## CHAPTER 6:

## School contexts for civic and citizenship education

## Chapter highlights

Students and teachers were actively participating in school life.

- In most of the ICCS 2016 participating countries, students had participated in classroom and school elections. (Table 6.1)
- The opportunities students had to actively participate in decisions about their respective schools differed across countries. (Table 6.2)
- Teachers were actively involved in decision-making processes. (Table 6.2)
- Although parents were involved in discussion about students' learning achievement, their broader involvement in decision-making processes was not substantial. (Table 6.2)

Schools were paying attention to social interactions.

- Students in the participating countries were positive about classroom climates that are open. (Table 6.3)
- Students' interest in social and political issues, their expected level of education, and their civic knowledge were positively associated with this perception. (Table 6.4)
- Verbal bullying was taking place in most of the participating countries, but principals and teachers had adopted initiatives to counter various forms of bullying at school. (Tables 6.7, 6.8, 6.9, 6.10, 6.11)

Schools were interacting with the local community when developing civic-related activities.

- Target-grade students had opportunity to participate in civic-related activities that their schools carried out in the local community. (Tables 6.12, 6.13)

Schools had developed activities related to environmental sustainability.

- Most of the schools in the participating countries had developed at least some initiatives related to environmental sustainability, such as differential waste collection, recycling and waste reduction, and energy saving. (Table 6.14)
- According to teachers, the target-grade students were participating in activities pertaining to the environment mainly inside their schools. (Table 6.15)

Countries differed in relation to civic learning processes and activities at school and in relation to teachers' preparedness for teaching civic-related topics.

- Students' civic learning at school was positively associated with students' interest in social and political issues, the level of education they expected to attain, and their civic knowledge. (Tables 6.16, 6.17)
- Civic and citizenship teaching and learning activities in classrooms varied considerably across countries. (Table 6.18)
- Teachers of subjects related to civic and citizenship education felt prepared to teach a variety of topics and skills. (Table 6.19)


## Conceptual background and prior research

The ICCS 2016 assessment framework (Schulz, Ainley, Fraillon, Losito, \& Agrusti, 2016) identified several contexts that have the potential to influence not only students' learning outcomes in the field of civic and citizenship education but also their civic engagement. These contexts include the wider community, the school and classroom, the home and peer environment, and characteristics of individual students.

In this chapter, we explore aspects of the ICCS 2016 school and classroom contexts and their association with the participating students' learning experience. The chapter addresses ICCS 2016 Research Question 5: How are schools in the participating countries organized with regard to civic and citizenship education and what is its association with students' learning outcomes? In particular, the chapter focuses on the following specific research questions:

- To what extent do schools in participating countries have participatory processes in place that facilitate civic engagement?
- To what extent do schools and communities interact to foster students' civic engagement and learning?

Some aspects related to this general research question were discussed in Chapter 2 of this report. It provided information about contexts for civic and civic education at the national level. Examples of these aspects include the ICCS countries' general approaches to civic and citizenship education, curriculum, and/or program content structure and delivery, and schools' and teachers' perceptions of the role of civic and citizenship education. The results presented in this sixth chapter of the ICCS 2016 international report draw on data from the school, teacher, and student questionnaires.

In keeping with ICCS 2009, ICCS 2016 considered students' civic learning outcomes as the result of not only teaching and learning processes but also of students' more general experiences in their schools. What students experience daily at school is deemed of particular relevance for the development of their attitudes and dispositions. As the authors of the ICCS 2016 assessment framework pointed out, a large number of countries emphasize the non-formal aspects of civic learning that occur through participation and engagement or social interaction at school (see also Ainley, Schulz, and Friedman, 2013; Eurydice, 2005, 2012; Schulz, Ainley, Fraillon, Kerr, \& Losito, 2010). Research also stresses the importance of informal learning at school for students' civic engagement (Scheerens, 2009). Students' participation at the school level, the interpersonal climate of the school and classroom, and the quality of the relationships between students and teachers and among students are also of vital importance (Bäckman \& Trafford, 2007; Huddleston, 2007; Trafford, 2003).

## Participatory processes and social interactions at school

The ICCS 2016 school questionnaire included a question on students' participation in classrepresentative elections and school elections (e.g., for student council/parliament). This question was included in both CIVED and ICCS 2009. In the current study, principals were asked to indicate how many of the target-grade students participate in these elections ("all or nearly all," "most of them," "some of them," "none or hardly any"). The response categories for this question also included a "not applicable" option so that we could take into consideration different school regulations relating to this type of participation in the ICCS 2016 countries.

In almost all countries, the percentages of students in schools where principals reported a high level of participation ("all or nearly all"/"most of them") in elections for class representatives were higher than 80 percent; in several countries, percentages were as high as 95 percent (see Table 6.1). Only five countries recorded percentages lower than 80 percent-Belgium (Flemish), 73 percent; Bulgaria, 68 percent; Estonia, 76 percent; Italy, 22 percent; and the Netherlands, 46 percent. The results for students' participation in school elections showed a somewhat greater
variation across countries, with 10 countries recording percentages lower than 80 percent: Belgium (Flemish), Bulgaria, Chinese Taipei, Estonia, Italy, Latvia, Lithuania, the Netherlands, the Russian Federation, and Sweden.

These findings are relatively consistent with the answers students gave to the question included in the student questionnaire on their participation in civic activities at school. On average, 77 percent of students across countries said they had voted in class or school elections. The national percentages ranged from 50 to 93 percent; four countries recorded percentages of 90 percent or greater, and three countries recorded percentages under 60 percent (see also Chapter 4 of this report).

Students', teachers', and parents' participation in school decision-making processes can be regarded not only as a part of democratic governance processes at school but also as a factor characteristic of schools that have a democratic learning environment (Torrance, 2013). The different strategies and procedures that principals adopt when exercising their role may also have an impact on school climate and culture (Edmonds, 1979; Eurydice, 2013; Ishimaru, 2013; Marzano, 2003; Sammons, Gu, Day, \& Ko, 2011; Scheerens, Glas, \& Thomas, 2003). Teachers who participate in school governance can contribute to a better understanding of different student learning needs and improve their own commitment to supporting school educational activities (Ranson, Farrell, Peim, \& Smith, 2005).

The ICCS 2016 school questionnaire asked principals about the extent to which teachers, parents, and students engaged in various school processes ("to a large extent," "to a moderate extent," "to a small extent," "not at all"). The processes covered in the question were denoted by the following statements: (a) "Teachers are involved in decision-making processes;" (b) "Parents are involved in decision-making processes;" (c) "Students' opinions are taken into account in decision-making processes;" (d) "Rules and regulations are followed by teaching and non-teaching staff, students, and parents;" (e) "Students are given the opportunity to actively participate in school decisions;" and (f) "Parents are provided with information on the school and student performance."

Across countries, the highest national percentages of students in schools where principals reported a high level of engagement of students, teachers, and parents in school processes were registered for parents' involvement in communication processes related to students' performance (84\%), respect for school regulations (63\%), and teachers' involvement in decision-making processes (61\%). The lowest percentages (see Table 6.2) were observed for parents' involvement in decision-making processes (18\%), consideration given to students' opinions during decisionmaking processes (28\%), and students' opportunities to participate in school decisions (30\%). Eight countries recorded percentages above the international average for student participation in school decisions. They were Colombia, Croatia, the Dominican Republic, Estonia, Latvia, Malta, Mexico, and the Russian Federation.

When we looked at the responses for the two positive answer categories combined (i.e., "to a large extent" and "to a moderate extent"), we recorded an international average of 80 percent or above for almost all the question items. We observed slightly lower percentages for parents' and students' involvement in decision-making processes at school. We also noted that variation across countries tended to be greater for these two items than for the other items.

Table 6.1: Percentages of students at schools where principals reported students' participation in school elections

| Country |  | National percentages of students at schools where principals reported that all, nearly all, or most of the students: |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Elect their class representatives |  |  | Vote in school council, school parliament elections |  |  |
| Belgium (Flemish) |  | 73 | (4.1) | $\nabla$ | 55 | (4.5) | $\nabla$ |
| Bulgaria |  | 68 | (3.8) | $\nabla$ | 50 | (4.1) | $\nabla$ |
| Chile |  | 98 | (1.1) | - | 86 | (3.1) | - |
| Chinese Taipei |  | 92 | (2.4) | $\triangle$ | 45 | (4.2) | $\nabla$ |
| Colombia | (r) | 99 | (1.0) | - | 99 | (0.9) | $\triangle$ |
| Croatia |  | 100 | (0.0) | $\Delta$ | 98 | (1.1) | $\Delta$ |
| Denmark ${ }^{+}$ |  | 91 | (2.1) | $\triangle$ | 92 | (2.0) | - |
| Dominican Republic |  | 95 | (1.9) | $\triangle$ | 95 | (1.6) | $\Delta$ |
| Estonia ${ }^{1}$ | (s) | 76 | (4.9) | $\nabla$ | 79 | (4.4) |  |
| Finland |  | 98 | (1.1) | - | 93 | (1.7) | - |
| Italy |  | 22 | (3.5) | $\nabla$ | 1 | (0.7) | $\nabla$ |
| Latvia ${ }^{1}$ |  | 88 | (3.1) |  | 73 | (5.0) |  |
| Lithuania |  | 93 | (2.1) | $\triangle$ | 79 | (3.1) |  |
| Malta |  | 85 | (0.3) |  | 80 | (0.3) | $\triangle$ |
| Mexico |  | 98 | (1.2) | - | 81 | (2.7) | $\triangle$ |
| Netherlands ${ }^{\dagger}$ | (r) | 46 | (4.4) | $\nabla$ | 34 | (5.2) | $\nabla$ |
| Norway (9) ${ }^{1}$ |  | 99 | (0.8) | - | 95 | (2.0) | - |
| Peru |  | 93 | (1.5) | $\triangle$ | 85 | (2.3) | $\triangle$ |
| Russian Federation |  | 82 | (3.2) |  | 74 | (3.6) |  |
| Slovenia |  | 99 | (0.8) | - | 81 |  |  |
| Sweden ${ }^{1}$ |  | 92 | (2.4) | $\triangle$ |  | (3.6) |  |
| ICCS 2016 average |  | 85 | (0.6) |  | 74 | (0.7) |  |

Countries not meeting sample participation requirements

| Hong Kong SAR | $87(3.6)$ | $86(3.6)$ |
| :--- | ---: | ---: | :--- |
| Korea, Republic of $^{2}$ | $100(0.0)$ | $100(0.0)$ |

Benchmarking participant not meeting sample participation requirements

| North Rhine-Westphalia (Germany) ${ }^{1}$ | (r) | 100 (0.0) | 75 (6.3) |
| :---: | :---: | :---: | :---: |

## National percentage:

A More than 10 percentage points above ICCS 2016 average
$\triangle$ Significantly above ICCS 2016 average
$\nabla \quad$ Significantly below ICCS 2016 average

- More than 10 percentage points below ICCS 2016 average

Notes:
() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
$\dagger$ Met guidelines for sampling participation rates only after replacement schools were included.
1 National Defined Population covers $90 \%$ to $95 \%$ of National Target Population.
2 Country surveyed target grade in the first half of the school year.
An "(r)" indicates that data are available for at least 70\% but less than 85\% of students.
An "(s)" indicates that data are available for at least 50\% but less than 70\% of students.
Table 6.2: Percentages of students at schools where principals reported engagement of the school community

| Country | National percentages of students at schools where principals reported that to a large extent: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Teachers are involved in decision-making processes |  |  | Parents are involved in decision-making processes |  |  | Students' opinions are taken into account in decision-making processes |  |  | Rules and regulations are followed by teaching and non-teaching staff, students, and parents |  |  | Students are given the opportunity to actively participate in school decisions |  |  | Parents are provided with information on the school and student performance |  |
| Belgium (Flemish) | 32 | (4.5) | $\nabla$ | 8 |  | $\nabla$ | 8 | (2.1) | $\nabla$ | 52 | (5.0) | $\nabla$ | 12 | (2.6) | $\nabla$ | 62 (4.4) | $\nabla$ |
| Bulgaria | 86 | (3.0) | - | 8 | (2.3) | $\nabla$ | 32 | (4.3) |  | 80 | (3.5) | - | 27 | (4.0) |  | 83 (3.2) |  |
| Chile | 50 | (3.7) | $\nabla$ | 10 | (2.9) | $\nabla$ | 26 | (3.8) |  | 72 | (3.4) | $\triangle$ | 28 | (4.0) |  | 84 (3.0) |  |
| Chinese Taipei | 60 | (3.9) |  | 19 |  |  | 18 | (3.3) | $\nabla$ | 66 | (3.9) |  | 17 | (3.0) | $\nabla$ | 75 (3.7) | $\nabla$ |
| Colombia (r) | 64 | (4.4) |  | 23 |  |  | 48 | (4.5) | - | 60 | (4.5) |  | 46 | (4.4) | - | 95 (2.2) | - |
| Croatia | 79 | (3.7) | - | 30 | (3.9) | - | 38 | (4.2) | - | 56 | (3.9) | $\nabla$ | 43 | (4.3) | - | 85 (3.2) |  |
| Denmark ${ }^{\dagger}$ | 56 | (3.8) |  | 7 | (2.0) | $\nabla$ | 20 | (3.2) | $\nabla$ | 72 | (3.5) | $\triangle$ | 19 | (3.2) | $\nabla$ | 71 (3.8) | $\nabla$ |
| Dominican Republic | 84 | (3.8) | A | 46 | (5.0) | - | 65 | (4.5) | - | 67 | (4.4) |  | 58 | (4.4) | - | 96 (2.2) | - |
| Estonia ${ }^{1}$ (s) | 77 | (3.7) | A | 28 | (5.6) |  | 37 | (5.3) |  | 66 | (5.4) |  | 49 | (5.1) | - | 89 (3.6) |  |
| Finland | 73 | (3.1) | - | 2 | (1.1) | $\nabla$ | 9 | (2.2) | $\nabla$ | 83 | (2.7) | - | 21 | (2.9) | $\nabla$ | 78 (3.2) |  |
| Italy | 39 | (3.8) | $\nabla$ | 10 | (2.5) | $\nabla$ | 7 | (2.1) | $\nabla$ | 29 | (3.6) | $\nabla$ | 5 | (1.8) | $\nabla$ | 72 (3.8) | $\nabla$ |
| Latvia $^{1}$ | 88 | (3.0) | - | 32 | (3.8) | - | 51 | (4.3) | - | 68 | (4.8) |  | 67 | (4.5) | - | 97 (1.5) | - |
| Lithuania | 46 | (4.0) | $\nabla$ | 20 |  |  | 24 | (3.9) |  | 25 | (3.9) | $\nabla$ | 31 | (3.6) |  | 82 (3.4) |  |
| Malta | 66 | (0.4) | $\triangle$ | 8 | (0.2) | $\nabla$ | 29 | (0.3) |  | 85 | (0.4) | - | 33 | (0.4) | $\triangle$ | 83 (0.3) |  |
| Mexico | 78 | (3.3) | - | 39 | (4.1) | - | 37 | (4.0) | $\triangle$ | 58 | (4.1) |  | 42 | (4.1) | - | 94 (1.5) | A |
| Netherlands ${ }^{\dagger}$ (r) | 23 | (4.0) | $\nabla$ | 3 | (1.7) | $\nabla$ | 6 | (2.2) | $\nabla$ | 47 | (5.2) | $\nabla$ | 9 | (2.8) | $\nabla$ | 88 (3.2) |  |
| Norway (9) ${ }^{1}$ | 50 | (3.8) | $\nabla$ | 8 | (2.5) | $\nabla$ | 15 | (3.4) | $\nabla$ | 73 | (3.7) | - | 14 | (3.1) | $\nabla$ | 71 (3.7) | $\nabla$ |
| Peru | 42 | (3.6) | $\nabla$ | 21 | (2.9) |  | 35 | (3.5) | $\triangle$ | 48 | (3.4) | $\nabla$ |  | (3.2) |  | 71 (3.0) | $\nabla$ |
| Russian Federation | 60 | (3.6) |  | 31 | (3.9) | A |  | (3.6) |  | 70 | (4.2) |  | 43 | (3.7) | A | 92 (2.7) | $\triangle$ |
| Slovenia | 70 | (4.2) | $\triangle$ | 12 | (3.0) |  | 17 | (3.8) | $\nabla$ | 79 | (3.7) | - | 21 | (3.9) | $\nabla$ | 98 (1.0) | - |
| Sweden ${ }^{1}$ | 63 | (5.1) |  | 2 | (1.9) | $\nabla$ |  | (4.1) |  | 68 | (5.9) |  | 21 | (3.9) | $\nabla$ | 90 (2.8) | $\triangle$ |
| ICCS 2016 average | 61 | (0.8) |  |  | (0.7) |  |  | (0.8) |  | 63 | (0.9) |  |  | (0.8) |  | 84 (0.7) |  |

Countries not meeting sample participation requirements

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## School and classroom climate

School climate generally refers to "the shared beliefs, the relations between individuals and groups in the organization, the physical surroundings, and the characteristics of individuals and groups participating in the organization" (Van Houtte, 2005, p. 85). Another framing refers to school climate as the "impressions, beliefs, and expectations held by members of the school community about their school as a learning environment, their associated behavior, and the symbols and institutions that represent the patterned expressions of the behavior" (Homana, Barber, \& Torney-Purta, 2006, p. 3).

School climate and the quality of the relationships within the school (between students and teachers and among students) have the potential to influence student achievement (Bear, Yang, Pell, \& Gaskins, 2014) and may also reflect issues such as bullying at school (Powell, Powell, \& Petrosko, 2015). More generally, recent research has shown associations between studentteacher relationships and a comprehensive range of indicators of student engagement in school (Quin, 2017).

Some studies point out that students' perceptions of classroom climate may play a significant role in helping students understand the advantages of democratic values and practices (see, for example, Hooghe \& Quintelier, 2013). The CIVED survey included a set of six items that asked students how open they thought their classroom was open to discussion during their civic education lessons (Torney-Purta, Lehmann, Oswald, \& Schulz, 2001). The derived index was a positive predictor of civic knowledge and of students' expectations to vote as an adult (Schulz, 2005). The ICCS 2009 survey used a similar instrument, and the results of multivariate analyses confirmed the association between this construct and civic-related learning outcomes (Schulz et al., 2010). This association between a classroom climate receptive to discussion and positive civic outcomes has been one of the most stable findings across the IEA studies related to civic education since 1971. The many researchers who have conducted secondary analyses of the data have also confirmed the association.

We included the same question, consisting of the items used for scaling in the previous cycle, in the ICCS 2016 student questionnaire. When responding to the question (which read, "When discussing political or social issues during regular lessons, how often do the following things happen?"), students were asked to consider any classes in which or teachers with whom they discussed political and social issues. The six question items were in the form of statements:
(a) "Teachers encourage students to make up their own minds" (ICCS 2016 average of students reporting this occurred sometimes or often: 75\%); (b) "Teachers encourage students to express their opinions" (85\%); (c) "Students bring up current political events for discussion in class" (44\%); (d) "Students express opinions in class even when their opinions are different from most of the other students" (74\%); (e) "Teachers encourage students to discuss the issues with people having different opinions" (59\%); and (f) "Teachers present several sides of the issues when explaining them in class" (72\%).

We used the items to derive an IRT-based scale with an average reliability across countries (Cronbach's alpha $=0.77$ ). The higher scores on the scale reflect stronger perceptions of a more open classroom climate (see Figure 6.1, Appendix D, for a description of this scale). We were also able to equate the 2016 IRT scale with the 2009 scale, so that the value of 50 reflected the average score of equally weighted countries in the previous cycle. This process allowed us to identify changes in scale scores for the countries that participated in both the 2009 and 2016 ICCS cycles.

Table 6.3 presents a comparison of the average scale scores for the ICCS 2016 students' perceptions and the ICCS 2009 students' perceptions of openness during classroom discussion. We recorded national scale scores above the international average in Chile, Chinese Taipei, Croatia, Denmark, Italy, Mexico, Norway, Peru, and Sweden. Of these countries, Denmark recorded the highest score. When we compared the results from the two ICCS cycles, we found no significant difference between the international average scores of the countries participating in both surveys. However, we did observe significantly higher scores between the two cycles ( $p<0.05$ ) in four

Table 6.3: National averages of students' perception of openness in classroom discussions

| Country | 2016 |  | 2009 | $\begin{gathered} \text { Differences } \\ (2016-2009) \end{gathered}$ | 40 | 45 | 55 | 60 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Belgium (Flemish) | 50 (0.3) | $\nabla$ | 49 (0.3) | 0.6 (0.5) |  | $\square$ |  |  |
| Bulgaria | 48 (0.3) | $\nabla$ | 48 (0.4) | 0.2 (0.6) |  | $\square$ |  |  |
| Chile | 52 (0.3) | $\triangle$ | 52 (0.3) | -0.1 (0.6) |  |  | $\square$ |  |
| Chinese Taipei | 52 (0.3) | $\triangle$ | 50 (0.3) | 1.7 (0.6) |  |  | $\square$ |  |
| Colombia | 49 (0.3) | $\nabla$ | 50 (0.2) | -0.9 (0.5) |  |  |  |  |
| Croatia | 51 (0.3) | $\triangle$ | - | - |  |  |  |  |
| Denmark ${ }^{\dagger}$ | 54 (0.3) | - | 55 (0.3) | -0.9 (0.6) |  |  | - |  |
| Dominican Republic | 48 (0.4) | $\nabla$ | 47 (0.3) | 0.9 (0.6) |  | $\square$ |  |  |
| Estonia ${ }^{1}$ | 49 (0.3) | $\nabla$ | 50 (0.3) | -1.0 (0.5) |  |  |  |  |
| Finland | 49 (0.2) | $\nabla$ | 49 (0.2) | -0.3 (0.5) |  | $\square$ |  |  |
| Italy | 53 (0.3) | $\triangle$ | 54 (0.3) | -1.1 (0.5) |  |  | $\square$ |  |
| Latvia ${ }^{1}$ | 49 (0.2) | $\nabla$ | 51 (0.3) | -1.6 (0.5) |  | $\square$ |  |  |
| Lithuania | 49 (0.3) | $\nabla$ | 50 (0.3) | -0.3 (0.5) |  | $\square$ |  |  |
| Malta | 49 (0.2) | $\nabla$ | 46 (0.2) | 3.6 (0.4) |  | $\square \square$ |  |  |
| Mexico | 51 (0.2) | $\triangle$ | 50 (0.2) | 0.9 (0.5) |  |  |  |  |
| Netherlands ${ }^{\dagger}$ | 47 (0.3) | $\nabla$ | - | - |  | $\square$ |  |  |
| Norway (9) ${ }^{1}$ | 52 (0.3) | $\triangle$ | 53 (0.5) | -0.5 (0.6) |  |  | $\square$ |  |
| Peru | 53 (0.3) | $\triangle$ | - | - |  |  | $\square$ |  |
| Russian Federation | 48 (0.4) | $\nabla$ | 49 (0.3) | -1.4 (0.6) |  | $\square$ |  |  |
| Slovenia | 50 (0.3) | $\nabla$ | 50 (0.3) | -0.2 (0.5) |  |  |  |  |
| Sweden | 52 (0.4) | $\triangle$ | 51 (0.3) | 1.5 (0.6) |  |  | $\square$ |  |
| ICCS 2016 average | 50 (0.1) |  |  |  |  |  |  |  |
| Common countries average | 50 (0.1) |  | 50 (0.3) | 0.1 (0.1) |  |  |  |  |

Countries not meeting sample participation requirements

| Hong Kong SAR | $53(0.5)$ | - | - |  |  | $\square$ |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Korea, Republic of ${ }^{2}$ | $42(0.4)$ | - | - | $\square$ |  |  |  |

Benchmarking participant not meeting sample participation requirements


## National average:

A More than 3 score points above ICCS 2016 average
$\triangle$ Significantly above ICCS 2016 average
$\nabla$ Significantly below ICCS 2016 average

- More than 3 score points below ICCS 2016 average

Notes:
() Standard errors appear in parentheses. Statistically significant changes ( $p<0.05$ ) between 2009 and 2016 are displayed in bold.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
$\dagger$ Met guidelines for sampling participation rates only after replacement schools were included.
1 National Defined Population covers $90 \%$ to $95 \%$ of National Target Population.
2 Country surveyed target grade in the first half of the school year.

- No comparable data available.
countries (Chinese Taipei, Malta, Mexico, Sweden), and significantly lower scores in Italy, Latvia, and the Russian Federation.

Table 6.4 shows the associations between students' perceptions of openness in classroom discussions and (dichotomized) variables reflecting students' interest in civic issues (quite or very interested in political or social issues versus little interest), students' expected educational attainment (students who expected to complete a university degree versus others), and civic knowledge (students at or above Level B versus others). The columns show the average scores in each comparison group (e.g., for males and females), while the bar chart in between graphically
Table 6.4: National average scale scores of students' perception of openness in classroom discussions by students' interest, expected education, and level of civic knowledge

Countries not meeting sample participation requirements

Difference between comparison groups statistically significant at $p<0.05$.
Notes:
() Stan
() Standard errors appear in parentheses.
Score averages that are significantly larger ( $p$
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
${ }_{1}$ National Defined Population covers $90 \%$ to $95 \%$ of National Target Population.
illustrates the direction and size of the score point difference for each association: the red bars to the left of the zero line indicate score point differences where the students in the first (left-hand side) group had significantly ( $p<0.05$ ) higher values; the green bars indicate score point differences in which the other group had significantly higher averages.

In all of the participating countries, students' perceptions of openness in classroom discussions had, on average, positive and statistically significant associations with students' interest in political and social (civic) issues (a two-point difference), students' expected level of educational attainment (university degree or no degree) (a two-point difference), and students' civic knowledge (below or above Level B) (a four-point difference).

To measure students' perceptions of student-teacher relationships at school, the ICCS 2016 student questionnaire included the same set of five items that were used to measure this construct during ICCS 2009. The items were again in the form of statements (with students asked to give their level of agreement with each one): (a) "Most of my teachers treat me fairly" (ICCS 2016 average of students' agreement: 87\%); (b) "Students get along well with most teachers" (74\%); (c) "Most teachers are interested in students' wellbeing" (83\%); (d) "Most of my teachers listen to what I have to say" (81\%); and (e) "If I need extra help, I receive it from my teachers" (88\%).

These items formed an IRT-based scale with an average reliability across countries (Cronbach's alpha $=0.81$ ). The higher values on the scale, which is described in Figure 6.2 in Appendix $D$, indicate more positive perceptions of student-teacher relationships. We equated the scale with the 2009 scale so that the value of 50 reflected the average score of equally weighted countries in the previous cycle.

In general, students' perceptions of student-teacher relationships changed significantly between 2009 and 2016 (see Table 6.5). The ICCS 2016 international average was significantly higher than the 2009 international average, and the national averages between the two cycles were significantly higher in 12 countries out of 21 . The scale scores for 2016 showed eight countriesBulgaria, Chile, Chinese Taipei, Colombia, Denmark, the Dominican Republic, Mexico, and Peruscoring significantly above the international average. Two of these countries-Chinese Taipei and the Dominican Republic-recorded scale scores more than three points above the ICCS 2016 international average.

We also found significant associations between students' perceptions of student-teacher relations at school and gender, expected education (students expecting to complete a university degree versus those not holding this expectation), and civic knowledge (students at or above Level B versus those below this level) (Table 6.6). On average across the participating countries, females' scale scores were slightly higher than the males' scores (a one-point difference), students expecting to complete a university degree scored higher than other students (a one-point difference), and those students at or above Level B on the civic knowledge scale had scores higher than the students with lower levels of civic knowledge (a difference of two points).

Table 6.5: National averages of students' perception of student-teacher relations at school

| Country | 2016 |  | 2009 | $\begin{gathered} \text { Differences } \\ (2016-2009) \end{gathered}$ | 35 | 40 | 45 | 50 |  | 65 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Belgium (Flemish) | 51 (0.2) | $\nabla$ | 49 (0.3) | 2.5 (0.6) |  |  | $\square$ | $\square$ |  |  |
| Bulgaria | 53 (0.3) | $\triangle$ | 51 (0.3) | 2.0 (0.6) |  |  |  | $\square$ |  |  |
| Chile | 54 (0.3) | $\triangle$ | 51 (0.3) | 2.7 (0.6) |  |  |  | $\square \square$ |  |  |
| Chinese Taipei | 56 (0.3) | - | 51 (0.3) | 5.2 (0.6) |  |  |  | $\square$ |  |  |
| Colombia | 54 (0.3) | $\triangle$ | 54 (0.3) | -0.4 (0.6) |  |  |  | $\square$ |  |  |
| Croatia | 51 (0.4) | $\nabla$ | - | - |  |  |  |  |  |  |
| Denmark ${ }^{\dagger}$ | 54 (0.3) | $\triangle$ | 52 (0.3) | 2.6 (0.6) |  |  |  | $\square \square$ |  |  |
| Dominican Republic | 60 (0.3) | $\Delta$ | 59 (0.3) | 1.6 (0.6) |  |  |  |  | - |  |
| Estonia ${ }^{1}$ | 49 (0.3) | $\nabla$ | 48 (0.3) | 1.2 (0.6) |  |  | $\square$ |  |  |  |
| Finland | 53 (0.3) |  | 48 (0.2) | 4.9 (0.6) |  |  | $\square$ | $\square$ |  |  |
| Italy | 53 (0.3) |  | 51 (0.3) | 1.3 (0.6) |  |  |  | $\square$ |  |  |
| Latvia $^{1}$ | 46 (0.3) | $\nabla$ | 45 (0.3) | 1.0 (0.6) |  |  | 7 |  |  |  |
| Lithuania | 50 (0.3) | $\nabla$ | 50 (0.3) | 0.2 (0.6) |  |  |  |  |  |  |
| Malta | 52 (0.2) |  | 52 (0.3) | 0.4 (0.6) |  |  |  | $\square$ |  |  |
| Mexico | 55 (0.2) | $\triangle$ | 53 (0.2) | 1.8 (0.5) |  |  |  | $\square$ |  |  |
| Netherlands ${ }^{\dagger}$ | 50 (0.3) | $\nabla$ | - | - |  |  | $\square$ |  |  |  |
| Norway (9) | 52 (0.3) |  | 50 (0.4) | 2.7 (0.7) |  |  |  | $\square$ |  |  |
| Peru | 55 (0.2) | $\triangle$ | - | - |  |  |  | $\square$ |  |  |
| Russian Federation | 50 (0.3) | $\nabla$ | 51 (0.3) | -1.0 (0.6) |  |  |  | $\square$ |  |  |
| Slovenia | 48 (0.3) | $\nabla$ | 47 (0.3) | 1.6 (0.6) |  |  | $\square$ |  |  |  |
| Sweden ${ }^{1}$ | 53 (0.4) |  | 51 (0.3) | 1.5 (0.7) |  |  |  | $\square$ |  |  |
| ICCS 2016 average | 52 (0.1) |  |  |  |  |  |  |  |  |  |
| Common countries average | 52 (0.1) |  | 50 (0.3) | 1.8 (0.1) |  |  |  |  |  |  |

Countries not meeting sample participation requirements


Benchmarking participant not meeting sample participation requirements

| $\begin{array}{l}\text { North Rhine-Westphalia } \\ (\text { Germany })^{1}\end{array}$ | $50(0.5)$ | - | - |  | $\square$ |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

$\square 2016$ average score +/- Confidence interval
2009 average score +/- Confidence interval

## National average:

A More than 3 score points above ICCS 2016 average
$\triangle$ Significantly above ICCS 2016 average
$\nabla$ Significantly below ICCS 2016 average
V More than 3 score points below ICCS 2016 average

## Notes:

() Standard errors appear in parentheses. Statistically significant changes ( $p<0.05$ ) between 2009 and 2016 are displayed in bold.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
$\dagger$ Met guidelines for sampling participation rates only after replacement schools were included.
1 National Defined Population covers $90 \%$ to $95 \%$ of National Target Population.
2 Country surveyed target grade in the first half of the school year.

- No comparable data available.

Agreement with positive statements
Table 6.6: National average scale scores of students' perception of student-teacher relations at school by gender, expected education, and level of civic knowledge


[^1]
## Different forms of bullying at school

Bullying is defined as aggressive behaviors intended to hurt someone either physically, emotionally, verbally, or through use of the internet (American Educational Research Association, 2013; Olweus, 1973; Wade \& Beran, 2011). Scholars and other commentators generally consider bullying a symptom of dysfunctional social interaction at school (see, for example, Olweus, 1973). In many countries, schools currently face the problem of bullying both in the school itself and in a cyber context (American Educational Research Association, 2013; Corcoran \& McGuckin, 2014; Fisher, Gardella, \& Teurbe-Tolon, 2016). Considerable variation in the incidence and type of bullying can exist within a school (Atria, Strohmeier, \& Spiel, 2007; Salmivalli, 2012).

The ICCS 2016 questionnaires included several questions on this topic as part of the more general area of social relations at school. Despite the slight differences in the wording of the items included in each question and the differences in the response categories, this set of questions explored the bullying phenomenon from various perspectives and took into consideration likely dissimilarities in the perceptions of students, principals, and teachers. Students were asked about their experience of situations of verbal or physical abuse at school. The school questionnaire contained two questions about bullying. The first asked principals for their perceptions of bullying at school and the second asked them about the activities their school had in place to counteract bullying (including cyberbullying). Teachers were also asked to record their perceptions of different forms of bullying within their schools.

The questionnaire for schools participating in the ICCS 2009 Latin American option included items measuring students' experience of verbal or physical aggression at school. Many students in the participating countries of this region reported physical aggression at school (Schulz, Ainley, Friedman, \& Lietz, 2011). The ICCS 2016 international student questionnaire therefore included a question asking students about the level of verbal or physical bullying they had personally experienced at school.

More specifically, this question asked students to respond to the situations depicted in each of the question's items by indicating how often they had experienced these situations within the past three months: (a) "A student called you by an offensive nickname;" (b) "A student said things about you to make others laugh;" (c) "A student threatened to hurt you;" (d) "You were physically attacked by another student;" (e) "A student broke something belonging to you on purpose;" and (f) "A student posted offensive pictures or text about you on the internet." We used the question's six items to derive an IRT scale that had average reliability (Cronbach's alpha $=0.75$ ), and on which the higher scale scores indicated higher frequencies of experiencing verbal or physical abuse (see item map in Figure 6.3, Appendix D, for a description of this scale).

The students' responses to this question showed some variation across countries (Table 6.7), with the highest percentages of students being those who said they had experienced verbal forms of bullying at school at least once in the past three months: "A student called you by an offensive nickname" (international average: 55\%), with national averages ranging from 36 to 70 percent; and "A student said things about you that made others laugh" (international average: 56\%), with national averages ranging from 42 to 67 percent. The lowest percentages were for cyber-bullying (international average: 10\%) and physical attack (16\%), with national averages ranging from six to 13 percent and from nine to 27 percent, respectively.

National average scale scores for students' reports of forms of verbal and physical abuse were significantly higher than the ICCS 2016 average in Bulgaria, Colombia, Croatia, the Dominican Republic, Lithuania, Malta, Mexico, Peru, and Slovenia. National average scale scores for these forms of bullying were lower than the ICCS 2016 average in Denmark, Finland, Italy, the Netherlands, the Russian Federation, and Sweden. Chinese Taipei recorded the lowest scale score (about four points below the ICCS 2016 average).
Table 6.7: National percentages and average scale scores of students' experiences of physical and verbal abuse at school

| Country | Percentages of students who reported experiencing the following at least once in the past three months: |  |  |  |  |  |  |  |  |  |  |  | Average scale scores for students' reports on physical or verbal abuse |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A student called you by an offensive nickname (\%) |  | A student said things about you to make others laugh (\%) |  | A student threatened to hurt you (\%) |  | You were physically attacked by another student (\%) |  | A student broke something belonging to you on purpose (\%) |  | A student posted offensive pictures or text about you on the internet (\%) |  |  |  |
| Belgium (Flemish) | 58 (1.5) | $\triangle$ | 53 (1.2) | $\nabla$ | 21 (1.1) | $\triangle$ | 17 (0.9) |  | 14 (0.8) | $\nabla$ | 6 (0.7) | $\nabla$ | 50 (0.2) |  |
| Bulgaria | 53 (1.3) |  | 60 (1.3) | $\triangle$ | 20 (1.0) |  | 17 (1.1) |  | 17 (1.1) | $\nabla$ | 12 (1.0) |  | 51 (0.3) | $\triangle$ |
| Chile | 52 (0.9) | $\nabla$ | 59 (0.7) | $\triangle$ | 16 (0.7) | $\nabla$ | 15 (0.5) | $\nabla$ | 23 (0.8) | $\triangle$ | 10 (0.5) |  | 50 (0.2) |  |
| Chinese Taipei | 36 (1.0) | $\nabla$ | 42 (1.0) | $\nabla$ | 5 (0.4) | $\nabla$ | 11 (0.6) | $\nabla$ | 8 (0.5) | $\nabla$ | 6 (0.5) | $\nabla$ | 46 (0.2) | $\nabla$ |
| Colombia | 61 (1.2) | $\triangle$ | 61 (1.3) | $\triangle$ | 15 (0.6) | $\nabla$ | 17 (0.6) |  | 31 (1.1) | - | 8 (0.5) | $\nabla$ | 51 (0.3) | $\triangle$ |
| Croatia | 70 (1.1) | - | 63 (1.2) | $\triangle$ | 25 (1.1) | $\triangle$ | 20 (1.1) | $\triangle$ | 23 (1.1) | $\triangle$ | 8 (0.7) |  | 52 (0.3) | $\triangle$ |
| Denmark ${ }^{\dagger}$ | 44 (1.1) | $\nabla$ | 60 (1.1) | $\triangle$ | 14 (0.6) | $\nabla$ | 12 (0.6) | $\nabla$ | 14 (0.7) | $\nabla$ | 9 (0.5) |  | 49 (0.2) | $\nabla$ |
| Dominican Republic | 54 (1.2) |  | 66 (0.9) | $\triangle$ | 27 (1.0) | $\triangle$ | 27 (1.0) | - | 31 (1.0) | A | 10 (0.6) |  | 52 (0.2) | $\triangle$ |
| Estonia ${ }^{1}$ | 55 (1.4) |  | 64 (1.2) | $\triangle$ | 19 (1.1) |  | 14 (0.8) | $\nabla$ | 16 (0.7) | $\nabla$ | 11 (0.8) |  | 50 (0.3) |  |
| Finland | 42 (1.1) | $\nabla$ | 51 (1.0) | $\nabla$ | 15 (0.8) | $\nabla$ | 14 (0.8) | $\nabla$ | 8 (0.6) | $\nabla$ | 7 (0.5) | $\nabla$ | 48 (0.2) | $\nabla$ |
| Italy | 52 (1.1) | $\nabla$ | 42 (1.0) | $\nabla$ | 17 (0.9) | $\nabla$ | 11 (0.7) | $\nabla$ | 29 (1.2) | $\triangle$ | $6(0.5)$ | $\nabla$ | 49 (0.2) | $\nabla$ |
| Latvia $^{1}$ | 60 (1.0) | $\triangle$ | 44 (1.1) | $\nabla$ | 23 (1.1) | $\triangle$ | 19 (0.9) | $\triangle$ | 24 (1.2) | $\triangle$ | 10 (0.7) |  | 50 (0.2) |  |
| Lithuania | 59 (1.1) | $\triangle$ | 67 (1.0) | $\Delta$ | 21 (1.0) |  | 14 (0.9) | $\nabla$ | 19 (1.2) |  | 14 (0.9) | $\triangle$ | 51 (0.2) | $\triangle$ |
| Malta | 58 (0.8) | $\triangle$ | 65 (0.8) | $\triangle$ | 29 (0.8) | - | 24 (0.6) | $\triangle$ | 20 (0.7) |  | 13 (0.6) | $\triangle$ | 52 (0.2) | $\triangle$ |
| Mexico | 63 (1.1) | $\triangle$ | 64 (1.0) | $\triangle$ | 19 (0.8) |  | 20 (0.8) | $\triangle$ | 28 (1.0) | $\triangle$ | 11 (0.6) | $\triangle$ | 52 (0.3) | $\triangle$ |
| Netherlands ${ }^{\dagger}$ | 48 (1.4) | $\nabla$ | 43 (1.3) | $\nabla$ | 13 (0.7) | $\nabla$ | 11 (0.7) | $\nabla$ | 13 (0.8) | $\nabla$ | 6 (0.6) | $\nabla$ | 47 (0.3) | $\nabla$ |
| Norway (9) ${ }^{1}$ | 56 (1.1) |  | 59 (1.0) | $\triangle$ | 19 (1.0) |  | 18 (0.8) | $\triangle$ | 19 (1.0) |  | 13 (0.5) | $\triangle$ | 50 (0.3) |  |
| Peru | 64 (0.9) | $\triangle$ | 60 (0.9) | $\triangle$ | 20 (0.9) |  | 20 (0.8) | $\triangle$ | 27 (0.9) | $\triangle$ | 11 (0.7) | $\triangle$ | 51 (0.2) | $\triangle$ |
| Russian Federation | 61 (1.2) | $\triangle$ | 49 (1.0) | $\nabla$ | 21 (0.9) | $\triangle$ | 9 (0.5) | $\nabla$ | 25 (1.1) | $\triangle$ | 13 (0.8) | $\triangle$ | 49 (0.3) | $\nabla$ |
| Slovenia | 58 (1.3) | $\triangle$ | 59 (1.0) | $\triangle$ | 20 (0.9) |  | 17 (0.9) |  | 27 (0.9) | $\triangle$ | 11 (0.8) |  | 51 (0.2) | $\triangle$ |
| Sweden ${ }^{1}$ | 44 (1.4) | $\nabla$ | 54 (1.3) | $\nabla$ | 17 (1.2) |  | 16 (1.2) |  | 15 (1.1) | $\nabla$ | 9 (0.6) |  | 49 (0.4) | $\nabla$ |
| ICCS 2016 average | 55 (0.3) |  | 56 (0.2) |  | 19 (0.2) |  | 16 (0.2) |  | 20 (0.2) |  | 10 (0.1) |  | 50 (0.1) |  |

Countries not meeting sample participation requirements
 Korea, Republic of ${ }^{2}$
Benchmarking participant not meeting sample participation requirements
Notes.
() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent Met guidelines for sampling participation rates only after replacement schools were included. National Defined Population covers $90 \%$ to $95 \%$ of National Target Population.
Country surveyed target grade in the first half of the school year.
National percentage or average:
$\mathbf{~ M o r e ~ t h a n ~} 10$ percentage points or 3 score points above ICCS 2016 average
Significantly above ICCS 2016 average

- More than 10 percentage points or 3 score points below ICCS 2016 average

We identified statistically significant associations between students' experiences of physical or verbal abuse and each of the following three variables: gender, expected education (students expecting to complete a university degree versus those who did not), and civic knowledge (students at or above Level B versus those below this level) (see Table 6.8). Males scored higher than females on the IRT scale in all of the participating countries, with the difference amounting to four scale score points above the ICCS average. Nearly every country also showed significantly higher scores for students not expecting to complete a university degree (a one-point difference in the ICCS average) and for those with civic knowledge below Level B (a two-point difference in the ICCS average).

ICCS 2016 asked school principals to report on the frequency of specified aggressive behaviors within their school. The question included six items and had two response categories denoting occurrence-"one to five times a month" and "more than five times a month." The items were: (a) "A student reported to <the principal, the head-teacher, the school head> aggressive or destructive behaviors by other students;" (b) "A student reported to <the principal, the head-teacher, the school head> that s/he was <bullied> by a teacher;" (c) "A teacher reported to <the principal, the headteacher, the school head> that a student was < bullied> by other students;" (d) "A teacher reported to <the principal, the head-teacher, the school head> that a student helped another student who was being <bullied>;" (e) "A teacher reported to <the principal, the head-teacher, the school head> that s/he was being <bullied> by students;" and (f) "A parent reported to <the principal, the headteacher, the school head> that his/her son/daughter was being <bullied> by other students."

According to the principals, the most common forms of bullying at school were those amongst students. The principals also advised that teachers and parents were the people most likely to report these incidents to them. Table 6.9 summarizes the principals' responses in terms of percentages of students in schools where principals reported the different aspects of bullying.

In Chinese Taipei, Croatia, Denmark, Italy, Latvia, the Russian Federation, and Slovenia, national average percentages were below the international average with respect to student-reported incidents of students engaged in aggressive or destructive behaviors. The opposite pattern (percentages above the international average) was evident with regard to parent-reported bullying among students in five countries: Belgium (Flemish), Colombia, the Dominican Republic, Malta, and Mexico. In addition, the principals' responses suggest that, in almost all countries, teachers themselves were rarely being bullied.

Another question in the ICCS 2016 school questionnaire asked principals about the initiatives their schools had implemented to prevent bullying (response categories: "yes"/"no"). The initiatives specified in the question's eight items included activities implemented at both the school and the classroom level. Among the activities were meetings with students and parents, training activities for teachers, conferences led by experts, and training activities for responsible internet use.

Table 6.10 shows the percentages of students in schools where principals reported activities undertaken to prevent bullying. Nearly every country recorded higher percentages for activities carried out at the classroom level (international average: 94\%) and for school-based activities directly addressed to students, such as training sessions designed to foster responsible internet use (international average: 77\%). Meetings with parents were also common across countries (international average: 72\%). On average across countries, the lowest percentages recorded were those for expert-led school conferences (international average: 41\%) and the development of systems for reporting cyber-bullying (international average: $25 \%$ ). However, we noted considerable variation in percentages across countries for several of the activities.

Teachers, too, were asked for their perceptions of bullying at school. The items used in the teacher questionnaire were similar to those included in the school questionnaire and provided the same response categories ("one to five times a month"/"more than five times a month"). Teachers seemed to perceive the occurrence of instances of aggressive or destructive behaviors among students at
Table 6.8: National average scale scores of students' experiences of physical and verbal abuse at school by gender, expected education, and level of civic knowledge


[^2] $\square$ Difference between comparison groups statistically significant at $p<0.05$. Notes:
() Standard errors appear in parentheses.
Score averages that are significantly larger (p
Score averages that are significantly larger ( $p<0.05$ ) than those in the comparison group are displayed in bold.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
Country deviated from International Defined Population and surveyed adjacent upper grade.
Met guidelines for sampling partici pation rates only after replacement schools were included.
National Defined Population covers $90 \%$ to $95 \%$ f National Target Pon
${ }_{2}$ National Defined Population covers $90 \%$ to $95 \%$ of National Target Population.
Table 6.9: Percentages of students at schools where principals reported bullying at school

| Country | National percentages of students at schools where principals reported occurrence of the following at least once a month: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A student reported to <the principal, the headteacher, the school head> aggressive or destructive behaviors |  |  | A student reported to <the principal, the headteacher, the school head> that s/he was <bullied> by a teacher | A student reported to <the principal, the headteacher, the school head> that a student was < bullied> by other students |  | A teacher reported to <the principal, the headteacher, the school head> that a student helped another student who was being <bullied> |  |  | A student reported to <the principal, the headteacher, the school head > that s/he was being <bullied> by students |  |  | A student reported to <the principal, the headteacher, the school head> that his/her son/ daughter was being bullied by other students |  |
| Belgium (Flemish) | 42 | (4.3) | A | 3 (1.4) | 50 (4.2) | - | 25 | (3.9) | - | 7 | (2.3) |  | 38 (4.0) | A |
| Bulgaria | 19 | (3.3) |  | 3 (1.5) | 11 (2.7) | $\nabla$ | 5 | (2.0) | $\nabla$ | 2 | (1.2) |  | 7 (2.3) | $\nabla$ |
| Chile | 26 | (3.4) |  | 4 (1.6) | 10 (2.6) | $\nabla$ | 8 | (2.5) |  | 2 | (1.1) |  | 14 (3.1) |  |
| Chinese Taipei | 1 | (0.9) | $\nabla$ | 1 (0.8) $\nabla$ | 3 (1.5) | $\nabla$ | 2 | (1.0) | $\nabla$ | 1 | (0.8) | $\nabla$ | 2 (1.3) | $\nabla$ |
| Colombia (r) | 32 | (4.0) | $\triangle$ | 6 (2.3) | 12 (2.5) | $\nabla$ | 7 | (2.0) | $\nabla$ | 4 | (1.8) |  | 10 (2.8) |  |
| Croatia | 11 | (2.5) | $\nabla$ | 1 (0.7) $\nabla$ | 10 (1.9) | $\nabla$ | 5 | (1.5) | $\nabla$ | 2 | (1.1) |  | 5 (1.7) | $\nabla$ |
| Denmark ${ }^{\dagger}$ | 16 | (2.8) | $\nabla$ | 2 (1.1) $\nabla$ | 12 (2.7) | $\nabla$ | 12 | (2.6) |  | 1 | (1.0) | $\nabla$ | 10 (2.2) |  |
| Dominican Republic | 51 | (3.8) | A | 8 (2.5) | 24 (3.7) |  | 20 | (3.9) | $\triangle$ | 11 | (2.7) | $\triangle$ | 25 (3.9) | - |
| Estonia ${ }^{1}$ (s) | 28 | (4.6) |  | 5 (3.6) | 27 (4.8) |  | 13 | (3.8) |  | 1 | (1.1) | $\nabla$ | 15 (3.6) |  |
| Finland | 27 | (3.3) |  | 4 (1.4) | 42 (4.0) | - | 17 | (2.5) | $\triangle$ | 2 | (1.0) | $\nabla$ | 15 (2.3) |  |
| Italy | 3 | (1.3) | $\nabla$ | $0 \quad \nabla$ | 5 (1.7) | $\nabla$ | 1 | (0.9) | $\nabla$ | 0 |  | $\nabla$ | 4 (1.5) | $\nabla$ |
| $L^{\text {Latvia }}{ }^{1}$ | 14 | (2.0) | $\nabla$ | 2 (1.7) | 13 (2.6) | $\nabla$ | 3 | (1.7) | $\nabla$ | 12 | (2.9) | $\triangle$ | 5 (2.1) | $\nabla$ |
| Lithuania | 23 | (3.3) |  | 4 (1.7) | 19 (3.0) |  | 11 | (2.9) |  | 6 | (1.9) |  | 6 (1.7) | $\nabla$ |
| Malta | 32 | (0.4) | $\triangle$ | 7 (0.3) $\triangle$ | 34 (0.4) | - | 32 | (0.4) | - | 0 |  | $\nabla$ | 39 (0.4) | - |
| Mexico | 42 | (3.5) | - | 9 (2.1) | 20 (2.9) |  | 8 | (2.1) |  | 10 | (2.4) | $\triangle$ | 17 (2.9) |  |
| Netherlands ${ }^{\dagger}$ (r) | 26 | (4.7) |  | 20 (4.2) $\boldsymbol{\Delta}$ | 27 (4.7) |  | 16 | (3.9) |  | 3 | (1.6) |  | 16 (3.9) |  |
| Norway (9) ${ }^{1}$ | 26 | (3.8) |  | 8 (2.2) | 26 (3.6) |  | 12 | (2.8) |  | 2 | (1.1) |  | 20 (3.7) |  |
| Peru | 29 | (3.5) |  | 6 (1.9) | 12 (2.5) | $\nabla$ | 8 | (2.1) |  | 3 | (1.2) |  | 12 (2.3) |  |
| Russian Federation | 7 | (1.9) | $\nabla$ | $0 \quad \nabla$ | 1 (0.7) | $\nabla$ | 3 | (1.5) | $\nabla$ | 2 | (0.5) | $\nabla$ | 3 (1.6) | $\nabla$ |
| Slovenia | 7 | (2.5) | $\nabla$ | $0 \quad \nabla$ | 29 (4.4) | $\triangle$ | 7 | (2.6) |  | 3 | (1.5) |  | 7 (2.6) | $\nabla$ |
| Sweden ${ }^{1}$ | 31 | (3.8) |  | 5 (1.9) | 40 (4.9) | - | 19 | (5.3) |  | 2 | (0.9) | $\nabla$ | 15 (3.5) |  |
| ICCS 2016 average | 23 | (0.7) |  | 5 (0.5) | 20 (0.7) |  | 11 | (0.6) |  |  | (0.4) |  | 14 (0.6) |  |

Countries not meeting sample participation requirements

|  | $3(2.2)$ | $2(1.7)$ | 0 | 1 (1.4) |
| :--- | :--- | :--- | :--- | :--- | :--- |
| (1) | $4(1.9)$ | $7(2.8)$ | 0 | 2 (1.4) |

$\begin{aligned} & \text { tht }\end{aligned}$
$\begin{aligned} & \text { Notes: } \\
& \text { () Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear incon }\end{aligned}$


 (Germany) ${ }^{1}$

[^3]Table 6.10: Percentages of students at schools where principals reported activities to reduce bullying at school

school as less frequent than principals did. However, we observed relatively large discrepancies in how often the teachers witnessed each of the behaviors in some countries (Belgium/Flemish, Chile, Dominican Republic, Finland, Lithuania, Malta, Mexico, Norway, Peru, and Sweden) and less discrepancy in other countries (Bulgaria, Chinese Taipei, Croatia, Italy, Latvia, and Slovenia) (Table 6.11). Few teachers reported being bullied by students.

It is difficult to "quantify" the actual presence of bullying at school and the frequency of situations in which different forms of bullying occur. Among other reasons for this difficulty is the "culture of silence" that often persists among victims (Smith \& Shu, 2000). Nevertheless, the ICCS 2016 results confirmed the presence of different aspects of bullying at school, as well as the presence of activities undertaken by schools to prevent them. Verbal bullying was more frequently present than other types of aggression.

## Implementation of civic and citizenship education at schools

Several studies illustrate the important role that students' activities in the community play in students' construction and development of knowledge and skills for active citizenship (Annette, 2008; Henderson, Pancer, \& Brown, 2013). Links between the school and its local community represent an opportunity for involving students in activities related to positive civic outcomes and that thereby contribute to the enhancement of civic engagement. ICCS 2009 showed that in nearly every participating country most of the students had at least some opportunities to participate in such activities (Schulz et al., 2010). Furthermore, in 2009, results were generally consistent across the questionnaires that principals and teachers answered (Schulz et al., 2010).

The ICCS 2016 school and teacher questionnaires included a modified version of the ICCS 2009 questions that asked principals and teachers for their perceptions of the opportunities their targetgrade students had to participate in activities carried out in the local community but organized by the school in cooperation with external groups or organizations.

The nine items were (a) "activities related to environmental sustainability (e.g. <energy and water saving, recycling>);" (b) "human rights projects;" (c) "activities for underprivileged people or groups;" (d) "cultural activities (e.g. theater, music);" (e) "multicultural and intercultural activities within the <local community> (e.g. <promotion and celebration of cultural diversity, food/street market>);" (f) "campaigns to raise people's awareness (about social issues, of environmental issues);" (g) "activities aimed at protecting cultural heritage within the <local community>;" (h) "visits to political institutions (e.g. <parliament house, prime minister's/president's official residence>);" and (i) "sports events."

As in ICCS 2009, the two sets of items differed in format. Also, although the answer categories for principals in the 2016 questionnaire were the 2009 ones of "all or nearly all," "most of them," "some of them," and "none or hardly any," we added the new option of "not offered at school." The response categories for teachers were a simple "yes" or "no."

Most of the students in the participating countries were attending schools where, according to their principals, they had opportunities to participate in at least some civic- and citizenship-related activities in the community (Table 6.12). On average, the highest percentages (expressed in terms of students attending schools where principals reported the various activities) were for sports events (88\%), cultural activities (80\%), and activities related to environmental sustainability (61\%). On average, the lowest percentages were for visits to political institutions (20\%) and for activities aimed at protecting the cultural heritage (38\%).

The results from the teachers' responses to the participation question (see Table 6.13) were relatively consistent with the principals' responses. On average, the highest percentages of teachers reporting they had carried out civic and citizenship activities in the local communities pertained to cultural activities (75\%) and sports events (73\%). The lowest percentages recorded were those
Table 6.11: Teachers' perceptions of bullying at school

| Country | National percentages of teachers who reported the following situations occurring at least once a month: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A student informed you about aggressive or destructive behaviors by other students | A student informed you that s/he was <bullied> by another student |  | A teacher informed you that a student was <bullied> by other students |  | A teacher informed you that a student helped another student who was being <bullied> |  | A student informed you that s/he was <bullied> by a teacher |  | A parent informed you that his/her son/daughter was <bullied> by other students |  | A teacher informed you that s/he was <bullied> by students |  |  | You witnessed students' <bullying> behaviors |  |
| Belgium (Flemish) ${ }^{\dagger}$ | 11 (0.8) $\nabla$ | 16 (1.0) | $\triangle$ | 17 (1.2) | $\triangle$ | 6 (0.7) | $\triangle$ | 2 (0.4) | $\triangle$ | 3 (0.5) | $\triangle$ | 3 | (0.6) |  | 12 (1.1) | $\triangle$ |
| Bulgaria | 18 (1.7) $\triangle$ | 13 (1.0) | $\triangle$ | 8 (0.8) |  | 6 (0.8) | $\triangle$ | 1 (0.2) | $\nabla$ | 2 (0.4) |  | 0 |  | $\nabla$ | 7 (1.0) |  |
| Chile | 14 (1.8) | 8 (1.2) |  | 6 (0.9) | $\nabla$ | 4 (0.9) |  | 2 (0.6) |  | 4 (0.8) |  | 3 | (0.6) |  | 7 (1.3) |  |
| Chinese Taipei | 7 (0.7) $\nabla$ | 6 (0.7) | $\nabla$ | 4 (0.6) | $\nabla$ | 2 (0.4) | $\nabla$ | 1 (0.3) |  | 1 (0.2) | $\nabla$ | 2 | (0.4) | $\nabla$ | 5 (0.7) | $\nabla$ |
| Colombia | 18 (1.4) $\triangle$ | 11 (1.1) |  | 8 (1.1) |  | 6 (1.1) |  | 3 (0.5) | $\triangle$ | 5 (0.9) | $\triangle$ | 2 | (0.5) |  | 7 (1.0) | $\nabla$ |
| Croatia | 10 (0.9) $\nabla$ | 8 (0.8) | $\nabla$ | 6 (0.7) | $\nabla$ | 3 (0.5) |  | 1 (0.3) |  | 3 (0.6) |  | 3 | (0.5) |  | 6 (0.7) | $\nabla$ |
| Dominican Republic | 22 (2.6) $\triangle$ | 11 (1.6) |  | 6 (1.5) |  | 5 (1.1) |  | 1 (0.7) |  | 4 (1.3) |  | 1 | (0.4) | $\nabla$ | 4 (0.7) | $\nabla$ |
| Finland ${ }^{+}$ | 15 (1.2) | 14 (1.1) | $\triangle$ | 19 (1.4) | A | 5 (0.5) |  | 1 (0.4) |  | 2 (0.3) |  | 3 | (0.3) |  | 22 (1.1) | - |
| Italy | 6 (0.7) $\nabla$ | 4 (0.5) | $\nabla$ | 4 (0.5) | $\nabla$ | 1 (0.3) | $\nabla$ | 0 | $\nabla$ | 2 (0.3) |  | 1 | (0.2) | $\nabla$ | 1 (0.3) | $\nabla$ |
| Latvia | 10 (1.6) | 8 (1.6) |  | 7 (1.3) |  | 3 (0.9) |  | 1 (0.2) |  | 1 (0.7) |  | 5 | (1.0) | $\triangle$ | 9 (1.4) |  |
| Lithuania | 12 (1.0) | 12 (1.1) | $\triangle$ | 8 (0.9) |  | 5 (0.7) | $\triangle$ | 2 (0.5) |  | 2 (0.4) |  | 6 | (0.7) | $\triangle$ | 24 (1.5) | - |
| Malta | 11 (1.3) | 13 (1.2) | $\triangle$ | 11 (1.3) | $\triangle$ | 4 (0.7) |  | 1 (0.5) |  | 3 (0.6) |  | 5 | (0.9) | $\triangle$ | 16 (1.5) | $\triangle$ |
| Mexico | 17 (1.2) $\triangle$ | 9 (1.0) |  | 6 (0.7) | $\nabla$ | 4 (0.5) |  | 1 (0.3) |  | 2 (0.4) |  | 2 | (0.4) | $\nabla$ | 5 (0.6) | $\nabla$ |
| Norway | 14 (1.1) | 6 (1.1) | $\nabla$ | 8 (1.0) |  | 4 (0.8) |  | 1 (0.3) | $\nabla$ | 2 (0.5) |  | 2 | (0.4) | $\nabla$ | 3 (0.7) | $\nabla$ |
| Peru | 15 (1.3) | 9 (1.0) |  | 5 (0.7) | $\nabla$ | 5 (0.8) |  | 2 (0.3) |  | 3 (0.5) |  | 1 | (0.3) | $\nabla$ | 5 (0.7) | $\nabla$ |
| Slovenia | 13 (1.0) | 12 (0.9) | $\triangle$ | 8 (0.7) |  | 3 (0.4) |  | 0 | $\nabla$ | 1 (0.3) | $\nabla$ | 3 | (0.5) |  | 5 (0.6) | $\nabla$ |
| Sweden | 12 (1.3) | 5 (0.8) | $\nabla$ | 5 (0.6) | $\nabla$ | 2 (0.4) | $\nabla$ | 0 | $\nabla$ | 1 (0.2) | $\nabla$ | 1 | (0.3) | $\nabla$ | 11 (1.0) |  |
| ICCS 2016 average | 13 (0.3) | 10 (0.3) |  | 8 (0.2) |  | 4 (0.2) |  | 1 (0.1) |  | 2 (0.1) |  | 3 | (0.1) |  | 9 (0.2) |  |

Countries not meeting sample participation requirements for teacher survey

[^4]Table 6.12: Percentages of students at schools where principals reported students' opportunity to participate in civic-related activities

| Country | National percentages of students at school where principals reported that all, nearly all, or most of the students participated in the following activities in the community |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Activities related to environmental sustainability | Human rights projects | Activities for underprivileged people or groups | Cultural activities (e.g. theater, music) | Multicultural and intercultural activities within the <local community> | Campaigns to raise people's awareness | Activities aimed at protecting the cultural heritage within the <local community> | Visits to political institutions |  | Sports even |  |
| Belgium (Flemish) | 66 (4.8) | 48 (4.1) | 74 (3.5) $\boldsymbol{\Delta}$ | 97 (1.4) $\boldsymbol{\Delta}$ | 39 (4.2) | 62 (4.1) | 5 (2.0) $\boldsymbol{\nabla}$ | 12 (2.9) | $\nabla$ | 88 (3.0) |  |
| Bulgaria | 45 (4.5) $\boldsymbol{\nabla}$ | 15 (3.3) $\boldsymbol{\nabla}$ | 31 (4.2) $\boldsymbol{\nabla}$ | 71 (3.6) $\nabla$ | 43 (4.2) | 77 (3.3) $\mathbf{\Delta}$ | 50 (4.3) - | 9 (2.6) | $\nabla$ | 90 (2.7) |  |
| Chile | 39 (4.6) $\boldsymbol{\nabla}$ | 20 (3.1) $\boldsymbol{\nabla}$ | 45 (4.6) | 70 (4.2) $\boldsymbol{\nabla}$ | 66 (4.1) $\boldsymbol{A}$ | 48 (3.9) $\quad \nabla$ | 31 (3.8) | 17 (3.2) |  | 77 (3.5) | $\nabla$ |
| Chinese Taipei | 59 (4.4) | 32 (3.8) $\boldsymbol{\nabla}$ | 48 (4.7) | 56 (3.4) $\boldsymbol{\nabla}$ | 44 (4.3) | 51 (4.0) | 31 (3.9) | 15 (2.9) | $\nabla$ | 93 (2.1) |  |
| Colombia (r) | 56 (4.4) | 46 (4.2) | 30 (3.8) $\boldsymbol{\nabla}$ | 52 (4.2) $\boldsymbol{\nabla}$ | 42 (3.8) | 53 (4.1) | 41 (4.2) | 5 (1.5) | $\nabla$ | 84 (3.4) |  |
| Croatia | 76 (3.5) $\boldsymbol{\Delta}$ | 65 (3.6) $\mathbf{\Delta}$ | 44 (4.1) | 84 (2.7) | 43 (4.1) | 40 (3.5) $\boldsymbol{\nabla}$ | 51 (3.9) $\boldsymbol{\Delta}$ | 17 (2.6) |  | 88 (2.5) |  |
| Denmark ${ }^{\dagger}$ | 50 (3.8) $\boldsymbol{\nabla}$ | 53 (3.9) $\boldsymbol{\Delta}$ | 33 (3.8) $\nabla$ | 90 (2.4) $\boldsymbol{\Delta}$ | 23 (3.2) $\boldsymbol{\nabla}$ | 23 (3.2) $\boldsymbol{\nabla}$ | 9 (2.3) $\boldsymbol{\nabla}$ | 38 (4.1) | A | 90 (2.3) |  |
| Dominican Republic (r) | 76 (3.9) $\boldsymbol{\triangle}$ | 60 (4.4) $\boldsymbol{\Delta}$ | 49 (4.9) | 66 (4.6) $\boldsymbol{\nabla}$ | 67 (4.6) $\boldsymbol{\Delta}$ | 69 (4.0) $\boldsymbol{\Delta}$ | 66 (4.6) $\boldsymbol{\Delta}$ | 25 (4.2) |  | 84 (3.1) |  |
| Estonia ${ }^{1}$ (s) | 63 (5.4) | 27 (5.0) $\boldsymbol{\nabla}$ | 18 (4.3) $\boldsymbol{\nabla}$ | 92 (2.9) $\boldsymbol{\Delta}$ | 32 (5.6) $\boldsymbol{\nabla}$ | 79 (4.6) $\mathbf{\Delta}$ | 53 (5.2) $\boldsymbol{\Delta}$ | 35 (5.4) | $\triangle$ | 98 (1.1) | $\triangle$ |
| Finland | 71 (3.5) $\triangle$ | 34 (3.9) $\nabla$ | 56 (4.0) $\mathbf{\Delta}$ | 91 (2.1) $\boldsymbol{\Delta}$ | 35 (3.5) $\boldsymbol{\nabla}$ | 95 (1.5) $\mathbf{\Delta}$ | 30 (3.3) $\quad \nabla$ | 11 (2.0) | $\nabla$ | 92 (2.0) |  |
| Italy | 70 (3.7) $\triangle$ | 62 (3.5) $\mathbf{\Delta}$ | 47 (3.9) | 87 (2.6) $\triangle$ | 47 (4.1) | 64 (4.0) | 47 (4.1) $\triangle$ | 27 (3.7) |  | 74 (4.3) | $\nabla$ |
| Latvia $^{1}$ | 67 (3.6) | 31 (4.5) $\boldsymbol{\nabla}$ | 28 (3.7) $\boldsymbol{\nabla}$ | 95 (1.8) $\boldsymbol{\Delta}$ | 61 (4.4) $\mathbf{\Delta}$ | 60 (4.6) | 56 (4.8) $\mathbf{\Delta}$ | 31 (4.7) | $\Delta$ | 99 (0.5) | $\Delta$ |
| Lithuania | 68 (3.9) | 27 (3.9) $\boldsymbol{\nabla}$ | 30 (3.8) $\boldsymbol{\nabla}$ | 85 (2.8) | 46 (3.6) | 59 (4.6) | 39 (3.7) | 28 (3.5) | $\triangle$ | 89 (2.9) |  |
| Malta | 48 (0.4) $\boldsymbol{\nabla}$ | 20 (0.2) $\boldsymbol{\nabla}$ | 24 (0.3) $\boldsymbol{\nabla}$ | 59 (0.5) - | 33 (0.4) $\boldsymbol{\nabla}$ | 44 (0.4) $\quad$ V | 30 (0.3) $\quad$ - | 32 (0.4) | $\triangle$ | 98 (0.1) | $\triangle$ |
| Mexico | 73 (3.3) $\boldsymbol{\Delta}$ | 65 (3.2) $\mathbf{\Delta}$ | 44 (4.0) | 60 (4.2) $\boldsymbol{\nabla}$ | 53 (3.7) $\triangle$ | 67 (3.4) - | 55 (3.9) - | 9 (2.0) | $\nabla$ | 84 (2.7) |  |
| Netherlands ${ }^{\dagger}$ (r) | 32 (4.4) $\boldsymbol{\nabla}$ | 31 (4.7) $\boldsymbol{\nabla}$ | 52 (5.4) $\boldsymbol{\Delta}$ | 83 (3.8) | 28 (5.0) $\boldsymbol{\nabla}$ | 24 (4.6) $\boldsymbol{\nabla}$ | 8 (2.4) $\boldsymbol{\nabla}$ | 13 (2.9) | $\nabla$ | 91 (3.0) |  |
| Norway (9) ${ }^{1}$ | 49 (4.4) $\boldsymbol{\nabla}$ | 54 (4.4) - | 23 (3.6) $\boldsymbol{\nabla}$ | 92 (2.5) $\boldsymbol{\Delta}$ | 19 (3.5) $\boldsymbol{V}$ | 52 (3.9) | 27 (3.9) $\boldsymbol{V}$ | 34 (4.5) | - | 87 (3.0) |  |
| Peru | 62 (3.3) | 44 (3.5) | 41 (3.3) | 70 (3.1) $\boldsymbol{\nabla}$ | 62 (3.4) $\boldsymbol{\Delta}$ | 62 (3.5) | 38 (3.6) | 14 (2.3) | $\nabla$ | 91 (2.3) |  |
| Russian Federation | 68 (4.6) | 48 (3.4) | 49 (4.6) | 94 (1.4) $\boldsymbol{\Delta}$ | 95 (1.6) $\mathbf{\Delta}$ | 48 (4.6) $\quad \nabla$ | 62 (4.5) $\mathbf{\Delta}$ | 17 (2.4) |  | 99 (0.8) | - |
| Slovenia | 83 (3.2) $\boldsymbol{\Delta}$ | 48 (4.7) | 54 (4.8) - | 94 (1.8) $\boldsymbol{\Delta}$ | 46 (4.2) | 78 (3.9) $\boldsymbol{\Delta}$ | 55 (4.3) $\boldsymbol{\Delta}$ | 7 (2.4) | $\nabla$ | 90 (2.8) |  |
| Sweden ${ }^{1}$ | 61 (4.9) | 64 (5.9) $\mathbf{\Delta}$ | 41 (4.7) | 95 (2.0) $\boldsymbol{\Delta}$ | 27 (3.8) $\boldsymbol{\nabla}$ | 44 (5.1) $\boldsymbol{\nabla}$ | 21 (3.4) $\boldsymbol{\nabla}$ | 33 (4.7) | - | 70 (4.1) | $\nabla$ |
| ICCS 2016 average | 61 (0.9) | 43 (0.9) | 41 (0.9) | 80 (0.6) | 45 (0.9) | 57 (0.8) | 38 (0.8) | 20 (0.7) |  | 88 (0.6) |  | Countries not meeting sample participation requirements


Table 6.13: Teachers' perceptions of student activities in the community

| Country | National percentages of teachers who reported having taking part with their target-grade classes in ... |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Activities related to environmental sustainability | Human rights projects | Activities for underprivileged people or groups | Cultural activities (e.g. theater, music) | Multicultural and intercultural activities within the <local community> | Campaigns to raise people's awareness | Activities aimed at protecting the cultural heritage in the <local community> | Visits to political institutions | Sports event |  |
| Belgium (Flemish) ${ }^{\dagger}$ | 50 (2.1) $\quad \nabla$ | 31 (1.8) $\nabla$ | 54 (2.2) $\boldsymbol{\Delta}$ | 84 (1.6) $\triangle$ | 35 (1.9) $\nabla$ | 47 (1.9) $\quad \nabla$ | 9 (0.9) $\boldsymbol{\nabla}$ | 10 (1.3) $\nabla$ | 76 (1.3) | $\triangle$ |
| Bulgaria | 54 (2.8) | 15 (1.3) V | 36 (2.0) | $69(2.8) \nabla$ | 51 (1.9) $\triangle$ | 72 (2.2) $\boldsymbol{\Delta}$ | 52 (2.3) $\boldsymbol{\Delta}$ | 8 (1.9) $\nabla$ | 79 (1.5) | $\triangle$ |
| Chile | 43 (2.3) $\quad$ V | 21 (1.8) $\nabla$ | 45 (2.3) $\triangle$ | 69 (1.7) $\nabla$ | 58 (1.8) $\boldsymbol{\Delta}$ | 51 (2.4) | 34 (2.3) $\quad \nabla$ | 18 (1.9) | 70 (1.7) | $\nabla$ |
| Chinese Taipei | 41 (1.5) $\boldsymbol{\nabla}$ | 19 (1.1) $\boldsymbol{\nabla}$ | 33 (1.2) $\nabla$ | 62 (1.3) $\boldsymbol{\nabla}$ | 33 (1.3) $\boldsymbol{\nabla}$ | 40 (1.3) $\quad \mathbf{}$ | 13 (0.9) $\boldsymbol{\nabla}$ | $7(0.8) \quad \nabla$ | 70 (1.3) | $\nabla$ |
| Colombia | 72 (2.4) $\boldsymbol{\Delta}$ | 54 (3.0) - | 41 (2.0) | 79 (1.6) $\triangle$ | 63 (2.2) $\boldsymbol{\Delta}$ | 75 (2.1) $\boldsymbol{\Delta}$ | 58 (2.2) $\boldsymbol{\triangle}$ | 10 (1.6) $\nabla$ | 85 (1.4) | - |
| Croatia | 62 (1.9) $\triangle$ | 43 (1.6) $\triangle$ | 30 (1.5) $\nabla$ | 65 (1.7) $\nabla$ | 38 (2.1) $\nabla$ | 33 (1.7) $\boldsymbol{\nabla}$ | 52 (1.6) $\mathbf{\Delta}$ | 10 (1.0) $\nabla$ | 63 (1.9) | $\nabla$ |
| Dominican Republic | 84 (3.0) $\boldsymbol{\Delta}$ | 62 (3.7) $\boldsymbol{A}$ | 52 (4.5) - | 80 (3.1) | 68 (3.1) $\boldsymbol{\Delta}$ | 73 (3.6) $\boldsymbol{\Delta}$ | 66 (3.1) $\boldsymbol{1}$ | 40 (3.9) $\boldsymbol{\triangle}$ | 80 (3.2) | $\triangle$ |
| Finland ${ }^{+}$ | 45 (1.6) $\boldsymbol{\nabla}$ | 15 (1.4) $\boldsymbol{\nabla}$ | 31 (1.3) $\nabla$ | 56 (1.6) $\boldsymbol{\nabla}$ | 17 (1.2) $\boldsymbol{\nabla}$ | 61 (1.8) $\triangle$ | 14 (1.1) $\boldsymbol{\nabla}$ | 2 (0.3) $\boldsymbol{\nabla}$ | 48 (2.1) | $\nabla$ |
| Italy | 54 (2.0) | 48 (1.7) - | 44 (1.9) $\triangle$ | 84 (1.4) $\triangle$ | 38 (1.9) $\nabla$ | 62 (1.4) $\triangle$ | 41 (1.6) | 22 (1.5) $\triangle$ | 65 (1.6) | $\nabla$ |
| Latvia | 46 (2.5) $\boldsymbol{\nabla}$ | 17 (1.3) $\boldsymbol{\nabla}$ | 17 (1.2) $\boldsymbol{\nabla}$ | 72 (1.5) | 48 (1.6) $\triangle$ | 39 (1.5) $\quad$ V | 43 (1.4) $\triangle$ | 14 (1.2) $\nabla$ | 72 (1.6) |  |
| Lithuania | 68 (1.8) $\boldsymbol{\Delta}$ | 36 (1.5) | 42 (1.9) | 86 (1.1) $\boldsymbol{\wedge}$ | 54 (1.6) $\triangle$ | 62 (1.6) $\triangle$ | 54 (1.4) - | 31 (2.1) $\boldsymbol{A}$ | 84 (1.3) | - |
| Malta | 58 (2.1) | 27 (1.7) $\nabla$ | 36 (1.8) | 63 (2.0) $\boldsymbol{\nabla}$ | 32 (1.8) $\boldsymbol{\nabla}$ | 33 (1.7) $\quad \mathbf{\nabla}$ | 35 (2.1) $\quad \nabla$ | 32 (1.8) $\boldsymbol{\Delta}$ | 74 (1.7) |  |
| Mexico | 76 (1.5) $\boldsymbol{\Delta}$ | 63 (1.6) $\boldsymbol{A}$ | 41 (2.1) | 72 (1.2) $\nabla$ | 58 (2.0) - | 59 (2.2) $\triangle$ | 50 (1.9) - | $8(0.8) \quad \nabla$ | 76 (1.5) | $\triangle$ |
| Norway | 35 (1.8) $\boldsymbol{\nabla}$ | 37 (1.9) | 26 (1.3) | 83 (1.2) $\triangle$ | 16 (2.3) $\boldsymbol{\nabla}$ | 43 (2.6) $\quad$ V | 32 (2.0) $\quad \nabla$ | 23 (1.6) $\triangle$ | 72 (1.7) |  |
| Peru | 70 (2.2) $\boldsymbol{\triangle}$ | 40 (1.8) $\triangle$ | 48 (1.9) $\triangle$ | 77 (1.6) | 74 (2.2) $\boldsymbol{\Delta}$ | 67 (1.8) - | 56 (1.8) - | 11 (1.1) $\nabla$ | 91 (0.8) | - |
| Slovenia | 70 (1.6) $\boldsymbol{\Delta}$ | 39 (1.3) $\triangle$ | 49 (1.4) $\mathbf{\Delta}$ | 87 (1.0) $\boldsymbol{\Delta}$ | 40 (1.3) $\nabla$ | 56 (1.3) | 48 (1.8) $\triangle$ | 14 (1.3) | 82 (1.1) | $\triangle$ |
| Sweden | 39 (1.7) $\boldsymbol{\nabla}$ | 46 (2.0) $\boldsymbol{\Delta}$ | 33 (1.7) $\nabla$ | 80 (1.9) $\triangle$ | 29 (2.0) $\boldsymbol{\nabla}$ | 33 (1.9) $\boldsymbol{\nabla}$ | 15 (1.2) $\boldsymbol{\nabla}$ | 20 (1.8) | 58 (1.9) | $\nabla$ |
| ICCS 2016 average | 57 (0.5) | 36 (0.5) | 39 (0.5) | 75 (0.4) | 44 (0.5) | 53 (0.5) | 39 (0.4) | 16 (0.4) | 73 (0.4) |  |
| Countries not meeting sample participation requirements for teacher survey |  |  |  |  |  |  |  |  |  |  |
| Denmark | 39 (3.5) | 32 (3.9) | 16 (2.4) | 73 (3.3) | 15 (2.4) | 16 (2.1) | 9 (2.5) | 22 (3.1) | 60 (3.4) |  |
| Estonia | 60 (3.0) | 12 (1.6) | 14 (2.1) | 91 (1.7) | 44 (3.5) | 72 (3.5) | 67 (3.0) | 35 (4.7) | 95 (1.0) |  |
| Korea, Republic of | 57 (2.2) | 34 (1.8) | 41 (1.6) | 75 (1.6) | 36 (1.6) | 48 (1.7) | 32 (1.6) | 14 (1.3) | 74 (1.5) |  |
| Netherlands | 20 (1.5) | 15 (1.3) | 39 (2.4) | 60 (2.0) | 16 (1.2) | 19 (1.7) | 9 (1.0) | 8 (0.8) | 61 (1.8) |  |
| Russian Federation | 74 (2.9) | 39 (3.0) | 52 (3.9) | 75 (3.1) | 76 (3.1) | 55 (2.9) | 71 (3.6) | 21 (2.7) | 82 (2.8) |  |

[^5]Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
Met guidelines for sampling participation rates only after replacement schools were included.
for visits to political institutions (16\%), human rights projects (36\%), activities aimed at protecting cultural heritage (39\%), and activities for underprivileged people or groups (39\%).

## Activities related to environmental sustainability at school

Education for sustainable development endeavors to develop learners' competence as community members and global citizens. This area of education "empowers learners to take informed decisions and responsible actions for environmental integrity, economic viability and ajust society, for present and future generations, while respecting cultural diversity" (UNESCO, 2014, p.12). For at least 10 years, various scholars and educationalists have viewed education for sustainable development as an important aspect of citizenship education (Huckle, 2008). They also tend to see it as an interdisciplinary and holistic learning area, and to argue that it needs to involve the whole school community (Henderson \& Tilbury, 2004).

The ICCS 2016 school questionnaire included a question asking principals about any environmentfriendly practices their schools had implemented in order to further the principles of sustainable development ("sustainable schools") and to enable students to have direct experience of these principles. The question contained five items reflecting these practices: (a) "differential waste collection;" (b) "waste reduction (e.g. <encouraging waste-free lunches, limiting the use of plastic disposable products>);" (c) "purchasing environment-friendly items (e.g. <recycled paper for printing, biodegradable cutlery and dishes>);" (d) "energy-saving practices;" and (e) "posters to encourage students' environment-friendly behaviors." Response categories were "to a large extent," "to a moderate extent," "to a small extent," and "not at all."

Table 6.14 sets out the percentages of students in schools where principals reported having adopted (to a "large extent/to a moderate extent") the environment-friendly practices listed in the question. The most common practices across participating countries were those related to energy saving (international average: 81\%) and to differential waste collection (international average: 74\%). The use of posters within the school to support students' environment-friendly practices was also common across participating countries (international average: 74\%). Lower but still substantial percentages were recorded for waste reduction (international average: $67 \%$ ) and for purchasing environment-friendly items (international average: 60\%).

The principals' responses to the question also revealed considerable cross-national variation with respect to the environment-friendly practices schools had in place. National percentages for differential waste collection were more than 10 percentage points above the ICCS 2016 average in Belgium (Flemish), Chinese Taipei, Croatia, Finland, Italy, Lithuania, Malta, and Slovenia. We observed similar patterns (i.e., national percentages 10 scale score points or more above the international average) with respect to waste reduction (in Chinese Taipei, Finland, Lithuania, Malta, Slovenia, Sweden); purchase of environment-friendly items (Chinese Taipei, Malta, Norway, Slovenia, Sweden); energy-saving practices (Chinese Taipei, Denmark, Dominican Republic, Lithuania, Malta, Slovenia); and poster use (Bulgaria, Chinese Taipei, Colombia, Croatia, Dominican Republic, Latvia, Lithuania, Malta, Mexico, Slovenia).

Another of the questions in the teacher questionnaire asked teachers whether their target-grade students participated at school in initiatives and activities related to environmental issues, such as writing letters to newspapers or magazines, signing a petition, posting comments on social networks, organizing activities promoting limiting water or energy consumption, and contributing to environment-based enterprises in the community. All of these activities have the potential not only to enhance students' direct involvement and engagement in environment-friendly activities within the school and the local community but also to raise students' awareness of the impact of their behavior on the environment (Kyburz-Graber, 2013; Lundholm, Hopwood, \& Kelsey, 2013).

Table 6.14: Percentages of students at schools where principals reported environment-friendly practices

| Country | National percentages of students in schools where principals reported that the school had adapted the following environment-friendly practices to a large or a moderate extent: |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Differential waste collection | Waste reduction |  | Purchase of environmentfriendly items | Energy-saving practices | Posters to encourage students' environmentfriendly behaviors |  |
| Belgium (Flemish) | 95 (1.9) $\mathbf{\Delta}$ | 71 (4.1) |  | 61 (4.1) | 77 (3.6) | 61 (4.4) | $\nabla$ |
| Bulgaria | 65 (3.7) $\nabla$ | 62 (3.7) |  | 58 (4.6) | 80 (2.9) | 87 (3.3) | $\triangle$ |
| Chile | 30 (4.2) $\boldsymbol{\nabla}$ | 42 (4.6) | $\nabla$ | 34 (4.1) $\quad$ V | 54 (4.4) ק | 63 (4.4) | $\nabla$ |
| Chinese Taipei | 100 - | 99 (0.8) | - | 99 (0.9) $\mathbf{\Delta}$ | 100 - | 98 (1.2) | - |
| Colombia (r) | 72 (4.1) | 54 (5.1) | $\nabla$ | 58 (4.4) | 71 (3.7) $\nabla$ | 86 (2.9) | A |
| Croatia | 88 (2.3) $\boldsymbol{\Delta}$ | 71 (3.3) |  | 53 (3.3) $\nabla$ | 89 (2.3) $\triangle$ | 94 (1.9) | - |
| Denmark ${ }^{\dagger}$ | 62 (3.9) $\boldsymbol{\nabla}$ | 38 (3.5) | $\nabla$ | 66 (3.4) | 94 (2.0) $\boldsymbol{\Delta}$ | 57 (3.6) | $\nabla$ |
| Dominican Republic | 72 (4.1) | 75 (4.0) | $\triangle$ | 67 (4.4) | 91 (2.6) $\boldsymbol{\Delta}$ | 91 (2.8) | - |
| Estonia ${ }^{1}$ (s) | 55 (4.4) $\boldsymbol{\nabla}$ | 70 (4.8) |  | 40 (5.5) $\quad$ - | 85 (3.9) | 75 (4.7) |  |
| Finland | 96 (1.5) $\boldsymbol{\Delta}$ | 96 (1.4) | A | 66 (3.7) | 79 (2.9) | 67 (3.3) | $\nabla$ |
| Italy | 88 (2.6) $\boldsymbol{\Delta}$ | 57 (4.0) | $\nabla$ | 51 (4.6) $\nabla$ | 64 (3.8) $\boldsymbol{\nabla}$ | 66 (3.9) | $\nabla$ |
| Latvia $^{1}$ | 66 (4.8) | 55 (4.6) | $\nabla$ | 59 (4.3) | 87 (3.7) | 85 (4.0) | - |
| Lithuania | 86 (2.6) $\boldsymbol{\Delta}$ | 82 (3.4) | $\triangle$ | 46 (4.4) $\boldsymbol{\nabla}$ | 98 (1.4) - | 95 (2.1) | A |
| Malta | 84 (0.3) $\boldsymbol{\Delta}$ | 78 (0.4) | $\Delta$ | 75 (0.4) $\boldsymbol{\Delta}$ | 92 (0.3) - | 91 (0.4) | - |
| Mexico | 59 (4.0) $\boldsymbol{\nabla}$ | 72 (3.5) |  | 65 (3.8) | 74 (3.3) $\nabla$ | 89 (2.5) | - |
| Netherlands ${ }^{\dagger}$ (r) | 51 (5.3) $\boldsymbol{\nabla}$ | 26 (4.7) | $\nabla$ | 37 (5.1) $\quad$ - | 61 (4.8) $\boldsymbol{\nabla}$ | 27 (4.7) | $\nabla$ |
| Norway (9) ${ }^{1}$ | 78 (3.5) | 63 (4.3) |  | 73 (3.9) $\boldsymbol{\Delta}$ | 74 (4.0) | 40 (4.1) | $\nabla$ |
| Peru | 68 (3.2) | 64 (3.5) |  | 51 (3.9) $\nabla$ | 76 (2.8) | 74 (3.0) |  |
| Russian Federation | 51 (4.8) $\boldsymbol{\nabla}$ | 44 (4.5) | $\nabla$ | 35 (3.7) $\boldsymbol{\nabla}$ | 91 (2.7) $\triangle$ | 80 (2.4) | $\triangle$ |
| Slovenia | 99 (0.5) - | 99 (0.5) | $\triangle$ | 88 (3.0) $\boldsymbol{\Delta}$ | 99 (0.5) - | 95 (2.2) | - |
| Sweden ${ }^{1}$ | 78 (3.8) | 81 (3.6) | A | 77 (4.1) $\mathbf{\Delta}$ | 66 (5.9) $\boldsymbol{\nabla}$ | 39 (5.4) | $\nabla$ |
| ICCS 2016 average | 74 (0.8) | 67 (0.8) |  | 60 (0.9) | 81 (0.7) | 74 (0.7) |  |

Countries not meeting sample participation requirements

| Hong Kong SAR | $84(4.0)$ | $85(4.0)$ | $71(5.1)$ | $84(4.3)$ | $76(4.4)$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Korea, Republic of $^{2}$ | $99(0.9)$ | $94(3.2)$ | $95(2.0)$ | $99(1.2)$ | $86(4.0)$ |

Benchmarking participant not meeting sample participation requirements

| North-Rhine-Westphalia <br> $(\text { Germany })^{1}$ | 67 (6.9) | $61(6.9)$ | $55(6.3)$ | $66(6.6)$ | $36(7.5)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## National percentage:

A More than 10 percentage points above ICCS 2016 average
$\triangle$ Significantly above ICCS 2016 average
$\nabla$ Significantly below ICCS 2016 average
V More than 10 percentage points below ICCS 2016 average

## Notes:

() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
$\dagger$ Met guidelines for sampling participation rates only after replacement schools were included.
${ }^{1}$ National Defined Population covers $90 \%$ to $95 \%$ of National Target Population.
2 Country surveyed target grade in the first half of the school year.
An "(r)" indicates that data are available for at least $70 \%$ but less than $85 \%$ of students.
An " (s)" indicates that data are available for at least $50 \%$ but less than $70 \%$ of students.

Across participating countries, the most commonly reported activities were those related to water and energy consumption (with an international average of $46 \%$ and $48 \%$, respectively) (Table 6.15). Lower percentages were recorded for signing a petition (8\%), writing letters to a magazine/newspaper (12\%), and posting on social networks (15\%). Countries with national averages significantly above the ICCS average for all the activities were Colombia, the Dominican Republic, Mexico, and Peru. Those with national averages significantly below the ICCS average were Belgium (Flemish), Malta, and Sweden.
Table 6.15: Teachers' reports on students' environmental activities at school

| Country | National percentages of teachers who reported conducting the following environmental initiatives with their target-grade students: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Writing letters to the newspapers or magazines to support actions about the the environment |  | Signing a petition on environmental issues |  | Posting on social network, forum, or blog to support actions about the environment |  | Activities to make students aware of the environmental impact of excessive water consumption |  | Activities to make students aware of the environmental impact of excessive energy consumption |  | <Cleanup activities> outside the school |  | Recycling and waste collection in the <local community> |  |
| Belgium (Flemish) ${ }^{\dagger}$ | 2 (0.4) | $\nabla$ | 2 (0.4) | $\nabla$ | 6 (0.8) | $\nabla$ | 28 (1.5) | $\nabla$ | 40 (1.7) | $\nabla$ | 9 (1.7) | $\nabla$ | 25 (1.7) | $\nabla$ |
| Bulgaria | 4 (0.7) | $\nabla$ | 2 (0.4) | $\nabla$ | 22 (1.9) | $\triangle$ | 44 (2.0) |  | 47 (1.8) |  | 53 (2.5) | - | 38 (2.7) |  |
| Chile | 12 (1.4) |  | 8 (1.2) |  | 16 (1.5) |  | 46 (2.1) |  | 47 (2.1) |  | 26 (1.8) | $\nabla$ | 29 (2.1) | $\nabla$ |
| Chinese Taipei | 8 (0.7) | $\nabla$ | 4 (0.5) | $\nabla$ | 18 (1.0) | $\triangle$ | 38 (1.4) | $\nabla$ | 43 (1.4) | $\nabla$ | 22 (1.7) | $\nabla$ | 13 (1.0) | $\nabla$ |
| Colombia | 22 (2.0) | $\triangle$ | 16 (1.5) | $\triangle$ | 23 (1.9) | $\triangle$ | 71 (2.2) | A | 62 (2.6) | A | 61 (2.5) | - | 69 (1.8) | - |
| Croatia | 8 (0.7) | $\nabla$ | 5 (0.7) | $\nabla$ | 15 (1.1) |  | 57 (1.2) | $\Delta$ | 61 (1.7) | $\Delta$ | 40 (2.2) | $\triangle$ | 49 (2.0) | $\triangle$ |
| Dominican Republic | 42 (2.9) | - | 45 (3.8) | - | 38 (2.9) | - | 83 (2.2) | $\Delta$ | 72 (2.5) | $\Delta$ | 68 (3.4) | - | 64 (3.7) | - |
| Finland ${ }^{+}$ | $1(0.2)$ | $\nabla$ | 1 (0.3) | $\nabla$ | 2 (0.3) | $\nabla$ | 37 (1.2) | $\nabla$ | 50 (1.2) |  | 20 (1.3) | $\nabla$ | 31 (1.5) | $\nabla$ |
| Italy | 5 (0.6) | $\nabla$ | 3 (0.4) | $\nabla$ | 7 (0.5) | $\nabla$ | 54 (1.4) | $\triangle$ | 59 (1.3) | - | 20 (1.3) | $\nabla$ | 53 (1.6) | - |
| Latvia | 4 (0.6) | $\nabla$ | 2 (0.5) | $\nabla$ | 13 (1.2) |  | 21 (1.1) | $\nabla$ | 27 (1.1) | $\nabla$ | 32 (1.5) | $\nabla$ | 29 (1.4) | $\nabla$ |
| Lithuania | 5 (0.6) | $\nabla$ | 6 (0.6) | $\nabla$ | 18 (1.0) | $\triangle$ | 38 (1.1) | $\nabla$ | 41 (1.2) | $\nabla$ | 53 (1.4) | - | 51 (1.6) | $\triangle$ |
| Malta | 9 (1.1) | $\nabla$ | 4 (0.8) | $\nabla$ | 12 (1.3) | $\nabla$ | 37 (2.1) | $\nabla$ | 37 (2.1) | $\nabla$ | 9 (1.4) | $\nabla$ | 30 (1.9) | $\nabla$ |
| Mexico | 24 (1.3) | - | 12 (0.9) | $\triangle$ | 27 (1.7) | - | 72 (1.4) | - | 65 (1.7) | $\Delta$ | 39 (2.0) | $\triangle$ | 54 (1.6) | - |
| Norway | 1 (0.3) | $\nabla$ | 1 (0.6) | $\nabla$ | 3 (0.7) | $\nabla$ | 15 (1.3) | $\nabla$ | 26 (1.2) | $\nabla$ | 49 (1.9) | - | 37 (1.5) | $\nabla$ |
| Peru | 46 (1.5) | - | 26 (1.5) | - | 22 (1.5) | $\triangle$ | 69 (1.8) | - | 61 (1.7) | - | 55 (2.0) | A | 53 (2.1) | A |
| Slovenia | 9 (0.8) | $\nabla$ | 3 (0.4) | $\nabla$ | 13 (1.1) |  | 44 (1.5) |  | 48 (1.4) |  | 29 (1.6) | $\nabla$ | 61 (1.6) | - |
| Sweden | 5 (0.7) | $\nabla$ | 1 (0.2) | $\nabla$ | 2 (0.4) | $\nabla$ | 24 (1.3) | $\nabla$ | 29 (1.6) | V | 7 (1.0) | $\nabla$ | 14 (1.2) | $\nabla$ |
| ICCS 2016 average | 12 (0.3) |  | 8 (0.3) |  | 15 (0.3) |  | 46 (0.4) |  | 48 (0.4) |  | 35 (0.5) |  | 41 (0.5) |  |
| Countries not meeting sample participation requirements for teacher survey |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Denmark | 2 (0.8) |  | 1 (0.3) |  | 3 (0.9) |  | 24 (2.8) |  | 31 (2.8) |  | 14 (3.1) |  | 14 (2.0) |  |
| Estonia | 2 (0.7) |  | 1 (0.6) |  | 7 (1.5) |  | 28 (2.7) |  | 37 (2.8) |  | 17 (2.2) |  | 13 (2.8) |  |
| Korea, Republic of | 27 (1.5) |  | 7 (1.0) |  | 16 (1.2) |  | 51 (1.6) |  | 70 (1.3) |  | 52 (2.1) |  | 40 (1.4) |  |
| Netherlands | 2 (0.5) |  | 1 (0.3) |  | 3 (0.4) |  | 14 (0.8) |  | 20 (1.2) |  | 9 (1.1) |  | 7 (1.0) |  |
| Russian Federation | 16 (3.2) |  | 9 (1.8) |  | 21 (2.9) |  | 67 (2.8) |  | 67 (3.0) |  | 88 (2.2) |  | 45 (4.2) |  |

National percentage:
A More than 10 percentage points above ICCS 2016 average Significantly above ICCS 2016 average
More than 10 percentage points below ICCS 2016 average
$\ddot{0}$
$\stackrel{y}{4}$
Z
() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
Met guidelines for sampling participation rates only after replacement schools were included.

## Civic and citizenship activities in classrooms and teacher preparation

Chapter 2 of this report described the general approaches that the ICCS 2016 schools were taking to deliver civic and citizenship education in their classrooms. The chapter also reported principals' and teachers' perceptions of the most important aims of this area of school education, and documented the types of pre-service and in-service training that teachers in the ICCS countries experience. In this section of the current chapter, we look at the activities carried out within participating schools' classrooms during civic and citizenship education lessons from two perspectives-students' and teachers'. We also consider teachers' responses to a question about their level of preparedness for teaching topics related to civic and citizenship education.

The question in the ICCS 2016 student questionnaire on civic topics taught in school required students to indicate the extent to which they had learned about each of the following at their school: (a) "how citizens can vote in local or national election;" (b) "how laws are introduced and changed in <country of test>;" (c) "how to protect the environment (e.g. through energy-saving or recycling);" (d) "how to contribute to solving problems in the <local community>;" (e) "how citizen rights are protected in <country of test>;" and (f) "political issues and events in other countries."

We used these items to derive an IRT-based scale called civic learning at school. It had an average reliability across countries (Cronbach's alpha $=0.80$ ). The higher scale scores indicate higher levels of reported learning of civic issues at school. (For a description of this scale, see the item map in Figure 6.4, Appendix D.)

On average across the participating countries, the highest percentages of students who said they had learned about the listed topics to a moderate or large extent were for how to protect the environment (81\%), how citizens can vote in local and national elections (64\%), and how citizen rights are protected in <country of test> (61\%). The lowest percentages were for political issues and events in other countries (52\%) and how to contribute to solving problems in the <local community> (55\%). Significant differences emerged across the countries for all six topics (see Table 6.16), suggesting that students in different countries experience different degrees of emphasis on the civic-related topics they study at school.

Table 6.16 also shows the national average scale scores for students' learning of civic issues at school. Countries with the highest national average scale scores (three or more points above the ICCS 2016 average) were Chinese Taipei, Colombia, the Dominican Republic, Mexico, and Peru. Those with the lowest national averages were Belgium (Flemish), Estonia, Finland, Latvia, Lithuania, and the Netherlands.

Our analyses of students' responses to the civic-topics question included looking for possible associations between the students' learning of these topics and (dichotomous) variables reflecting students' interest in civic issues (quite or very interested versus little interest), students' expected educational attainment (a university degree versus no such degree), and civic knowledge (scores at or above Level $B$ versus scores below this level). Table 6.17 presents the findings of these analyses.

Positive and statistically significant associations were evident in all of the ICCS 2016 countries between students' reports of civic learning at school and students' interest in social and political issues. The average difference between the national scores for students who were quite or very interested in the itemized civic issues was three scale score points above the ICCS average. We also registered in most participating countries higher scale scores for students who anticipated completing a university degree. Here, the difference was two points on average across the participating countries. Students at or above Level B of civic knowledge scored higher than students below this level, with an ICCS average difference of three points.
Table 6.16: National percentages and average scale scores for students' reports on civic learning at school

| Country | Percentages of students who reported having learned the following to a moderate or large extent: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Average scale scores for students' reports on learning of civic issues at school |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | How citizens can vote in local or national elections (\%) | How laws are introduced and changed in <country of test> (\%) |  | How to protect the environment (e.g. through energysaving or recycling) <br> (\%) |  |  | How to contribute to solving problems in the <local community> (\%) |  |  | How citizen rights are protected in <country of test> (\%) |  |  | Political issues and events in other countries (\%) |  | How the economy works (\%) |  |  |  |
| Belgium (Flemish) | 50 (1.6) $\boldsymbol{\nabla}$ | 41 (1.7) | $\nabla$ | 85 | (0.8) | $\triangle$ | 39 | (0.9) | $\nabla$ | 36 | (1.2) | $\nabla$ | 50 (1.2) |  | 66 | (2.1) | $\triangle$ | 46 (0.3) $\boldsymbol{\nabla}$ |
| Bulgaria | 64 (1.1) | 53 (1.3) | $\nabla$ |  | (1.0) | $\triangle$ |  | (1.2) |  | 55 | (1.3) | $\nabla$ | 40 (1.2) | $\nabla$ | 45 | (1.1) | $\nabla$ | $48(0.2) \nabla$ |
| Chile | 71 (1.0) $\triangle$ | 64 (1.1) | $\triangle$ | 81 | (0.8) |  | 63 | (0.9) | $\triangle$ | 64 | (1.0) | $\triangle$ | 49 (0.9) | $\nabla$ | 60 | (0.9) | $\triangle$ | 51 (0.3) $\triangle$ |
| Chinese Taipei | 88 (0.7) $\boldsymbol{\Delta}$ | 86 (0.7) | - | 90 | (0.6) | $\triangle$ |  | (0.9) | $\Delta$ | 86 | (0.6) | $\Delta$ | 64 (1.0) | - | 59 | (1.0) | $\triangle$ | 56 (0.3) $\boldsymbol{\Delta}$ |
| Colombia | 78 (1.4) $\mathbf{\Delta}$ | 58 (1.2) |  |  | (0.5) | - |  | (0.9) | $\Delta$ | 83 | (0.8) | $\Delta$ | 47 (1.4) | $\nabla$ | 73 | (1.0) | $\Delta$ | 54 (0.2) $\boldsymbol{\Delta}$ |
| Croatia | 69 (1.6) $\triangle$ | 61 (1.5) |  | 91 | (0.7) | - |  | (1.3) | $\triangle$ | 67 | (1.4) | $\triangle$ | 52 (1.5) |  | 36 | (1.4) | $\nabla$ | 50 (0.3) |
| Denmark ${ }^{\dagger}$ | 61 (1.2) $\nabla$ | 73 (1.2) | - | 61 | (1.2) | $\nabla$ |  | (1.0) | $\nabla$ | 56 | (1.0) | $\nabla$ | 67 (1.1) | $\Delta$ | 68 | (1.2) | $\Delta$ | 49 (0.2) $\nabla$ |
| Dominican Republic | 73 (1.2) $\triangle$ | 69 (1.0) | $\triangle$ | 84 | (0.8) | $\triangle$ |  | (1.0) | $\Delta$ | 81 | (0.8) | - | 60 (1.1) | $\triangle$ | 73 | (1.0) | $\triangle$ | 56 (0.3) $\boldsymbol{\Delta}$ |
| Estonia ${ }^{1}$ | 41 (1.4) $\boldsymbol{\nabla}$ | 48 (1.6) | $\nabla$ | 72 | (1.4) | $\nabla$ |  | (1.1) | $\nabla$ | 53 | (1.6) | $\nabla$ | 44 (1.4) | $\nabla$ | 41 | (1.9) | $\nabla$ | 46 (0.3) $\boldsymbol{\nabla}$ |
| Finland | 57 (0.9) $\nabla$ | 40 (1.0) | $\nabla$ |  | (0.8) | $\triangle$ |  | (1.0) | $\nabla$ | 45 | (1.3) | $\nabla$ | 42 (1.1) | $\nabla$ | 31 | (1.0) | $\nabla$ | 45 (0.2) $\boldsymbol{\nabla}$ |
| Italy | 70 (1.9) $\triangle$ | 68 (1.6) | $\triangle$ |  | (0.9) | $\triangle$ |  | (1.2) |  | 71 | (1.6) | $\triangle$ | 64 (1.1) | - | 70 | (0.9) | - | $52(0.3) \triangle$ |
| Latvia ${ }^{1}$ | 44 (1.3) $\nabla$ | 47 (1.3) | $\nabla$ |  | (0.9) | $\triangle$ |  | (1.2) | $\nabla$ | 43 | (1.2) | $\nabla$ | 43 (1.2) | $\nabla$ |  | (1.6) | $\nabla$ | 47 (0.3) $\boldsymbol{\nabla}$ |
| Lithuania | 44 (1.4) $\boldsymbol{\nabla}$ | 46 (1.6) | $\nabla$ |  | (1.0) | $\triangle$ |  | (1.2) | $\nabla$ | 46 | (1.5) | $\nabla$ | 45 (1.0) | $\nabla$ | 36 | (1.0) | $\nabla$ | 46 (0.3) $\boldsymbol{\nabla}$ |
| Malta | 55 (0.8) $\nabla$ | 46 (0.9) | $\nabla$ | 81 | (0.7) |  |  | (0.8) | $\nabla$ |  | (0.8) |  | 44 (0.8) | $\nabla$ | 50 | (0.9) | $\nabla$ | 48 (0.1) $\nabla$ |
| Mexico | 72 (1.0) $\triangle$ | 69 (0.8) | - |  | (0.6) | $\triangle$ |  | (0.9) | $\Delta$ |  | (0.8) | $\Delta$ | 48 (0.8) | $\nabla$ |  | (0.9) | $\Delta$ | 53 (0.2) $\boldsymbol{\Delta}$ |
| Netherlands ${ }^{\dagger}$ | 44 (1.2) $\boldsymbol{\nabla}$ | 37 (1.5) | $\nabla$ |  | (1.3) | $\nabla$ |  | (1.2) | $\nabla$ |  | (1.2) | $\nabla$ | 53 (1.3) |  | 64 | (2.1) | $\triangle$ | $44(0.3) \boldsymbol{\nabla}$ |
| Norway (9) ${ }^{1}$ | 65 (0.9) $\triangle$ | 42 (1.2) | $\nabla$ |  | (1.0) | $\nabla$ |  | (1.0) | $\nabla$ |  | (1.0) | $\nabla$ | 56 (1.0) | $\triangle$ | 47 | (1.2) | $\nabla$ | 48 (0.2) $\nabla$ |
| Peru | 81 (0.8) - | 75 (0.9) | - |  | (0.7) | $\triangle$ |  | (0.9) | $\Delta$ |  | (0.9) | $\Delta$ | 52 (1.2) |  | 71 | (0.8) | $\Delta$ | 55 (0.3) $\boldsymbol{\Delta}$ |
| Russian Federation | 55 (1.6) $\nabla$ | 62 (1.4) | $\triangle$ | 81 | (0.9) |  |  | (1.1) | $\nabla$ |  | (1.2) | $\Delta$ | 48 (1.1) | $\nabla$ | 63 | (1.2) | $\triangle$ | 50 (0.3) |
| Slovenia | 76 (1.5) $\mathbf{\Delta}$ | 75 (1.2) | A | 76 | (0.9) | $\nabla$ |  | (1.4) | $\triangle$ |  | (1.3) | $\triangle$ | 58 (1.3) | $\triangle$ | 68 | (1.5) | - | 52 (0.3) $\triangle$ |
| Sweden ${ }^{1}$ | 80 (1.5) $\boldsymbol{\Delta}$ | 82 (2.0) | A | 84 | (1.0) | $\triangle$ |  | (1.8) |  |  | (2.2) |  | 75 (1.7) | - |  | (1.8) |  | 53 (0.5) $\triangle$ |
| ICCS 2016 average | 64 (0.3) | 59 (0.3) |  | 81 | (0.2) |  |  | (0.2) |  | 61 | (0.3) |  | 52 (0.3) |  |  | (0.3) |  | 50 (0.1) |

Countries not meeting sample participation requirements

| Hong Kong SAR | 52 (1.6) | 58 (1.6) | 80 (1.0) | 59 (0.9) | 64 (1.3) | 48 (1.1) | 48 (1.3) | 48 (0.3) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Korea, Republic of ${ }^{2}$ | 58 (1.2) | 44 (1.2) | 85 (1.1) | 55 (1.3) | 48 (1.1) | 46 (1.1) | 42 (1.1) | 47 (0.3) |

Korea, Republic of ${ }^{2}$
Benchmarking participant not meeting sample participation requirements

| Borth-Rhine-Westphalia | 63 (3.1) | 64 (2.7) |
| :--- | :--- | :--- |

 (9) Country deviated from International Defined Population and surveyed adjacent upper grade.
$\dagger$ Met guidelines for sampling participation rates only after replacement schools were included.
1 2 Country surveyed target grade in the first half of the school year

[^6]Table 6.17: National average scale scores of students' reports on civic learning at school by students' interest, expected education, and level of civic knowledge


[^7]The ICCS 2016 teacher questionnaire also asked teachers who were teaching subjects labelled at the national level as "civic and citizenship education" how often ("never," "sometimes," "often," "very often") they used specific teaching methods during their lessons. This question was included in the "international option" of the questionnaire, which meant that only those teachers who were teaching these specifically identified subjects were to answer these questions. (The national research centers were responsible for identifying the subjects related to civic and citizenship education.)

The question on teaching methods included eight statements (items): (a) "Students work on projects that involve gathering information outside school" (e.g. interviews in the neighborhood, small scale surveys);" (b) "Students work in small groups on different topics/issues;" (c) "Students participate in role plays;" (d) "Students take notes during teacher's lectures;" (e) "Students discuss current issues;" (f) "Students research and/or analyze information gathered from multiple web sources (e.g. wikis, online newspapers)"; (g) "Students study textbooks;' and (h) "Students propose topics/ issues for the following lessons."

Table 6.18 displays the percentages of teachers reporting on activities that they very often or often used during their lessons. On average, use of textbooks, lectures (with students taking notes), and discussion on current issues were the three activities for which we recorded the relatively highest percentages in nearly all of the participating countries ( $67 \%, 58 \%$, and $74 \%$, respectively). Group work was a relatively common activity across countries (international average: 52\%), with the exception of Chinese Taipei. Less frequent, on average, were the more interactive activities such as project work (16\%), role playing (26\%), and the direct involvement of students in terms of proposing topics for discussion during lessons (18\%).

Several studies have shown that teacher preparation is one of the most important factors influencing student achievement (Organisation for Economic Co-operation and Development, 2009, 2014; Torney-Purta, Richardson, \& Barber, 2005). ICCS 2009 therefore asked teachers of civic and citizenship education subjects to state how confident they felt about teaching specific civic-related topics and skills. Results showed that teachers of these subjects tended to be most confident about teaching "human rights" and "citizens' rights and responsibilities" and less confident about teaching topics relating to the economy, business, and legal institutions (Schulz et al., 2010).

ICCS 2016 included a similar question in the international option of the teacher questionnaire. However, this time, the question asked teachers to report how well prepared ("very well prepared," "quite well prepared," "not very well prepared," "not prepared at all") they felt to teach the question's 11 civic- and citizenship-related topics and skills set down in Table 6.19. ${ }^{1}$

Responses to this question revealed that, on average, most teachers felt very well prepared or quite well prepared to teach almost all of the topics and skills included in the question. The highest average percentages we recorded across the participating countries were those for "citizens' rights and responsibilities" (90\%) and "equal opportunities for men and women" (also 90\%). The lowest percentages recorded were those for "the global community and international organizations" (67\%) and "the constitution and political systems" (73\%). Large variation across countries was evident not only for these two items but also for "emigration and immigration." These differences may reflect the rapidly changing political and social situations of the participating countries and the fact that many teachers completed their education before some of these issues took on their current importance.

1 These same items were included in the question on teachers' initial preparation and in-service training reported in Chapter 2. One item ("the European Union") was optional for teachers from the European countries.
Table 6.18: Teachers' reports on civic and citizenship education activities in the classroom

| Country | National percentages of teachers of civic-related subjects who reported having conducted often or very often the following civic and citizenship education-related activities in their classrooms: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Students work on projects that involve gathering information outside school |  | Students work in small groups on different topics/issues |  | Students participate in role plays |  |  | Students take notes during teacher's lectures |  |  | Students discuss current issues |  |  | Students research and/or analyze information gathered from multiple web sources |  | Students study textbooks |  |  | Students propose topics/issues for the following lessons |  |  |
| Belgium (Flemish) ${ }^{\dagger}$ | 5 (0.9) | $\nabla$ | 36 (2.1) | $\nabla$ |  | (1.6) | $\nabla$ | 66 | (2.4) | $\triangle$ |  | (1.6) | $\nabla$ | 37 (1.8) | $\nabla$ | 46 | (2.1) | $\nabla$ | 5 | (0.9) | $\nabla$ |
| Bulgaria | 15 (4.3) |  | 34 (4.5) | $\nabla$ | 28 | (4.8) |  | 70 | (4.7) | - | 63 | (5.1) | $\nabla$ | 28 (5.2) | $\nabla$ | 86 | (3.3) | - | 9 | (2.7) | $\nabla$ |
| Chile | 14 (2.8) |  | 55 (3.2) |  |  | (3.0) |  | 50 | (3.1) | $\nabla$ | 54 | (4.6) | $\nabla$ | 38 (3.2) |  | 63 | (3.4) |  | 23 | (3.4) |  |
| Chinese Taipei | 4 (1.7) | $\nabla$ | 11 (3.1) | $\nabla$ |  | (2.9) | $\nabla$ |  | (2.8) | - |  | (4.0) | $\nabla$ | 18 (2.8) | $\nabla$ | 84 | (3.1) | - |  | (3.5) |  |
| Colombia | 18 (1.9) |  | 69 (2.5) | - |  | (2.4) | - | 47 | (3.1) | $\nabla$ |  | (2.0) |  | 56 (2.9) | - | 43 | (2.9) | $\nabla$ | 25 | (3.0) | $\triangle$ |
| Croatia | 10 (1.1) | $\nabla$ | 41 (1.3) | $\nabla$ |  | (1.2) |  | 42 | (1.4) | $\nabla$ |  | (1.6) | $\nabla$ | 41 (1.3) |  | 49 | (1.3) | $\nabla$ | 19 | (1.3) |  |
| Dominican Republic | 41 (5.6) | - | 84 (4.3) | - |  | (4.8) | $\Delta$ | 79 | (4.4) | $\triangle$ | 88 | (3.1) | - | 71 (4.5) | - | 84 | (3.8) | - | 41 | (5.8) | $\Delta$ |
| Finland ${ }^{+}$ | 6 (1.4) | $\nabla$ | 50 (3.1) |  |  | (1.1) | $\nabla$ |  | (2.6) | $\nabla$ |  | (1.9) | $\nabla$ | 33 (2.3) | $\nabla$ | 69 | (2.3) |  | 13 | (1.9) | $\nabla$ |
| Italy | 9 (1.5) | $\nabla$ | 38 (2.6) | $\nabla$ |  | (1.2) | $\nabla$ |  | (2.4) |  | 87 | (1.6) | - | 65 (2.3) | - | 83 | (2.1) | A | 26 | (2.0) | $\triangle$ |
| Latvia | 22 (3.0) |  | 59 (3.9) |  |  | (4.3) |  |  | (4.3) |  |  | (3.0) |  | 45 (4.0) |  | 65 | (3.7) |  | 17 | (3.6) |  |
| Lithuania | 8 (1.4) | $\nabla$ | 47 (4.2) |  |  | (3.4) | $\nabla$ |  | (4.3) |  |  | (2.5) | $\Delta$ | 51 (4.4) |  | 85 | (2.3) | - | 19 | (2.7) |  |
| Malta | 9 (2.3) | $\nabla$ | 57 (4.0) |  |  | (4.1) | - |  | (3.4) | $\nabla$ |  | (4.3) | $\triangle$ | 32 (4.5) | $\nabla$ | 24 | (4.5) | $\nabla$ | 9 | (2.1) | $\nabla$ |
| Mexico | 52 (5.1) | - | 88 (1.8) | - |  | (3.3) | - |  | (5.3) | - | 87 | (3.8) | - | 57 (5.1) | - | 89 | (2.3) | - | 19 | (3.3) |  |
| Norway | 10 (2.4) | $\nabla$ | 59 (4.0) |  |  | (1.0) | $\nabla$ |  | (3.6) |  |  | (3.2) | $\nabla$ | 34 (3.0) | $\nabla$ | 75 | (3.1) | $\triangle$ | 5 | (0.9) | $\nabla$ |
| Peru | 32 (4.7) | - | 64 (4.5) | - |  | (5.1) | $\triangle$ | 78 | (3.6) | - |  | (4.5) |  | 43 (3.2) |  | 77 | (3.5) | $\triangle$ | 24 | (3.5) |  |
| Slovenia | 10 (1.5) | $\nabla$ | 36 (2.9) | $\nabla$ |  | (2.2) | $\triangle$ |  | (2.3) | $\nabla$ |  | (2.0) |  | 35 (2.7) | $\nabla$ |  | (2.1) | $\nabla$ |  | (1.4) | $\nabla$ |
| Sweden | 6 (2.0) | $\nabla$ | 57 (4.6) |  |  | (2.0) | $\nabla$ |  | (4.1) |  |  | (2.4) | - | 47 (3.8) |  |  | (4.1) |  |  | (2.7) |  |
| ICCS 2016 average | 16 (0.7) |  | 52 (0.8) |  | 26 | (0.8) |  | 58 | (0.9) |  | 74 | (0.8) |  | 43 (0.9) |  |  | (0.7) |  | 18 | (0.7) |  |

Countries not meeting sample participation requirements for teacher survey

[^8]Table 6.19: Teachers' preparedness for teaching civic and citizenship education topics and skills

| Country | Percentages of teachers who felt very well or quite well prepared to teach the following topics and skills: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Human rights | Voting and elections | The global community and international organizations | The environment and environmental sustainability | Emigration and immigration |  | Equal opportunities for men and women | Citizens' rights and responsibilities | 'The constitution and politic systems |  | Responsible internet use (e.g., privacy, source reliability, social media) | Critical and independent thinking | Conflict resolution | The Europ Union |  |
| Belgium (Flemish) ${ }^{\dagger}$ | $68(2.5)$ v | 64 (2.1) $\boldsymbol{\nabla}$ | 56 (2.3) V | 80 (1.6) $\nabla$ | 68 (1.9) |  | 80 (1.6) $\boldsymbol{\nabla}$ | 68 (1.7) V | 43 (2.1) | $\nabla$ | 83 (1.7) | 92 (1.2) $\triangle$ | $79(1.7) \quad \nabla$ | 48 (2.2) | $\nabla$ |
| Bulgaria | 90 (3.1) | 92 (2.4) $\mathbf{\Delta}$ | $82(2.5)$ - | 83 (3.4) | 82 (3.8) |  | 88 (2.8) | 89 (2.9) | 85 (3.2) | $\Delta$ | 80 (3.2) | 88 (3.0) | 88 (2.7) | 96 (1.8) | $\Delta$ |
| Chile | 84 (2.3) | 77 (4.0) | 56 (4.6) $\boldsymbol{\nabla}$ | 72 (3.2) V | 66 (3.0) |  | 87 (2.1) | 88 (2.3) | 65 (3.5) | $\nabla$ | 75 (3.7) | 86 (2.6) | 81 (3.1) $\nabla$ | - |  |
| Chinese Taipei | 86 (2.7) | 96 (1.7) $\boldsymbol{4}$ | 84 (2.3) $\boldsymbol{\Delta}$ | 88 (2.2) $\triangle$ | 44 (5.1) | $\nabla$ | 95 (1.2) $\triangle$ | 96 (1.7) $\triangle$ | 94 (1.9) | $\Delta$ | 84 (2.6) | 85 (2.7) | 87 (2.5) | - |  |
| Colombia | 77 (2.9) $\mathrm{\nabla}$ | 73 (2.9) $\nabla$ | 52 (3.2) V | 81 (3.0) | 62 (2.8) | $\nabla$ | 85 (2.7) $\nabla$ | 83 (2.2) $\nabla$ | 65 (2.4) | $\nabla$ | 67 (2.1) $\boldsymbol{\nabla}$ | $82(1.8) \nabla$ | 86 (1.7) | - |  |
| Croatia | 81 (1.2) $\nabla$ | 67 (1.5) V | 50 (1.4) $\boldsymbol{\nabla}$ | 78 (1.2) $\nabla$ | 52 (1.6) | $\nabla$ | 79 (1.1) V | 78 (1.5) V | 53 (1.3) | $\nabla$ | 82 (1.4) | 87 (1.0) | 88 (1.0) | 58 (1.2) | $\nabla$ |
| Dominican Republic | 93 (3.3) | 86 (4.3) | 64 (5.1) | 92 (2.3) $\triangle$ | 92 (2.5) | $\triangle$ | 97 (1.6) $\triangle$ | 96 (2.2) $\triangle$ | 90 (3.2) | $\Delta$ | 72 (5.6) | 95 (2.1) $\triangle$ | 96 (1.7) $\triangle$ | - |  |
| Finland ${ }^{+}$ | 85 (1.6) | 60 (1.9) V | 63 (2.9) | 84 (2.1) | 70 (2.0) |  | 93 (1.1) $\triangle$ | 86 (1.4) $\nabla$ | 47 (1.8) | $\nabla$ | 82 (1.8) | 94 (1.1) $\triangle$ | 83 (2.0) $\nabla$ | 51 (2.4) | $\nabla$ |
| Italy | $96(0.8) \triangle$ | 80 (2.3) | 81 (1.9) - | 87 (1.6) | 94 (1.1) | $\Delta$ | 93 (1.3) | $98(0.8) \triangle$ | 90 (1.5) | $\triangle$ | 72 (2.3) $\nabla$ | 91 (1.1) | 83 (1.9) $\nabla$ | 91 (1.7) | $\Delta$ |
| Latvia | 88 (3.8) | 91 (1.9) $\triangle$ | 67 (3.4) | 89 (2.0) $\triangle$ | 68 (4.6) |  | 89 (2.7) | 94 (1.9) $\triangle$ | 70 (4.7) |  | 87 (2.9) $\triangle$ | 93 (1.3) $\triangle$ | 93 (2.3) $\triangle$ | 82 (3.3) | $\triangle$ |
| Lithuania | 89 (2.4) | 89 (2.2) $\triangle$ | 87 (3.5) - | 84 (2.6) | 94 (1.8) | $\triangle$ | 88 (2.5) | 94 (1.3) $\triangle$ | 84 (2.6) | $\Delta$ | 80 (2.8) | 82 (2.8) $\nabla$ | 89 (2.0) | 98 (0.7) | $\Delta$ |
| Malta | 88 (2.6) | 72 (4.4) $\nabla$ | 61 (4.7) | 86 (2.9) | 79 (4.4) |  | 94 (1.8) $\triangle$ | 92 (3.0) | 56 (4.6) | $\nabla$ | 87 (3.4) $\triangle$ | 84 (3.0) | 83 (3.0) | 57 (5.2) | $\nabla$ |
| Mexico | 89 (2.4) | 81 (3.7) | 52 (4.3) V | 87 (2.8) | 87 (2.0) | $\triangle$ | 95 (1.7) $\triangle$ | 97 (1.1) $\triangle$ | 73 (4.7) |  | 65 (4.5) $\boldsymbol{\nabla}$ | 84 (2.9) | 93 (1.8) $\triangle$ | - |  |
| Norway | 95 (1.3) $\triangle$ | 96 (0.8) $\mathbf{\Delta}$ | 80 (3.7) - | 80 (3.6) | 94 (2.0) | $\triangle$ | 94 (1.4) $\triangle$ | 93 (1.1) $\triangle$ | 92 (1.4) | $\triangle$ | 90 (1.7) - | 95 (0.9) $\triangle$ | 85 (1.7) | 70 (3.7) |  |
| Peru | 88 (2.4) | 92 (1.7) | 66 (3.9) | 86 (3.1) | 86 (2.6) | $\Delta$ | 96 (1.3) $\triangle$ | 94 (1.6) $\triangle$ | 80 (3.9) |  | 71 (3.4) $\nabla$ | 87 (3.0) | 86 (3.0) | - |  |
| Slovenia | 87 (1.6) | 67 (2.2) $\boldsymbol{\nabla}$ | 52 (1.9) $\mathbf{\nabla}$ | 73 (1.8) $\boldsymbol{\nabla}$ | 61 (2.4) | $\nabla$ | 80 (1.8) $\nabla$ | 86 (1.9) | 65 (2.2) | $\nabla$ | 80 (1.8) | 92 (1.4) $\triangle$ | 87 (1.6) | 67 (1.9) | $\nabla$ |
| Sweden | 98 (1.0) \ | 94 (1.9) $\boldsymbol{4}$ | 94 (1.7) $\mathbf{\Delta}$ | $92(2.2) \triangle$ | 95 (1.4) | $\triangle$ | $99(0.8) \triangle$ | 98 (1.2) $\triangle$ | 93 (2.1) | $\triangle$ | 93 (2.0) - | 95 (1.8) $\triangle$ | 91 (2.5) | 79 (3.4) |  |
| ICCS 2016 average | 87 (0.6) | 81 (0.6) | 67 (0.8) | 84 (0.6) | 76 (0.7) |  | 90 (0.4) | 90 (0.4) | 73 (0.7) |  | 79 (0.7) | 89 (0.5) | 87 (0.5) | 73 (0.8) |  |
| Countries not meeting sample participation requirements for teacher survey |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Denmark | 95 (1.9) | 97 (1.6) | 81 (5.8) | 77 (4.6) | 86 (5.1) |  | 91 (4.1) | 94 (4.0) | 95 (3.8) |  | 70 (6.4) | 93 (4.1) | 88 (3.1) | 76 (5.3) |  |
| Estonia | 62 (7.5) | 64 (5.2) | 49 (6.6) | 84 (4.8) | 56 (7.4) |  | 51 (9.3) | 79 (5.4) | 57 (7.0) |  | 70 (7.6) | 72 (8.1) | 69 (5.1) | 73 (5.8) |  |
| Korea, Republic of | 64 (3.9) | 66 (4.1) | 43 (3.9) | 65 (3.6) | 32 (3.4) |  | 77 (4.5) | 78 (3.3) | 54 (3.3) |  | 81 (3.6) | 77 (3.5) | 80 (3.9) | - |  |
| Netherlands | 75 (2.7) | 69 (2.8) | 63 (3.0) | 77 (2.5) | 73 (2.9) |  | 85 (2.1) | 73 (2.7) | 56 (2.8) |  | 90 (1.8) | 96 (1.1) | 78 (2.4) | 60 (2.2) |  |
| Russian Federation | 97 (1.7) | 92 (4.2) | 86 (4.1) | 96 (2.0) | 79 (5.7) |  | 99 (0.6) | 99 (0.4) | 99 (0.5) |  | 79 (5.0) | 77 (6.0) | 94 (2.4) | - |  |

[^9]
() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
$\dagger$ Met guidelines for sampling participation rates only after replacement schools were included.
$-\quad$ Not administered.

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[^0]:    | Hong Kong SAR | 42 | (5.5) |
    | :--- | :--- | :--- |
    | Korea, Republic of $^{2}$ | 81 (4.1) |  |

    Benchmarking participant not meeting sample participation requirements

    | North Rhine-Westphalia | 78 (5.9) | 24 (7.1) |
    | :--- | :--- | :--- |

    (Germany) ${ }^{1}$ (r)
    National percentage:
    a More than 10 percentage points above ICCS 2016 average Significantly above ICCS 2016 average (9) Country deviated from International Defined Population and surveyed adjacent upper grade.
    $\dagger$ Met guidelines for sampling participation rates only after replacement schools were included
    National Defined Population covers $90 \%$ to $95 \%$ of National Target Population.
    $\stackrel{\rightharpoonup}{\circ}$
    () Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

    An "(r)" indicates that data are available for at least 70\% but less than $85 \%$ of students.
    An "(s)" indicates that data are available for at least $50 \%$ but less than $70 \%$ of students.

[^1]:    Notes:
    Difference between comparison groups statistically significant at $p<0.05$.
    Notes:
    () Standard errors appear in parentheses.
    Score averages that are significantly larger ( (9) Country deviated from International Defined Population and surveyed adjacent upper grade.

    Met guidelines for sampling participation rates only after replacement schools w
    National Defined Population covers $90 \%$ to $95 \%$ of National Target Population.
    Country surveyed target grade in the first half of the school year.

[^2]:    Countries not meeting sample participation requirements | Hong Kong SAR | $54(0.4)$ |  | $\square$ |
    | :--- | ---: | ---: | ---: |
    | Korea | $47(0.3)$ |  | $\square$ |

[^3]:    (9) Country deviated from International Defined Population and surveyed adjacent upper grade. 1 National Defined Population covers $90 \%$ to $95 \%$ of National Target Population. An "(r)" indicates that darga are available for at least $70 \%$ but less than

    An "(r)" indicates that data are available for at least $70 \%$ but less than $85 \%$ of students.
    An "(s)" indicates that data are available for at least $50 \%$ but less than $70 \%$ of students.
    percentage:

    - More than 10 percentage points above ICCS 2016 average Significantly above ICCS 2016 average

    More than 10 percentage points below ICCS 2016 average
    () Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
    (9) Country deviated from International Defined Population and surveyed adjacent upper grade.

    Met guidelines for sampling participation rates only after replacement schools were included

[^4]:    $\begin{array}{r}4(1.1) \\ 13(2.2) \\ \hline 11(0.7) \\ \hline 2(0.4) \\ \hline\end{array}$
    

    | 0 | $2(0.8)$ |
    | :--- | :--- |
    | $3(0.9)$ | $3(1.1)$ |
    | $1(0.3)$ | $1(0.2)$ |
    | $1(0.3)$ | $2(0.5)$ |
    | $1(0.4)$ | $1(0.4)$ |

    $2(0.7)$
    $7(1.9)$
    

    | Denmark | $12(2.0)$ | $5(0.9)$ | $5(0.9)$ |
    | :--- | ---: | ---: | ---: |
    | Estonia | $17(2.7)$ | $16(2.0)$ | $14(2.3)$ |
    | Korea, Republic of | $10(0.9)$ | $7(0.8)$ | $4(0.5)$ |
    | Netherlands | $9(1.2)$ | $13(1.3)$ | $10(1.2)$ |
    | Russian Federation | $2(0.5)$ | $1(0.2)$ | $1(0.3)$ |

    National percentage:
    A More than 10 percentage points above ICCS 2016 average
    $\triangle$ Significantly above ICCS 2016 average
    Significantly above ICCS 2016 average
    Significantly below ICCS 2016 average
    V More than 10 percentage points below ICCS 2016 average
    Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
    Met guidelines for sampling participation rates only after replacement schools were included.

[^5]:    National percentage:
    A More than 10 percentage points above ICCS 2016 average
    Significantly above ICCS 2016 average
    Significantly below ICCS 2016 average
    More than 10 percentage points below
    V More than 10 percentage points below ICCS 2016 average

[^6]:    National percentage or average:

    - More than 10 percentage or 3 score points above ICCS 2016 average
    Significantly above ICCS 2016 average
    More than 10 percentage or 3 score points below ICCS 2016 average

[^7]:    Notes:
    () Standard errors appear in parentheses.
    $\square$ Difference between comparison groups statistically significant at $p<0.05$.
    Score averages that are significantly larger ( $p$
    Country deviated from International Defined Population and surveyed adjacent upper grade.
    Met guidelines for sampling participation rates only after replacement schools were included.
    ${ }_{2}$ National Defined Population covers $90 \%$ to $95 \%$ of National Target Population.

[^8]:    $10(4.4)$
    $50(3.5)$
    $30(3.0)$
    $4(1.2)$
    
    
    Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent
    气。
    $\begin{array}{ll}\triangle & \text { Significantly above ICCS } 2016 \text { average } \\ \nabla & \text { Significantly below ICCS } 2016 \text { average } \\ \boldsymbol{\nabla} & \text { More than } 10 \text { percentage points or below ICCS } 2016 \text { average }\end{array}$
    Votes:
    $\dagger$ Met guidelines for sampling participation rates only after replacement schools were included.

[^9]:    National percentage:
    a More than 10 percentage points above ICCS 2016 average $\triangle$ Significantly above ICCS 2016 average

    - More than 10 percentage points below ICCS 2016 average

