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Teacher Self-Efficacy and Job Satisfaction: Why They Matter

This chapter focuses on teachers' feelings of self-efficacy and job satisfaction. Self-efficacy refers to the level of confidence teachers have in their abilities, while job satisfaction is the sense of fulfilment and gratification that teachers get from working. The chapter looks at some of the themes previously examined in this report (professional development, appraisal and feedback, school leadership, teacher characteristics) and investigates whether they influence teachers' feelings of self-efficacy and job satisfaction. The discussion then considers teacher and school characteristics that might serve to lessen the effects of potentially challenging classroom circumstances for teachers. It concludes with recommendations for policy makers, school leaders and teachers.



Highlights

- Less than a third of all teachers across TALIS countries believe that teaching is a valued profession in society. In all but one TALIS country, the extent to which teachers can participate in decision making has a strong positive association with the likelihood of reporting teaching is valued profession in society.
- Furthermore, teachers who report that they are provided with opportunities to participate in decision making at a school level have higher reported levels of job satisfaction in all TALIS countries and higher feelings of self-efficacy in most countries. The relationship between job satisfaction and teacher participation in school decision making is particularly strong for all countries.
- With more teaching experience comes higher levels of self-efficacy, but in some cases lower levels of job satisfaction. Teachers with more than five years of work experience report higher levels of self-efficacy than their less-experienced colleagues in 26 countries but lower levels of job satisfaction in 12 TALIS countries.
- Challenging classroom circumstances can affect teachers' self-efficacy and job satisfaction. In particular, an increase in the percentage of students with behavioural problems is associated with a strong decrease in teachers' reported levels of job satisfaction in almost all countries.
- Teachers' perception that appraisal and feedback lead to changes in their teaching practice is related to higher job satisfaction in nearly all countries, whereas the perception that appraisal and feedback is performed merely for administrative purposes relates to lower levels of job satisfaction in all TALIS countries.
- The relationships that teachers develop with their school leader, other teachers or with students in their schools are valuable. Positive interpersonal relationships can negate the otherwise detrimental effects that challenging classrooms of students might have on a teacher's job satisfaction or feelings of self-efficacy. Relationships between teachers and students have an exceptionally powerful relation with teachers' job satisfaction.
- Collaboration among teachers, whether through professional learning or collaborative practices, is also influential. Collaborative practices are related to both higher levels of self-efficacy and job satisfaction. In particular, teachers who report participating in collaborative professional learning five times a year or more also report significantly enhanced levels of self-efficacy in almost all countries and higher job satisfaction in two-thirds of the countries.

INTRODUCTION

According to Bandura's (1986) social cognitive theory, self-efficacy refers to individuals' beliefs about their capabilities to successfully accomplish a particular course of action. In education, research has shown that students' self-efficacy has an important influence on their academic achievement and behaviour. Yet there is increasing evidence that teachers' sense of self-efficacy, consisting of efficacy in instruction, student engagement and classroom management, also is an important factor in influencing academic outcomes of students, and simultaneously enhances teachers' job satisfaction (Caprara et al., 2006; Klassen and Chiu, 2010). Job satisfaction, in turn, refers to a sense of fulfilment and gratification from working in an occupation (Locke, 1969), and teacher job satisfaction consists of satisfaction with the profession and satisfaction with the current work environment. Research shows that while teachers are generally satisfied with the aspects of their jobs that relate to their teaching work, such as work tasks and professional growth, they tend to be dissatisfied with other aspects surrounding the performance of their job – for example, working conditions, interpersonal relations and salary (Butt et al., 2005; Crossman and Harris, 2006; Dinham and Scott, 1998).

A number of studies have demonstrated positive associations between teachers' self-efficacy and higher levels of student achievement and motivation and teachers' instructional practices, enthusiasm, commitment, job satisfaction and teaching behaviour (Skaalvik and Skaalvik, 2007; Tschannen-Moran and Woolfolk Hoy, 2001; Tschannen-Moran and Barr, 2004; Caprara et al., 2006). Lower levels of teachers' self-efficacy, on the other hand, have been linked to teachers experiencing more difficulties with student misbehaviour, being more pessimistic about student learning and experiencing higher levels of job-related stress and lower levels of job satisfaction (Caprara et al., 2003; Caprara et al., 2006; Klassen and Chiu, 2010; Collie, Shapka and Perry, 2012). Furthermore, teachers' self-efficacy appears to be a valid construct across countries differing in language and culture, and there is evidence that teachers' self-efficacy shows a similar positive relationship with teachers' job satisfaction across cultural settings (Klassen et al., 2009; OECD, 2009).



This positive relationship between teachers' self-efficacy and job satisfaction is particularly important because there is empirical evidence supporting the positive association between job satisfaction and job performance across a wide range of work settings (Judge et al., 2001). Job commitment has been found to have an important role in this relationship, as job satisfaction leads to enhanced commitment, which in turn leads to better job performance (Lee, Carswell and Allen, 2000; Kardos and Johnson, 2007). Moreover, job satisfaction plays a key role in teachers' attitudes and efforts in their daily work with children (Caprara et al., 2003). Exploring the relationship between teachers' self-efficacy and job satisfaction may therefore have implications for teachers' retention and commitment to the school, job performance and, by extension, the academic achievement of students (Klassen et al., 2009; Price and Collett, 2012; Somech and Bogler, 2002; Brief and Weiss, 2002).

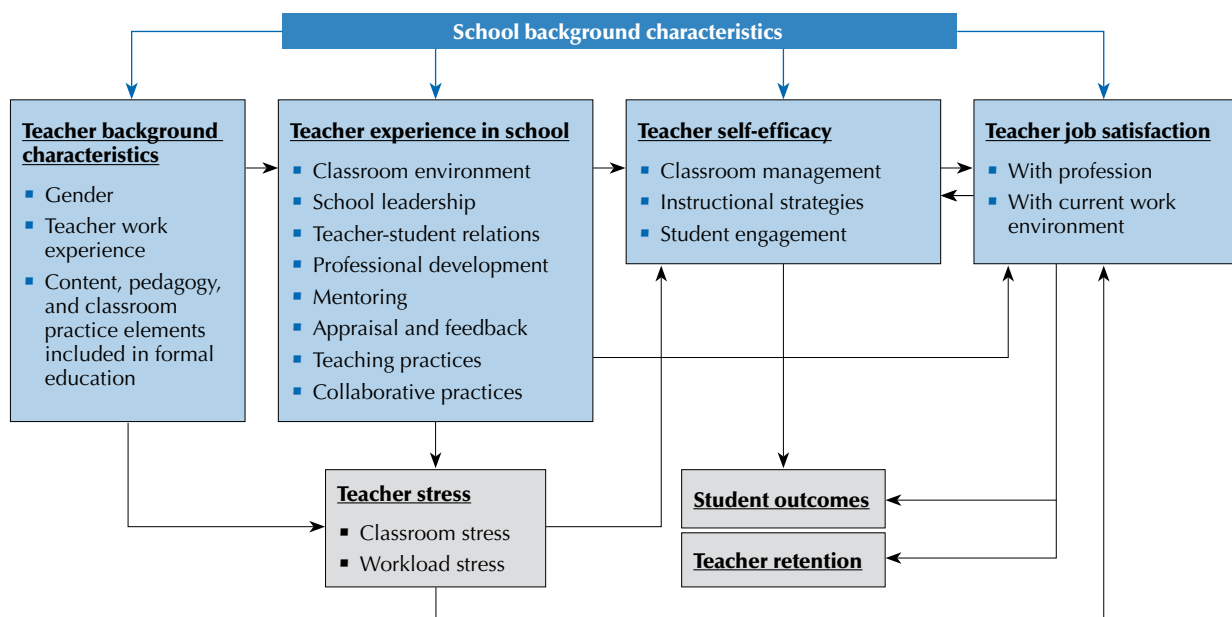
Although the described studies show associations between teacher self-efficacy and student achievement, most of these studies did not research the direction or causality of these associations. Caprara et al. (2006) investigated the direction of causality and found that teachers' personal efficacy beliefs affected their job satisfaction and students' academic achievement when controlling for previous levels of student achievement. Yet Holzberger, Philipp and Kunter (2013) only partially confirmed a causal effect of teachers' self-efficacy on later instructional quality. (Their analyses revealed that instructional quality also effects teacher self-efficacy.) This means that it remains a possibility that "good teaching" causes higher teacher self-efficacy and that further research is needed to better understand these relationships.

Analytical model

This chapter examines relationships between teachers' self-efficacy, job satisfaction and other themes discussed in the previous chapters of this report, such as school leadership, teacher professional development and teacher appraisal and feedback (see Box 7.1 for information about how self-efficacy and job satisfaction are measured in TALIS). Figure 7.1 illustrates the hypothesised relationships between the variables of interest in this final chapter. Though "teacher stress", "teacher retention", and "student outcomes" are not directly measured by TALIS, they are included in the figure to show how the TALIS data fit into the bigger story for teachers, their attitudes and student outcomes. Figure 7.1 also illustrates the research questions this chapter considers.

■ Figure 7.1 ■

Framework for the analyses of teachers' self-efficacy and job satisfaction



Note: Constructs that are covered by the survey are in blue; others are in grey.

Source: Adapted from Klassen, R.M. & Chiu (2010).



Organisation of this chapter

This chapter uses the literature, as well as the themes discussed in previous chapters of this report, to examine different aspects of teacher self-efficacy and job satisfaction. First, this chapter examines how teachers' self-efficacy and job satisfaction are related to school and teacher background characteristics. For example, does teacher self-efficacy vary according to teacher gender, work experience and training in different elements of subjects taught (i.e. Wolters and Daugherty, 2007; Kooij et al., 2008)? Following the few studies available in the literature, the chapter also looks at how and whether teachers' job satisfaction is influenced by teachers' self-efficacy and vice versa (i.e. Caprara et al., 2003; Liu and Ramsey, 2008). Furthermore, what are the effects of relationships teachers form in the school, school leadership styles, teachers' perceptions of classroom and school environment and teachers' beliefs and practices on teachers' job satisfaction and self-efficacy (i.e. Collie, Shapka and Perry, 2012; Calik et al., 2012; Wahlstrom and Louis, 2008)? Finally, this chapter considers the extent to which professional development, mentoring and collaborative practices have a positive impact on teachers' self-efficacy and job satisfaction (i.e. Lumpe et al., 2012; LoCasale-Crouch et al., 2012; Devos et al., 2012). At the end of this chapter, key policy implications derived from TALIS findings are highlighted.

A PROFILE OF TEACHERS' SELF-EFFICACY AND JOB SATISFACTION

Despite the emerging evidence of the relationship between teachers' self-efficacy and student learning (Caprara et al., 2003; Caprara et al., 2006; Klassen and Chiu, 2010; Collie, Shapka and Perry, 2012), still relatively little is known about how teachers' job satisfaction and self-efficacy are related to each other and to important demographic characteristics such as years of experience, gender, educational attainment and teaching level. This is important information because self-efficacy beliefs and job satisfaction in the workplace are not static and reflect a lifelong process of development that fluctuates in line with personal characteristics and changing circumstances (Klassen and Chiu, 2010).

Research seems to suggest that teachers' self-efficacy is most malleable in the early stage of a teacher's career, after which it increases and becomes more stable and established as teachers gain experience (Tschannen-Moran and Woolfolk Hoy, 2007; Wolters and Daugherty, 2007). However, Klassen and Chiu (2010) reported a non-linear relationship between teachers' self-efficacy and years of experience, with teacher's self-efficacy increasing with experience for teachers in the early and middle stages of their careers but declining for teachers in late career stages. It seems that the middle and late career stages bring their own challenges that can affect self-efficacy and job satisfaction. For teachers, the combination of successful past experience; verbal support from principals, students, peers, and parents; and opportunities for observation of successful peers builds self-efficacy for teaching (Tschannen-Moran, Woolfolk Hoy and Hoy, 1998). The influence of the sources of self-efficacy are likely to change over the course of a teacher's career though, with verbal persuasion and contextual factors playing a more important role for novice teachers than for veteran teachers (Tschannen-Moran and Woolfolk Hoy, 2007). In one of the few studies researching the relationship between teacher training and self-efficacy, Woolfolk Hoy and Burke Spero (2005) reported a significant increase in teachers' self-efficacy during teacher training, followed by a decline at the end of the first teaching year.

Furthermore, teaching level and teacher gender have also been shown to be related to teachers' attitudes. For example, primary school teachers report higher levels of self-efficacy for student engagement than do teachers in middle or high school (Wolters and Daugherty, 2007). Additionally, women report lower levels of job satisfaction than men, especially regarding their working conditions. A number of studies also indicate that female teachers report higher levels of stress than male teachers (e.g. Antoniou, Polychroni and Vlachakis, 2006; Chaplain, 2008; Klassen and Chiu, 2010). Finally, while Klassen et al. (2009) found similar relationships between teachers' job satisfaction and self-efficacy for teachers from five North American and Asian countries, findings from other studies suggest that teachers' national and cultural background can influence the relationship between these variables (e.g. Liu and Ramsey, 2008; Klassen, Usher and Bong, 2010).¹

Individual self-efficacy and job satisfaction items across countries

Before addressing teacher and school characteristics in relation to teacher self-efficacy and job satisfaction, this section first provides an overview of teachers' responses to questions about specific aspects of their self-efficacy (see Box 7.1).

The individual items that make up the indices discussed in Box 7.1 are interesting in and of themselves. Table 7.1 shows that in the majority of TALIS countries, most teachers report holding beliefs that suggest high levels of self-efficacy. On average across countries, between 80% and 92% of teachers report that they can often get students to believe they can do well in school work, help students value learning, craft good questions for students, control disruptive behaviour in the classroom, make expectations about student behaviour clear, help students think critically, get students



to follow classroom rules, calm a student who is disruptive, use a variety of assessment strategies and provide alternative explanations when students are confused.² In comparison, motivating students who show low interest in school work (70%) and implementing alternative instructional strategies (77%) both seem relatively more difficult on average for teachers across the TALIS countries.

Box 7.1. **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 teacher job satisfaction: satisfaction with profession and satisfaction with current work environment. See Annex B for more details on the construction of these indices.

Efficacy in classroom management

- Control disruptive behaviour in the classroom
- Make my expectations about student behaviour 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 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 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

Yet in some countries, compared with the overall average, teachers seem to believe significantly and consistently less in their ability to have a positive influence in these domains. Notably, teachers in Japan show 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 think critically, to a high of 54% thinking they can provide alternative explanations when students are confused. Teachers in the Czech Republic also report lower levels of confidence in their abilities in some areas: For example, only 30% of teachers in the Czech Republic believe they can motivate students who show low interest in school work, while 39% think they can help students value learning. The patterns are less consistent for teachers in Croatia, Norway and Spain, but percentages in each country are 53% or less for one or more of the elements used to measure self-efficacy.

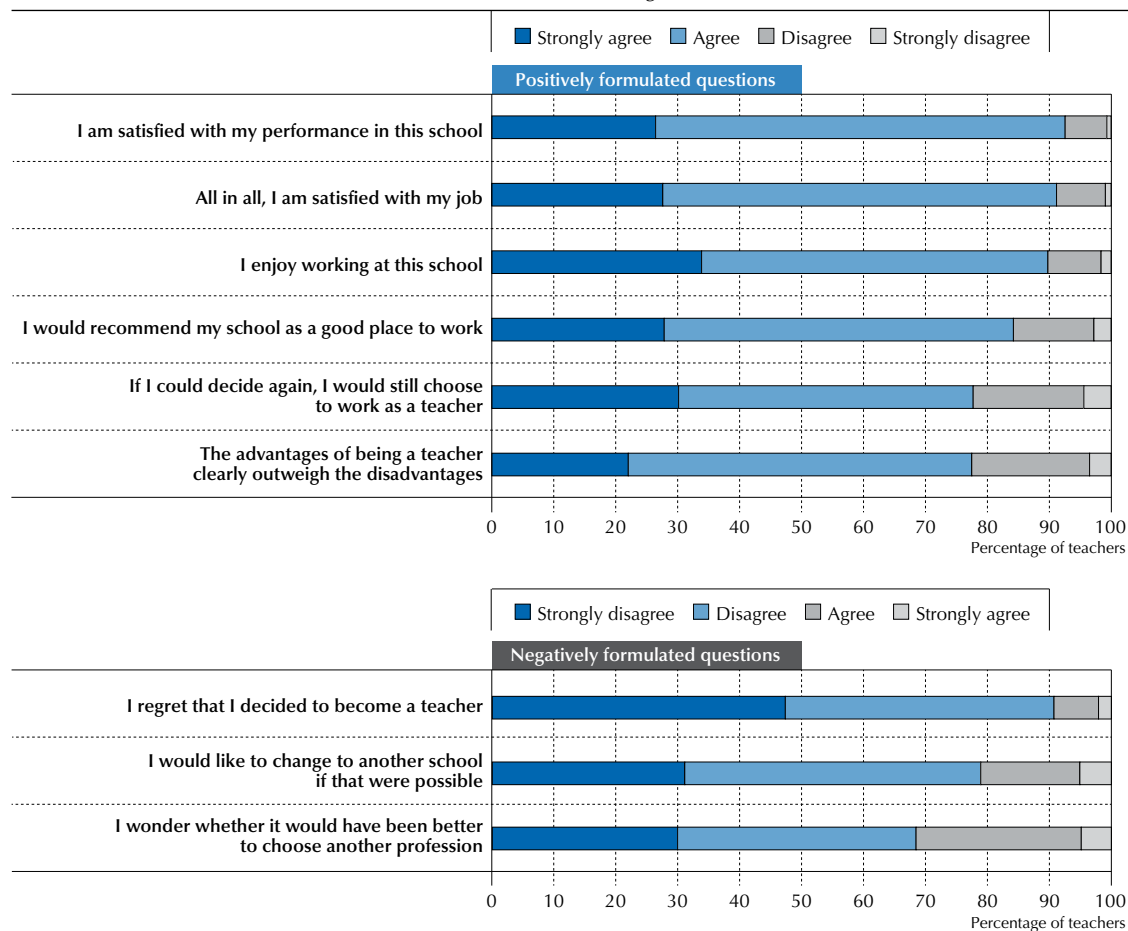


The extent to which teachers across countries hold beliefs that relate to job satisfaction is displayed in Table 7.2 and Figure 7.2. On average, 91% of teachers across countries report overall satisfaction with their job, 93% of all teachers report being satisfied with their performance in their current school, 84% would recommend their school as a good place to work and 90% say they enjoy working at their current school. However, consistent with the findings for elements measuring self-efficacy in Table 7.1, only 50% of teachers in Japan report 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 say they enjoy working in their current school. While results in most countries centre around 77% of teachers reporting that the advantages of being a teacher clearly outweigh the disadvantages, in Brazil, the Czech Republic, France and the Slovak Republic, only 60% or less of teachers believe this.

■ Figure 7.2 ■


Teachers' job satisfaction

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



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, TALIS 2013 Database, Tables 7.2 and 7.2.Web.

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Yet these results do not dissuade teachers in these four countries from reporting that they would choose to become a teacher if they could decide again: Approximately 70% or more of the teachers in these countries say that if they could decide again, they would still choose to work as a teacher (the TALIS average is 78%). More than 9 in 10 teachers in Malaysia and Mexico would choose to be teachers again, but in Japan (58%), Korea (63%) and Sweden (53%), fewer teachers agree. Noticeably more teachers in Korea (20%) and Sweden (18%) also report that they regret becoming a



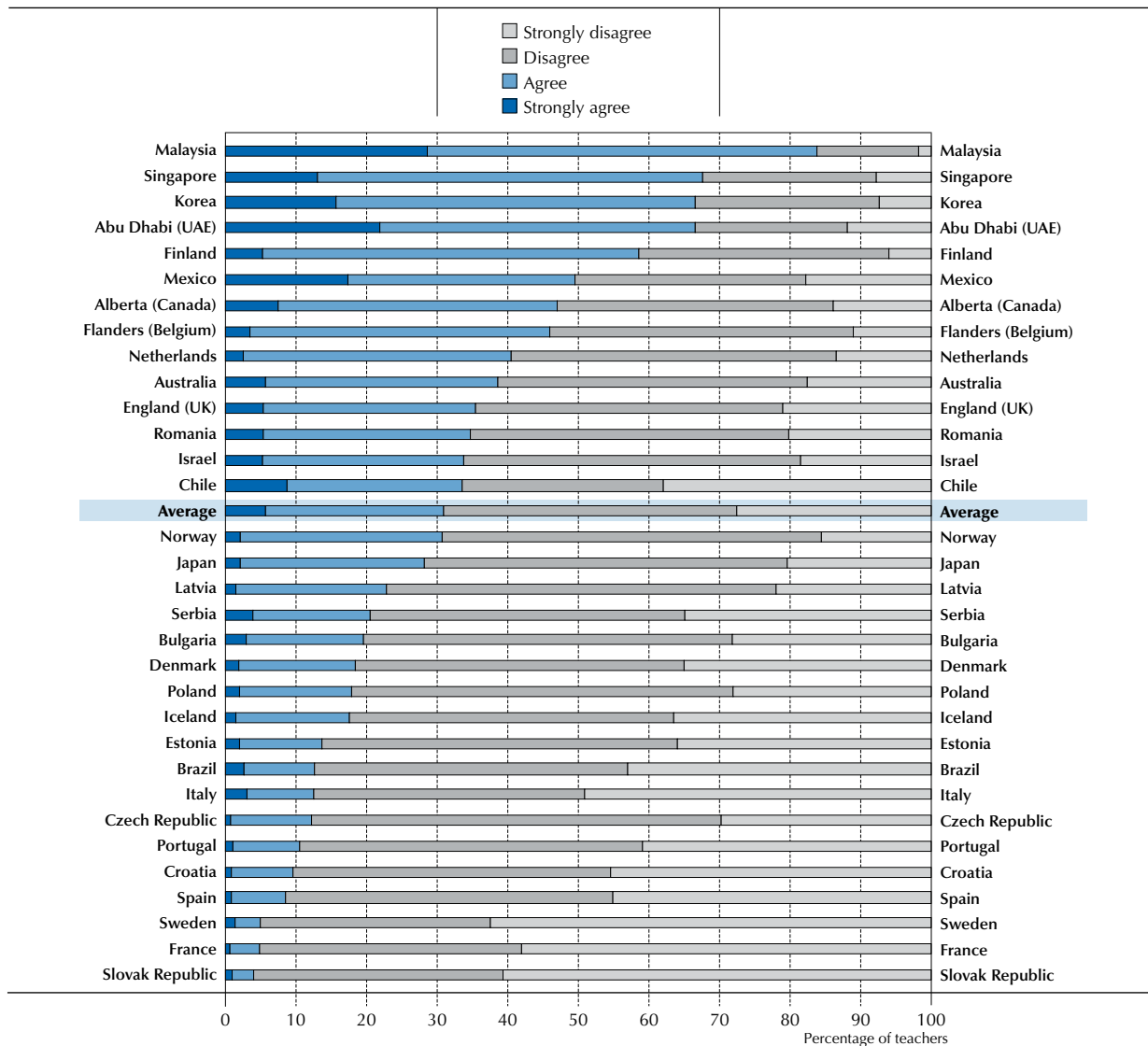
teacher compared with the international average (9%). Again, significantly more teachers in Korea and Sweden, along with five other countries (Bulgaria, Iceland, Portugal, Singapore and the Slovak Republic), also report that they wonder if it would have been better to choose a different profession (40% or more versus the international average of 32%).

Finally, on average, less than a third of all teachers across countries believe that teaching is a valued profession in society (Figure 7.3). This is a significant finding on its own, as even the perception of whether a profession is valued can affect recruitment or retention of candidates in the profession. Large variations among the TALIS countries are observed, however. This issue is particularly problematic in Croatia, France, the Slovak Republic, Spain and Sweden, where less than 10% of teachers believe that teaching is valued. In Korea, Malaysia, Singapore and Abu Dhabi (United Arab Emirates), however, the majority of teachers feel differently, with two-thirds or more of teachers reporting that their society values teaching as a profession.

■ Figure 7.3 ■

Teachers' view of the way society values the teaching profession

Percentage of lower secondary education teachers who “strongly disagree”, “disagree”, “agree” or “strongly agree” with the following statement: *I think that the teaching profession is valued in society*



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.

Source: OECD, TALIS 2013 Database, Tables 7.2 and 7.2.Web.

StatLink <http://dx.doi.org/10.1787/888933042219>



Additional analyses shed more light on what factors might influence teachers' perceptions in this area.³ A weak relation to gender appears, as male teachers are more likely than female teachers to perceive teaching as valued in nine countries. In addition, 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 (Table 7.3). In Bulgaria, Croatia, Serbia and Spain, teachers with more than five years of teaching experience are at least half as likely to report teaching is a valued profession in society compared with their less-experienced peers. In Chile, Singapore and Flanders (Belgium), however, teachers with more than five years of teaching report better societal perceptions of teaching than do their less-experienced colleagues.

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

Thus, while TALIS data show that the vast majority of teachers across countries are satisfied with their jobs, less than a third believe that teaching is a valued profession in their societies. This perception is striking and can negatively impact the teaching profession in those countries. A negative view of the teaching profession, either by society as a whole or when perceived by teachers themselves, can impact the recruitment of high-quality professionals into the teaching profession. It can also affect whether teachers stay in the profession. Many countries have enacted policies aimed to increase the prestige of the teaching profession in order to avoid these issues (Schleicher, 2011). Countries may want to conduct further analyses to look at the origins of these negative perceptions and to specify what it is specifically about the teaching profession that engenders these negative perceptions.

TEACHERS' SELF-EFFICACY AND JOB SATISFACTION IN RELATION TO TEACHER DEMOGRAPHICS

To a certain extent, levels of teachers' self-efficacy and job satisfaction can be influenced by the demographic characteristics of individual teachers. Teachers' gender, years of work experience as a teacher (defined here as more than five years versus five years or less) and any training they have received in the content, pedagogy and classroom practice of the subjects they teach can all be related to how confident they are in their abilities and how they feel about their job. The possible relationships of these demographic factors with teacher self-efficacy and job satisfaction are investigated in this section (Box 7.2).

Box 7.2. Interpretation of the strength of relationships in linear regression analyses

To facilitate interpretation of the relationships examined in this chapter, the text discusses weak, moderate, and strong relationships instead of referring to the numerical values of the regression coefficients. Cut-off points for these three categories were 0.2 and 0.3 standard deviation unit changes, where less than 0.2 is weak, 0.2-0.299 is moderate and 0.3 or higher is strong. These standard deviation unit changes are obtained by dividing the regression coefficient of the relation between the independent variable and dependent variable by the standard deviation of the dependent variable. This means that for every country, the distribution of self-efficacy and job satisfaction scores were taken into account when deciding on the classification of their regression coefficients. For dichotomous independent variables, these 0.2 and 0.3 standard deviation unit changes approximate regression coefficients of 0.3 and 0.5, respectively. For continuous variables, a change in one unit is not comparable to a dichotomous change. For variables such as class size, hours or proportions, we define the size of the relationship as weak, moderate, and strong at the threshold of 10 times the unit ($\beta_1 \times 10$ more students, 10 more hours, 10% more time spent).

For index scores, we define the cut-off points in relation to a one standard deviation increase on that measure. This means that the coefficient on the non-dichotomous independent variables is first translated into standard deviation units by ($\beta_1 \times \sigma_x$). We then discuss a weak, moderate and strong relationship from this threshold.

The calculation and categorisation of all weak, moderate and strong classifications are displayed in the web tables following each regression table.



Table 7.4 shows the associations between these demographic characteristics and teacher self-efficacy, and Table 7.5 shows the same connections with job satisfaction. In 18 countries, male teachers reported lower levels of self-efficacy. Male teachers displayed lower self-efficacy (moderate relationship⁴) in particular in Australia, Denmark, Estonia and the Slovak Republic. These results are interesting to note given the finding in Chapter 2 that overall, the minority of lower secondary school teachers are male. In Japan, which is one of the few countries in which the majority (61%) of lower secondary teachers are male, the opposite is found: Male teachers report higher levels of self-efficacy (the strength of this relationship is moderate; in other countries where male teachers show higher self-efficacy it is weak). A similar pattern was observed for job satisfaction (Table 7.5). Again, in 13 countries male teachers report lower job satisfaction levels. This finding is especially noticeable among male teachers in Croatia and Iceland.

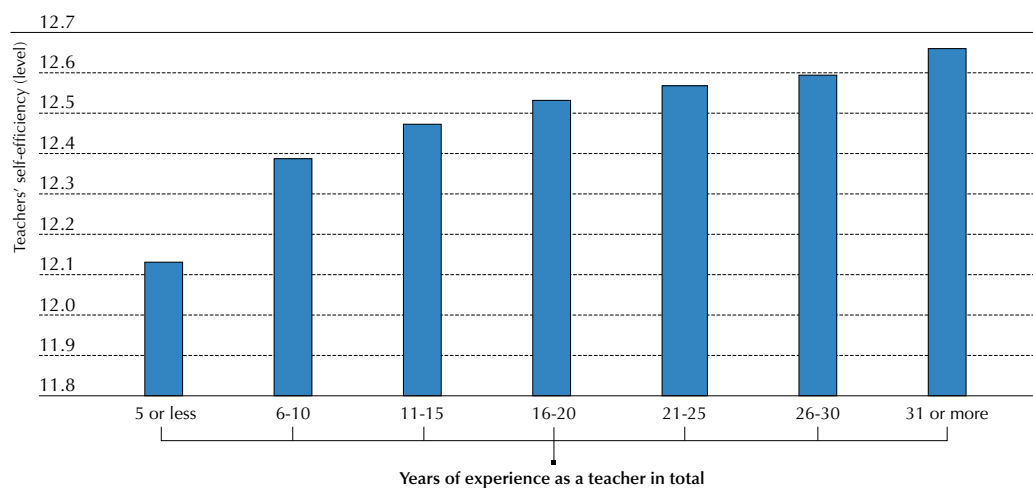
Tables 7.4 and 7.5 also show that teaching experience relates differently to self-efficacy versus job satisfaction. More-experienced teachers tend to have higher self-efficacy in most countries but lower levels of job satisfaction in 12 TALIS countries. Particularly notable relationships were found in Denmark, France, Italy, Japan, Latvia, Singapore, Sweden, Abu Dhabi (United Arab Emirates), Alberta (Canada) and Flanders (Belgium), where teachers' self-efficacy was much higher for those teachers with more than five years of experience as a teacher than it was for their colleagues with less experience. In contrast, in Finland, Korea, the Netherlands, Poland, Serbia and Flanders (Belgium), job satisfaction is moderately lower for more-experienced teachers as compared with their less-experienced counterparts.

Figures 7.4 and 7.5 illustrate the relationship of work experience as a teacher with self-efficacy and job satisfaction, respectively. In five-year intervals, these figures compare the attitude of teachers with different levels of experience. Though it is important to keep in mind that these figures illustrate only a small variation on the indices, the different linear trends do provide interesting information. For teacher self-efficacy (Figure 7.4), there is a general upward trend by experience intervals, though there appears to be a slight stagnation for teachers with 11-20 years of experience, followed by a spike at 21-25 years. This is in line with the literature that reports that the middle and late career stages bring their own challenges that can affect self-efficacy and job satisfaction (Klassen and Chiu, 2010; Tschannen-Moran et al., 1998). Interestingly though, the relation between teaching experience and job satisfaction seems to tell a different story. Figure 7.5 shows a U-shaped relationship. This means that teachers' job satisfaction, on average across countries, slightly decreases through the first 15 years of teaching. Thereafter, however, a positive association emerges. This means that for the highly experienced teachers across TALIS countries, more years of work experience as a teacher is linked to slightly higher job satisfaction.


■ Figure 7.4 ■

Teachers' self-efficacy and experience

Teachers' self-efficacy level in lower secondary education according to the years of experience as a teacher in total



Source: OECD, TALIS 2013 Database.

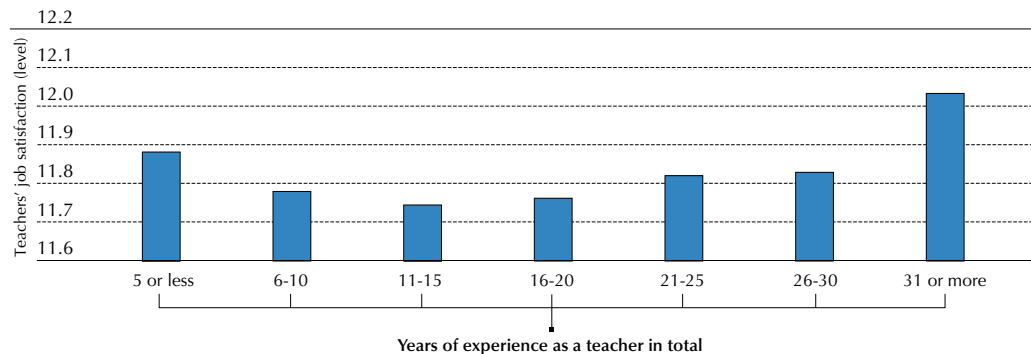
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■ Figure 7.5 ■

Teachers' job satisfaction and experience

Teachers' job satisfaction level in lower secondary education according to the years of experience as a teacher in total



Source: OECD, TALIS 2013 Database.

StatLink  <http://dx.doi.org/10.1787/888933042257>

The extent to which content, pedagogy and classroom practice elements are included in a teacher's formal training has a smaller but significant effect on teacher self-efficacy and job satisfaction (Tables 7.4 and 7.5). For almost all countries the same pattern is observed: The less teachers report the inclusion of these three elements in formal training, the lower their levels of self-efficacy and job satisfaction. These findings emphasise the importance of tailoring the content, pedagogy and classroom practice elements of a teachers' formal education to the specific subjects they will teach.

Finally, Tables 7.4 and 7.5 show the mutual effects that job satisfaction and self-efficacy have on each other, when controlling for the other variables included in the model. As expected, for all countries, an increase in a teacher's job satisfaction is associated with higher reported self-efficacy and vice versa. While the associations in the two different directions are very similar, a teacher's reported confidence levels seem to carry slightly more weight, as in most countries the effect of self-efficacy on job satisfaction is slightly higher than the other way around.⁵

TEACHERS' SELF-EFFICACY AND JOB SATISFACTION IN RELATION TO CLASSROOM ENVIRONMENT

Certain classroom characteristics can make a teacher's work more challenging. Teaching classes in which a high proportion of students have different achievement levels, special needs or behavioural 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 children with special needs. Chapter 4 identified that teaching special-needs students is one of the areas in which teachers need professional development the most. Other studies have shown that teachers of special-needs students are prone to low job satisfaction and 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 behavioural and emotional problems (Emery and Vandenberg, 2010; Katsiyannis, Zhang and Conroy, 2003). Furthermore, many educators of emotionally challenged children experience stress due to a lack of specific skills and/or experience needed to teach these kinds of children (Henderson et al., 2005).

This section investigates the associations between both teacher self-efficacy and job satisfaction and class size and challenging classroom characteristics. Similar to the analyses in Chapter 6, classrooms are considered to be challenging if more than 10% of students in the classroom are low academic achievers or more than 10% of students have behavioural problems.⁶ 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).

The strength and significance of the associations of these variables with teacher self-efficacy and job satisfaction can be seen in Tables 7.6 and 7.7, respectively. A finding of special interest, given the discussion of optimal class size that occurs in many countries, is that class size seems to have only a minimal effect on either teaching efficacy or

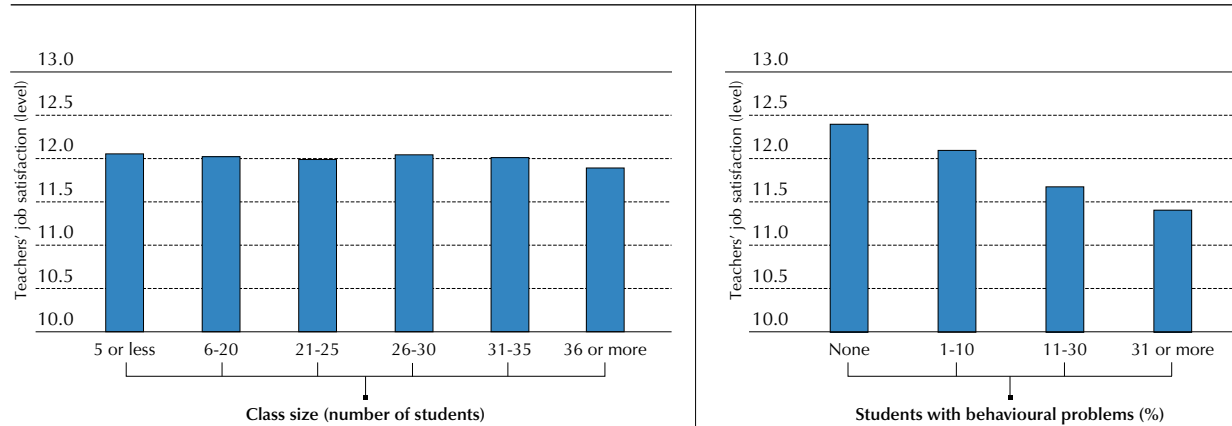


job satisfaction in just a few countries. Further TALIS data indicate that it is not the number of students but the type of students that are in a teacher's class that has the largest association with teachers' self-efficacy and job satisfaction. An example of this is provided in Figure 7.6, where the minimal effect of class size on teachers' job satisfaction is contrasted with the stronger influence of teaching students with behavioural problems. Analyses in this section will elaborate on this finding.

■ Figure 7.6 ■


Teachers' job satisfaction and class composition

Teachers' job satisfaction level in lower secondary education according to the number of students in the classroom and according to the percentage of students with behavioural problems¹



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

Source: OECD, TALIS 2013 Database.

StatLink  <http://dx.doi.org/10.1787/888933042276>

The associations between challenging classroom characteristics and teacher self-efficacy and job satisfaction tell an interesting story across TALIS countries. Teachers teaching classes where more than a tenth of the students are low academic achievers or have behavioural problems show significantly lower self-efficacy and job satisfaction levels in many of the TALIS countries (Tables 7.6 and 7.7). For self-efficacy, the negative relation with teaching more low academic achievers is present only in 9 countries, but for job satisfaction in 24 countries. Furthermore, teaching in classes composed of more students with behavioural problems is associated with lower self-efficacy in 16 countries and lower job satisfaction in 29 countries. These associations are of at least moderate strength in 7 countries for self-efficacy and moderate or strong in 24 countries for job satisfaction (Tables 7.6.Web and 7.7.Web). An illustration of the relationship between teaching students with behavioural problems and job satisfaction can be seen in Figure 7.6. In contrast, teaching in classrooms where more than a tenth of students are academically gifted relates to higher levels of teachers' self-efficacy in 17 countries and higher levels of job satisfaction in 23 countries. For teachers in the Czech Republic and Japan, this aspect has a particularly strong relationship with self-efficacy, and the same association is observed in Bulgaria with job satisfaction.

TEACHERS' SELF-EFFICACY AND JOB SATISFACTION IN RELATION TO SCHOOL LEADERSHIP AND IN-SCHOOL RELATIONS

Teachers' perceptions of school climate, collaborative culture and school leadership greatly impact their levels of stress, teaching efficacy and job satisfaction (Collie et al., 2012; Demir, 2008). For example, perceived stress due to students' behaviour has been found to relate negatively to teaching efficacy, and perceived stress related to workload and teacher self-efficacy appears to be directly related to teachers' job satisfaction (Collie, Shapka and Perry, 2012; Klassen and Chiu, 2010; Taylor and Tashakkori, 1994). These relationships are further reinforced by instructional leadership, defined as providing an effective teaching and learning environment and thereby increasing school quality and student achievement (see Chapter 3). Distributed leadership also has a reinforcing impact, in addition to reducing teacher isolation and increasing commitment to the common good (see Chapter 3; Wahlstrom and Louis, 2008; Pounder, 1999).



Yet, what is even more important than principal leadership styles is the relationships teachers have with other teachers (in the TALIS questionnaire, this is defined by different ways of co-operating), their school leaders and their students as a foundation to improve their instruction (Louis, 2006). Next to teachers' specific classroom management self-efficacy (Box 7.1), teachers' satisfaction with these relationships seems to be the most crucial indicator of teachers' overall job satisfaction and self-efficacy (Holzberger, Philipp and Kunter, 2013; Caprara et al., 2006; Klassen and Chiu, 2010).

In this section, the association between these in-school relationships and teacher self-efficacy and job satisfaction is explored. Teacher-leader relations are examined separately from teacher-teacher and teacher-student relations. Two aspects of the teacher-leader relationship are important and examined in this chapter: The level of opportunities that teachers have to share in the decision making in their schools and the instructional leadership that school principals provide (Box 7.3). The impact that these school relationships can have on the previously established associations between challenging classrooms and self-efficacy and job satisfaction (Tables 7.6 and 7.7) is also discussed.

Box 7.3. **Description of in-school relationships examined in this chapter**

In this chapter, 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. See Annex B for more details on the construction of these indices.⁷

Distributed leadership

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

Instructional leadership

- I took actions to support co-operation 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 relationships

- 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 relationships

- 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

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

Teacher-teacher collaborative relationships are also weakly to moderately associated with higher levels of teacher job satisfaction (Table 7.9). In terms of increasing job satisfaction, the teacher-student relations are exceptionally powerful (in many cases, the teacher-student association is two to three times greater than the teacher-teacher relationship).



In general, then, teachers' reports of the quality of their relationships with other teachers in the school seems to be particularly important for teachers' feelings of self-efficacy, while for teachers' job satisfaction, their perception of the quality of the student-teacher relationships in the school appears to matter most.

In 20 countries, teachers who agree that the staff at their school are provided with opportunities to participate in decision making report higher self-efficacy scores (Table 7.8). These relationships are especially strong in Israel and Romania. An even more uniform and strong relationship is observed with job satisfaction. The ability to participate in decision making at school is significantly related to a strong improvement in teachers' job satisfaction across all countries (Table 7.9). Surprisingly, in contrast to the literature reviewed in this section, instructional leadership as measured in TALIS appears to have a minimal association with teachers' self-efficacy and job satisfaction.

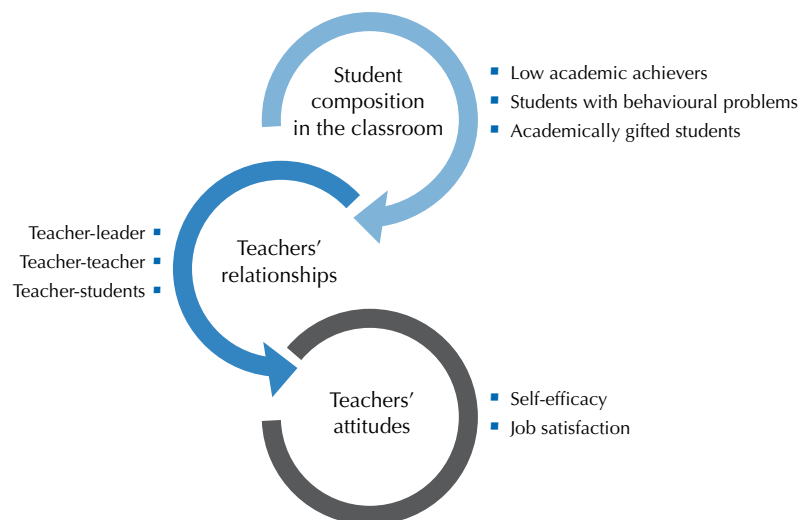
The take-away points from these analyses are four-fold. First, in-school relations are important for teachers' self-efficacy and job satisfaction. Second, school leaders should try to focus on encouraging collaborative relationships among teachers and positive relationships between teachers and students in their schools. Next, school leaders who work to provide school staff with opportunities to share in decision making may gain returns in the realm of higher job satisfaction. And finally, there is little evidence that instructional leadership is associated with higher self-efficacy or job satisfaction among teachers.

The role of in-school relationships in accounting for the impact of classroom composition

This section examines the role that teachers' in-school relationships can play in impeding or alleviating the influences that the composition of students in the classroom might have on teachers' self-efficacy and job satisfaction. Figure 7.7 provides an illustration of the relationships that are covered in this section.

■ Figure 7.7 ■

The influence of class composition on teachers' attitudes and relationships



At least in some countries, the relationships teachers have in their school do appear to alter the associations between many classroom composition characteristics and self-efficacy and job satisfaction reported earlier in this chapter (Tables 7.6 and 7.7). The previously reported finding that teachers working in classrooms containing more than 10% low-achieving students tend to show lower levels of teachers' self-efficacy and job satisfaction still holds after accounting for teachers' in-school relationships, but the strength of this relationship is reduced in many countries (see Tables 7.8.Web.1 and 7.9.Web.1 for teacher-student and teacher-teacher relationships and Tables 7.8.Web.2 and 7.9.Web.2 for teacher-leader relationships, columns highlighted in light blue).⁸ Specifically, for teachers' self-efficacy, in Brazil, France, Italy, Mexico, Portugal, Romania, Serbia, Spain and Abu Dhabi (United Arab Emirates), the strength of the association between self-efficacy and teaching more low academic achievers is weaker or no longer significant. In relation 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 alleviate the lower levels of self-efficacy and job satisfaction experienced by teachers working in classrooms with higher proportions of low-achieving students.



Overall, teachers' in-school relationships do not seem to override the associations reported earlier in the chapter between behaviour problems in classrooms and teachers' self-efficacy. Nonetheless, taking into account teachers' in-school relationships, the strength of the associations decreases in Australia, Croatia, the Czech Republic, Denmark, Israel, Poland, Portugal, Romania, Spain, Abu Dhabi (United Arab Emirates) and England (United Kingdom). In nearly all countries where teaching in classrooms with more behavioural problem students was significantly associated with lower levels of job satisfaction, positive in-school relationships help decrease the magnitude of this association (Tables 7.8.Web.1, 7.8.Web.2, 7.9.Web.1 and 7.9.Web.2).

These data show that the relationships that teachers develop with others in their schools are incredibly valuable, for many reasons. These interpersonal relationships can be so powerful that they can negate the normally detrimental relationships between challenging classrooms of students and a teacher's job satisfaction or feelings of self-efficacy. The kinds of changes that are needed to foster more productive interpersonal relationships in a school are not ones that can be dictated by policy makers. They need to occur within schools, supported by school leaders and initiated by teachers themselves. Policies can offer principals organisational leeway to shape their teacher team in such a way that these interpersonal relationships can grow and be nurtured.

TEACHERS' SELF-EFFICACY AND JOB SATISFACTION IN RELATION TO PROFESSIONAL DEVELOPMENT OF TEACHERS

In summarising research on effective teacher professional development, Darling-Hammond and Richardson (2009) contend that successful programmes are sustained over time, are collaborative and focused on the content to be taught and provide multiple opportunities for classroom application. Since teaching beliefs such as self-efficacy constitute an important factor in the goal of facilitating student learning, they recently became the target of professional development programming. Studies have shown that professional development activities that are focused on the three components of teachers' self-efficacy – classroom management, instruction and student engagement – increase such beliefs as well as teachers' beliefs about student learning (Rosenfeld and Rosenfeld, 2008; Ross and Bruce, 2007a; Powell-Moman and Brown-Schild, 2011; Karimi, 2011). Studies remain equivocal as to whether the duration of the professional development programme or the teacher's years of work experience affect any impact that a professional development programme might have on teachers' self-efficacy beliefs and students' achievement (Lumpe et al., 2012; Wayne et al., 2008; Powell-Moman and Brown-Schild, 2011; Rosenfeld and Rosenfeld, 2008). When mentoring is considered, however, it seems that for new teachers specifically, time spent with a mentor, participation in mentor-facilitated professional development activities and the quality of mentors' interactions are significantly related to the teachers' self-efficacy and their development of effective collaborative relationships (LoCasale-Crouch et al., 2012).

As discussed in Chapter 4, there are several facets to professional development. There can be formally organised professional development, which could include induction programmes, mentoring programmes, classroom observation visits, workshops and conferences. There can also be more informally organised professional development, which could also include a mentoring relationship in which a teacher can be the recipient or the mentor in the relationship. This section examines the relationship between teachers' participation in different types and aspects of professional development with their self-efficacy and job satisfaction.

In 14 of the participating countries, teachers who report having participated in a formal induction programme have higher levels of self-efficacy, though the opposite is the case in France (Table 7.10). In Chile, the Czech Republic, Latvia and Norway, the strength of the relationship is moderate, while the relationship is especially strong in Poland. In eight countries, teachers who report having participated in a formal induction programme also tend to report higher levels of job satisfaction, though the opposite again occurs in France and also in Japan (Table 7.11). The strength of the relationship between participation in formal induction and increased job satisfaction is moderate for teachers in Bulgaria, Norway and Poland. Interestingly, participation in informal induction activities is more consistently associated with higher job satisfaction across countries than it is self-efficacy.

The relationship between mentorship⁹ and self-efficacy varies widely across TALIS countries (Table 7.10). Across countries, acting as a mentor is more consistently related to higher levels of self-efficacy than is being mentored, and this relationship is especially strong in France, Japan and Korea. In these countries, teachers who report that they are providing mentorship to other colleagues tend to have much higher levels of self-efficacy.

Teachers' reports of participation in mentorship activities are related to higher job satisfaction in about a quarter of the countries. Reports of receiving mentorship are connected to higher job satisfaction in seven countries, whereas being



a mentor relates to higher job satisfaction in eight countries (Table 7.11). For the latter, the strength of the association is moderate in six of these countries, while in Sweden it is strong.

Teachers' reports of participation in mentorship, observation or coaching programmes as part of a formal school arrangement are never significantly related to lower self-efficacy or job satisfaction in any of the countries. There is a positive association with self-efficacy in 14 countries; for France, Israel, Spain, Sweden and Abu Dhabi (United Arab Emirates), these associations are moderate in strength. There is only a weak positive relationship between this form of professional development and job satisfaction in 7 countries.

Teachers who report having participated in courses, workshops and/or conferences show higher levels of self-efficacy and job satisfaction in only very few countries. Yet, the associations for self-efficacy are of moderate strength in Abu Dhabi (United Arab Emirates). Similarly, in Australia and England (United Kingdom), teachers participating in such activities report moderately higher levels of job satisfaction.

These findings suggest that for most countries informal induction matters more for teachers' job satisfaction, while formal induction matters more for teachers' feelings of self-efficacy. Providing or receiving mentorship can relate to an increase in teachers' job satisfaction, while associations with teacher self-efficacy do not show as consistent a pattern across countries. Professional development activities that are part of a formal school arrangement have a positive relationship with job satisfaction only for a few countries, although they relate positively to self-efficacy in twice as many countries.¹⁰

TEACHERS' SELF-EFFICACY AND JOB SATISFACTION IN RELATION TO TEACHER APPRAISAL AND FEEDBACK

As mentioned in Chapter 5, teacher appraisal and feedback can be used to recognise 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 different sources of feedback and appraisal are expected to vary greatly. Whereas teachers say they derive little value from student ratings, teacher-solicited feedback is generally regarded as the most useful source of feedback for improving teaching (Wininger and Birkholz, 2013; Ross and Bruce, 2007b; Michaelowa, 2002).

There are many methods and approaches that can be used to appraise and provide feedback to teachers. Given the findings in Chapter 5, it is important to look at whether teachers receive feedback from more than one appraiser as well as the type of feedback they receive (such as results of student surveys or students' test scores or feedback on classroom management). In addition, teachers' perceptions of the impact of the appraisal are relevant (for example, are appraisals perceived as impacting classroom teaching or simply as an activity for administrative purposes). Box 7.4 explains how the TALIS questionnaire items on appraisal and feedback were compressed into six measures highlighted in this section.

In 13 of the participating countries, teachers who report having at least two evaluators also report higher levels of self-efficacy (Table 7.12). These associations are moderate or strong in Finland, Iceland, Malaysia, Norway and Spain. For job satisfaction, there is a positive relationship between teachers with at least two evaluators in 23 countries (Table 7.13). The association is weak to moderate in most cases, but it is again strong in Finland and Iceland. Receiving feedback from student surveys is associated with higher levels of teacher self-efficacy in almost all TALIS countries and with job satisfaction in 20 countries. It is interesting to note the possible relationships here, which could be interpreted in two ways. Teachers might learn from these student surveys in ways that help them 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 administer student surveys in the first place.

Teachers who receive feedback about student test scores report higher levels of self-efficacy in 24 countries (Table 7.12). The association is particularly strong in Brazil, Norway, Romania, the Slovak Republic and Abu Dhabi (United Arab Emirates). This type of feedback is also related to higher job satisfaction in 17 participating countries (Table 7.13). In Brazil and Korea this relationship is especially strong, while it is negative, albeit weak, for teachers in Spain. Further, receiving feedback on classroom management is positively related to self-efficacy in 17 participating countries. This association is again strong in Brazil, Bulgaria, Italy, Korea, Serbia and the Slovak Republic. Teachers who receive feedback on classroom management also report higher levels of job satisfaction for 23 countries, and for half of these it is a strong association: Brazil, Bulgaria, Chile, Croatia, the Czech Republic, Estonia, Norway, Portugal, Serbia, the Slovak Republic and Abu Dhabi (United Arab Emirates).



Box 7.4. **Appraisal and feedback measures used in this chapter**

Six measures of appraisal and feedback are used in this chapter. The selection of these measures is based on the findings presented in Chapter 5.

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. Teacher responses were categorised according to whether they considered that the feedback they received considered the following three elements with moderate or high importance:

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

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 impacted their teaching. The second measure concerns the extent to which teachers agreed that their appraisal was performed primarily for administrative purposes.

The way teachers perceive the appraisal and feedback they receive in relation to their attitudes is also highly informative. In ten countries, teachers who perceive feedback as impacting their classroom teaching also report higher levels of self-efficacy (Table 7.12). This association is moderate or strong in Finland, Romania and Abu Dhabi (United Arab Emirates). The perception that appraisal and feedback influences teaching practices also positively relates to job satisfaction in nearly all TALIS countries (Table 7.13). For 11 countries this constitutes a strong relationship: Bulgaria, the Czech Republic, Italy, Malaysia, Mexico, Norway, Poland, Romania, Singapore, Abu Dhabi (United Arab Emirates) and England (United Kingdom). In contrast, when teachers perceive their appraisal and feedback to be only an administrative exercise, there is an associated decrease in teachers' self-efficacy in 14 countries. In Israel, Portugal, the Slovak Republic and England (United Kingdom), this reduction is particularly pronounced. Moreover, such a perception of appraisal and feedback is linked to a decrease in job satisfaction in all TALIS countries. This negative association with job satisfaction is strong in most countries and weak only in Brazil.

Taken together, the analyses found that the six appraisal and feedback measures contribute to meaningful differences in self-efficacy and job satisfaction in most countries.¹¹ It is particularly noteworthy for policy makers and school leaders that when teachers perceive that appraisal and feedback are being provided only for administrative reasons, there is a marked drop in their levels of self-efficacy and job satisfaction. Thus it would seem that in addition to the aforementioned benefits of meaningful appraisal and feedback for improving teaching practice (see Chapter 5), countries and schools may also want to consider the relationship that appraisal and feedback have with teachers' self-efficacy and job satisfaction.

TEACHERS' SELF-EFFICACY AND JOB SATISFACTION IN RELATION TO TEACHERS' BELIEFS AND PRACTICES

To equip students with the skills and competencies needed in the 21st century, the use of a variety of teaching practices has been encouraged world wide, ranging from more traditional practices (such as direct transmission), to more recently conceived, constructivist practices. The latter form of teaching and learning develops students' skills to manage complex situations and learn both independently and continuously, and it has been argued to enhance motivation and achievement of students (Nie and Lau, 2010; Guthrie, Wigfield and VonSecker, 2000; Hacker and Tenen, 2002; Nie et al., 2013). Research advocating constructivist approaches also suggests that teacher self-efficacy is higher for teachers who use constructivist instruction techniques than for those teachers who use reception or direct transmission instruction techniques (Luke et al., 2005; Nie et al., 2013). Using TALIS 2008 data, Vieluf et al. (2012) reported that the impact of direct transmission versus constructivist approaches depends on different factors, such as subjects taught and classroom variables. In fact, it was not the use of one kind of practice over another per se, but the variety of practices employed that was found to be related to higher teacher self-efficacy, among other things.



Given the findings in Chapter 6 and the reviewed research, this section focusses on the level of constructivist pedagogical beliefs teachers report integrating into their teaching. It then looks at the practices, as measured by the reported total working hours in a week and the proportion of time devoted to teaching, keeping order in the classroom and performing administrative tasks. This section first examines the relationship between these reported beliefs and practices and teachers' self-efficacy and job satisfaction and then examines whether these beliefs and practices can alleviate some of the negative relationships found between challenging classrooms and self-efficacy and job satisfaction.

TALIS data indicate that in most countries, constructivist beliefs have a positive association with teachers' self-efficacy and job satisfaction (Tables 7.14 and 7.15). Teachers who report more highly constructivist beliefs have higher levels of self-efficacy (and only slightly higher levels of job satisfaction).

The number of hours spent teaching in a typical work week has more significant associations with self-efficacy than with job satisfaction, although all of these associations are weak (Tables 7.14.Web.2 and 7.15.Web.2). Interestingly, the associations with self-efficacy and job satisfaction tend to be opposite. In 23 countries, teachers who report teaching more hours are slightly more likely to have higher levels of self-efficacy. In contrast, in five countries (Bulgaria, Estonia, Portugal, Singapore and Flanders [Belgium]), teachers who report teaching more hours tend to report slightly lower levels of job satisfaction. The proportion of time teachers report spending on keeping order in the classroom is related to lower levels of self-efficacy and job satisfaction in almost all countries. Although this relationship tends to be weak in most countries (Table 7.14.Web.3), teachers in Norway who report spending more time keeping order in the classroom report much lower levels of self-efficacy, and in six other countries this relationship is moderate (Bulgaria, Croatia, the Czech Republic, Denmark, Israel and Serbia). Finally, the proportion of time spent on administrative tasks in the classroom seems to have a weak negative association with job satisfaction for about half of the countries, while it relates negatively to self-efficacy in 12 countries. Of these countries, Australia and Bulgaria show the most pronounced effects (Tables 7.14.Web.4 and 7.15.Web.4).

The main message from these findings is that when teachers' report more constructivist beliefs, they universally report higher levels of self-efficacy and job satisfaction. This relationship between teachers' beliefs about how their students learn and how they feel about their own abilities and work might be interesting to explore further. Contrary to what might be expected, the number of hours that teachers report teaching is somewhat less significant in explaining these outcomes, although time spent keeping order in the classroom does tend to be associated with lower levels of self-efficacy and job satisfaction. Finally, the time spent on administrative tasks has similar negative relations with teacher attitudes, although the associations are less widespread and weaker across countries.

The role of beliefs and practices in accounting for the impact of classroom composition

This section examines the role that can be played by teachers' constructivist beliefs, teaching practices and the time they report spending on tasks such as teaching, keeping order or performing administrative tasks (Figure 7.8) in terms of impeding or alleviating the associations reported earlier in this chapter between the student composition in the classroom and teachers' self-efficacy and job satisfaction (Tables 7.6 and 7.7).

The proportion of time spent keeping order in the classroom plays the most crucial role in these relationships (Table 7.14.Web.3). For teachers in classrooms with higher proportions of low academic achievers who exhibited lower self-efficacy, looking at the proportion of time these teachers report spending on keeping order accounts fully for the negative association in four countries (Italy, Serbia, Spain and Sweden) and reduces the magnitude of the relationship in Brazil, France, Mexico, Portugal and Romania. In other words, it is not so much that these teachers teach in classrooms with more low academic achievers that relates to their lower levels of self-efficacy, but rather the higher proportion of time they report spending on keeping order in the classroom.

A similar finding emerges for teachers who work in classrooms with higher proportions of students with behaviour problems and who show lower levels of self-efficacy. The proportion of time these teachers spend keeping order accounts fully for this negative association in ten countries and reduces the magnitude of the association in Poland, Romania and Abu Dhabi (United Arab Emirates). 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 behavioural problems) and lower self-efficacy can be explained by the amount of time that teacher spends keeping order in the class.

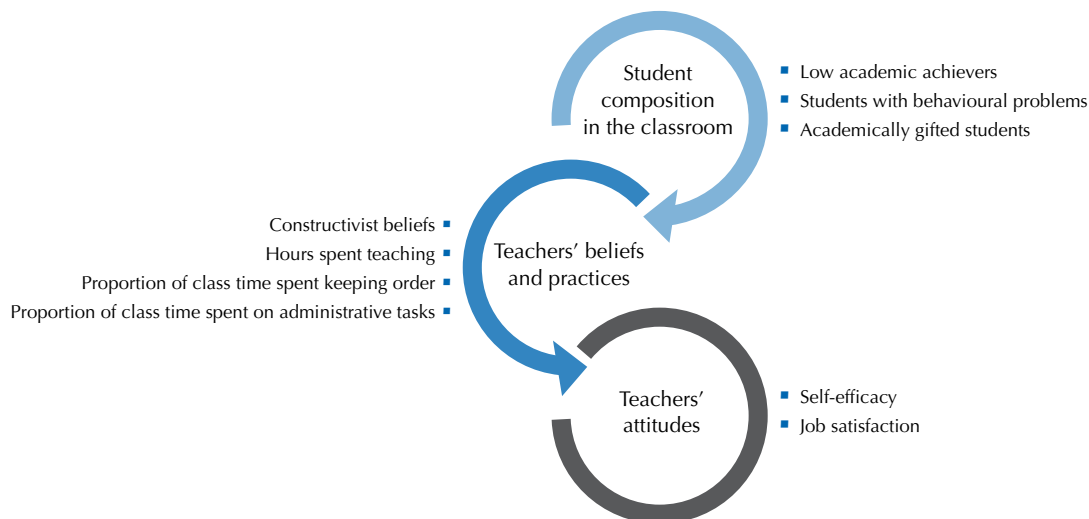
The proportion of time keeping order in the classroom also accounts for some of the associations between teaching in challenging classrooms and lower teacher job satisfaction. Whether challenging classrooms are defined as ones



with higher proportions of low academic achievers or by higher proportions of students with behavioural problems, including the proportion of time keeping order fully or partially accounts for the negative association in almost countries (Table 7.15.Web.3). In other words, it is not the percentage of students with behavioural problems or low achievement levels in a classroom 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 that these students – or other students in these classes – may cause.

■ Figure 7.8 ■

The influence of class composition on teachers' attitudes, beliefs and practices



TEACHERS' SELF-EFFICACY AND JOB SATISFACTION IN RELATION TO TEACHERS' PROFESSIONAL COLLABORATIVE PRACTICES

Formal collaborative learning generally entails teachers meeting on a regular basis to develop shared responsibility for their students' school success (Chong and Kong, 2012). Although an increasing number of teacher professional development experiences are structured around collaboration, evidence on conditions for successful collaboration and positive outcomes related to collaborative practices remains relatively little and inconclusive (Nelson et al., 2008). Yet a myriad of different structures and processes to create a collaborative culture among teachers in schools have been described (Erickson et al., 2005; Nelson et al., 2008). Empirical evidence shows that teacher collaboration may enhance teacher efficacy, which in turn may improve student achievement and sustain positive teacher behaviours (Liaw, 2009; Puchner and Taylor, 2006). In a meta-review of empirical studies, Cordingley et al. (2003) reported that collaborative professional development is related to a positive impact upon 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 is linked to a positive influence upon student learning processes, motivation and outcomes.

This section analyses 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 report engaging in these activities five times a year or more are compared with those who report engaging in them less frequently.

Table 7.16 shows the associations between the aforementioned collaborative practices and teacher self-efficacy. With the exception of only a few countries, it seems that teachers who report using collaborative practices five times a year or more also report higher levels of self-efficacy. For many countries this association is weak, but for a few countries a more pronounced relationship emerges. For example, in Chile, Croatia and the Slovak Republic, teaching as a team in the same class five times a year or more has a pronounced positive association with self-efficacy. Observing other teachers' classes and providing feedback is at least moderately related to an increase in teachers' self-efficacy in the Netherlands, Serbia



and Sweden (Table 7.16.Web). Similarly, engaging in joint activities across different classes and age groups relates to moderately higher self-efficacy in 11 countries and to a strong rise in self-efficacy scores in Croatia, the Czech Republic, Finland and Iceland. Yet the strongest relationship with teachers' self-efficacy is taking part in collaborative professional learning. For almost all countries, teachers who engage in this activity five times a year or more also show higher levels of self-efficacy, and for half of the countries this relationship is of moderate strength. Particularly strong associations emerged for Bulgaria, Chile, Estonia, Finland, Israel and Korea.

Table 7.17 shows the relationships between these collaborative practices and teacher job satisfaction. Similar to the results for teacher self-efficacy, almost all countries showed a positive relationship between teacher collaboration and job satisfaction. Some relationships are particularly prominent. For example, for teachers in Chile and Estonia, the association of jointly teaching the same class with teachers' job satisfaction stands out (Table 7.17.Web). Similar moderate relationships emerge for eight countries with respect to observing other teachers' classes. Furthermore, in Abu Dhabi (United Arab Emirates), teacher job satisfaction is moderately higher when teachers engage in joint activities across different classes and age groups. Comparable to teacher self-efficacy, the strongest association with job satisfaction appears for teachers taking part in collaborative professional learning five times a year or more. For two-thirds of the countries this is related to enhanced job satisfaction significantly. Of these, 12 countries show moderately strong associations, and Brazil and Chile show exceptionally strong associations. This means that teachers who take part in collaborative learning more frequently also show much higher levels of job satisfaction than those who do not.

The relationships between collaborative practices and teacher self-efficacy and job satisfaction, on average across countries, are illustrated in Figures 7.9 and 7.10, respectively. When looking at all TALIS countries, an upward trend can be seen for the frequency of collaborative practices and the positive link to teacher self-efficacy.

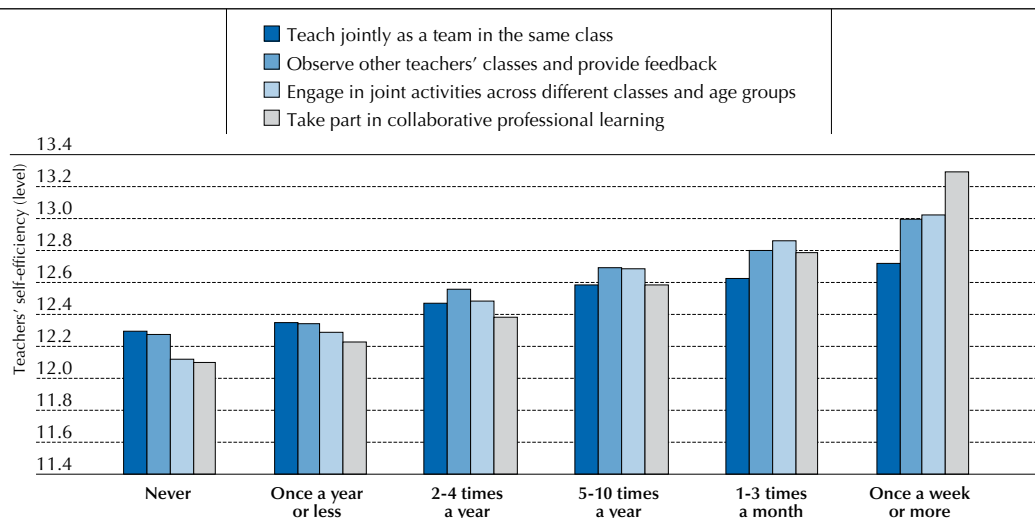
For job satisfaction, the positive association appears to stagnate slightly for higher frequencies. Overall however, more engagement in collaborative practices seems to be, on average, associated with higher self-efficacy and job satisfaction for teachers across the TALIS countries.

These findings, along with those in the previous section on interpersonal relationships in schools, underscore the need for a new model of teaching. The traditional picture of a single classroom with one teacher in isolation is not good enough for a variety of reasons. Relationship building and fostering collaborative practices in schools, whether these be through collaborative professional development activities, systems of peer feedback or collaborative teaching activities, are highly beneficial to teacher self-efficacy and job satisfaction.

■ Figure 7.9 ■

Teachers' self-efficacy and professional collaboration

Teachers' self-efficacy level according to the frequency of teacher professional collaboration for the following items for lower secondary education teachers



Source: OECD, TALIS 2013 Database.

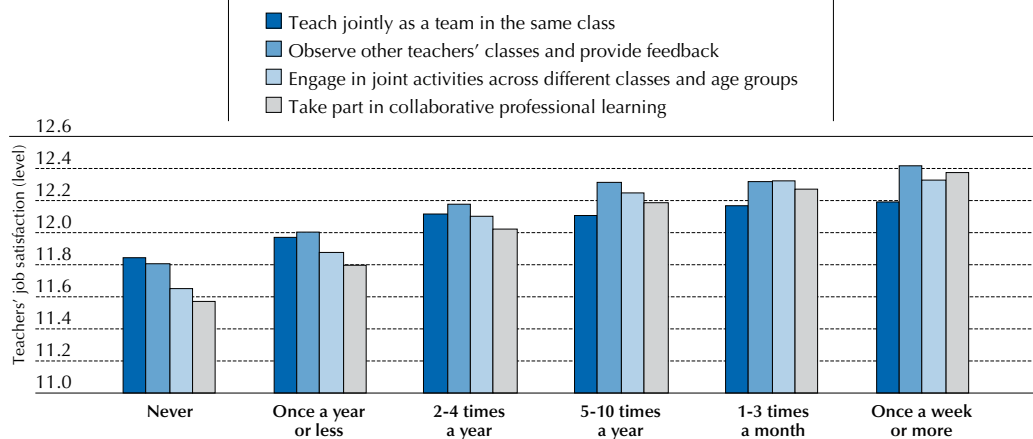
StatLink <http://dx.doi.org/10.1787/888933042295>




■ Figure 7.10 ■

Teachers' job satisfaction and professional collaboration

Teachers' job satisfaction level according to the frequency of teacher professional collaboration for the following items for lower secondary education teachers



Source: OECD, TALIS 2013 Database.

StatLink  <http://dx.doi.org/10.1787/888933042314>

SUMMARY AND MAIN POLICY IMPLICATIONS

The concepts of teacher self-efficacy and job satisfaction are more important to schools and education systems than a surface-level reading might indicate. In other words, it is not just about making sure teachers are happy and feel good about themselves and their teaching, although, of course, that is important as well. Research cited in this chapter indicates the 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 behaviours. Although perhaps more importantly, low levels of self-efficacy can be linked with high levels of stress for teachers and problems dealing with students who misbehave. The TALIS data also demonstrate that in most countries, increasing teacher self-efficacy is slightly more likely to result in an increase in teachers' job satisfaction than the other way around. Job satisfaction is important in itself as it relates to teacher retention and teachers' level of commitment.

The data presented in this chapter indicate that on average, nine 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. The differences in reported levels of efficacy and job satisfaction come from a variety of sources, depending on the country, but across countries challenging classroom circumstances play a large role. This is hardly a surprise given the amount of time a teacher spends in his/her classroom and the importance of the work that occurs – or should be occurring – there. If a teacher spends an inordinate amount of time keeping order or if a higher percentage of his or her students experience behavioural issues, it is natural to think that this teacher might be less confident in his or her abilities or feel less positive about his or her job. The TALIS data support this.

Fortunately, the TALIS data also illuminate positive influences on teacher self-efficacy and job satisfaction that can aid in policy or programme development in these areas.

Empower teachers to play a role in decision making at a school level

Teacher leadership is important for many reasons. Teachers who report that they are provided with opportunities to participate in decision making at a school level have higher reported levels of job satisfaction in all TALIS countries and higher feelings of self-efficacy in most countries. In addition, in almost all TALIS countries, the extent to which teachers can participate in decision making has a strong positive association with the likelihood of reporting that teaching is a valued profession in society.

As discussed in Chapter 3, the concept of distributed leadership is not only important for helping to alleviate some of the burden school leaders face, but it can be beneficial to teachers as well. Furthermore, teachers are uniquely placed to aid in school-level decision making because they might be closer to students and parents, more familiar with how



curriculum is implemented and more able to discuss student assessments and results than their school principals might be. Thus, it is not only worth school principals devolving some of the responsibility for school-level decisions to teachers, but policy makers should consider providing guidance on distributed leadership and distributed decision making at a system level.

Build teacher capacity to more successfully and efficiently handle behaviour problems

TALIS data indicate that as the percentage of students with behavioural problems increases, there is a strong decrease in teachers' reported levels of job satisfaction. In addition, teachers who spend more time keeping order in the classroom report lower levels of self-efficacy and job satisfaction in most countries. When these relationships were examined further, the analyses found that these negative relationships between both self-efficacy and job satisfaction and specific classroom climate issues can also be elucidated by a teacher's reports of keeping order in class. In other words, it is not the percentage of students with behavioural problems or low achievement levels in a classroom 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 that these students – or other students in these classes – may cause.

Though causal inferences cannot be made, analyses reported in this chapter provide preliminary support for building teacher capacity so that the impact of behavioural problems on teaching and learning can be reduced. This could benefit not only the teacher but also the student learning that occurs. Professional development detailing classroom management or a variety of instructional strategies might be one answer, especially for newer teachers. Addressing teacher resource issues by providing additional classroom or pedagogical support for particularly challenging classes might be another. 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, which can provide other benefits discussed later, might also enable teachers to share the tasks of teaching and attending to potential discipline issues.

Support the development of interpersonal relationships within the school environment

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

School leaders need to provide opportunities and support for relationship building at a school level. This support could be in the form of resources such as 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 or colleagues. The leadership team needs to make itself available to its teaching staff as well. Government policies can also offer school leaders the organisational freedom to develop strategies in these areas and to make changes in the school day or school building to help. Perhaps most important, however, are teachers themselves, who need to be open and willing to engage with their colleagues, their administration and with the learners.

Institute meaningful systems of appraisal and feedback that have connections with teachers' practice

In previous chapters this report has discussed the importance of appraisal and feedback on many aspects of a teacher's work. This chapter further shows that teachers' perceptions of these systems in their school can make a difference. In all TALIS countries, teachers' perception that appraisal and feedback leads to changes in their teaching practice is related to higher job satisfaction, whereas the perception that appraisal and feedback is performed merely for administrative purposes leads to lower levels of job satisfaction.

This is yet another reason that policy makers and schools should support the development of teacher appraisal and feedback systems that are actually linked to improving teaching. (See the policy recommendations in Chapters 5 and 6 for more specific details in this area.)

Encourage collaboration among teachers, either through professional development or classroom practices

Collaboration among teachers is important not just for building the interpersonal relationships among staff that are valuable but also in and of itself. 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 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 could – and should – be done at a school level,



such as observing other teacher' classes and providing feedback or teaching as a team in the same class. But these activities in particular serve a variety of purposes, such as providing professional development for teachers in the context within which they work or offering teachers another source of feedback on their work. Some work needs to be done by school leaders to make more flexible time tabling to allow for team teaching, for example, but the benefits are likely to outweigh any burden.

Notes

1. Most of the studies cited in this chapter are based on research conducted in the United States. Examining the proposed relationships with the large international TALIS database therefore sheds a new, more cross-culturally nuanced light on teacher attitudes.
2. Teachers responded that they could perform these actions quite a bit or a lot, which has here been summarised by “often”.
3. 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. Please see Annex B for further technical details about the analyses performed and the interpretation of the associated results tables.
4. To facilitate interpretation, the text discusses weak, moderate and strong relationships instead of the numerical values of the regression coefficients. Cut-off points for these three categories were standard deviation unit changes of 0.2 and 0.3. Please see Box 7.2 for more information.
5. This conclusion holds when looking at the different associations in terms of standard deviation unit changes (see Annex B).
6. 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.
7. As discussed in Box 7.2, for non-dichotomous variables we use a threshold marker of one standard deviation higher than the mean to discuss substantive differences in coefficient sizes, since a “one-unit” change on these indices holds little meaning. A teacher with a score that is one standard deviation higher than average will be referenced in the text as a teacher with a high score on that measure. For example, a teacher with a “high teacher-student relationship score” references a teacher with a teacher-student relationship score at least one standard deviation higher than the average mean score.
8. Note that the baseline classroom composition coefficients used in Tables 7.8 to 7.15 are slightly different from those presented in Tables 7.6 and 7.7. This is due to differences in the analyses performed. See Annex B for more information.
9. Note that there are many countries with low participation in mentorship (see Chapter 4). For robustness of analyses, only countries with more than minimal mentorship participation (a threshold minimum of 5% was used) are discussed.
10. In supplementary analyses (not shown here), there does not appear to be consistent or significant changes in classroom composition correlations with self-efficacy or job satisfaction when professional development is accounted for.
11. In supplementary analyses (not shown here), there does not appear to be consistent or significant changes in classroom composition correlations with self-efficacy or job satisfaction when these appraisal or feedback measures are accounted for.

A note regarding Israel

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.



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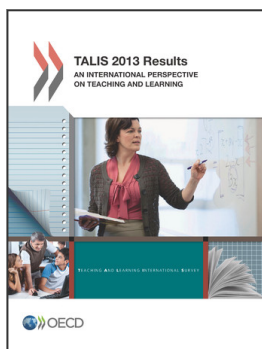
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From:
TALIS 2013 Results
An International Perspective on Teaching and Learning

Access the complete publication at:
<https://doi.org/10.1787/9789264196261-en>

Please cite this chapter as:

OECD (2014), "Teacher Self-Efficacy and Job Satisfaction: Why They Matter", in *TALIS 2013 Results: An International Perspective on Teaching and Learning*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/9789264196261-10-en>

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