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The nature and extent of teacher professionalism

This chapter examines the nature and extent of teacher professionalism in countries and economies participating in the Teaching and Learning International Survey (TALIS) 2013. The chapter provides an in-depth look at which domains of teacher professionalism tend to be emphasised across countries, what specific practices within each domain are most prevalent, and whether teacher professionalism differs by school level. Additionally, it examines how teacher professionalism differs across countries and economies, investigating which education systems have the highest levels of teacher professionalism overall, which domains systems emphasise, and the various models of professionalism that education systems follow.



Highlights

- Findings of this chapter indicate that the nature of teacher professionalism in a system is related to the system's teaching culture or policy priorities.
- The nature and extent of teacher professionalism differs across systems. Teacher autonomy is emphasised among several European systems, while peer networks tend to be emphasised among East Asian countries.
- For the systems participating in the TALIS option at lower and upper secondary education levels, autonomy is higher for teachers of upper secondary grades, while emphasis on the development of knowledge base and building peer networks are relatively lower, in comparison to lower secondary and primary education.

INTRODUCTION

The chapter shows that the global averages on each of the teacher professionalism indices are between two and three out of five possible points, which suggests that schools and nations are implementing roughly half of all best practices consistently. Yet average values on each domain of teacher professionalism – knowledge, autonomy and peer networks – differ by school level. Teacher professionalism at the primary and lower secondary level emphasises the domains of knowledge and peer networks, with low levels of autonomy, while at the upper secondary level, teacher professionalism has higher values in the autonomy domain. Differences in the nature of teacher professionalism across school levels may reflect both differences in the nature of teaching, as well as dominant ideas about the role of the teacher: the greater content specificity at upper secondary level seems to imply more autonomy for teachers, less peer influence over peer networks and more emphasis on content knowledge accompanied by a reduced emphasis on pedagogical knowledge.

Countries are very similar in their support for the knowledge base domain, where the mean values for most participating countries and economies range narrowly between two and three. In contrast, systems exhibit much more diversity in terms of their support for autonomy and peer networks. This variation could indicate that these domains are more likely to reflect national priorities and differences in cultures of teaching. Additionally, the analysis of cross-country trends suggests that there are regional patterns for teacher professionalism.

TEACHER PROFESSIONALISM

As discussed in Chapter 1, this study conceptualises teacher professionalism as consisting of three domains: 1) knowledge, exemplified by the presence of teaching credentials and support for continued professional development; 2) autonomy, or the amount of decision-making power teachers have over aspects of their teaching, as reported by principals; and, 3) peer networks, conceptualised as the role that teachers play in regulating their own peer networks of practice and exemplified through school-based programmes that involve teachers in peer socialisation, guidance and feedback.

Each of the domains of teacher professionalism is scaled from 0 to 5.0, with 5.0 representing a theoretical maximum where all practices within the domain are observed for a given teacher. In reality, most teachers find themselves in environments where these practices are partially observed.



Box 2.1 **Teacher professionalism scales**

Knowledge base scale

1. Participated in formal teacher education programme
2. Exposed to subject-specific content in teacher education programme
3. Exposed to pedagogy in teacher education programme
4. Exposed to practice in teacher education programme
5. Participates in individual or collaborative research
6. Receives financial support to pay for professional development
7. Receives time release for professional development during working hours
8. Receives salary supplement for professional development outside working hours
9. Receives non-monetary support for professional development outside working hours
10. Participates in extended professional development activities

Autonomy scale

1. Autonomy over content
2. Autonomy over course offerings
3. Autonomy over discipline practices
4. Autonomy over assessment
5. Autonomy over materials

Peer networks scale

1. Participates in formal induction
2. Mentoring programme at school
3. Participates in network of teachers
4. Receives feedback from direct observations
5. Receives personalised professional development plan

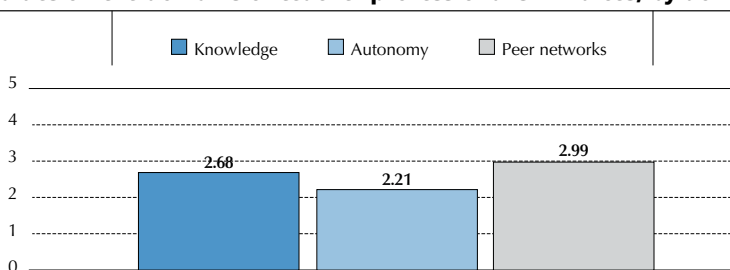
Figure 2.1 shows the TALIS averages of the three domains of teacher professionalism. The figure shows that the mean value across all surveyed lower secondary (ISCED 2) teachers is 2.68 out of 5.0 on the knowledge base scale, 2.21 on the autonomy scale and 2.99 on the peer networks index. These averages suggest that across TALIS countries and economies, averages on each domain of teacher professionalism range between 2 and 3; in other words, of the best practices identified in the literature, systems implement roughly half.

The figure shows that the knowledge and peer networks domains have higher averages across all TALIS countries and economies than the autonomy domain. This suggests that, overall, the practices related to teacher autonomy are implemented less often than those related to professional development and professional collaboration on teaching standards through peer networks.

Because the scales are calculated by adding up the total number of best practices, implementation of a few best practices may affect mean values significantly. The differences in mean values on each of these indices may be affected by only a few education systems' practices, or could represent broad differences across all nations, suggesting the need for more detailed analysis of system-level variation. There are also a number of reasons to think that teacher professionalism may vary across school levels – both because of the nature of teaching and learning and because dominant ideas about the role of the teacher in students' development may differ at different school levels (OECD, 2014). As such, this report also examines how values on each domain vary across school levels. At the same time, a note of caution is advised when comparing across education levels, given that the TALIS option for primary schools was completed by 6 systems (Denmark; Flanders, Belgium; Finland; Mexico; Norway and Poland), and the option for upper secondary schools by 11 systems (Abu Dhabi, United Arab Emirates; Australia; Denmark; Finland; Georgia; Iceland; Italy; Mexico; Norway; Poland and Singapore). To explore these sources of variation, the remainder of this chapter examines how indices of professionalism vary across systems, school levels, and by specific practices.

Figure 2.1

Average values on the domains of teacher professionalism indices, by domain (ISCED 2)



Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20.

SYSTEM DIFFERENCES IN TEACHER PROFESSIONALISM

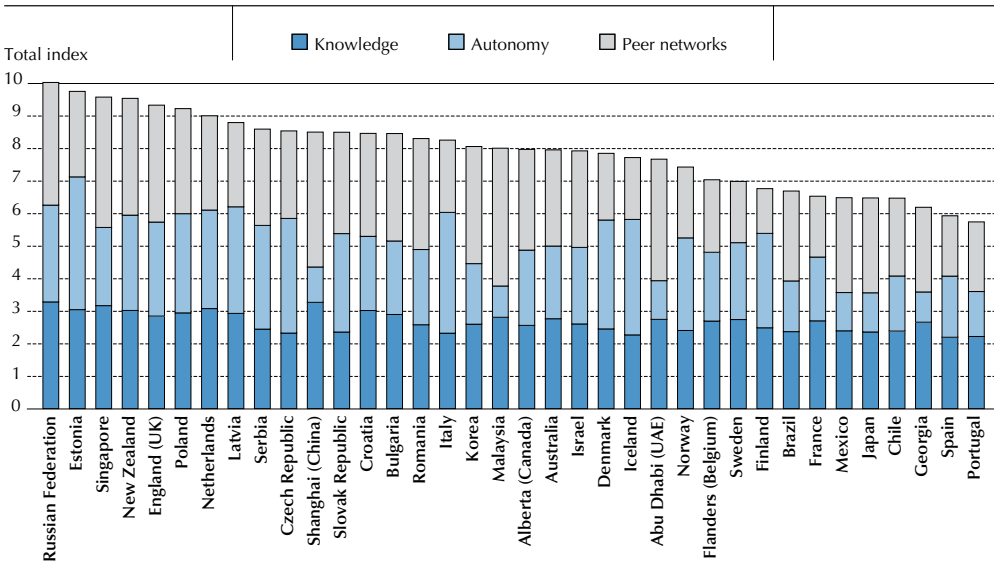
The nature of teacher professionalism varies both in terms of a system's overall level of teacher professionalism and the domain the country or economy emphasises. Figure 2.2 graphs education systems' overall level of teacher professionalism, broken down by their value on each domain. Overall values range from a maximum of 10.1 in the Russian Federation to a minimum of 5.8 in Portugal. This distribution suggests that, generally speaking, teachers in the Russian Federation will be exposed to two of every three best practices, while those in Portugal and in countries towards the bottom end of the spectrum will benefit from slightly more than one out of three.

Because teacher professionalism is a composite index, meaning an index created by summing the total number of implemented best practices, countries and economies with the highest overall values on teacher professionalism generally have high values on all three domains. As the figure shows, the education systems with the highest values on the composite index are the Estonia, New Zealand, the Russian Federation and Singapore. Seven of the ten education systems with the highest overall professionalism are located in Europe, while two (New Zealand and Singapore) are outside Europe. The



three Latin American countries (Brazil, Chile and Mexico) score at the lower end of the overall index, while Portugal and Spain are the two countries with the lowest levels of teacher professionalism on the composite index in the surveyed TALIS systems.

Figure 2.2
Total professionalism index, by country (ISCED 2)



Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20.

Table 2.1 lists each system's value on each domain and codes their values along a spectrum from zero to five (at the high end). One may note the geographic concentration of education systems with high values on autonomy, with all of these countries and economies located in Europe. In general, East Asian, Middle Eastern and Latin American systems have less autonomy afforded to teachers. This would suggest that the degree of decision making and control over school processes on the part of teachers may be in part influenced by cultural norms.

Meanwhile, only two of the education systems that emphasise peer networks are in Europe, namely England (United Kingdom) and Romania. Rather, high peer networks tend to be emphasised most among East Asian countries and economies, and the few Latin American and Middle Eastern systems represented in TALIS also score highest on the peer networks scale. This finding implies a cultural difference in the degree to which countries promote networking and peer feedback among teachers, with East Asian countries and economies such as Malaysia; Shanghai, China; and Singapore among the systems with the highest values on this measure.

Table 2.1 System means on teacher professionalism domains (ISCED 2)

| System | Knowledge | Autonomy | Networks |
|----------------------------------|-----------|----------|----------|
| Abu Dhabi (United Arab Emirates) | 2.8 | 1.2 | 3.7 |
| Alberta (Canada) | 2.6 | 2.3 | 3.1 |
| Australia | 2.8 | 2.2 | 3.0 |
| Brazil | 2.4 | 1.6 | 2.8 |
| Bulgaria | 2.9 | 2.3 | 3.3 |
| Chile | 2.4 | 1.7 | 2.4 |
| Croatia | 3.0 | 2.3 | 3.2 |
| Czech Republic | 2.3 | 3.5 | 2.7 |
| Denmark | 2.5 | 3.4 | 2.1 |
| England (United Kingdom) | 2.9 | 2.9 | 3.6 |
| Estonia | 3.1 | 4.1 | 2.6 |
| Finland | 2.5 | 2.9 | 1.4 |
| Flanders (Belgium) | 2.7 | 2.1 | 2.2 |
| France | 2.7 | 2.0 | 1.9 |
| Georgia | 2.7 | 0.9 | 2.6 |
| Iceland | 2.3 | 3.6 | 1.9 |
| Israel | 2.6 | 2.4 | 3.0 |
| Italy | 2.3 | 3.7 | 2.2 |
| Japan | 2.4 | 1.2 | 2.9 |
| Korea | 2.6 | 1.9 | 3.6 |
| Latvia | 2.9 | 3.3 | 2.6 |
| Malaysia | 2.8 | 1.0 | 4.3 |
| Mexico | 2.4 | 1.2 | 2.9 |
| Netherlands | 3.1 | 3.0 | 2.9 |
| New Zealand | 3.0 | 2.9 | 3.6 |
| Norway | 2.4 | 2.9 | 2.2 |
| Poland | 3.0 | 3.1 | 3.2 |
| Portugal | 2.2 | 1.4 | 2.1 |
| Romania | 2.6 | 2.3 | 3.4 |
| Russian Federation | 3.3 | 3.0 | 3.8 |
| Serbia | 2.5 | 3.2 | 3.0 |
| Shanghai (China) | 3.3 | 1.1 | 4.2 |
| Singapore | 3.2 | 2.4 | 4.0 |
| Slovak Republic | 2.4 | 3.0 | 3.1 |
| Spain | 2.2 | 1.9 | 1.9 |
| Sweden | 2.7 | 2.4 | 1.9 |

Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20.

TEACHER PROFESSIONALISM, BY DOMAIN

The correlations between teachers' values on the three domains are quite low (see Annex A). This indicates that as a system adopts more of the identified best practices in one domain, they do not necessarily do so in the other two. This suggests there is no single underlying concept of teacher professionalism that drives education systems' values on all three domains; rather, teacher professionalism as practiced in schools should be considered a composite of three separate domains. Schools and systems may choose to emphasise one over the other two, or they may choose to focus on all three at the same time. Because implementation of best practices differs across domains, this section examines each domain individually, focusing on which practices are most common within each domain and how the domains vary across school levels.

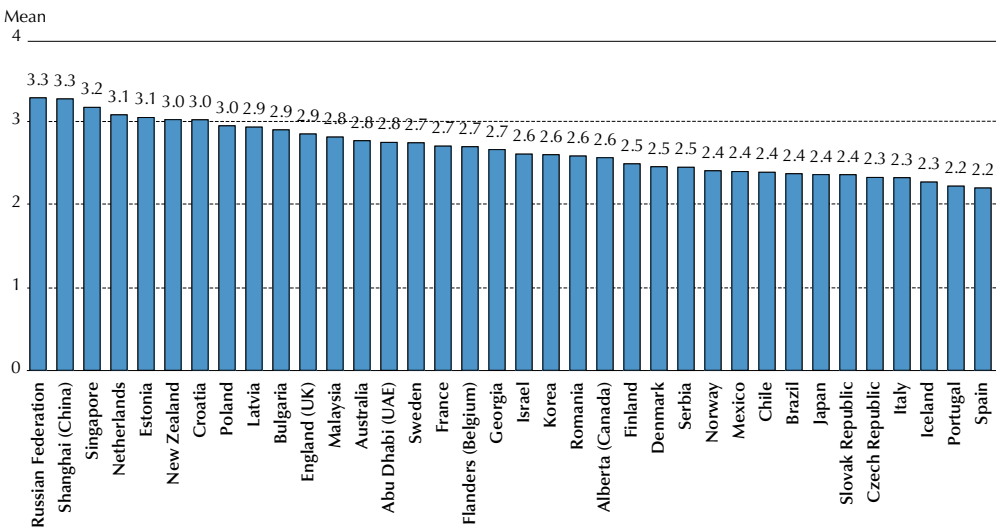


Knowledge base scale

As discussed in Chapter 1, items measuring teachers' knowledge base do not capture the extent of teachers' content knowledge in any given subject; rather, they assess the extent to which teachers have received training in areas recognised as important to the practice of teaching – subject-specific content and pedagogy, as well as practice teaching. They also include supports for in-service professional learning. Figure 2.3 shows national averages on the knowledge base scale, which range from 3.3 in the Russian Federation and Shanghai, China to a low of 2.2 in Portugal and Spain. As is clear, the range of national means is not large – at 1.1, the difference between education systems with the highest and lowest mean on the knowledge base scale is only two out of ten possible best practices, suggesting that countries/economies participating in TALIS implement similar policies to develop teachers' knowledge base.

■ Figure 2.3 ■

National averages on the knowledge base scale (ISCED 2)



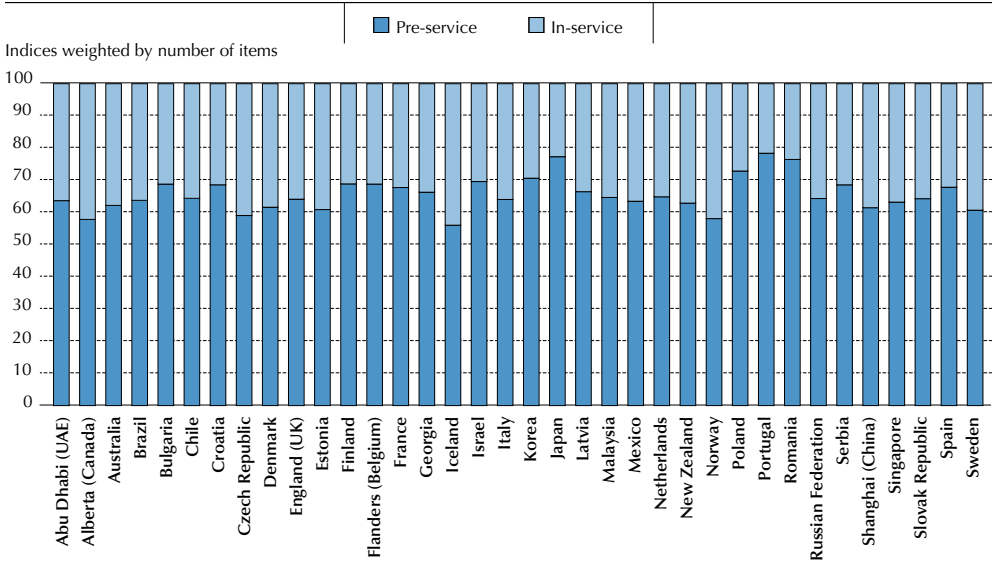
Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20.

The items in the knowledge base scale can be classified into two categories: 1) the knowledge needed to enter the profession (i.e. pre-service formal education); and 2) supports for ongoing professional learning (i.e. in-service professional development).

Figure 2.4 presents a stacked bar plot, which breaks down the knowledge base scale into percentages – indicating the percentage of the total scale that is accounted for by implementation of pre-service practices compared to the percentage accounted for by in-service professional development practices. Were systems to support pre-service and in-service practices equally, each would contribute 50% of a country's total value on the knowledge base scale. As the figure shows, however, in almost all participating countries and economies, values on the pre-service training compose roughly 60-70% of their total values on the knowledge base scale – suggesting more emphasis on pre-service educational requirements, with fewer supports for in-service professional development. Among countries and

economies participating in TALIS, it appears as though teachers may need more supports for in-service professional learning, though teachers' specific needs may vary and further research may be warranted into which types of supports are most effective.

Figure 2.4
Breakdown of knowledge base, by sub-scale

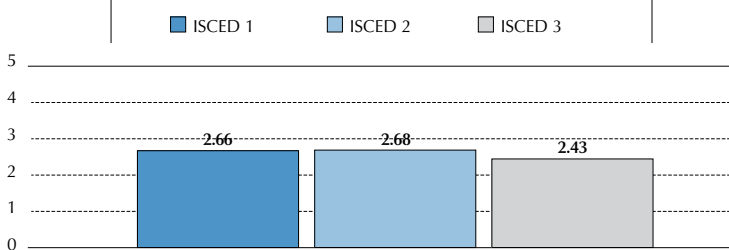


Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20.

Knowledge base by ISCED level

Within education systems, average values on the knowledge base scale also vary across school levels. Figure 2.5 shows the average number of best practices in the knowledge base scale, out of a possible five, implemented by school level.¹ The figure shows that the mean number of practices at the primary and lower secondary level are nearly identical at 2.66 and 2.68, respectively. Meanwhile, the value at the upper secondary level is somewhat lower, at 2.43, and statistically significantly different ($p < 0.001$), suggesting that the average number of practices in upper secondary schools is not the same as in primary and lower secondary schools.

Figure 2.5
Mean values on knowledge base domain, by ISCED level



Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20.



Support for teachers' knowledge base includes pre-service and in-service supports for professional development. As such, it may seem surprising that the mean value on the knowledge base scale is statistically the same at the primary and lower secondary levels, but is lower at the upper secondary level, where teachers can be expected to have the most content knowledge. To investigate the reasons for differences across school levels, responses to each item are examined.

Table 2.2 presents percentages of teachers who had received each form of knowledge in the knowledge base – an item-by-item analysis not only explains variation across school levels, but also sheds light onto the specific best practices in the knowledge base domain that are more common than others at different levels. The table shows that the majority of all teachers at all school levels are likely to enter the profession through participation in a formal education programme, which includes exposure to the content of the courses they teach, as well as exposure to pedagogy and practice.

Table 2.2 also sheds light on why teachers in upper secondary schools have lower values on the knowledge base scale – a lower percentage of teachers in secondary schools have participated in formal teacher education programmes, and a much lower percentage have been exposed to on-the-job practice in their education programmes. This is not surprising, as in many countries and economies, teachers in secondary schools are seen as content specialists and may not be required to participate in teacher education programmes (Akiba, LeTendre and Scriber, 2007; OECD, 2014). In short, it appears as though the additional content knowledge acquired by secondary teachers is possibly at the expense of their training in other relevant areas, including pedagogy and on-the-job practice.

Table 2.2 also shows that there are large differences in the types of support teachers receive for professional learning, with financial support (i.e. paid professional learning) the most common, followed by long-term training.² However, other types of supports are uncommon – the table shows that very few teachers received salary supplements or forms of non-monetary support for professional learning outside working hours. Indeed, systems that emphasise professional development activities during work hours may not offer support for such activities outside working hours at the school.

Table 2.2 Components of knowledge base scale, by ISCED level

| Item in knowledge base scale | ISCED 1 | ISCED 2 | ISCED 3 |
|--|---------|---------|---------|
| Participated in teacher education programme | 88.20% | 87.30% | 69.20% |
| Exposure to subject-specific content in teacher ed. programme | 72.70% | 74.20% | 72.70% |
| Exposure to pedagogy in teacher ed. programme | 71.30% | 68.60% | 65.80% |
| Exposure to practice in teacher ed. programme | 69.70% | 68.50% | 53.90% |
| Participates in individual or collaborative research | 40.20% | 43.70% | 42.90% |
| Receives financial support to pay for professional learning | 68.20% | 64.00% | 63.10% |
| Receives time release for professional learning | 45.50% | 49.60% | 42.40% |
| Receives salary supplement for professional learning | 4.60% | 12.20% | 6.30% |
| Receives non-monetary support for professional learning | 9.60% | 14.70% | 14.00% |
| Participates in extended-time professional learning activities | 63.00% | 52.90% | 56.50% |

Note: Not all countries and economies surveyed teachers at ISCED 1 or ISCED 3. Analyses on ISCED 1 include the following systems: Denmark; Finland; Flanders, Belgium; Mexico; Norway; and Poland. Analyses on ISCED 3 include Abu Dhabi, United Arab Emirates; Australia; Denmark; Finland; Georgia; Iceland; Italy; Mexico; Norway; Poland; and Singapore. The analyses were replicated using the subset of five countries that surveyed all three school levels and similar results were obtained.

Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20.

Very few teachers both enter the profession with no knowledge and receive no supports for continued professional learning; however, at the same time, very few teachers receive all types of support for

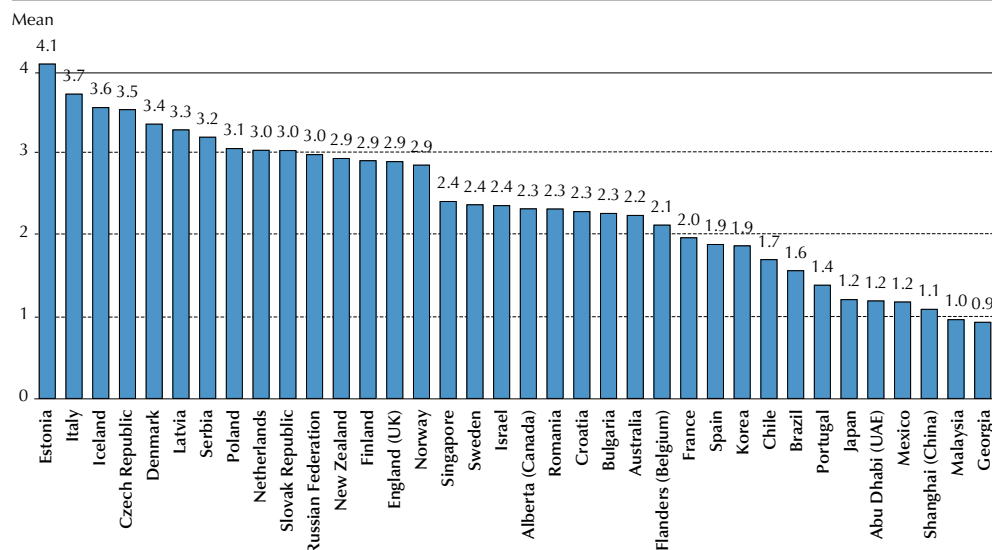
professional learning. This means that very few teachers receive all five supports for a knowledge base. As shown in Table 2.2, the limited number of teachers receiving full support is due largely to the very low percentage of teachers who receive salary support and other forms of non-monetary support for continued professional learning.

Autonomy scale

As defined in Chapter 1, autonomy refers to types of decision-making that teachers exercise in their schools. The autonomy scale has five measures, each a different area where teachers can make decisions, including decisions over materials, curriculum, course offerings, discipline procedures and assessment policies. As shown above, average values on the autonomy scale are lower than those on the knowledge base or peer networks scales in general.

Figure 2.6 plots each system's average on the autonomy scale, which represents the number of areas of school-based decision making teachers participate in on average. Averages range from a high of 4.1 in Estonia to a low of 0.9 in Georgia. As the figure indicates, the maximum score on the autonomy scale is much higher and the minimum much lower than the knowledge base scale; as a result, the range in means (i.e. 3.2) on the autonomy scale is three times as high as the range in means on the knowledge base scale (i.e. 1.1), indicating substantially more cross-national variation in scores on the autonomy scale than the knowledge base scale.

■ Figure 2.6 ■
System averages on the autonomy scale (ISCED 2)



Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20.

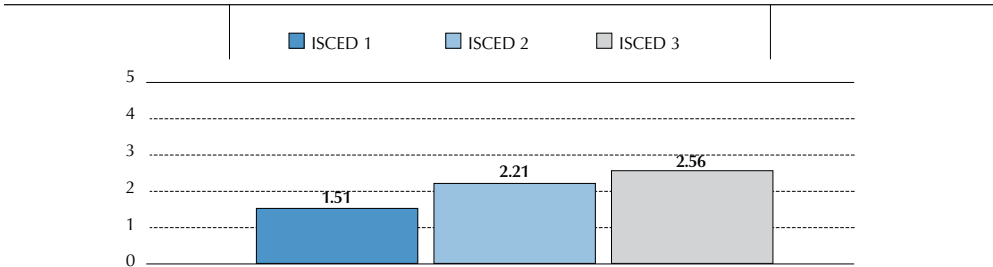
Autonomy by school level

To examine differences in autonomy by school level, Figure 2.7 shows the average number of areas of decision-making for each school level – at the primary level, the average is 1.51; at the lower secondary level, it is 2.21; and at the upper secondary level the average is 2.56. This suggests that of five possible areas where teachers could exert decision-making authority, they are involved in decisions in only one or two of those areas at



the primary level, while they are involved in two or three at the upper secondary level, across the systems participating in these options. These averages are statistically significantly different from both of the other levels, suggesting that there are real differences in the amount of decision-making teachers have at each level.

■ Figure 2.7 ■
Average values on autonomy scale, by school level



Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20.

Table 2.3 provides the percentage of all surveyed teachers whose principals state that teachers in their school are involved in decision making over that area, indicating the types of decision-making areas that are most common across the TALIS systems and education levels. At all levels, principals report that teachers have the most say over what materials are used in their courses. Additionally, upper secondary teachers have more say in almost all aspects of decisions at the school than teachers at lower levels – they are much more likely to have a say in decisions over content and materials used in class, as well as assessment policies and course offerings. In contrast, teachers at the primary level in the participating systems have the lowest values on the autonomy scale, largely due to very low percentages of teachers who have a choice over course offerings or content.

It is interesting to note that, across the systems that survey teachers at the upper secondary level (ISCED 3), the mean value on the autonomy scale (2.56) is relatively high compared to mean values at the other two domains, suggesting that teacher professionalism in upper secondary schools is more closely related to levels of teacher autonomy, in contrast to other levels of teaching. The statistically significant differences in decision making at various school levels may reflect differences in the nature of teaching at different levels – where teachers at upper levels are trained in a specific subject and are treated more as subject-matter experts than at lower levels.

Table 2.3 Components of autonomy scale, by ISCED level

| Item | ISCED 1 | ISCED 2 | ISCED 3 |
|------------------------------------|---------|---------|---------|
| Autonomy over content | 27.60% | 42.70% | 57.10% |
| Autonomy over course offerings | 13.70% | 35.10% | 46.30% |
| Autonomy over discipline practices | 30.70% | 39.30% | 34.00% |
| Autonomy over assessment | 33.60% | 39.20% | 48.60% |
| Autonomy over materials | 49.70% | 66.50% | 70.80% |

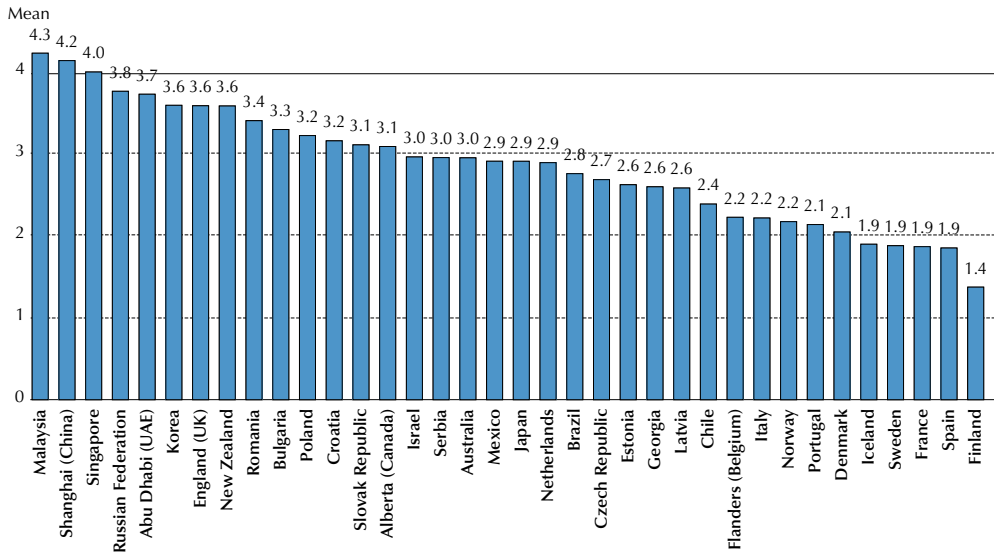
Note: Not all countries and economies surveyed teachers at ISCED 1 or ISCED 3. Analyses on ISCED 1 include the following systems: Denmark; Finland; Flanders, Belgium; Mexico; Norway; and Poland. Analyses on ISCED 3 include Abu Dhabi, United Arab Emirates; Australia; Denmark; Finland; Georgia; Iceland; Italy; Mexico; Norway; Poland; and Singapore. The analyses were replicated using the subset of five countries that surveyed all three school levels and similar results were obtained.

Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20.

Peer networks scale

The peer networks scale is calculated based on the number of best practices related to information exchange and feedback among peers present at the school. The scale is based on the percentage of teachers who participate in formal induction and mentoring programmes, participate in a professional network of other teachers, receive feedback based on direct observations and whose school supports individual professional development plans.

■ Figure 2.8 ■
System averages on peer networks scale (ISCED 2)



Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20.

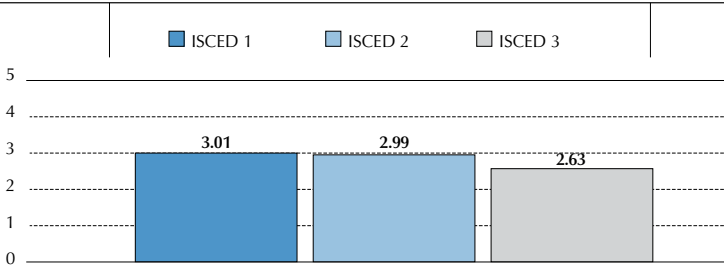
Figure 2.8 plots national means on the peer networks scale, which range from a maximum of 4.3 in Malaysia to a minimum of 1.4 in Finland. The range between systems at the top end of the spectrum of the peer networks domain and those at the low end is 2.9, indicating that those at the top end implement almost three more best practices on average than those at the bottom end. It is clear that the peer networks scale exhibits more cross-system variation than the knowledge base scale, but less than the autonomy scale.

Peer networks by school level

To examine differences in the peer networks scale by school level, Figure 2.9 graphs average values on the peer networks scale by school level. As is clear from the figure, scores are highest on this index among primary and lower secondary schools (3.01 and 2.99, respectively), with upper secondary schools having the lowest values (2.63). The patterns for the peer networks domain across school levels mirror those in the knowledge base scale. As with the knowledge base scale, the differences between primary and lower secondary schooling are statistically significantly different ($p < 0.001$) than those at upper secondary schools, suggesting real differences in the number of practices implemented at each level rather than differences due to random error.



Figure 2.9
Average values on peer networks scale, by school level



Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20.

Table 2.4 shows the percentage of teachers stating that they benefit from each of the best practices identified in the peer networks domain. There is significant variation in terms of the best practices implemented in schools. The majority of teachers at all levels surveyed stated that either they personally participated in a mentoring programme at their school as a mentor or mentee, or their school supports an active mentoring programme,³ that they received feedback based on direct observations of their teaching and that they have a personalised professional development plan. In contrast, roughly a third of teachers participate in a network of teachers designed specifically for their professional development, while approximately 50% of teachers stated that they participate in a formal induction programme.

It is important to note that, compared to the other two ISCED levels, teachers in systems participating at the upper secondary level are substantially less likely to participate in a mentoring programme (52.7% compared to 66.2% in lower secondary) or receive feedback on direct observations (63.2% compared to 75% in lower secondary). The nature of upper secondary school teachers as subject-matter experts may be a contributing factor in lower rates of peer regulation at this level – for example, it is possible that teachers at the upper secondary level are, in many cases, the only teacher of a certain subject in their school. As is clear in Table 2.4, across all levels, many teachers would likely benefit from participation in a formal induction programme and a formal network of teachers focused on professional learning.

Table 2.4 Components of peer networks scale, by ISCED level

| Item | ISCED 1 | ISCED 2 | ISCED 3 |
|---|---------|---------|---------|
| Participates in formal induction | 48.80% | 52.50% | 47.60% |
| Mentoring programme at school | 60.50% | 66.20% | 52.70% |
| Participates in network of teachers | 38.60% | 37.40% | 33.50% |
| Receives feedback from direct observations | 81.10% | 75.00% | 63.20% |
| Receives personalised professional development plan | 72.20% | 67.50% | 66.20% |

Note: Not all countries surveyed teachers at ISCED 1 or ISCED 3. Analyses on ISCED 1 include the following systems: Denmark; Finland; Flanders, Belgium; Mexico; Norway; and Poland. Analyses on ISCED 3 include Abu Dhabi, United Arab Emirates; Australia; Denmark; Finland; Georgia; Iceland; Italy; Mexico; Norway; Poland; and Singapore. The analyses were replicated using the subset of five countries that surveyed all three school levels and similar results were obtained.

Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20.

MODELS OF TEACHER PROFESSIONALISM

The cross-national variation in TALIS countries' and economies' emphasis suggests that there may be particular models of teacher professionalism. To further examine these models, the next section

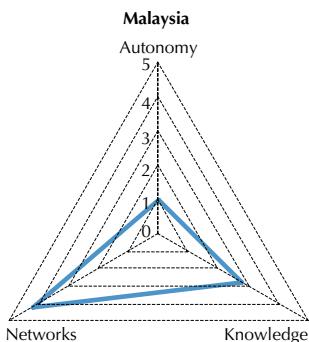
presents country-specific means on all three domains. The following sets of triangle graphs show system mean values on the knowledge base, autonomy and peer networks scales on a two-dimensional plane. Values are plotted as a triangle, where the points represent the values of the three indices for each country. The shapes of the triangles provide a visual representation of where each education system's priorities lie, and whether the system emphasises one or two of the domains of professionalism over a third. The visual makes clear the cross-system variation in the degree to which countries and economies value different domains of teacher professionalism.

The analysis identifies five models of teacher professionalism: 1) high peer networks-low autonomy; 2) high autonomy; 3) knowledge emphasis; 4) balanced approach, high professionalism; 5) balanced approach, low professionalism. Interestingly, despite some exceptions, many countries and economies can be grouped into various models of professionalism based on geographic or cultural similarities. This section describes the identified models and highlights a few systems that exemplify each.⁴

Model 1: High peer networks – low autonomy

The first model for teacher professionalism is characterised by high values on the peer networks index, coupled with low levels of autonomy and moderate to high values on the knowledge base scale. Systems following this model have above a 3.0 on the peer networks domain and tend to have a value on the autonomy scale of less than 3, with many as low as 1. As shown in Figure 2.10, the high peer networks-low autonomy model is exemplified by Malaysia, which has a mean of roughly 4.3 on peer networks and a mean of only 1.0 on the autonomy scale. As a triangle plot shows, this model tends to take the shape of a low triangle with a wide base visibly skewed towards peer networks.

■ Figure 2.10 ■
Malaysia triangle graph (ISCED 2)



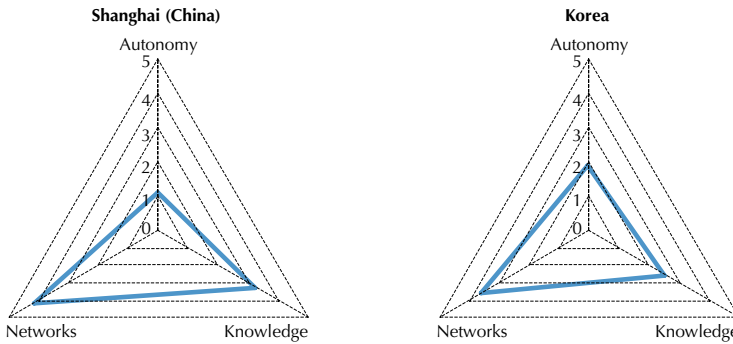
Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20.

Model 1 is most common to East Asian economies, which emphasise peer networks and knowledge and have low levels of autonomy. With the exception of Singapore, East Asian systems fall relatively low on the autonomy scale, while emphasising the other two domains. This is shown clearly as the blue triangles are pulled further along the bottom edges (towards networks and knowledge) than towards the top (autonomy). Korea (3.6); Malaysia (4.3); and Shanghai, China (4.2) are other education systems where peer networks are given the greatest priority. Interestingly, Shanghai, China (3.3); and Singapore (3.2) also have high values on the knowledge base domain. Across all countries and



economies in the global sample, Shanghai, China is among the highest ranked in knowledge and peer networks, at 3.3 and 4.2 respectively (see Figure 2.11).

Figure 2.11 East Asian systems particularly emphasise peer networks (ISCED 2)

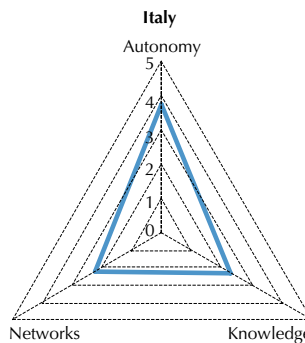


Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20.

Model 2: High autonomy

Model 2 is characterised by having a high value on autonomy. Because many countries and economies have low values on autonomy, the countries that give teachers significant decision-making power stand out as a distinct model. Systems in Model 2 (high autonomy) will typically have scores above 3.0 on the autonomy scale, and autonomy will be the domain they emphasise the most. In certain systems, namely Denmark, Finland and Italy, the high value on the autonomy scale is accompanied by a relatively low value on the peer networks scale (<2.3). As shown in Figure 2.12, Model 2 is exemplified by Italy, which has the second highest value on the autonomy scale of any system, with a mean of 3.7. Italy also has low scores on the peer networks scale and moderate value on the knowledge base scale, giving it the shape of a tall isosceles triangle.

Figure 2.12 Italy triangle graph (ISCED 2)

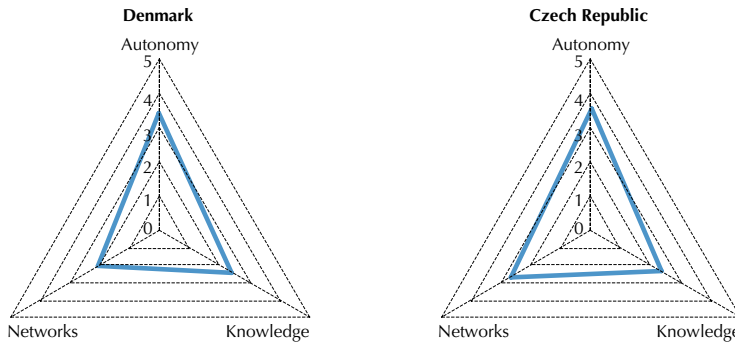


Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20.

As shown in Figure 2.13, the high autonomy model is found in Northern and Central Europe, where countries tend to score relatively higher on the autonomy variables. The Czech Republic (3.5) and Denmark (3.4) are the fourth and fifth highest autonomy-scale countries, while Finland, Iceland, Norway and the Slovak Republic also follow the high autonomy model. That said, many other nations have relatively high values on both the autonomy scale and the peer networks scale.

■ Figure 2.13 ■

Northern and Central Europe emphasise autonomy (ISCED 2)



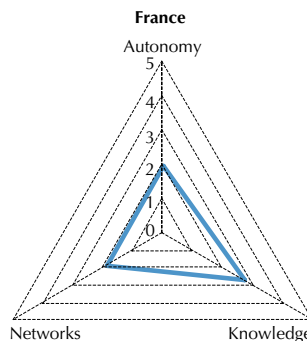
Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20.

Model 3: Knowledge emphasis

Model 3 is characterised by an emphasis on knowledge. Countries and economies in this model have higher scores on the knowledge domain than any other domain, with a value generally above 2.7 on the knowledge base scale. This emphasis on knowledge is typically accompanied by low values on the peer networks scale and moderate values on the autonomy scale. Model 3 is not common among TALIS-surveyed countries and economies; although most have relatively high scores on knowledge, they tend to also have high scores on another domain as well. The knowledge emphasis model seems to be common to Francophone and Dutch-speaking economies, exemplified by France, (2.7) but also found in Flanders, Belgium (3.1) and the Netherlands (2.7).

■ Figure 2.14 ■

France triangle graph (ISCED 2)



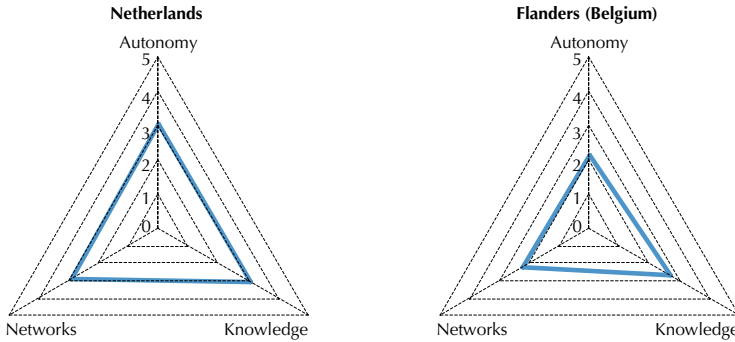
Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20.



As shown in Figure 2.14 and Figure 2.15, the knowledge emphasis model is exemplified by France and also found in other European economies, including Flanders, Belgium and the Netherlands, all of which have high values on the knowledge base domain, but relatively moderate or low values on the other two.

■ Figure 2.15 ■

Knowledge emphasis countries (ISCED 2)



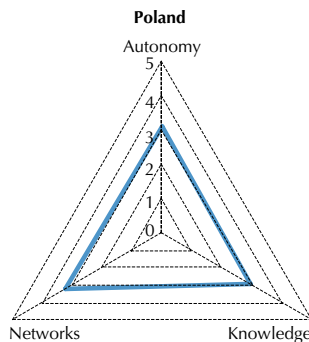
Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20.

Model 4: Balanced domains, high overall professionalism

Model 4 is characterised by both equal and high values on all three domains. When plotted as a triangle plot, this model takes the shape of a large equilateral triangle – with values on each index at or above 3.0. As depicted in Figure 2.16, the balanced, high-professionalism model is exemplified by Poland, which has a mean of roughly 3.0 on all domains.

■ Figure 2.16 ■

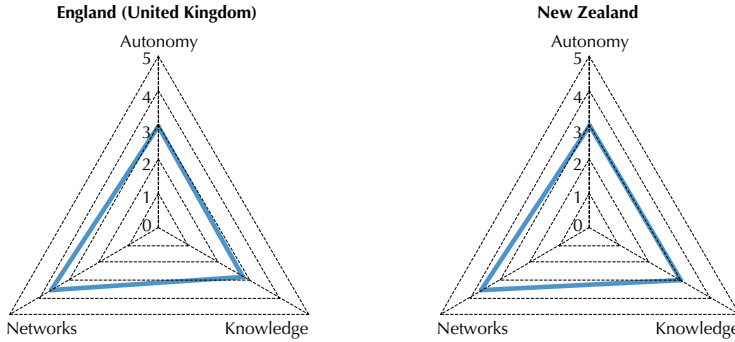
Poland: Balanced high professionalism (ISCED 2)



Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20.

Countries and economies in Model 4 tend to have among the highest overall values on the teacher professionalism index because they have high values on all three domains (see Figure 2.17). These systems also represent a high degree of overall teacher professionalism according to proposed measures. England, United Kingdom; Estonia; New Zealand; Poland and the Russian Federation are all among the highest on the overall professionalism measure.

■ Figure 2.17 ■
Systems with a model of balanced high professionalism (ISCED 2)

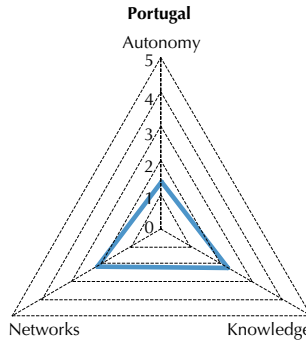


Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20.

Model 5: Balanced domains, low professionalism

The fifth model of professionalism also takes a balanced approach, but this model has generally low levels of teacher professionalism on all three domains – which is conceptualised as a value of less than 3.0 on all three scales. As depicted in Figure 2.18, the balanced, low-professionalism model is exemplified by Portugal, which has values of 1.4-2.2 on all domains.

■ Figure 2.18 ■
Portugal triangle graph (ISCED 2)



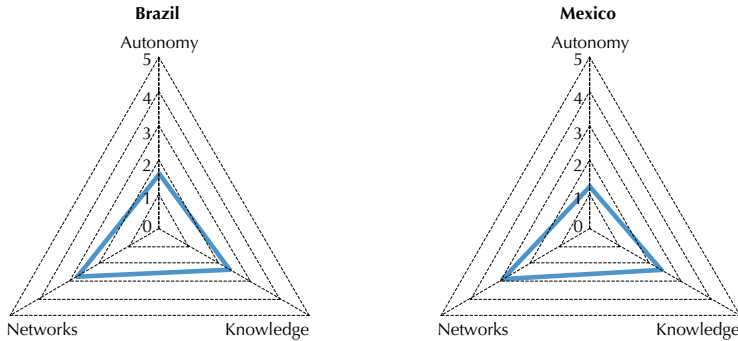
Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20.

The balanced, low-professionalism model is common to the three countries from Central and Latin America, Chile, Brazil and Mexico. As shown in Figure 2.19, both Brazil and Mexico have small triangles pulled slightly in the direction of peer networks, demonstrating lower levels of the teacher professionalism index in all three domains.



▪ Figure 2.19 ▪

Teacher professionalism profiles in Brazil and Mexico (ISCED 2)



Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20.

The Latin American countries do not appear to emphasise any one domain, and they tend to have lower index values on all three domains of teacher professionalism. Chile is among low-scoring countries on the knowledge domain with 2.4, while Brazil and Mexico are medium to low among the peer networks group, with values of 2.8 and 2.9. Among all countries and economies, only a handful have lower values on the knowledge base scale than any of the three Latin American countries.

Although every education system is different, the five models identified here suggest overarching patterns of how countries can approach teacher professionalism and offer fruitful areas for comparison.

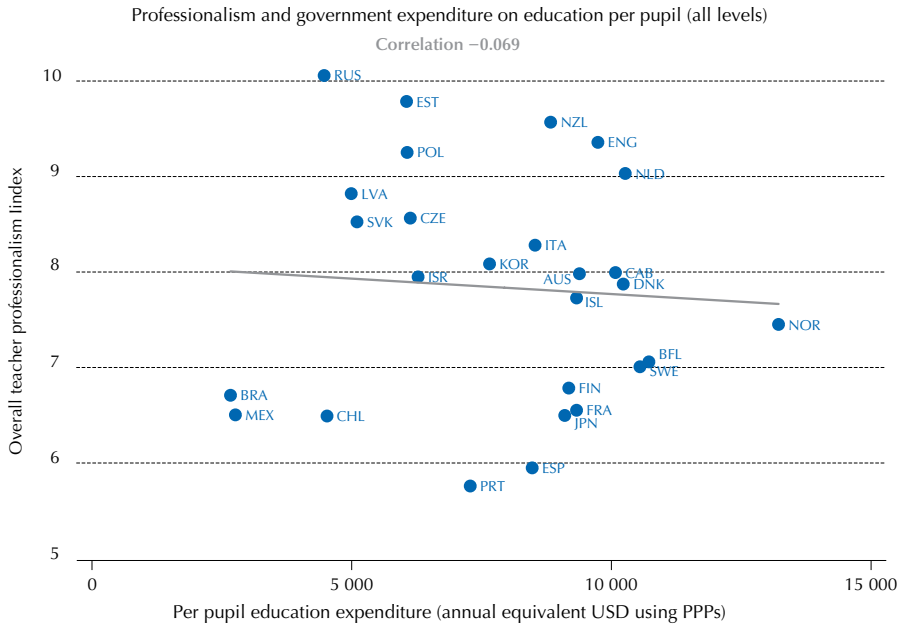
TEACHER PROFESSIONALISM AND SYSTEM-LEVEL FACTORS

While recognising that systems approach teacher professionalism differently, factors that promote professionalism and the role of professionalism in predicting other policy-relevant outcomes are ultimately interesting. In this section, the bivariate relationships between teacher professionalism and other system-level factors, including wealth, student-teacher ratios and PISA score outcomes are examined. Because investing in teacher professionalism requires some commitment of resources, one may wonder whether wealthier countries and economies are more likely to show higher values on teacher professionalism, as they are able to invest more in costly programmes or policies.

Figure 2.20 shows the combined teacher professionalism index plotted against government per-pupil education expenditure. Contrary to expectation, there appears to be no relationship between educational expenditure and the teacher professionalism index.

The emerging trend showing geographic differences suggests that analyses of the linkages of professionalism with teacher outcomes, such as job satisfaction, motivation, perception of status and self-efficacy must take into account the overall geographic and economic context. However, the differences in the direction of relationships mean that higher teacher professionalism is not a mere function of allocating more resources, and that a number of systemic or cultural factors may be at play – some of which are explored in Chapter 3.

Figure 2.20
Education expenditure (per pupil) and overall teacher professionalism (ISCED 2)



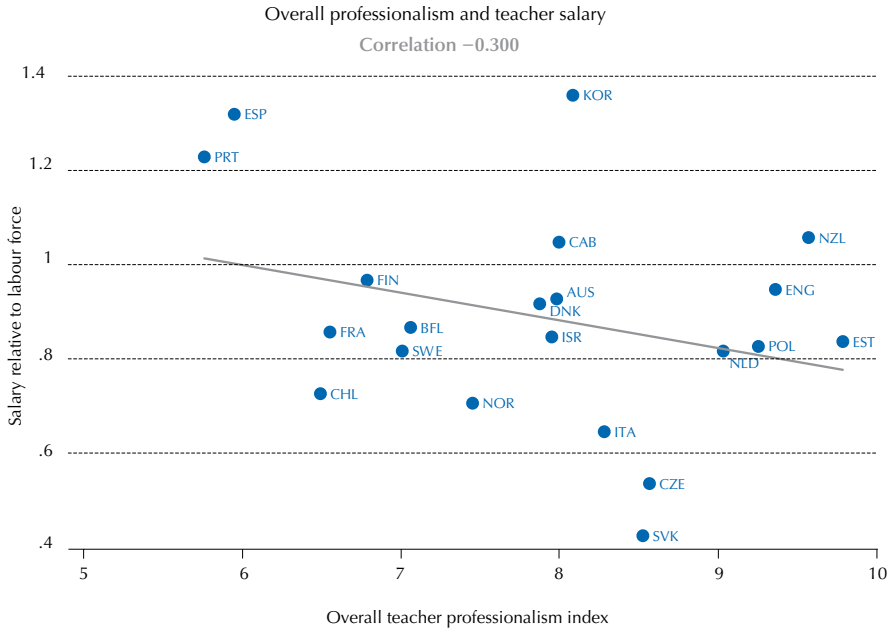
Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20; World Bank (The) (2015), *World Development Indicators 2015*, <http://data.worldbank.org/products/wdi>.

Teacher pay and working conditions

Because the measured level of teacher professionalism reflects systems' policy concerning teachers, it is also possible that countries and economies that invest heavily in their teachers are those where teachers also command higher salaries or are better able to advocate for better working conditions. Figure 2.21 and Figure 2.22 examine how overall values of teacher professionalism are related to mediating factors, including teacher pay and working conditions. Figure 2.21 plots the relationship between overall professionalism and average teacher salaries relative to other tertiary educated employees in the labour market. It is reasonable to assume that countries and economies that invest in higher salaries may also be more likely to support policies related to teacher professionalism. However, there is no evidence that this is the case across systems. Figure 2.21 actually suggests a negative relationship between overall values of teacher professionalism and relative salary, indicating a potential trade-off between dedicating resources towards support for professionalism practices or teacher compensation. However, this relationship is highly sensitive to which systems are included: for example, Portugal and Spain have low levels of the teacher professionalism index, but relatively high salaries, which contributes to the appearance of a negative relationship. This suggests that teacher professionalism policies may be driven by policy decisions distinct from their relationship to those governing compensation.



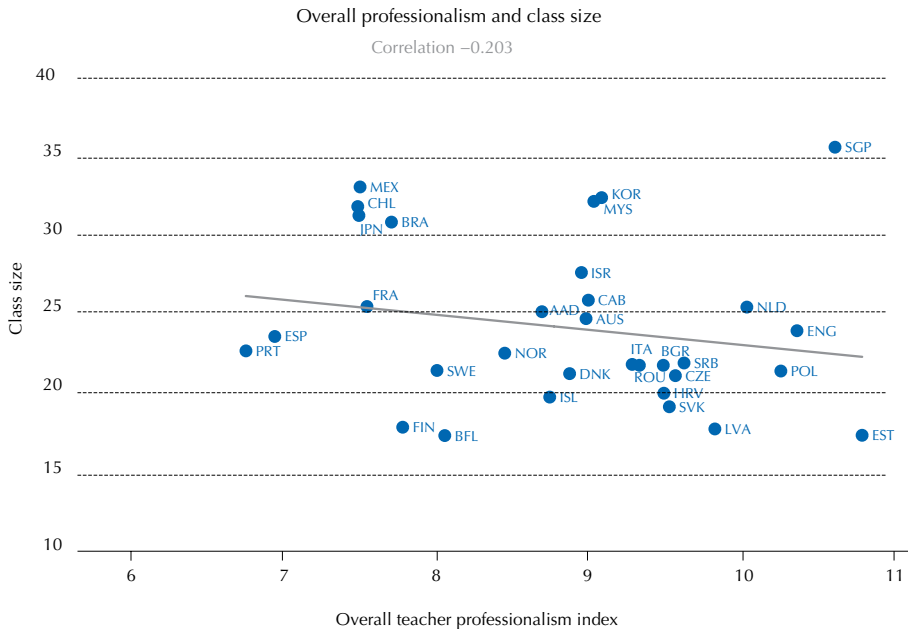
Figure 2.21
Overall teacher professionalism and teacher salary (ISCED 2)



Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20; OECD (2014), *Education GPS*, <http://gpseducation.oecd.org/>.

Figure 2.22 plots the basic relationship between overall teacher professionalism and average class size. The graph suggests that when values on the teacher professionalism index are higher, average class sizes tend to be slightly lower. This relationship could be driven by larger policy decisions in the education system to both invest in teachers and their working conditions, or it could reflect teachers' ability to participate more in decision making concerning the conditions governing their work. However, this relationship could work both ways: it is possible that teacher professionalism improves working conditions, but it is also possible that improvements in working conditions could improve teacher professionalism by freeing up time for other activities, for example. Again, because it is based on a small number of systems, the relatively weak negative correlation ($r = -0.2$) observed here should be considered with caution.

■ Figure 2.22 ■
Overall teacher professionalism and average class size (ISCED 2)



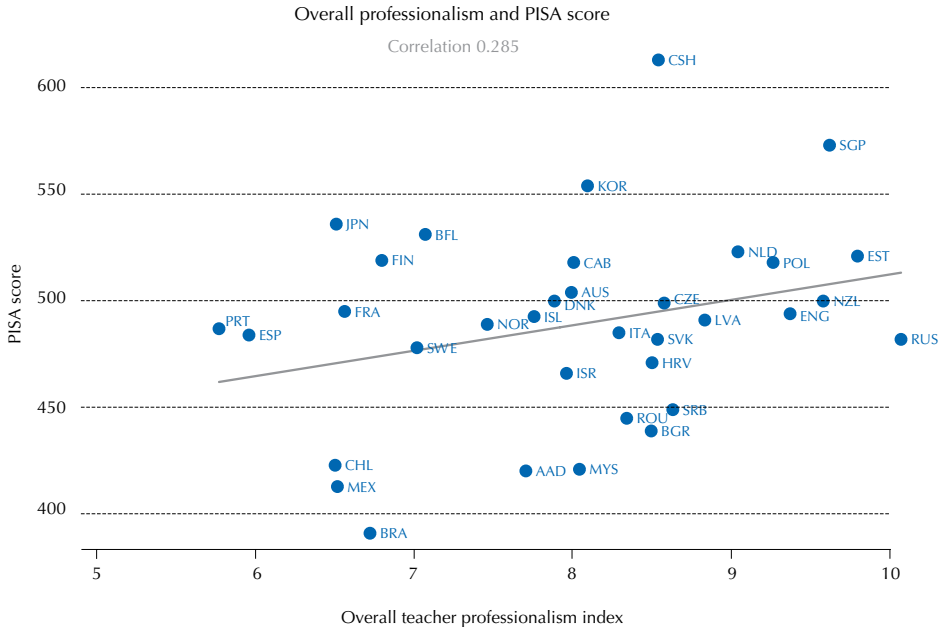
Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20; OECD (2014), *Education GPS*, <http://gpseducation.oecd.org/>.

Learning outcomes

While the analyses presented above focus on the level of the teacher, the ultimate policy question is whether higher teacher professionalism will translate into better teaching, and consequently into better student learning outcomes. Figure 2.23 provides an initial gauge of whether this relationship may be true, by plotting system-level values on the overall teacher professionalism index against their scores on the most recent PISA math assessment. The trend line suggests that there is a slight positive relationship between overall values on the overall teacher professionalism index and education systems' average PISA scores (the relationship is significant at the 10% level). Because teacher professionalism is not closely related to expenditure on education (see Figure 2.20), this finding does not appear to be driven only by the level of resources, but rather it may suggest that investing in policies to promote teacher professionalism may be related to student learning through means other than simply higher levels of resources. However, as with class size, the correlation here is relatively weak and sensitive to the inclusion or exclusion of particular countries. A deeper analysis will be necessary to better understand how teacher professionalism may be related to policy-relevant outcomes for both teachers and students.



Figure 2.23
PISA scores and overall teacher professionalism (ISCED 2)



Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20; OECD (2014), "PISA 2012 results in focus: What 15-year-olds know and what they can do with what they know", PISA, OECD Publishing, www.oecd.org/pisa/keyfindings/pisa-2012-results-overview.pdf.

DISCUSSION

In summary, this chapter provides a descriptive overview of the nature and extent of teacher professionalism in TALIS-surveyed countries and economies. The analysis shows significant differences in models of teacher professionalism prevalent in different countries, regions and school levels. In general, there is substantial cross-system variation in terms of how nations approach teacher professionalism. However, there is less variation cross-systemically in the knowledge base scale, with more variation in the peer networks scale and significant variation in education systems' values on the autonomy scale. The most striking finding is the extent to which teacher autonomy is emphasised among Northern and Central European systems, while peer networks tend to be emphasised among East Asian systems. For some systems, such as those in East Asia, there appears to be a trade-off in the extent to which autonomy or peer networks is observed. Rather than conceptualising a single model for teacher professionalism, thinking about the diverse models that systems employ offers avenues for research into the advantages and disadvantages of various approaches and the generation of new policy ideas.

Additionally, there are differences in the nature of teacher professionalism across school levels. The findings suggest that autonomy is higher for teachers of upper secondary grades, while emphasis on the development of a knowledge base and building peer networks are relatively lower, suggesting that different factors become more important as teachers are responsible for older age cohorts.

These findings also indicate that teacher professionalism is not closely related to a country's spending on education – suggesting it may instead reflect other factors such as cultures of teaching or national policy priorities. The next chapter addresses how teacher professionalism predicts policy-relevant outcomes, including teachers' perceived status, job satisfaction, self-efficacy and their commitment to teaching.

Notes

1. A word of caution: not all countries and economies surveyed teachers at ISCED 1 or ISCED 3. Analyses on ISCED 1 include the following systems: Denmark; Finland; Flanders, Belgium; Mexico; Norway; and Poland. Analyses on ISCED 3 include Abu Dhabi, United Arab Emirates; Australia; Denmark; Finland; Georgia; Iceland; Italy; Mexico; Norway; Poland; and Singapore. The analyses were replicated using the subset of five countries that surveyed all three school levels and similar results were obtained.
2. Among teachers that reported receiving professional development in the last 12 months. The proportion of teachers participating in professional development in the last 12 months varies for different countries and economies, between 71.7% and 98.0% (Table 4.6, OECD, 2014d).
3. Please note that the variables that this report uses to indicate access or exposure to a mentoring programme are different from those used to indicate participation in a mentoring programme in the TALIS 2013 results report (OECD, 2014d). See Annex A for more information on which variables were used.
4. Annex B: System-Specific Profiles has all country and economy profiles.

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.

References

Akiba, M., G.K. LeTendre and J.P. Scribner (2007), "Teacher quality, opportunity gap, and national achievement in 46 countries", *Educational Researcher*, Vol. 36/7, pp. 369-387.

OECD (2014a), *Education GPS*, <http://gpseducation.oecd.org/>.

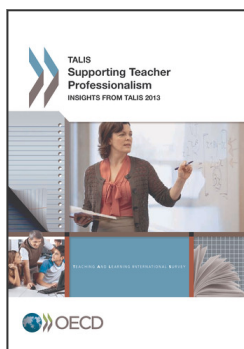
OECD (2014b), *New Insights from TALIS 2013: Teaching and Learning in Primary and Upper Secondary Education*, TALIS, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264226319-en>.

OECD (2014c), "PISA 2012 results in focus: What 15-year-olds know and what they can do with what they know", PISA, OECD Publishing, www.oecd.org/pisa/keyfindings/pisa-2012-results-overview.pdf.

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

OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20.

World Bank (The) (2015), *World Development Indicators 2015*, <http://data.worldbank.org/products/wdi>.



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