 1.0 | 79.4 | 0.8 | 88.3 | 0.9 | 59.8 | 1.1 | 94.6 | 0.6 |
| Portugal | 98.9 | 0.2 | 99.0 | 0.2 | 98.2 | 0.3 | 96.1 | 0.3 | 93.8 | 0.5 | 96.9 | 0.4 |
| Romania | 97.9 | 0.4 | 95.1 | 0.5 | 98.9 | 0.2 | 97.8 | 0.3 | 88.7 | 0.7 | 98.5 | 0.2 |
| Serbia | 84.9 | 0.6 | 76.1 | 0.7 | 90.0 | 0.7 | 86.1 | 0.6 | 63.4 | 0.9 | 91.9 | 0.5 |
| Singapore | 83.9 | 0.7 | 81.5 | 0.8 | 81.2 | 0.7 | 79.5 | 0.7 | 72.1 | 0.9 | 89.0 | 0.6 |
| Slovak Republic | 92.5 | 0.5 | 88.5 | 0.7 | 94.5 | 0.4 | 91.1 | 0.7 | 84.9 | 0.8 | 96.9 | 0.4 |
| Spain | 71.1 | 1.0 | 74.1 | 0.9 | 86.3 | 0.7 | 81.5 | 0.8 | 53.4 | 1.1 | 90.1 | 0.7 |
| Sweden | 93.9 | 0.5 | 76.6 | 1.0 | 82.0 | 0.8 | 84.9 | 0.8 | 64.1 | 1.0 | 90.6 | 0.6 |
| Sub-national entities | | | | | | | | | | | | |
| Abu Dhabi (United Arab Emirates) | 96.3 | 0.5 | 95.4 | 0.6 | 94.8 | 0.5 | 94.4 | 0.7 | 94.9 | 0.5 | 96.7 | 0.4 |
| Alberta (Canada) | 87.0 | 0.9 | 79.2 | 1.1 | 84.1 | 1.0 | 86.9 | 0.9 | 60.6 | 1.3 | 95.4 | 0.5 |
| England (United Kingdom) | 93.0 | 0.6 | 87.0 | 0.8 | 89.8 | 0.9 | 88.7 | 0.8 | 75.7 | 0.9 | 95.6 | 0.5 |
| Flanders (Belgium) | 93.1 | 0.5 | 81.6 | 0.8 | 95.1 | 0.4 | 96.4 | 0.4 | 77.7 | 0.9 | 97.2 | 0.3 |
| Average | 85.8 | 0.1 | 80.7 | 0.2 | 87.4 | 0.1 | 87.0 | 0.1 | 70.0 | 0.2 | 91.3 | 0.1 |
| United States | 83.7 | 1.1 | 74.9 | 1.3 | 88.0 | 1.2 | 86.2 | 1.1 | 61.9 | 1.4 | 94.9 | 0.6 |

Notes: 1. Footnote by Turkey: The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognizes the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue."

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

Source: OECD (2014, p. 405).

Table 1b: Teachers' Self-efficacy: Percentage of Lower Secondary Education Teachers Who Feel They Can Do the Following "Quite a Bit" or "A Lot"

| | Help students think critically | | Get students to follow classroom rules | | Calm a student who is disruptive or noisy | | Use a variety of assessment strategies | | Provide an alternative explanation for an example when students are confused | | Implement alternative instructional strategies in my classroom | |
|----------------------------------|--------------------------------|------------|--|------------|---|------------|--|------------|--|------------|--|------------|
| | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE |
| Australia | 78.4 | 1.3 | 89.4 | 0.9 | 83.6 | 1.1 | 86.3 | 1.1 | 94.0 | 0.7 | 82.7 | 1.0 |
| Brazil | 95.1 | 0.3 | 91.7 | 0.4 | 90.2 | 0.5 | 91.3 | 0.5 | 97.7 | 0.2 | 87.9 | 0.6 |
| Bulgaria | 82.5 | 0.9 | 96.1 | 0.4 | 87.9 | 0.8 | 87.8 | 0.8 | 95.9 | 0.4 | 69.6 | 1.1 |
| Chile | 90.2 | 0.9 | 92.8 | 1.0 | 89.2 | 1.0 | 89.3 | 0.9 | 95.3 | 0.6 | 88.9 | 1.0 |
| Croatia | 77.9 | 0.7 | 83.1 | 0.6 | 81.2 | 0.7 | 84.6 | 0.6 | 96.4 | 0.4 | 92.3 | 0.5 |
| Cyprus ^{1,2} | 94.6 | 0.6 | 96.2 | 0.6 | 90.2 | 0.7 | 87.3 | 0.9 | 97.2 | 0.4 | 88.1 | 0.9 |
| Czech Republic | 51.8 | 1.2 | 76.4 | 1.0 | 77.1 | 1.0 | 72.0 | 1.1 | 85.2 | 0.8 | 52.2 | 1.1 |
| Denmark | 92.8 | 0.7 | 94.9 | 0.7 | 94.3 | 0.6 | 79.5 | 1.1 | 98.0 | 0.4 | 86.6 | 1.1 |
| Estonia | 74.8 | 0.9 | 83.5 | 0.8 | 73.9 | 0.9 | 72.3 | 0.9 | 78.6 | 0.9 | 59.8 | 1.1 |
| Finland | 72.8 | 1.0 | 86.6 | 0.8 | 77.1 | 0.9 | 64.2 | 1.1 | 76.9 | 0.9 | 68.2 | 1.1 |
| France | 88.7 | 0.7 | 98.2 | 0.3 | 94.9 | 0.5 | 88.3 | 0.7 | 98.5 | 0.2 | 82.2 | 0.8 |
| Iceland | 74.6 | 1.2 | 92.1 | 0.8 | 88.2 | 1.0 | 85.7 | 1.0 | 91.8 | 0.8 | 77.4 | 1.2 |
| Israel ³ | 77.6 | 1.1 | 86.6 | 0.8 | 81.0 | 0.8 | 75.0 | 1.3 | 92.5 | 0.5 | 77.8 | 1.0 |
| Italy | 94.9 | 0.4 | 96.7 | 0.3 | 89.7 | 0.6 | 90.9 | 0.6 | 98.3 | 0.2 | 91.3 | 0.5 |
| Japan | 15.6 | 0.6 | 48.8 | 1.1 | 49.9 | 1.1 | 26.7 | 0.8 | 54.2 | 0.8 | 43.6 | 0.9 |
| Korea | 63.6 | 1.1 | 80.5 | 1.0 | 73.1 | 1.1 | 66.6 | 1.2 | 81.4 | 0.9 | 62.5 | 1.1 |
| Latvia | 83.0 | 1.1 | 92.0 | 0.8 | 81.2 | 0.9 | 90.1 | 0.7 | 91.4 | 0.7 | 62.1 | 1.4 |
| Malaysia | 91.9 | 0.5 | 98.0 | 0.3 | 96.8 | 0.3 | 88.6 | 0.6 | 95.8 | 0.4 | 89.5 | 0.5 |
| Mexico | 88.8 | 0.7 | 85.0 | 0.7 | 78.0 | 1.0 | 83.9 | 0.8 | 93.7 | 0.4 | 87.5 | 0.8 |
| Netherlands | 77.8 | 1.2 | 90.6 | 0.9 | 86.7 | 0.9 | 66.7 | 1.6 | 93.0 | 0.8 | 62.2 | 1.3 |
| Norway | 66.6 | 1.8 | 85.6 | 0.9 | 84.3 | 0.8 | 73.4 | 1.6 | 87.8 | 1.1 | 66.0 | 1.5 |
| Poland | 77.5 | 0.8 | 91.3 | 0.7 | 87.2 | 0.8 | 86.7 | 0.6 | 87.4 | 0.6 | 66.0 | 1.0 |
| Portugal | 97.5 | 0.3 | 97.5 | 0.2 | 95.2 | 0.4 | 98.3 | 0.3 | 99.2 | 0.2 | 95.9 | 0.3 |
| Romania | 93.4 | 0.6 | 97.7 | 0.4 | 97.7 | 0.3 | 98.0 | 0.3 | 99.4 | 0.2 | 93.2 | 0.6 |
| Serbia | 84.3 | 0.7 | 91.1 | 0.5 | 85.6 | 0.6 | 86.3 | 0.7 | 95.3 | 0.4 | 74.1 | 0.8 |
| Singapore | 74.9 | 0.7 | 83.5 | 0.6 | 75.3 | 0.7 | 71.6 | 0.9 | 88.5 | 0.6 | 72.8 | 0.8 |
| Slovak Republic | 90.2 | 0.8 | 95.3 | 0.4 | 92.2 | 0.6 | 92.0 | 0.6 | 95.1 | 0.4 | 80.6 | 0.8 |
| Spain | 78.9 | 0.9 | 83.8 | 0.8 | 73.7 | 0.9 | 87.0 | 0.6 | 96.5 | 0.4 | 83.2 | 0.8 |
| Sweden | 75.1 | 0.9 | 86.5 | 0.7 | 82.7 | 0.8 | 81.4 | 0.8 | 95.1 | 0.5 | 71.7 | 0.9 |
| Sub-national entities | | | | | | | | | | | | |
| Abu Dhabi (United Arab Emirates) | 93.1 | 0.7 | 96.5 | 0.5 | 93.4 | 0.8 | 93.2 | 0.6 | 96.6 | 0.4 | 95.1 | 0.6 |
| Alberta (Canada) | 82.2 | 1.0 | 91.1 | 0.9 | 84.7 | 1.0 | 86.1 | 0.9 | 94.3 | 0.6 | 84.0 | 0.8 |
| England (United Kingdom) | 81.4 | 1.0 | 93.3 | 0.6 | 86.3 | 0.7 | 90.2 | 0.7 | 96.7 | 0.4 | 84.6 | 1.0 |
| Flanders (Belgium) | 87.4 | 0.7 | 96.6 | 0.4 | 95.4 | 0.5 | 80.7 | 1.1 | 97.7 | 0.3 | 73.2 | 1.1 |
| Average | 80.3 | 0.2 | 89.4 | 0.1 | 84.8 | 0.1 | 81.9 | 0.2 | 92.0 | 0.1 | 77.4 | 0.2 |
| United States | 83.0 | 1.0 | 89.3 | 1.1 | 81.6 | 1.4 | 82.6 | 1.0 | 92.9 | 0.7 | 82.5 | 0.9 |

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Source: OECD (2014, p. 406).

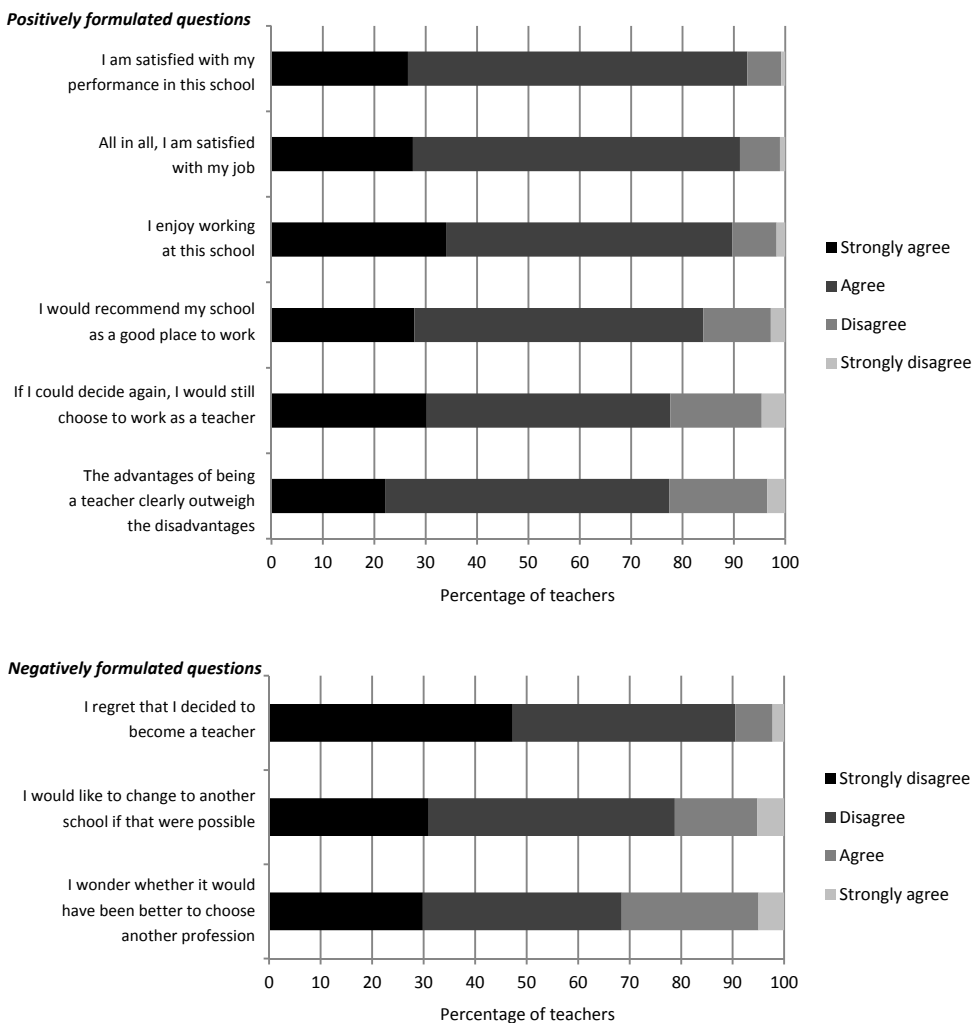
reported lower levels of confidence in their ability across domains as compared with the TALIS average. The averages range from a low of only 16% of teachers in Japan believing they can often help students to think critically, to a high of 54% who think that they can provide alternative explanations when students are confused. Teachers in the Czech Republic also reported less confidence in their abilities in some areas. For example, only 30% of teachers in the Czech Republic believe that they can motivate students who show low interest in school work, while 39% think that they can help students value learning. The patterns are less consistent among teachers in Croatia, Norway and Spain; but in each of these countries, 53% of teachers or less responded positively to one or more of the statements used to measure self-efficacy.

The extent to which teachers across countries hold beliefs that are related to job satisfaction is shown in Figure 3 (OECD, 2014, Table 7.2). On average, 91% of teachers across countries reported overall satisfaction with their job, 93% of all teachers reported being satisfied with their performance in their current school, 84% would recommend their school as a good place to work, and 90% reported that they enjoy working at their current school. However, consistent with the findings for elements measuring self-efficacy, only 50% of teachers in Japan reported being satisfied with their performance in their current school, and 62% would recommend their school as a good place to work. Nevertheless, more than three-quarters (78%) of teachers in Japan reported that they enjoy working in their current school. While an average of around 77% of teachers reported that the advantages of being a teacher clearly outweigh the disadvantages, in Brazil, the Czech Republic, France and the Slovak Republic, only 60% of teachers or less reported that they believe this.

Yet these results did not dissuade teachers in these four countries from reporting that they would choose to become a teacher if they had to make the decision again. Some 70% of teachers or more in these countries reported that if they had to decide again, they would still choose to work as a teacher (the TALIS average is 78%).

As noted above, fewer than one in three teachers, on average across countries/economies, believes that teaching is a valued profession in society (Figure 2). This is a significant finding on its own, since even the perception of whether a profession is valued can affect the recruitment and retention of candidates in the profession. Large variations among the TALIS-participating countries/economies are observed, however. This perception is particularly pervasive among teachers in Croatia, France, the Slovak Republic, Spain and Sweden, where less than 10% of teachers believe that teaching is valued. In Korea, Malaysia,

Figure 3: Teachers' Job Satisfaction



Note: Items are ranked in descending order, based on the percentage of teachers who “strongly agree” or “agree” with the statement for positively formulated questions. For negatively formulated questions the order is reversed, meaning it is in descending order based on the percentage of teachers who “strongly disagree” or “disagree” with the statement.

Source: OECD (2014, p. 186).

Singapore and Abu Dhabi, however, the majority of teachers feels differently: at least two out of three teachers in these countries/economies reported that their society values teaching as a profession.

Additional analyses shed more light on the factors that might influence teachers’ perceptions in this area.² The association with gender appears to be weak, as male teachers are more likely than female teachers to perceive teaching as a valued profession in only nine

countries. Experience may play a role in shaping this belief: in 13 countries, teachers with more than five years of teaching experience perceive their profession to be less valued than do their less-experienced colleagues (OECD, 2014, Table 7.3).

Interestingly, in 28 of the countries/economies that participated in TALIS, the extent to which teachers can participate in decision making has a strong association with the likelihood of teachers reporting that they believe teaching is valued by society. In Bulgaria, Croatia and Latvia, when teachers are part of decision-making processes in their school, they were three times more likely to report that teaching is a valued profession in society, while teachers in Chile were more than five times more likely to do so.

Many countries have enacted policies aimed to increase the prestige of the teaching profession in order to avoid the deleterious effects of negative perceptions about teaching (Schleicher, 2011). Countries may want to conduct further analyses to look at the origins of these negative perceptions to identify what it is specifically about the teaching profession that engenders them.

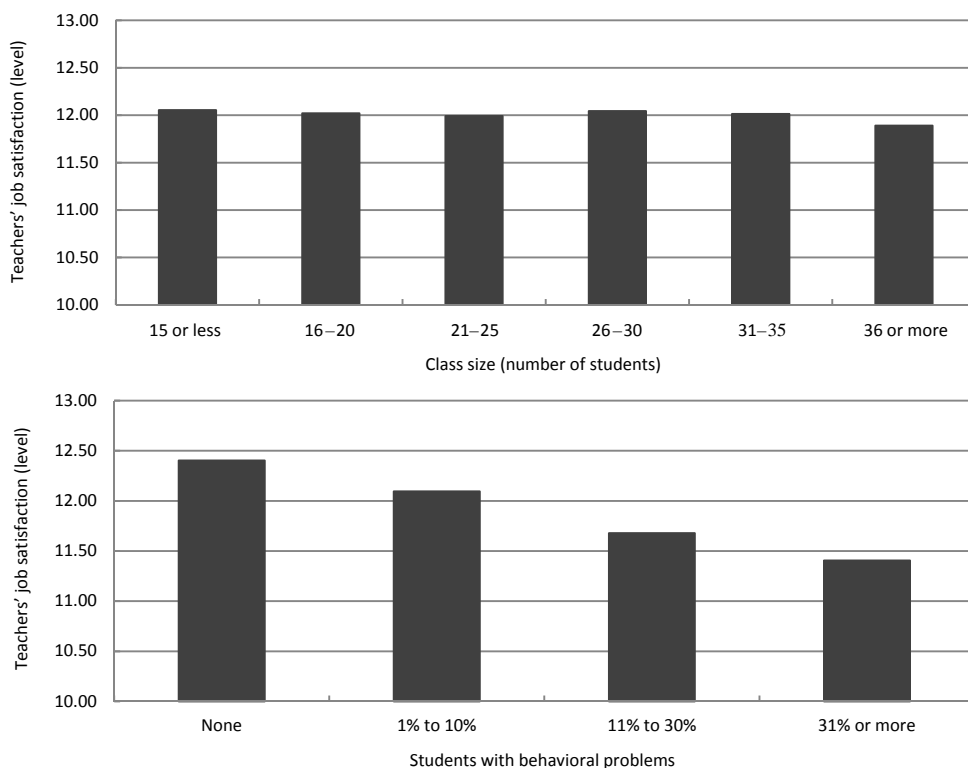
Teachers' Self-efficacy and Job Satisfaction As Related to Classroom Environment

Certain classroom characteristics can make a teacher's work more challenging. Teaching classes in which a large proportion of students have different achievement levels, special needs or behavioral problems can affect a teacher's self-efficacy and job satisfaction, especially if the teacher is not properly prepared or supported (Major, 2012). Most of the empirical evidence in this area comes from studies focused on teachers of students with special needs. TALIS finds that teaching special-needs students is one of the areas in which teachers reported that they need professional development the most. Other studies have shown that teachers of special-needs students tend to report less job satisfaction and poor self-efficacy, and have a greater chance of leaving their schools than do their colleagues who teach classes without such students. This is especially the case if they teach students with behavioral and emotional problems (Emery & Vandenberg, 2010; Katsiyannis, Zhang, & Conroy, 2003). In addition, many of those who teach emotionally challenged children must also handle some degree of stress due to a lack of the specific skills and/or experience needed to teach children with these problems (Henderson, Klein, Gonzalez, & Bradley, 2005).

This section investigates the associations between both teacher self-efficacy and job satisfaction, and class size and challenging classroom characteristics. Classrooms are considered to be challenging if more than 10% of students in the class are low achievers or more than 10% of students have behavioral problems.³ Classrooms in which 10% or more of the students are academically gifted are also included in this category, as teaching to a wide range of student abilities in one class can also be a challenge (Major, 2012).

Perhaps surprisingly, class size seems to have only a minimal effect on either teaching efficacy or job satisfaction, and in just a few countries (OECD, 2014, Tables 7.6 and 7.7). Other TALIS data indicate that it is not the number of students but the type of students who are in a class that has the largest association with the teacher's self-efficacy and job satisfaction. An example of this is provided in Figure 4, where the minimal effect of class size on teachers' job satisfaction is contrasted with the stronger influence of teaching students with behavioral problems.

Figure 4: Teachers' Job Satisfaction and Class Composition



Note: Data on class size and students with behavioral problems are reported by teachers and refer to a randomly chosen class they currently teach from their weekly timetable.

Source: OECD (2014, p. 191).

The associations between challenging classroom characteristics and teachers' self-efficacy and job satisfaction tell an interesting story across TALIS-participating countries/economies. In many countries/economies, teachers teaching classes where more than one in ten students are low achievers or have behavioral problems reported significantly lower self-efficacy and less job satisfaction (OECD, 2014, Tables 7.6 and 7.7). The negative association between teaching more low achievers and self-efficacy is observed in only 9 countries, but the negative association between teaching these types of students and job satisfaction is observed in 24 countries. Teaching classes composed of more students with behavioral problems is associated with lower self-efficacy in 16 countries and with less job satisfaction in 29 countries. These associations with self-efficacy are at least moderately strong in 7 countries, while the associations with job satisfaction are at least moderately strong in 24 countries (OECD, 2014, Tables 7.6.Web and 7.7.Web). In contrast, teaching in classrooms where more than one in ten students is academically gifted is related to greater teacher self-efficacy in 17 countries and greater job satisfaction in 23 countries.

Teachers' Self-efficacy and Their Relations With Colleagues and Students

Teachers' perceptions of school climate, the collaborative culture in school, and school leadership greatly affect their levels of stress, self-efficacy and job satisfaction (Collie et al., 2012; Demir, 2008). For example, stress due to students' behavior has been found to be negatively related to teachers' self-efficacy, and stress related to workload and teachers' self-efficacy appears to be directly related to teachers' job satisfaction (Collie et al., 2012; Klassen & Chiu, 2010; Taylor & Tashakkori, 1994). These relationships are further reinforced by instructional leadership and by distributed leadership, which also serve to reduce teachers' sense of isolation and increase their commitment to the common good (Pounder, 1999; Wahlstrom & Louis, 2008).

Yet, even more important than principal leadership styles are the relationships teachers have with other teachers (in the TALIS questionnaire, this is measured by different ways of cooperating), their school leaders, and their students (Louis, 2006). Next to teachers' sense of self-efficacy in their ability to manage their class (Box 1), having good relations with their colleagues and students seems to be the most crucial factor affecting teachers' job satisfaction and self-efficacy (Caprara, Barbaranelli, Steca, et al., 2006; Holzberger, Philipp, & Kunter, 2013; Klassen & Chiu, 2010).

In this section, teacher-leader relations are examined separately from teacher-teacher and teacher-student relations. Two aspects of the teacher-leader relationship are studied: the extent to which teachers are given opportunities to participate in decision making in their schools, and the instructional leadership that school principals provide (Box 2). The impact that these relationships can have on the associations between challenging classrooms and self-efficacy and job satisfaction is also discussed (OECD, 2014, Tables 7.6 and 7.7).

In all countries, when teachers reported more positive relationships with students and collaborative relationships with other teachers, they also reported significantly higher levels of self-efficacy (OECD, 2014, Table 7.8). The association appears to be stronger for teacher-teacher relations than for teacher-student relations in many countries.

Box 2. Description of In-school Relationships

School leadership is measured with one item on distributed leadership and one index on instructional leadership. Teacher-student relations and teacher-teacher relations are measured with two indices, as outlined below.

Distributed leadership

- This school provides staff with opportunities to actively participate in school decisions.

Instructional leadership

- I took actions to support cooperation among teachers to develop new teaching practices.
- I took actions to ensure that teachers take responsibility for improving their teaching skills.
- I took actions to ensure that teachers feel responsible for their students' learning outcomes.

Teacher-student relations

- In this school, teachers and students usually get on well with each other.
- Most teachers in this school believe that the students' well-being is important.
- Most teachers in this school are interested in what students have to say.
- If a student from this school needs extra assistance, the school provides it.

Teacher-teacher relations

- 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 (e.g., projects).
- Exchange teaching materials with colleagues.
- Engage in discussions about the learning development of specific students.
- Work with other teachers in my school to ensure common standards in evaluations for assessing student progress.
- Attend team conferences.
- Take part in collaborative professional learning.

Teacher-teacher collaborative relationships are also weakly-to-moderately associated with greater job satisfaction (OECD, 2014, Table 7.9), while teacher-student relations are strongly related to greater job satisfaction. In fact, in many cases, the teacher-student relationship is two to three times more strongly related to job satisfaction than the teacher-teacher relationship. In general, then, teachers' positive relationships with other teachers in the school seem to be particularly important for improving teachers' feelings of self-efficacy, while teachers' positive relationships with their students appear to have the greatest impact on their satisfaction with their job.

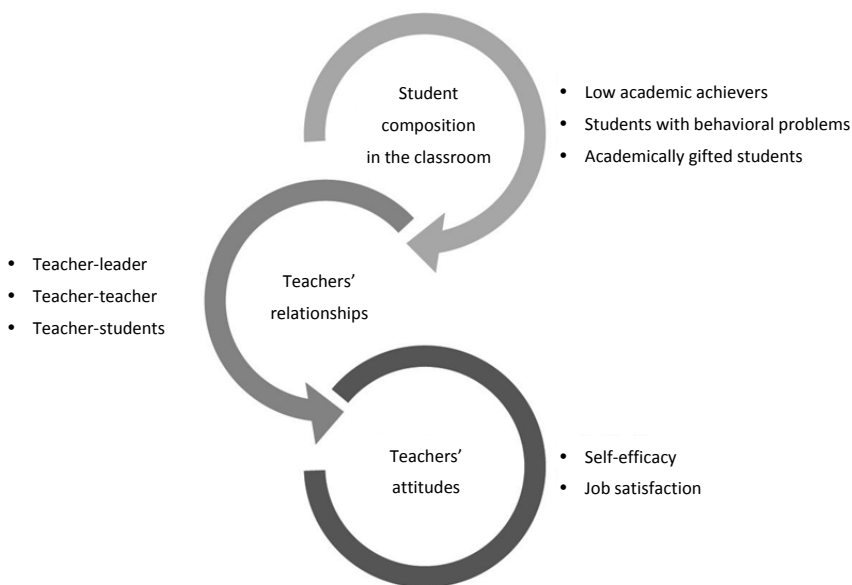
In 20 countries, teachers who agreed that the staff members at their school are given opportunities to participate in decision making reported greater self-efficacy (OECD, 2014, Table 7.8). An even more consistent and stronger relationship is observed between decision making at school and teachers' job satisfaction. The ability to participate in decision making at school is significantly related to a strong increase in teachers' job satisfaction across all countries (OECD, 2014, Table 7.9). Surprisingly, in contrast to the literature reviewed in this section, instructional leadership, as measured in TALIS, appears to be weakly associated with teachers' self-efficacy and job satisfaction.

How Teachers' Relationships With Colleagues and Students Can Moderate the Influence of Classroom Composition

Good relations between teachers and their colleagues and between teachers and their students can mitigate the negative effects of challenging classrooms on teachers' self-efficacy and job satisfaction (OECD, 2014, Tables 7.6 and 7.7). Figure 5 illustrates the relationships that are discussed below.

The finding that teachers who work in classrooms where at least 10% of students are low achievers tended to report lower self-efficacy and less job satisfaction still holds after accounting for these in-school relationships; but in many countries, the association is weakened (see OECD, 2014, Tables 7.8.Web.1 and 7.9.Web.1 for teacher-student and teacher-teacher relationships, and OECD, 2014, Tables 7.8.Web.2 and 7.9.Web.2 for teacher-leader relationships, columns highlighted in light blue).⁴

When it comes to job satisfaction, the strength of the association is reduced in nearly all countries. In these cases, the relationships teachers have with their principal, their colleagues and their students can help to mitigate the adverse effects on self-efficacy and job satisfaction associated with working in classrooms with larger proportions of low-achieving students.

Figure 5: The Influence of Class Composition on Teachers' Attitudes and Relationships

Source: OECD (2014, p. 193).

In general, teachers' in-school relationships do not seem to affect the strength of the associations between teaching classes with a large proportion of students with behavioral problems and teachers' self-efficacy. But in nearly all countries where teaching classes with a large proportion of students who misbehave was significantly associated with less job satisfaction, positive in-school relationships seem to reduce the strength of this association (OECD, 2014, Tables 7.8.Web.1, 7.8.Web.2, 7.9.Web.1 and 7.9.Web.2).

Teachers' Self-efficacy and Their Professional Development

In summarizing research on effective teacher professional development, Darling-Hammond and Richardson (2009) contend that successful programs are sustained over time, are collaborative and focused on the content to be taught, and provide multiple opportunities for classroom application. Since teachers' beliefs, such as self-efficacy, are an important factor in facilitating student learning, they have recently become the target of professional development activities. Studies have shown that professional development activities that are focused on the three components of teachers' self-efficacy — classroom management, instruction, and student engagement — strengthen teachers' beliefs in those areas as well as teachers' beliefs about student learning (Karimi, 2011; Powell-Moman & Brown-Schild, 2011; Rosenfeld & Rosenfeld, 2008; Ross & Bruce, 2007a).

Studies remain equivocal as to whether the duration of the professional development program or teachers' years of work experience contribute to any impact that a professional development program might have on teachers' self-efficacy and students' achievement (Lumpe, Czerniak, Haney, & Beltyukova, 2012; Powell-Moman & Brown-Schild, 2011; Rosenfeld & Rosenfeld, 2008; Wayne, Yoon, Zhu, Cronen, & Garet, 2008). When mentoring is considered, however, it seems that, especially for new teachers, time spent with a mentor, participation in mentor-facilitated professional development activities, and the quality of mentors' interactions are significantly related to teachers' self-efficacy and to the development of effective collaborative relationships (LoCasale-Crouch, Davis, Wiens, & Pianta, 2012).

There are several types of professional development activities. There can be formally organized professional development activities, which could include induction programs, mentoring programs, classroom observations, workshops and conferences. There can also be more informally organized activities, which could also include a mentoring relationship in which a teacher can be either the mentor or the mentee in the relationship. This section examines the relationship between teachers' participation in different types and aspects of professional development, and their self-efficacy and job satisfaction.

In around one in four countries, teachers who reported that they have participated in mentoring activities also reported greater job satisfaction. In seven countries, teachers who reported that they were mentees reported greater job satisfaction, while in eight countries, being a mentor was related to greater job satisfaction (OECD, 2014, Table 7.11). The strength of the association between being a mentor and greater job satisfaction is moderate in six of these countries, and strong in Sweden.

In 14 countries/economies, participating in mentoring, observation or coaching programs as part of a formal school arrangement is positively associated with self-efficacy. In seven countries, there is only a weak, albeit positive, relationship between this form of professional development and job satisfaction.

These findings suggest that being either a mentor or a mentee is associated with an improvement in teachers' job satisfaction, while these activities do not show a consistent association with teachers' self-efficacy across countries. Professional development activities that are part of a formal school arrangement are positively related to job satisfaction in only a few countries, although they relate positively to teachers' self-efficacy in twice as many countries.⁵ Box 3 presents teacher development in Finland.

Box 3. Teacher Development in Finland

In Finland, professional development for teachers is seen as a comprehensive process, which begins with initial teacher education. Teacher education has been available in universities since 1971, and a Master's degree is a requirement, including a Master's thesis. This kind of teacher education leads to teachers becoming reflective professionals who actively develop their own work and professional skills and methods, as researchers do, having had this research-based initial education.

Finland does not have a nationally organized induction system. Education providers and individual schools have autonomy over arranging support for new teachers, and therefore there are notable differences between schools in ways of implementing induction. However, there is awareness of the increasing need for support for new teachers, and already many different applications of mentoring practices are in place. A specific model of peer-group mentoring has been developed and is being disseminated by the Finnish Network for Teacher Induction ("Osaava Verme"), which is part of a seven-year national Osaava program (2010–2016) funded by the Ministry of Education and Culture. The objective of the program is to motivate education providers and individual institutions to take greater responsibility and a proactive approach to their own staff development activities with the help of networking activities and mutual cooperation.

Source: Ministry of Education and culture, Finland (<http://www.minedu.fi/OPM/Koulutus/?lang=en>).

Teachers' Self-efficacy and the Appraisal and Feedback They Receive

Teacher appraisal and feedback can be used to recognize and celebrate teachers' strengths while simultaneously challenging teachers to address weaknesses in their pedagogical practices. Appraisal and feedback can have a significant impact on classroom instruction, teacher motivation and attitudes, as well as on student outcomes. Specifically, appraisal and feedback can play an important role in teachers' job satisfaction and self-efficacy. Although no research has directly investigated this yet, the impact of feedback and appraisal is expected to vary greatly, depending on the source. For example, while teachers say they derive little value from student ratings, teacher-solicited feedback is generally regarded as the most useful for improving teaching practices (Michaelowa, 2002; Ross & Bruce, 2007b; Wininger & Birkholz, 2013).

There are many methods and approaches that can be used to appraise and provide feedback to teachers. It is important to look at whether teachers receive feedback from more than one appraiser and the types of feedback they receive, such as results from student surveys or students' test scores, or feedback on classroom management. Teachers' perceptions of the impact of the appraisal are also relevant. For example, do teachers regard appraisals as having a concrete impact on their teaching or as simply an administrative

Box 4. Appraisal and Feedback Measures

Six measures of appraisal and feedback are used:

Number of evaluators

The first measure identifies whether teachers were appraised by more than one evaluator.

Types of feedback

The next three measures identify the types, or sources, of feedback teachers received. Teachers' responses were categorized according to whether they reported that the feedback they received considered the following three elements to be of moderate or high importance:

- Student surveys
- Students' test scores
- Feedback on their classroom management of student behavior

Teachers' perceptions of appraisal and feedback

The last two measures concern teachers' perceptions related to their appraisal and feedback. The first measure relates to teachers' responses about the extent to which they agreed that their appraisal affected their teaching. The second measure concerns the extent to which teachers agreed that their appraisal was performed primarily for administrative purposes.

exercise? Box 4 explains how the TALIS questionnaire items on appraisal and feedback were compressed into the six measures discussed in this section.

In 13 of the participating countries/economies, teachers who reported having at least two evaluators also reported greater self-efficacy (OECD, 2014, Table 7.12). In 23 countries, teachers who reported having at least two evaluators also reported greater job satisfaction (OECD, 2014, Table 7.13). The association is weak-to-moderate in most cases. Receiving feedback from student surveys is associated with greater self-efficacy in almost all TALIS-participating countries/economies, and with job satisfaction in 20 countries. These findings could be interpreted in two ways. Teachers might receive feedback from student surveys that helps them to feel more confident in their abilities and more satisfied with their jobs. Alternatively, it might be that the teachers who are more confident and content with their roles are those who conduct student surveys in the first place.

In 24 countries, teachers who receive feedback from student test scores reported greater self-efficacy (OECD, 2014, Table 7.12). This type of feedback is also related to greater job satisfaction in 17 participating countries/economies (OECD, 2014, Table 7.13). Receiving feedback on classroom management is positively related to self-efficacy in 17 participating countries. In 23 countries, teachers who receive feedback on classroom management also reported greater job satisfaction; and in half of these countries, the association is strong.

Box 5 provides examples from Norway of how student feedback can be used to help teachers improve their teaching.

In 10 participating countries/economies, teachers who reported that feedback affects their teaching also reported greater self-efficacy (OECD, 2014, Table 7.12). The perception that appraisal and feedback influences teaching practices is also positively related to job satisfaction in nearly all countries/economies surveyed (OECD, 2014, Table 7.13). In contrast, in 14 participating countries/economies, when teachers regarded their appraisal and feedback as only an administrative exercise, they tended to report lower self-efficacy; in all participating countries/economies, teachers who regarded appraisal and feedback in this way reported less job satisfaction. This negative association with job satisfaction is strong in most countries; only in Brazil is it weak.

Teachers' Self-efficacy and Their Beliefs and Practices

To equip students with the skills and competencies needed in the 21st century, teachers around the world are being encouraged to use a variety of teaching practices, ranging from

Box 5. The Use of Teacher and Student Feedback in Norway

Following several years of collaboration, the Norwegian Student Organization and the Union of Education Norway have developed a number of recommendations for teacher appraisal. The purpose of their collaboration was to develop a set of agreed principles that can form the basis for a student survey on teaching in particular classes, with the possibility of adapting it locally. Following their recommendations, the survey should:

- Focus on teaching practice rather than the teacher as an individual;
- Include the students' own self-assessment and assessment of peers to enable analysis of how student effort and motivation influence the learning environment;
- Feature questions on teaching approaches that are relevant for student learning, such as adapted education and feedback to students, as well as questions on the general framework for teaching, such as materials and physical conditions;
- Be carried out anonymously to ensure that students give honest answers;
- Be analyzed by the teacher and students together with a view to improve the classroom environment and learning outcomes.

This should be followed up with a joint report by the teacher and student group on their analysis of results and agreed future changes. This report, together with relevant data, should be submitted to the teachers' closest supervisor.

Source: Norwegian Directorate for Education and Training (2011), cited in Nusche, Earl, Maxwell, and Shewbridge (2011).

more traditional practices (such as direct transmission of information), to more recently conceived, constructivist practices. The latter forms of teaching and learning help to develop students' skills to manage complex situations and learn both independently and continuously. It has also been argued that these practices enhance students' motivation and achievement (Guthrie, Wigfield, & VonSecker, 2000; Hacker & Tenent, 2002; Nie & Lau, 2010; Nie, Tan, Liao, Lau, & Chua, 2013). Research advocating constructivist approaches also suggests that teachers' self-efficacy is greater among those teachers who use constructivist instruction techniques than among those who use reception or direct transmission instruction techniques (Luke et al., 2005; Nie et al., 2013). Using TALIS 2008 data, Vieluf, Kaplan, Klieme, and Bayer (2012) reported that the impact of direct transmission versus constructivist approaches depends on different factors, such as the subjects taught and classroom variables. In fact, it was not the use of one kind of practice rather than another, per se, but the variety of practices employed that was found to be related to greater teacher self-efficacy, among other things.

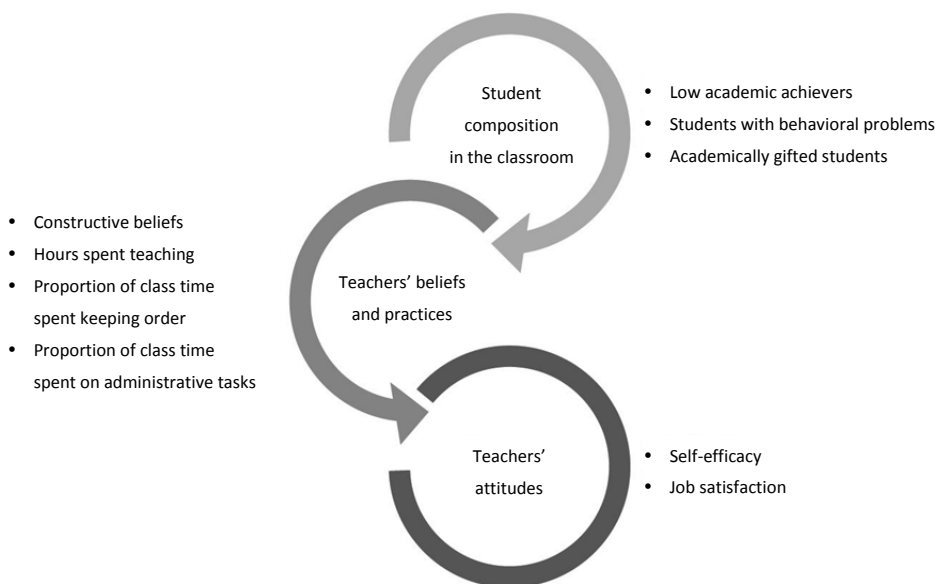
TALIS data indicate that, in most countries, constructivist beliefs are positively related to greater self-efficacy and job satisfaction among teachers (OECD, 2014, Tables 7.14 and 7.15). Teachers who reported more highly constructivist beliefs also reported greater self-efficacy and slightly more job satisfaction.

The number of hours spent teaching in a typical work week is more strongly associated with teachers' self-efficacy than with job satisfaction — although in opposite ways. All of these associations are weak (OECD, 2014, Tables 7.14.Web.2 and 7.15.Web.2).

In almost all countries/economies, the more time teachers spend on keeping order in the classroom, the less self-efficacy and less job satisfaction they reported. Meanwhile, the proportion of time spent on administrative tasks in the classroom seems to be weakly and negatively associated with job satisfaction in about half of the countries/economies surveyed, while it relates negatively to self-efficacy in 12 countries (OECD, 2014, Tables 7.14.Web.4 and 7.15.Web.4).

How Teachers' Beliefs and Practices Mediate the Impact of Classroom Composition on Their Sense of Self-efficacy and Job Satisfaction

The proportion of time spent keeping order in the classroom plays the most crucial role in the relationships between classroom composition and teachers' self-efficacy and job satisfaction (OECD, 2014, Table 7.14.Web.3). Figure 6 provides an illustration of the

Figure 6: The Influence of Class Composition on Teachers' Attitudes, Beliefs and Practices

Source: OECD (2014, p. 198).

relationships between class composition and teachers' attitudes, beliefs and practices. Among teachers who teach larger proportions of low achievers and who reported less self-efficacy, the proportion of time these teachers reported spending on keeping order in the classroom accounts fully for that negative association in Italy, Serbia, Spain and Sweden, and reduces the strength of that association in Brazil, France, Mexico, Portugal and Romania. In other words, it is not that these teachers teach in classrooms with more low achievers that is related to their lower levels of self-efficacy; rather, it is the larger proportion of time that they spend on keeping order in the classroom that undermines their feelings of self-efficacy.

A similar finding emerges among teachers who work in classrooms with larger proportions of students with behavioral problems and who reported lower levels of self-efficacy. The proportion of time these teachers spend keeping order in the classroom accounts fully for this negative association in 10 countries; in Poland, Romania and Abu Dhabi, the association is weakened after considering the proportion of time spent keeping order in class. What this means is that, in many countries, the relationship between teaching in challenging classrooms (i.e., classrooms containing more low achievers or students with behavioral problems) and teacher self-efficacy can be explained by the amount of time that a teacher spends keeping order in the class (OECD, 2014, Table 7.15.Web.3).

Teachers' Self-efficacy and Their Professional Collaborative Practices

Formal collaborative learning generally entails teachers meeting regularly to share responsibility for their students' success at school (Chong & Kong, 2012). Although an increasing number of professional development activities for teachers are structured around collaboration, evidence on conditions for successful collaboration and positive outcomes related to collaborative practices remains relatively scarce and inconclusive (Nelson, Slavit, Perkins, & Hathorn, 2008). Yet researchers have described a myriad of different structures and processes to create a collaborative culture among teachers in schools (Erickson, Brandes, Mitchell, & Mitchell, 2005; Nelson et al., 2008).

Empirical evidence shows that collaboration among teachers may enhance their efficacy, which, in turn, may improve student achievement and sustain positive teacher behaviors (Liaw, 2009; Puchner & Taylor, 2006). In a meta-review of empirical studies, Cordingley, Bell, and Thomason (2004) reported that collaborative professional development is related to a positive impact on teachers' range of teaching practices and instructional strategies, to their ability to match these to their students' needs, and to their self-esteem and self-efficacy. There is also evidence that such collaborative professional development activities are linked to a positive influence on student learning processes, motivation and outcomes. Box 6 presents an example of collaborative evaluation in Denmark.

TALIS examines the associations between several collaborative practices and teacher self-efficacy and job satisfaction. Specifically, the following indicators for collaborative practices were used: teaching jointly in the same class; observing and providing feedback on other teachers' classes; engaging in joint activities across different classes and age groups; and taking part in collaborative professional learning. Teachers who reported that they engage in these kinds of activities five times a year or more are compared with those who reported engaging in them less frequently.

In almost all countries, teachers who reported that they engage in these kinds of collaborative activities five times a year or more also reported greater self-efficacy. In half of the countries, this relationship is moderately strong (OECD, 2014, Table 7.16). Particularly strong associations are observed in Bulgaria, Chile, Estonia, Finland, Israel and Korea.

Similar to the results for teacher self-efficacy, almost all countries showed a positive relationship between teacher collaboration and job satisfaction (OECD, 2014, Table 7.17). Some relationships are particularly strong. For example, teachers in Chile and Estonia who

Box 6. Collaborative Evaluation in Denmark

In Denmark, teacher appraisal is not regulated by law and no national requirements exist to evaluate the performance of teachers. Actual teacher-appraisal practices are determined locally with the possible influence of municipal requirements or guidelines. According to the *Folkeskole* Act, the school principal is responsible for the quality of teaching at the school as well as the overall administrative and pedagogical management of the school, including the professional development of teachers. As a result, the main responsibility for designing, introducing and organizing teacher-appraisal procedures within the school lies with the school principal. Actual teacher-appraisal practices in Danish schools seem to be based on a culture where school leaders show confidence in their teachers, appraisal is conducted as a school-teacher or teacher-teacher dialogue, and procedures are defined in collaboration with the teachers.

Work in Danish schools is increasingly organized in a way that encourages teamwork. Schools are increasingly structuring work around teams of teachers (e.g., class team, form team, section team, subject team) that share responsibility for organizing their work. This development has led to growing cooperation among teachers and a more formal dialogue between the school leaders and teams of teachers. This also provides a context in which some schools organize teacher appraisal mostly within teams. In this situation, teachers cooperate on promoting the quality of the teaching in the school. It is a widespread practice in the *Folkeskole* that planning, learning and knowledge sharing take place in teacher teams. Other typical activities among teachers include supervising each other within a team and discussing together the progress and development of an individual student. According to the *Folkeskole* Act, the school leader is responsible for the quality in his / her school within the limits imposed by the decisions of the city council and the school board.

Source: Shewbridge, Jang, Matthews, and Santiago (2011).

jointly teach classes with other teachers reported greater job satisfaction (OECD, 2014, Table 7.17.Web). In eight countries, teachers who observe other teachers' classes also reported greater job satisfaction. This association is moderately strong in these countries. The strongest association with teachers' job satisfaction appears to be participating in collaborative professional learning activities five times a year or more. In two-thirds of the countries/economies surveyed, such participation is related to significantly greater job satisfaction. Of these, 12 countries show moderately strong associations; in Brazil and Chile, exceptionally strong associations are observed. This means that teachers who take part in collaborative learning activities more frequently also reported much greater job satisfaction than those who do not. Box 7 presents an example of teacher collaboration in Japan.

The relationships between collaborative practices and teachers' self-efficacy and job satisfaction, on average across countries, are illustrated in Figures 7 and 8, respectively. When looking at all TALIS countries/economies, the more frequent the participation in collaborative practices, the greater the teachers' sense of self-efficacy.

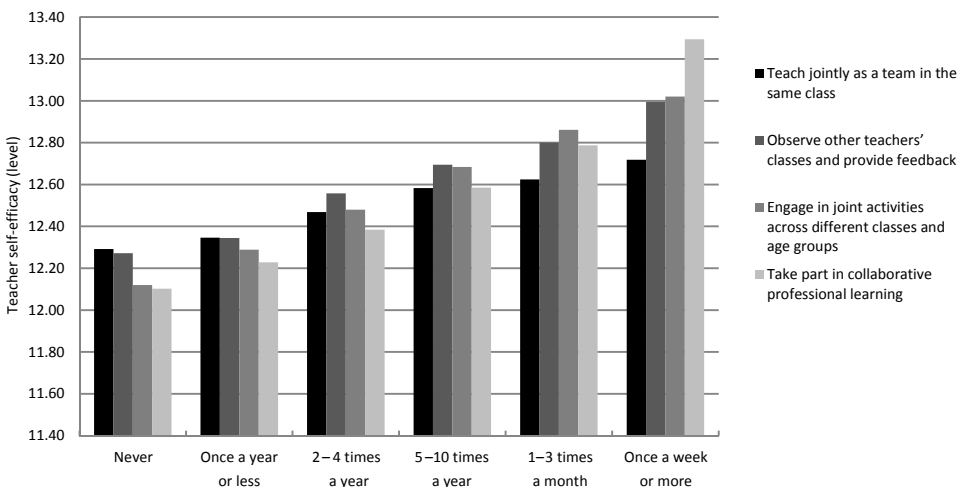
Box 7. Preparing Teachers to Lead Improvement in Japan

The Japanese tradition of lesson study, in which groups of teachers review their lessons and how to improve them, in part by analyzing student errors, provides one of the most effective mechanisms for teachers’ self-reflection as well as being a tool for continuous improvement. Observers of Japanese elementary school classrooms have long noted the consistency and thoroughness with which a math concept is taught and the way in which the teacher leads a discussion of mathematical ideas, both correct and incorrect, so that students gain a firm grasp on the concept. This school-by-school lesson study often culminates in large public research lessons. For example, when a new subject is added to the national curriculum, groups of teachers and researchers review research and curriculum materials and refine their ideas in pilot classrooms over a year before holding a public research lesson, which can be viewed electronically by hundreds of teachers, researchers and policymakers.

The tradition of lesson study in Japan also means that Japanese teachers are not alone. They work together in a disciplined way to improve the quality of the lessons they teach. That means that teachers whose practice lags behind that of the leaders can see what good practice is. Because their colleagues know who the poor performers are and discuss them, the poor performers have both the incentive and the means to improve their performance. Since the structure of the East Asian teaching workforce includes opportunities to become a master teacher and move up a ladder of increasing prestige and responsibility, it also pays for the good teacher to become even better.

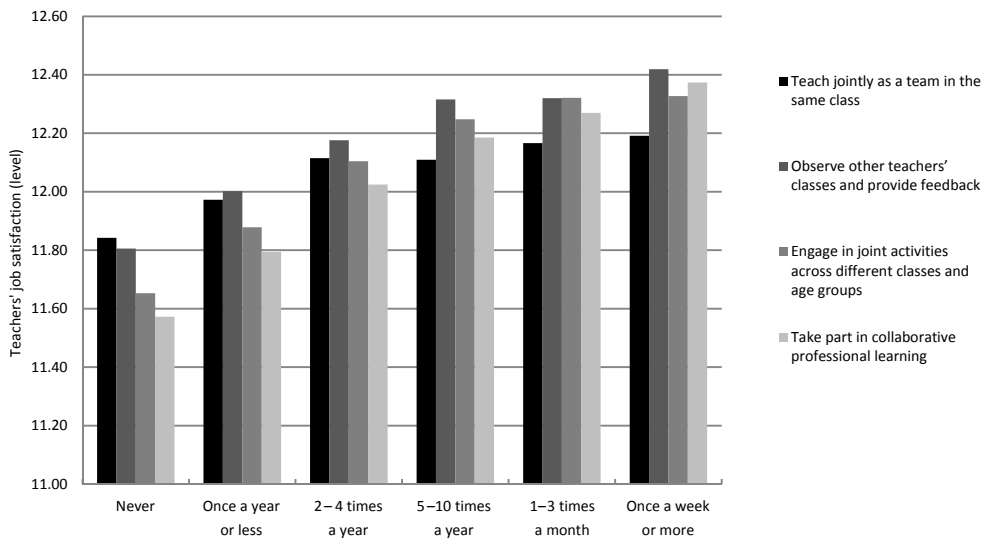
Source: OECD (2011).

Figure 7: Teachers’ Self-efficacy and Professional Collaboration



Source: OECD (2014, p. 199).

Figure 8: Teachers' Job Satisfaction and Professional Collaboration



Source: OECD (2014, p. 200).

The strength of the association with job satisfaction appears to level off as teachers participate more frequently in collaborative activities. In general, however, more frequent engagement in collaborative practices seems to be associated with greater self-efficacy and job satisfaction among teachers across all the countries/economies that participated in TALIS.

Policy Implications

The concepts of teacher self-efficacy and job satisfaction are more important to schools and education systems than a superficial reading might indicate. In other words, it is not just about making sure that teachers are happy and feel good about themselves and their teaching, although, of course, that is important as well. Research cited here suggests that there are positive associations between both self-efficacy and job satisfaction and student achievement. High levels of teacher self-efficacy are also associated with student motivation and other positive teacher behaviors. Conversely, low levels of self-efficacy can be linked to greater stress and problems dealing with students who misbehave. TALIS data demonstrate that, in most countries, improving teachers' sense of self-efficacy is slightly more likely to result in greater job satisfaction than the other way around. Job satisfaction is important in itself as

it relates to teachers' level of commitment to the profession and, in turn, to schools' ability to retain the best teachers.

As reported above, nine out of ten teachers are satisfied with their jobs, and 70–92% of teachers are confident in their abilities in the areas measured. The biggest differences come at the country level. Differences in reported levels of efficacy and job satisfaction come from a variety of sources, depending on the country; but across countries/economies, challenging classrooms play a large role. This is hardly a surprise given the amount of time a teacher spends in his or her classroom and the importance of the work that is done — or should be done — there. If a teacher spends an inordinate amount of time keeping order, or if a larger proportion of his or her students misbehaves, it is natural to think that this teacher might feel less confident in his or her abilities or feel less positive about his or her job. The TALIS data support this.

Fortunately, TALIS data also identify the positive influences on teachers' sense of self-efficacy and job satisfaction that can aid in policy or program development in these areas. A new report based on TALIS data (Burns & Darling-Hammond, 2014) also suggests policies that can support and strengthen teaching and lead to high-quality learning for students.

Build Teachers' Capacity to Handle Misbehaving Students

TALIS data indicate that as the proportion of students with behavioral problems grows, teachers report less job satisfaction. In addition, in most countries/economies, teachers who spend more time keeping order in the classroom reported lower levels of self-efficacy and job satisfaction. When these relationships are examined further, the analyses finds that these negative relationships between both self-efficacy and job satisfaction and specific classroom factors can also be elucidated by a teacher's reports of how much time he or she spends keeping order in class. In other words, it is not the proportion of students with behavioral problems or low achievers in a class that is the most important influence on a teacher's self-efficacy or job satisfaction. Rather, it is the time the teacher spends dealing with the classroom-management issues related to these, or other, students.

Though it is impossible to identify cause and effect, the analyses reported here make a case for building teacher capacity so that the impact of students' behavioral problems on teaching and learning can be mitigated. This could benefit not only the teacher but also all of the students in the class. Professional development activities that focus on classroom management or instruction strategies might be useful, particularly for newer teachers, as

would be providing additional classroom or pedagogical support for teachers who teach particularly challenging classes. It is equally important to be sure that during initial teacher education, teachers have several sufficiently long periods of teaching practice in a variety of schools to ensure that beginning teachers do not enter the profession until they have developed adequate classroom competencies. More flexible classroom situations, such as team teaching, might also allow teachers to share the tasks of teaching and disciplining students.

Support the Development of Interpersonal Relationships Within the School

TALIS shows that the interpersonal relationships in a school have powerful mediating effects on some of the challenging classroom circumstances that teachers might face. In addition, the relationships that teachers have with their students have a strong association with teachers' job satisfaction.

School leaders need to provide opportunities and support for building these relationships at school. The support could be in the form of resources, such as a physical space in which teachers can meet with each other, or time away from class or other administrative work to allow teachers to meet and develop relationships with students and colleagues. The leadership team needs to make itself available to its teaching staff as well. Government policies can also offer school leaders the organizational freedom to develop strategies in these areas and to make changes in the school day or school building to help. Perhaps most important, teachers need to be open and willing to engage with their colleagues, their administration and their students.

Institute Meaningful Systems of Appraisal and Feedback That Have Connections With Teachers' Practice

In all TALIS-participating countries/economies, teachers' perception that appraisal and feedback lead to changes in their teaching practice is related to greater job satisfaction, while their perception that appraisal and feedback are only administrative exercises is related to less job satisfaction.

Policymakers and schools should thus support the development of teacher appraisal and feedback systems that are actually linked to improving teaching.

Encourage Collaboration Among Teachers, Either Through Professional Development Activities or Classroom Practices

Collaboration among teachers is important not just for building the interpersonal relationships among staff that are shown to have an impact on teachers' self-efficacy and job satisfaction, but because they are valuable in and of themselves. It is clear from the TALIS data that teachers benefit from even minimal amounts of collaboration with colleagues. The data show that participating in collaborative professional development activities or engaging in collaborative practices five times a year or more has a positive relationship with both teacher self-efficacy and job satisfaction. Many of the collaborative practices mentioned in TALIS, such as observing other teachers' classes and providing feedback, or teaching as a team in the same class, could — and should — be introduced at school. These activities serve a variety of purposes, including providing professional development for teachers where they work and offering teachers another source of feedback on their work. School leaders could make schedules more flexible to allow for team teaching, for example.

Notes

1. Teachers responded that they could perform these actions quite a bit or a lot, which has here been summarized as “often.”
2. These analyses were made up of binary logistic regressions conducted for each country separately. The combined Strongly Disagree–Disagree group was chosen as a reference category for the analysis examining the extent to which teachers feel that teaching is a valued profession in society.
3. Similarly, the cut-off points were determined by reviewing the distribution of responses and selecting a point where both representation of the responses and sufficient variability to be meaningful were maintained.
4. Note that the baseline classroom composition coefficients used in OECD (2014), Tables 7.8 to 7.15 are slightly different from those presented in OECD (2014), Tables 7.6 and 7.7. This is due to differences in the analyses performed.
5. In supplementary analyses (not discussed here), there does not appear to be consistent or significant changes in classroom composition correlations with self-efficacy or job satisfaction after accounting for professional development.

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This article is based on the OECD report: *TALIS 2013 Results: An International Perspective on Teaching and Learning*. doi: 10.1787/9789264196261-en

增進教師的效能感

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摘要

教師的自我效能感（亦即他們相信自己有能力教導學生和管理課堂）對其教學實踐、熱誠、投入、工作滿足感和課堂行為都有影響。究竟教師可如何強化自我效能感呢？根據經濟合作與發展組織 2013 年教與學國際調查（Teaching and Learning International Survey）的結果，教師若與同事和學生保持良好關係能提升其自我效能感與工作滿足感，同時亦能紓緩具挑戰性課堂對教師自我能力信念的負面影響。假若教師有定期與其他教師協作（包括合作教學、到其他教師的課堂觀課並提供回饋，或參與專業學習活動），他們亦傾向有較高自我效能感。雖然教與學國際調查結果顯示少於三分之一的教師相信社會重視教師這門專業，但在所有參與調查的國家或經濟體中（除其中之一外），有參與學校決策的教師都相信社會是重視教師專業的。在大多數國家，這些教師亦有較高的自我效能感。

關鍵詞：教師；工作滿足感；自我效能感；教學