



Education for living in an interconnected world

This chapter examines how schools and teachers can cultivate students' ability to live in an interconnected world. Analyses explore data from the student, school and teacher questionnaires focusing on learning activities, the existence of relevant curricula and teachers' capacity to incorporate intercultural and global education into their lessons. The chapter also examines implications of the findings for the UN Sustainable Development Goals.

What the data tell us

- Across OECD countries, the most common activity related to global education is learning about different cultures at school: 76% of students reported that they engage in this activity. The second most common activity is learning how to solve conflicts with other people in the classroom (64%), followed by learning how people from different cultures can have different perspectives (62%).
- On average across OECD countries, students reported engaging in about five learning activities. Students in Albania, Baku (Azerbaijan), Colombia, the Dominican Republic, Indonesia, Jordan, Peru, the Philippines and Thailand reported engaging in more than seven activities, while students in France, Hungary, Israel¹, Latvia, Russia, Scotland (United Kingdom) and Slovenia reported engaging in fewer than five.
- Students' attitudes and dispositions were positively and significantly associated with the number of learning activities in which they are engaged.
- Between 80% and 90% of students attended a school whose principal reported that intercultural learning activities are included in school lessons (e.g. learning about different cultures).
- About 45% of students attended a school whose teachers received training on teaching about equity and diversity. Proportions were particularly larger than the overall average in Albania and Malaysia.

The importance of education is undisputable in countering racial, ethnic and national prejudice and intolerance among children and adolescents (Kirkwood, 2001_[11]; Paluck and Green, 2009_[2]). Global and civic education often consists of a set of topics that teachers can include in their lessons. However, global competence, as defined in the PISA 2018 framework, extends well beyond knowledge to include skills and attitudes (OECD, 2018_[3]). Some schools offer lessons specifically on one or more elements of global competence. However, more commonly, teachers incorporate global issues into the existing curriculum by creating themes that overlap with existing subjects such as mathematics, science and reading. In this way, teachers avoid overloading the curriculum (Asia Society/OECD, 2018_[4]).

In this sense, teaching the skills for living in an interconnected world should not be seen as an activity that competes with teaching traditional subjects. Students still have to read and write, speak cogently, be scientifically and mathematically literate and have knowledge of the history of the world. In fact, many of the skills needed to live in an interconnected world, such as critical thinking, problem solving and media literacy, are the same as those needed to be proficient in traditional school subjects (Council of Europe, 2018_[5]). Integrating global competence into existing curricula could be a way of limiting the pressure on students' time while adding a global perspective to existing courses.

Educators and schools differ in their willingness, interest and ability to integrate teaching for living in an interconnected world into their courses. Effective global education requires a consistent approach, because engaging in sporadic or one-off activities is unlikely to foster literacy over the long term. This, in turn, requires adapted curricula and teachers who are trained in global education and can integrate such topics creatively into their practices. Moreover, successful implementation requires a comprehensive approach that mobilises resources at the system, school, teacher and student levels (Huber et al., 2014_[6]).

ACTIVITIES THAT MAY PROMOTE GLOBAL COMPETENCE

Three types of actions may promote global competence at school: actions based on intergroup contact, actions based on pedagogic approaches and actions based on institutional policies (Barrett, 2018_[7]).

Actions based on intergroup contact

As discussed in Chapter 4, contact with people from other countries is positively associated with a multitude of student dispositions. This finding is supported by a body of literature that shows that intercultural contact is an effective method of reducing prejudice and creating understanding (Allport, 1954_[8]; Pettigrew and Tropp, 2006_[9]). Four conditions need to be met in order to maximise this effect: 1) contact should take place between people who perceive themselves as equals (e.g. students, adolescents); 2) contact should take place regularly over an extended period of time; 3) contact should involve co-operation on joint activities or projects; and 4) providing occasions for such contact should be adopted as a systematic policy backed explicitly by authorities (e.g. schools, education authorities, social institutions).

Contact could also happen in alternative settings. For instance, students could encounter peers from different cultural backgrounds through **study-abroad programmes**. Several studies have shown that, when properly organised, such exchange programmes

could lead to greater intercultural competence, less anxiety when dealing with unfamiliar situations and more friendships with people from other cultures (Hammer, 2004_[10]).

Virtual contact has also gained importance in recent years with the expansion of the Internet and the rise of myriad communications software. These new technologies bring intercultural interactions to every home and reduce their costs. Even the most culturally homogenous school or the most economically disadvantaged student can benefit from intercultural contact without the need to travel abroad (Huber et al., 2014_[6]; Fisher, Evans and Esch, 2004_[11]).

Partnerships between schools and organisations, individuals and their local communities could also be used to create opportunities for contact between students and members of other cultural groups (Christou and Puigvert, 2011_[12]). Individuals from other cultural groups could be invited to the school to work with students. Students could visit community organisations or places of worship in their neighbourhood. They could be asked to take note of and reflect critically on their experiences.

Actions based on pedagogic approaches

One effective method of fostering global competence is **co-operative learning** (Johnson, 2009_[13]; Johnson and Johnson, 1999_[14]). This approach involves students working together in pairs or in groups on tasks that involve global issues. Such tasks might focus on environmental issues, gender equality, poverty, hunger and malnutrition, intercultural contact or any other topic. For this activity to be effective, students need to understand that success depends on co-operation and teamwork. Students' work should be assessed individually and collectively. Students should help and encourage each other to complete the task. Students need to be taught the social skills required to support this activity. Group members also need to reflect periodically on how well the group is functioning (Johnson and Johnson, 2009_[15]).

Another pedagogic approach is **project-based learning**, in which students have to deal with real-world situations (Trilling and Fadel, 2009_[16]). Such activities allow students to engage with global issues by planning, designing and investigating a particular topic, and through decision making and problem solving. Those skills extend beyond knowledge of global issues into the practical aspects of managing a project. Projects could be short or lengthy and could involve co-operation or be carried out independently by individual students (Bell, 2010_[17]; Harper, 2015_[18]).

Other pedagogical activities that students could engage in are those that emphasise multiple perspectives, role playing and simulations, where students experience what it is like to be different, marginalised or excluded. They could also analyse texts, films and plays that focus on particular themes of significance (Huber et al., 2014_[6]).

All of these pedagogical activities could overlap with existing subjects and lessons, such as mathematics, science, reading and history. Teachers could adapt the content of their lessons by integrating global issues and choosing the most suitable pedagogy while keeping in mind the overarching learning goals.

Actions based on institutional policies

Developing a **culturally sensitive and inclusive curriculum** is an effective way of promoting intercultural and global education (Barrett, 2018_[19]). School curricula often focus on national histories and cultures of the majority group while neglecting those of minority groups. A culturally inclusive curriculum treats the cultural affiliation of minorities as an asset that enriches the learning experience of all students. The curriculum should cover the histories, beliefs, cultures and contributions of minority groups in a way that reflects the diversity present in the classroom (Nieto, 2000_[20]; Cammarota, 2007_[21]; Sleeter, 2011_[22]).

Diversity and intercultural understanding could be integrated into every aspect of school life through a **whole-school approach** (Huber et al., 2014_[6]). This approach ensures that all aspects of learning are geared towards achieving this goal, not only curriculum content but also school leadership, management, teacher-student relations, governance and decision making, extracurricular activities and codes of conduct (Billot, Goddard and Cranston, 2007_[23]).

The PISA 2018 student and school questionnaires covered a wide range of activities focusing on intercultural learning through individual and co-operative practices, in addition to the promotion of communication with people from other cultures and exchange programmes with schools in other countries. Moreover, the questionnaires covered aspects of institutional policies, such as teachers' multicultural and egalitarian beliefs and students' perceptions of discrimination at school.

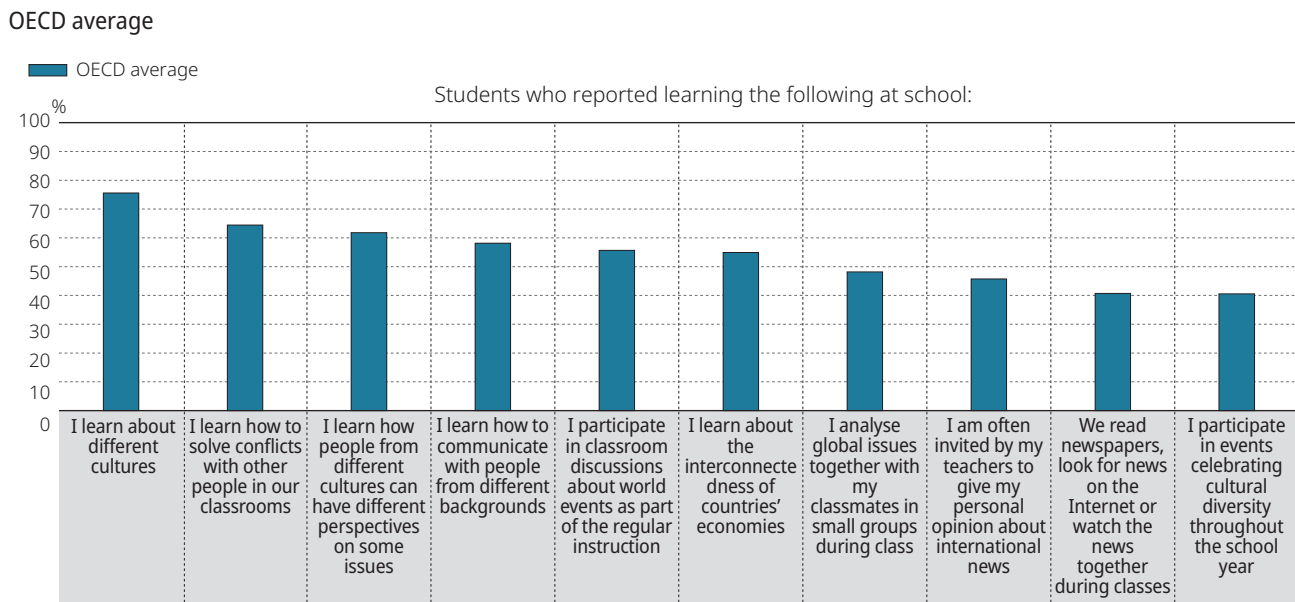
This chapter presents findings from the PISA 2018 student, school and teacher questionnaires. It covers learning activities students are exposed to, the availability of relevant curricula and teachers' capacity to integrate intercultural learning into their lessons. The chapter also explores associations between some of these factors and students' outcomes. It concludes with a discussion about what the findings imply for the UN Sustainable Development Goals (SDGs).

INTERCULTURAL AND GLOBAL LEARNING ACTIVITIES

Availability of learning activities

Students who participated in PISA 2018 were asked ten questions about different learning activities to which they are exposed. The most common activity across OECD countries was learning about different cultures at school: 76% of students reported that they engage in this activity at school (Figure VI.7.1). Some 64% of students reported that they learn how to solve conflicts with other people in the classroom; 62% reported that they learn how people from different cultures can have different perspectives on some issues; 58% reported that they learn how to communicate with people from different backgrounds; 56% reported that they participate in classroom discussions about world events; 55% reported that they learn about the interconnectedness of countries' economies; 48% reported that they analyse global issues together with classmates in small groups during class; 46% reported that they give and discuss personal opinions about international news; 41% reported that they read newspapers, look for news on the Internet or watch the news together during classes; and 41% reported that they participate in events celebrating cultural diversity throughout the school year. The most common activities students engage in are those that involve instruction and learning, rather than those that involve active discussion or participation. This could indicate that current teaching practices rely on teacher-directed instruction rather than participative activities.

Figure VI.7.1 Students engaged in learning opportunities at school



Items are ranked in descending order of the proportion of students who responded "yes".

Source: OECD, PISA 2018 Database, Table VI.B1.7.1.

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The total number of learning activities students are exposed to at school was constructed by summing students' answers to all ten questions. Values in this indicator range between 0 and 10 and give an indication of how systemically these activities are covered at schools. On average across OECD countries, students reported engaging in about five of these learning activities, although this number varies substantially between countries. Across all countries and economies, students in Albania, Baku (Azerbaijan), Colombia, the Dominican Republic, Indonesia, Jordan, Peru, the Philippines, Singapore and Thailand reported engaging in more than seven activities, while students in France, Hungary, Israel, Latvia, the Russian Federation (hereafter "Russia"), Scotland (United Kingdom) and Slovenia reported engaging in fewer than five (Figure VI.7.2). Across all countries and economies, students reported that they engage in at least four learning activities focusing on attitudes and skills for living in an interconnected world. Hence, even in the countries where resources are limited, the number of learning activities available to students is not negligible.

Number of learning activities and students' attitudes

Students' attitudes and dispositions are positively and significantly associated with the number of learning activities in which they are engaged (Table VI.B1.7.11). Those associations remain positive and are not attenuated after accounting for students' and schools' socio-economic profile. The strongest associations were with self-efficacy regarding global issues, awareness of global issues, interest in learning about other cultures and agency regarding global issues (Figure VI.7.3).

Figure VI.7.2 Number of learning activities students engage in at school



1. The global competence sample from Israel does not include students in ultra-Orthodox schools and, thus, is not nationally representative. See PISA 2018 Technical Report (OECD, forthcoming) for details.

Countries and economies are listed in descending order of the number of learning activities students engage in at school.

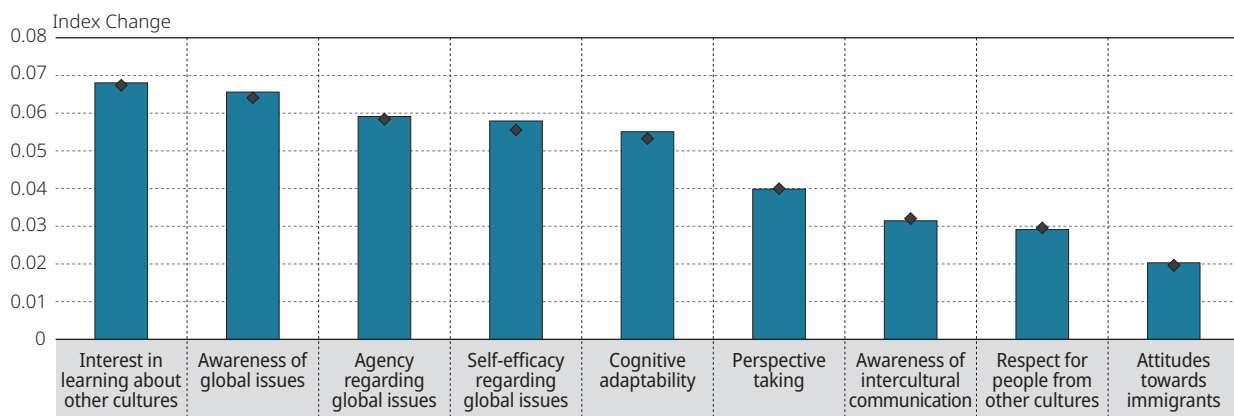
Source: OECD, PISA 2018 Database, Table VI.B1.7.1.

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Figure VI.7.3 Number of learning activities and students' attitudes

OECD average

- Before accounting for gender, immigrant background, students' and schools' socio-economic profile¹
- ◆ After accounting for gender, immigrant background, students' and schools' socio-economic profile



1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Note: All associations are statistically significant.

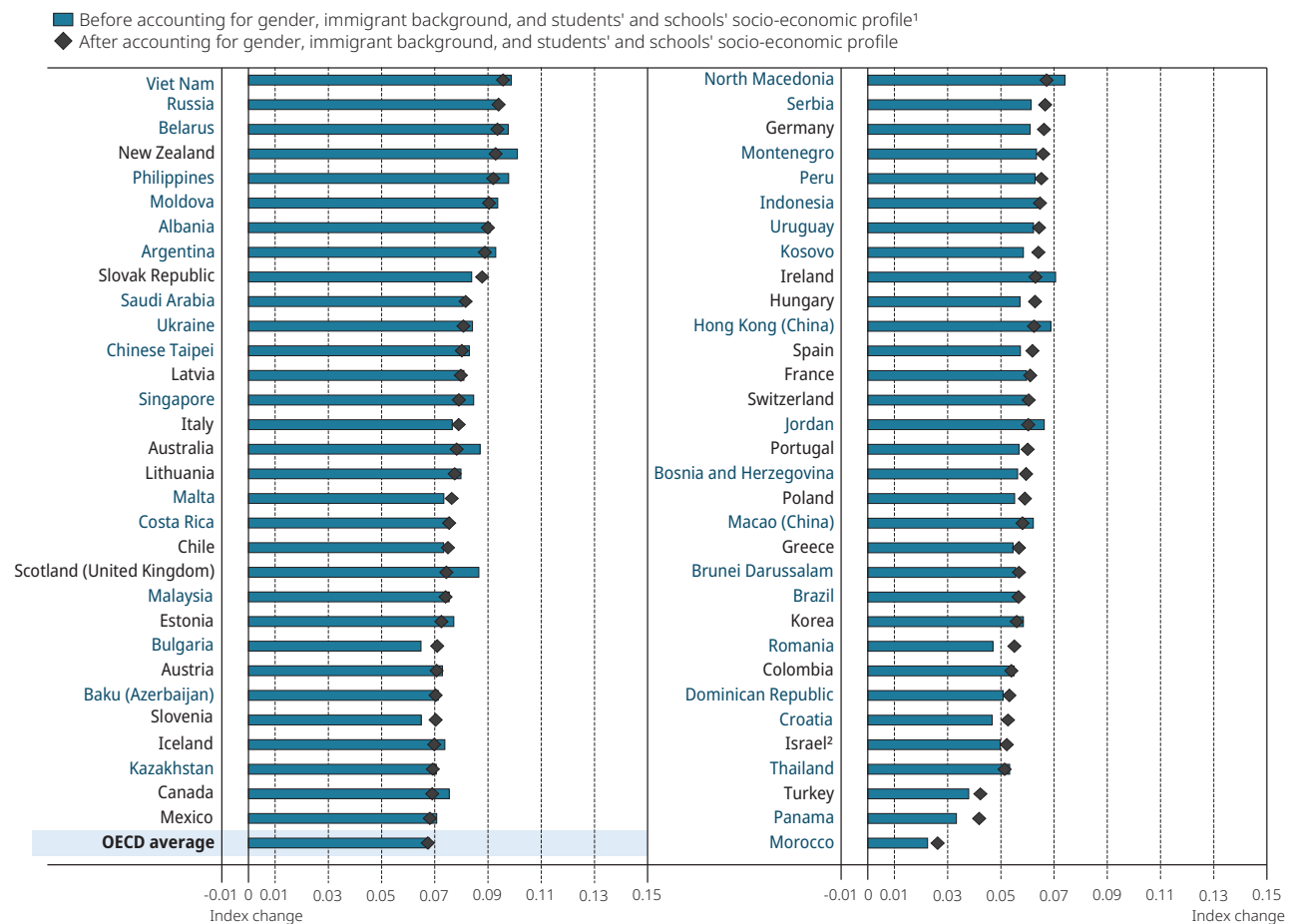
Source: OECD, PISA 2018 Database, Table VI.B1.7.11.

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The strongest, albeit weak, association observed was between the number of learning activities in which students are engaged and students' interest in learning about other cultures. One additional activity in which the student is engaged is associated with a rise of 0.07 of a unit in this index, after accounting for students' and schools' socio-economic profile. This weak association shows that engagement in one learning activity is not enough to improve students' attitudes. Therefore, schools and educators should integrate several activities into their practice, with the aim of creating a comprehensive learning approach that covers various aspects of intercultural understanding. Those practices should also be reviewed and updated as necessary. Associations are strongest in Belarus, the Republic of Moldova (hereafter "Moldova"), New Zealand, Russia, the Philippines and Viet Nam, and weakest in Colombia, Croatia, the Dominican Republic, Israel, Morocco, Panama, Thailand and Turkey (Figure VI.7.4).

Figure VI.7.4 Interest in learning about other cultures and learning activities



1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

2. The global competence sample from Israel does not include students in ultra-Orthodox schools and, thus, is not nationally representative. See PISA 2018 Technical Report (OECD, forthcoming) for details.

Note: All associations are statistically significant.

Countries and economies are ranked in descending order of the strength of the association, after accounting for gender, immigrant background and students' and schools' socio-economic profile.

Source: OECD, PISA 2018 Database, Table VI.B1.7.11.

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Associations between students' attitudes and opportunities to learn

In general, students who reported that they engage in learning opportunities that focus on living in an interconnected world tended to exhibit more positive attitudes than those who did not so report. However, the strength and statistical significance of the associations between students' attitudes and their engagement in learning activities vary between countries/economies and according to which learning activities or attitudes are being considered. The following section examines students' attitudes in relation to their engagement in the ten learning activities.

Self-efficacy regarding global issues

Students who engage in learning activities focusing on intercultural understanding and on living in an interconnected world reported greater self-efficacy regarding global issues (Table VI.B1.7.2). Those positive differences were observed in almost every country/economy.

On average across OECD countries, the largest differences in reported self-efficacy regarding global issues between students who engage in learning activities and those who do not were found in relation to participating in classroom discussions about world events (difference of 0.31 of a unit in the index of self-efficacy regarding global issues) and learning how people from different cultures can have different perspectives on some issues (difference of 0.28 of a unit in that index). Differences in reported self-efficacy regarding global issues between the two groups of students amounted to 0.24 of a unit in the index in favour of students who engage in learning activities about the interconnectedness of countries' economies, learning about different cultures and analysing global issues with classmates. Differences were narrower for all other learning activities.

This finding shows that students report greater self-efficacy about global issues when they learn about them at school. Other activities focusing on interpersonal skills, such as communication, conflict resolution and participation in intercultural activities, are associated with smaller differences in self-efficacy regarding global issues.

Awareness of global issues

Positive and relatively large differences in awareness of global issues were observed among students who learn about other cultures, participate in classroom discussions about world events and learn how people from different cultures can have different perspectives (Table VI.B1.7.3). Differences were narrower between students who engage in the other learning activities, especially those focusing on following or watching the news during classes and on celebrating cultural diversity at school. Differences were positive in almost all countries and economies and on average across OECD countries.

Understanding the perspectives of others

Small differences in students' capacity to understand the perspectives of others were observed between those who engage in learning activities at school and those who do not (Table VI.B1.7.4). As expected, on average across OECD countries, the largest difference (0.22 of a unit in the index of perspective taking) was observed between students who reported that they learn that people from different cultures could have different perspectives and worldviews compared to those who do not engage in such activities. This is followed by differences between those who learn how to resolve conflicts (0.2 of a unit in the index), those who learn about other cultures (0.19 of a unit in the index) and those who learn how to communicate with people from other cultures (0.18 of a unit in the index).

This finding shows that students were more likely to report that they understand the perspectives of others when they learn about other cultures and when they develop certain interpersonal skills, such as communication and conflict resolution.

Interest in learning about other cultures

Large differences in students' interest in learning about other cultures (exceeding 0.3 of a unit in the index, on average across OECD countries) were observed between students who engage in the following activities and those who do not: learning about other cultures at school; learning that people from different backgrounds can have different perspectives; and participating in classroom discussions about world events (Table VI.B1.7.5). Differences were smaller for the other learning activities, but were positive and significant in almost all countries/economies.

Respect for people from other cultures

Two learning activities are associated with differences in students' respect for people from other cultures: learning about other cultures and learning how people from different backgrounds can have different perspectives on some issues. All other learning activities are associated with minor differences in this index, with some differences that are statistically non-significant (Table VI.B1.7.6). Unlike other attitudes, respect for people from different backgrounds is not positively related to all teaching activities, but only to those focused on intercultural knowledge and competence. This indicates that respect may be more difficult to teach and that developing this attitude may depend on factors beyond the school environment.

Attitudes towards immigrants

Similar results were observed for students' attitudes toward immigrants. Positive and significant differences were only found between students who learn about other cultures and learn that different people can have different perspectives and students who do not engage in these learning activities. Other learning opportunities are either not associated with differences in attitudes towards immigrants or are associated with minor differences. This is another indication that some learning opportunities may be more effective in developing certain skills or attitudes than others (Table VI.B1.7.7).

Cognitive adaptability

Students who engage in learning activities that focus on communication with people from other cultures and on understanding the perspective of others and who participate in classroom discussions of world events reported greater cognitive adaptability (Table VI.B1.7.9). Positive but smaller differences were observed for the other learning opportunities considered.

Awareness of intercultural communication

Students reported greater awareness of intercultural communication when they engage in learning opportunities that focus on understanding the perspective of others and on communicating across different cultures, when they participate in classroom activities focusing on world events and when they learn about other cultures (Table VI.B1.7.8). Minor differences in this index were observed when students engage in the other learning activities considered.

Agency regarding global issues

Agency regarding global issues is positively associated with most learning activities at school (Table VI.B1.7.10). On average across OECD countries, the largest differences in this index were observed for engaging in the following learning activities: classroom discussions of world events; analysing global issues with classmates; and learning how people from different cultures can have different perspectives on some issues. It is clear that agency regarding global issues is associated with exposure to these issues at school. Students who learn about these topics are likely to develop more positive attitudes about them.

In summary, the results show that positive attitudes and dispositions are positively related to the use of a multitude of learning activities at school. Activities focusing on knowledge of global issues and on the interconnectedness of the world are likely to boost students' awareness and self-efficacy regarding global issues. Activities focusing on fostering interpersonal skills, such as communication and conflict resolution, are likely to boost students' ability to understand different perspectives and to communicate with others. Hence, a complementary set of learning activities should be used to develop a comprehensive set of skills that students need to live in an interconnected world.

Two attitudes, respect for people from other cultures and attitudes towards immigrants, are weakly associated with learning activities at school. This could indicate that those two attitudes are more influenced by the wider environment than by what happens at school. Among other factors, the wider environment includes the home and exposure to the media and the Internet.

Two activities, learning about other cultures and learning that different people can have different perspectives about some issues, stand out as two of the most common learning activities reported by students and the two activities positively associated with all attitudes. These two activities encompass elements of knowledge about other cultures as well as certain skills, such as critical and analytical thinking. In this sense, it is important that schools equip students not only with conceptual knowledge about other cultures, but also with skills that they could adapt and use under various circumstances.

Box VI.7.1. Reading and students' global and intercultural knowledge, skills attitudes.

Existing research shows that reading is a powerful strategy to improve out-group attitudes including tolerance, perspective taking and empathy towards marginalised groups such as immigrants and refugees (Bal and Veltkamp, 2013^[24]). Those findings are supported by both experimental and non-experimental evidence (Vezzali et al., 2014^[25]). Results from the PISA 2018 survey also support these findings. Students who enjoy reading and who perform well on the reading test report more positive attitudes and dispositions and a heightened awareness about global and intercultural issues. The examined indices are: awareness of global issues; self-efficacy regarding global issues; interest in learning about other cultures; respect towards people from other cultures; attitudes towards immigrants; perspective taking; cognitive adaptability; awareness of intercultural communication; and agency regarding global issues.

Associations between the index of students' enjoyment of reading and all nine indices covering students' knowledge, attitudes and dispositions were positive across all countries and economies. The associations were moderate in magnitude but were not attenuated when students' and schools' socio-economic profiles were accounted for (Table VI.B1.7.18). Moreover, students who perform well on the reading test reported more positive attitudes and dispositions. The associations between performance on the reading test and students' attitudes and dispositions were positive and statistically significant across most countries and economies, but weak in magnitude (Table VI.B1.7.19).

MULTICULTURAL LEARNING AT SCHOOL

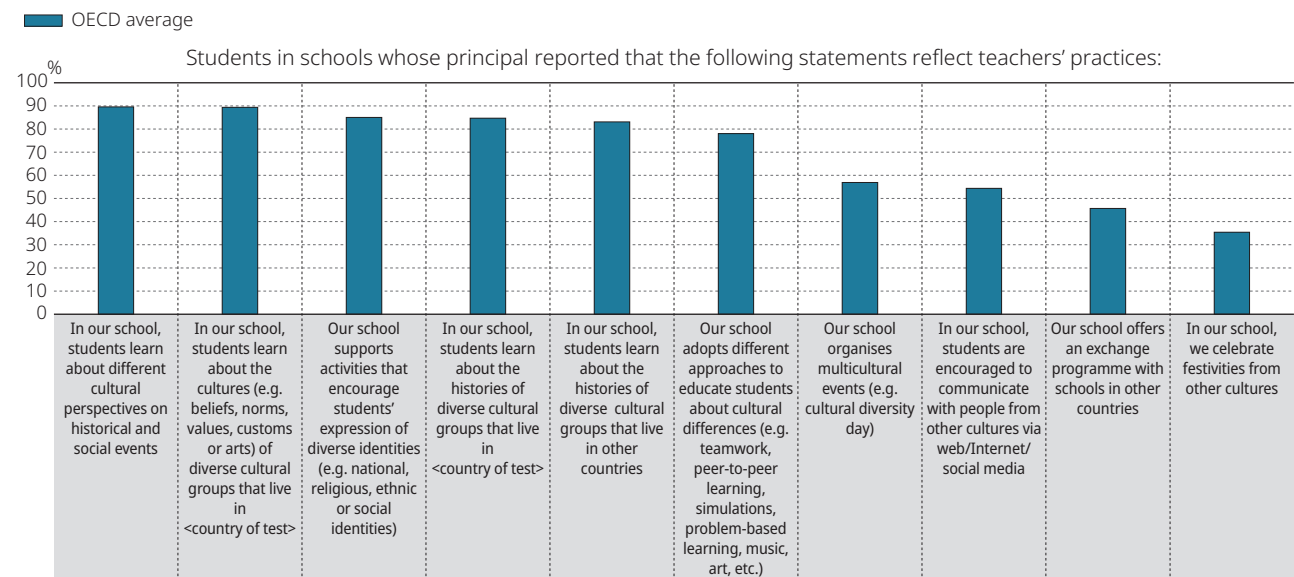
Learning opportunities at school

School principals were asked ten questions about whether particular intercultural learning activities are included in lessons and activities at their school. These activities covered: 1) learning about the histories of diverse cultural groups that live in the country where students sat the PISA test (hereafter “the country of assessment”); 2) learning about the histories of diverse cultural groups that live in other countries; 3) learning about the beliefs, norms, values, customs and arts of diverse cultural groups that live in the country of assessment; 4) learning about different cultural perspectives on historical and social events; 5) supporting activities that encourage students’ expression of diverse identities; 6) offering an exchange programme with schools in other countries; 7) organising multicultural events; 8) celebrating festivities from other cultures; 9) encouraging students to communicate with people from other cultures via web/Internet/social media; and 10) educating students about cultural differences through teamwork, peer-to-peer learning, simulations, problem-based learning, music and art.

The questions cover different learning activities that could help develop students’ intercultural understanding. The findings show that, on average across OECD countries, the most common activities reported by school principals were those that took place in a classroom, such as learning about the histories and cultures of diverse groups living inside and outside of the country of assessment. In 2018, between 80% and 90% of students, depending on the activity considered, attended a school whose principal reported that these activities are included in school lessons (Figure VI.7.5). The least common activities were participative activities, such as celebrating festivities from other cultures (35% of students attended a school whose principal reported that this is done in the school), activities involving student exchanges (46%) and activities involving interactions with students in other countries using the Internet or social media (54%).


Figure VI.7.5 **Multicultural learning at school**

Based on principals’ reports, OECD average



Items are ranked in descending order of the proportion of students in schools whose principal reported that the statements reflect teachers’ practices in their school.

Source: OECD, PISA 2018 Database, Table VI.B1.7.12.

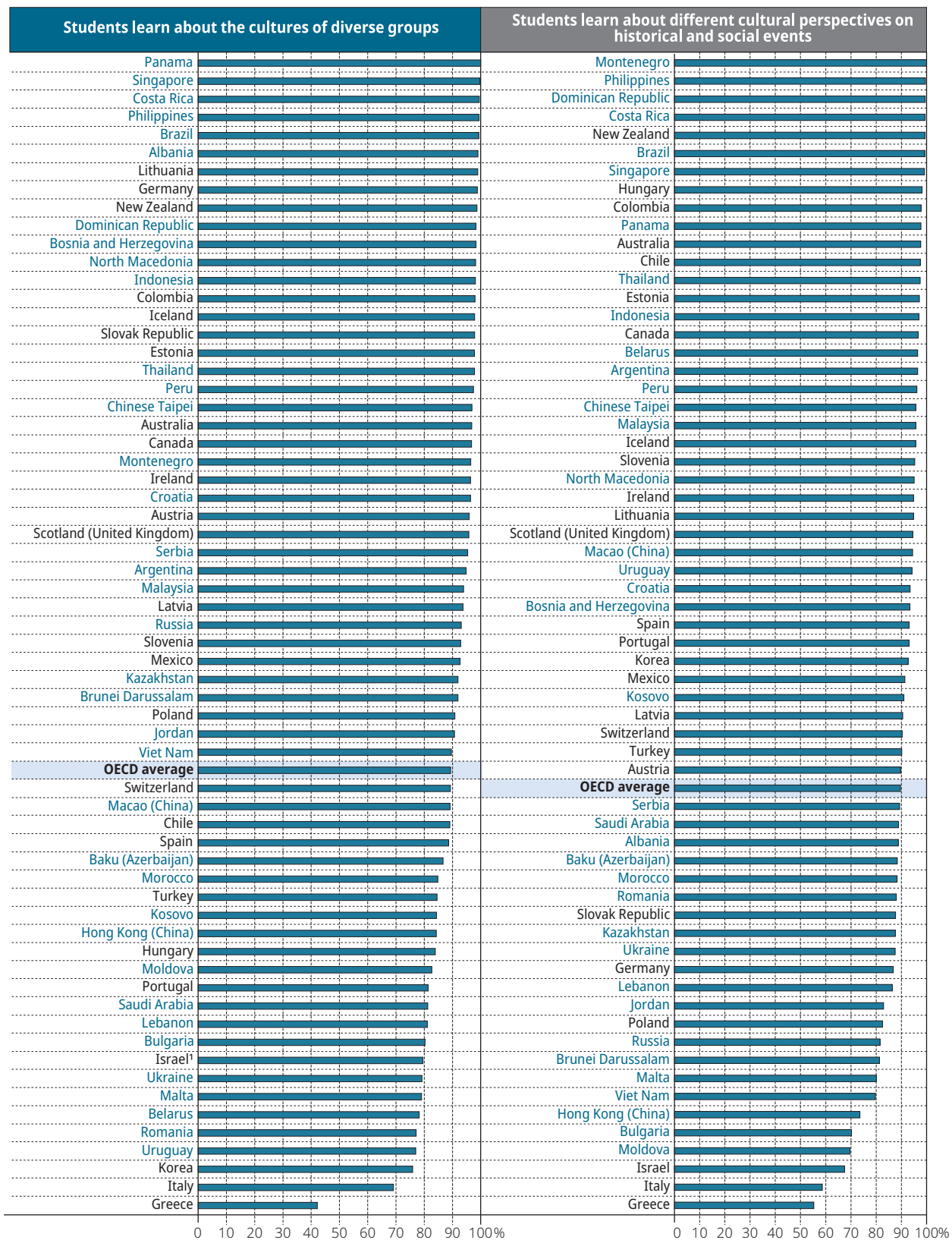
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The most common activities were learning about the beliefs, norms, values, customs and arts of diverse cultural groups that live in the country of assessment and learning about different cultural perspectives on historical and social events. About 90% of students attended a school whose principal reported that those two activities take place in their school. However, there were some variations across participating countries and economies (Figure VI.7.6). Learning about the beliefs, norms, values, customs and arts of diverse cultural groups was most prevalent in Albania, Brazil, Costa Rica, Panama, the Philippines and Singapore, with 99% of students attending a school whose principal reported that this activity is included in lessons. This could indicate that these activities are mandated in national curricula. This activity was least common in Greece and Italy.

Another common school practice is learning about different cultural perspectives on historical and social events. At least 98% of students in Brazil, Costa Rica, the Dominican Republic, Hungary, Montenegro, New Zealand, the Philippines and Singapore are exposed to this activity in school. This activity was least common in Greece, Israel, Italy and Moldova.

Figure VI.7.6 Learning about different cultural groups

Based on principals' reports



1. The global competence sample from Israel does not include students in ultra-Orthodox schools and, thus, is not nationally representative. See PISA 2018 Technical Report (OECD, forthcoming) for details.

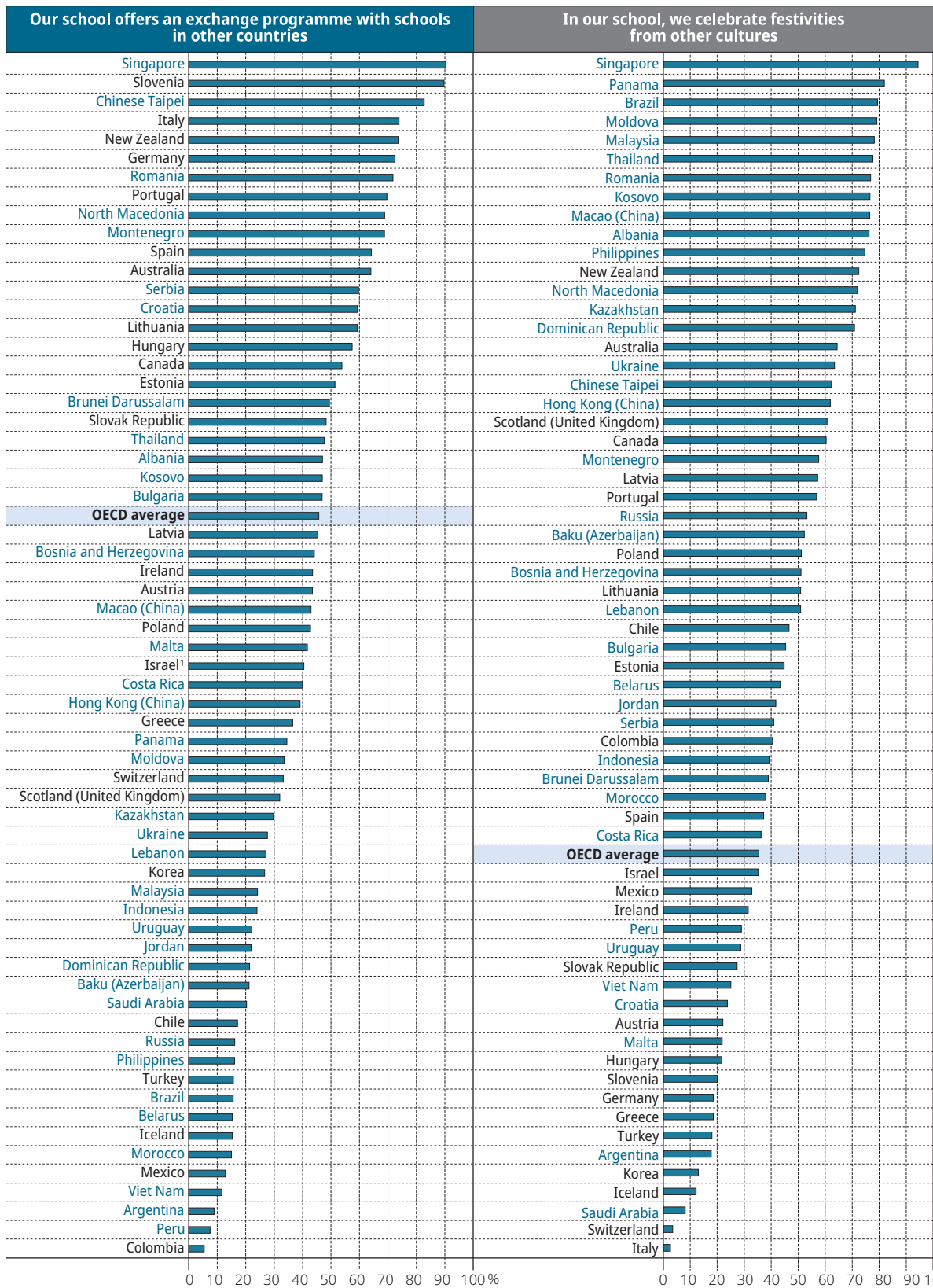
Countries and economies are ranked in descending order of the percentage of students in schools whose principal reported that this activity takes place in their school.

Source: OECD, PISA 2018 Database, Table VI.B1.7.12.

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Figure VI.7.7 Student exchanges and celebrations of cultural festivities

Based on principals' reports



The least common activities are celebrations of festivities of other cultures and student exchanges with schools from other countries. On average across OECD countries in 2018, only 35% of students attended a school whose principal reported that the school celebrates the festivities of other cultures. However, the proportion was much larger (exceeding 75%) in Albania, Brazil, Kosovo, Macao (China), Malaysia, Moldova, Panama, Romania, Singapore and Thailand. In Singapore, 94% of students attended such a school, while less than 10% of students in Italy, Saudi Arabia and Switzerland attended such a school (Figure VI.7.7).

Some 46% of students attended a school whose principal reported that the school organises student exchanges with schools abroad. Around 90% of students in Singapore and more than 70% of students in Germany, Italy, New Zealand, Romania, Slovenia and Chinese Taipei attended such a school. This activity was least common in Argentina, Colombia and Peru. Some of these variations could reflect the high financial cost of student exchange programmes and the logistical difficulty associated with organising them.

The school curriculum

School principals were asked two sets of questions about the inclusion of global issues and of intercultural knowledge and skills in their school's curriculum. The first set of questions focused on the same global issues that students were asked about: climate change and global warming; global health (e.g. epidemics); migration (movement of people); international conflicts; hunger or malnutrition in different parts of the world; causes of poverty; and equality between men and women in different parts of the world.

The second set of questions asked school principals whether intercultural learning is covered in the curriculum. The questions focused on the same dispositions that students were asked about: communication with people from different cultures; knowledge of different cultures; openness to intercultural experiences; respect for cultural diversity; learning foreign languages; and critical-thinking skills.

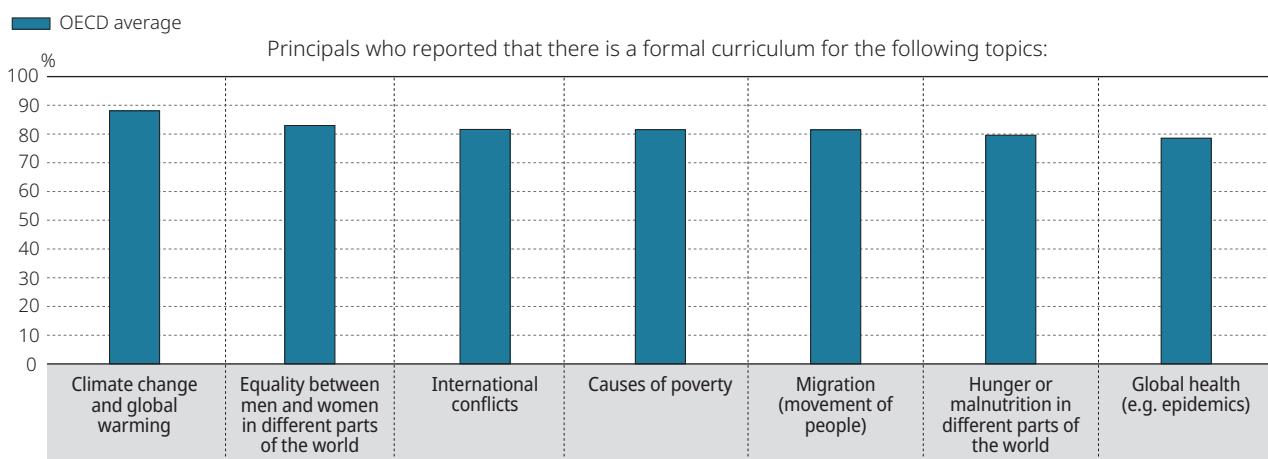
The following section explores the content of school curricula and the associations between the availability of learning opportunities and students' knowledge and attitudes.

Global issues

PISA 2018 results show that global issues are commonly included in school curricula (Figure VI.7.8). The most common topic was global warming and climate change, with 88% of students attending a school whose principal reported that the subject is covered in the curriculum. Some 81% of students attended a school whose principal reported that the curriculum covers migration, international conflicts and causes of poverty; 80% attended a school whose principal reported that the curriculum covers hunger and malnutrition; and 79% attended a school whose principal reported that the curriculum covers public health issues, such as pandemics.

Figure VI.7.8 **Global issues covered in the curriculum**

Based on principals' reports, OECD average



Issues are ranked in descending order of the proportion of students in schools whose principal reported that the topic is covered in the curriculum.

Source: OECD, PISA 2018 Database, Table VI.B1.7.13.

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Variations were observed across countries/economies (Table VI.B1.7.13). For instance, global warming and climate change were almost universally included in the curriculum in schools in Hong Kong (China), Korea, Lithuania, Macao (China), Peru, Poland and Thailand. In these countries/economies, more than 98% of students attended a school whose principal reported that climate change is included in the curriculum. In Baku (Azerbaijan), Israel, Italy, Kazakhstan and Moldova, less than 60% of students attended such schools.

Public health issues, such as pandemics, are covered in the curriculum in most schools. More than 95% of students in Hong Kong (China), Lithuania, Poland, Russia and Thailand were exposed to these issues at school, while these subjects were infrequently covered in schools in Baku (Azerbaijan), Colombia, Israel and Italy (Figure VI.7.9).

More than 95% of students in the Dominican Republic, Latvia, Lithuania, Poland, Russia and Ukraine attended a school whose principal reported that the curriculum includes migration and the movement of people, while less than 50% of students in Baku (Azerbaijan), Israel and Italy attended such schools. In the Dominican Republic, New Zealand and Poland, more than 95% of students attended a school whose principal reported that the curriculum covers international conflicts. That proportion was much smaller and did not exceed 50% in Baku (Azerbaijan), Bulgaria, Italy, Kazakhstan and Moldova.

Figure VI.7.9 **Public health issues covered in the curriculum**


Percentage of students in schools whose principal reported that public health issues are covered in the curriculum, based on principals' reports



1. The global competence sample from Israel does not include students in ultra-Orthodox schools and, thus, is not nationally representative. See PISA 2018 Technical Report (OECD, forthcoming) for details.

Countries and economies are shown in descending order of the percentage of students in schools whose principal reported that public health issues are covered in the curriculum.

Source: OECD, PISA 2018 Database, Table VI.B1.7.13.

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More than 90% of students in Brunei Darussalam, the Dominican Republic, Ireland, Korea, Latvia, Lithuania, Morocco, Poland, Russia and Thailand attended a school whose principal reported that the curriculum covers hunger and malnutrition. This proportion did not exceed 45% in Israel, Italy, Kazakhstan and Moldova. Moreover, more than 95% of students in the Dominican Republic, Ireland, Poland and Thailand attended a school whose principal reported that the causes of poverty are examined as part of the school curriculum, while less than 50% of students in Belarus, Bulgaria, Israel, Italy, Kazakhstan, Moldova and Serbia attended such schools.

In Costa Rica, the Dominican Republic, France, Iceland, Korea, Lithuania, Peru, Poland, Russia, Spain, Chinese Taipei, Thailand and Uruguay, more than 90% of students attended a school whose principal reported that the curriculum covers gender equality. By contrast, in Belarus, Bulgaria, Israel, Italy, Kazakhstan, Moldova, Saudi Arabia and Serbia, less than 60% of students attended such schools.

In a few countries and economies, covering global issues in the school curriculum was positively associated with students' awareness of those issues, after accounting for students' and schools' socio-economic profile. These positive associations were not influenced by response style, because coverage of the issues in the curriculum was reported by school principals, while awareness of the issues was reported by students. Hence, positive associations indicate that exposure to learning activities at school could improve students' knowledge. However, those associations held in a small number of countries and economies.

The strongest associations were found between coverage of climate change and global warming in the curriculum and students' awareness of this issue. On average across OECD countries, students who attended schools that cover climate change in the curriculum were 12% more likely to be aware of this issue than those who attended schools where the topic is not covered. The next strongest associations between topics covered in the curriculum and students' awareness about an issue were: 1) migration and movement of people; and 2) causes of poverty. Students whose school curriculum covers these topics were 8% more likely to be aware of these issues.

However, there were substantial variations across countries in the strength of the associations. Figure VI.7.10 shows whether the associations were positive, negative or non-significant. Results are based on logistic regressions after accounting for students' and schools' socio-economic profile. Associations between covering climate change in the curriculum and students' awareness of that issue were positive in seven countries/economies and negative in four, while associations related to migration and movement of people were positive in seven countries/economies, and those related to international conflicts were positive in ten.

Moreover, in seven countries/economies, students' awareness of hunger and malnutrition was positively associated with this topic being included in the curriculum. In six countries/economies, a similarly positive association was observed between students' awareness of the causes of poverty and covering this topic in the curriculum.

Intercultural learning

In many countries/economies, intercultural learning skills are covered by school curricula (Figure VI.7.11). The most common topic covered by the curriculum is respect for cultural diversity: 87% of students attended a school whose principal reported that the curriculum includes this topic. Some 85% of students attended a school whose principal reported that the curriculum includes critical thinking skills; 81% attended a school whose principal reported that the curriculum includes knowledge of different cultures; 70% attended a school whose principal reported that the curriculum includes openness to intercultural experience; and 50% of students attended a school whose principal reported that the curriculum includes communicating with people from other cultures.

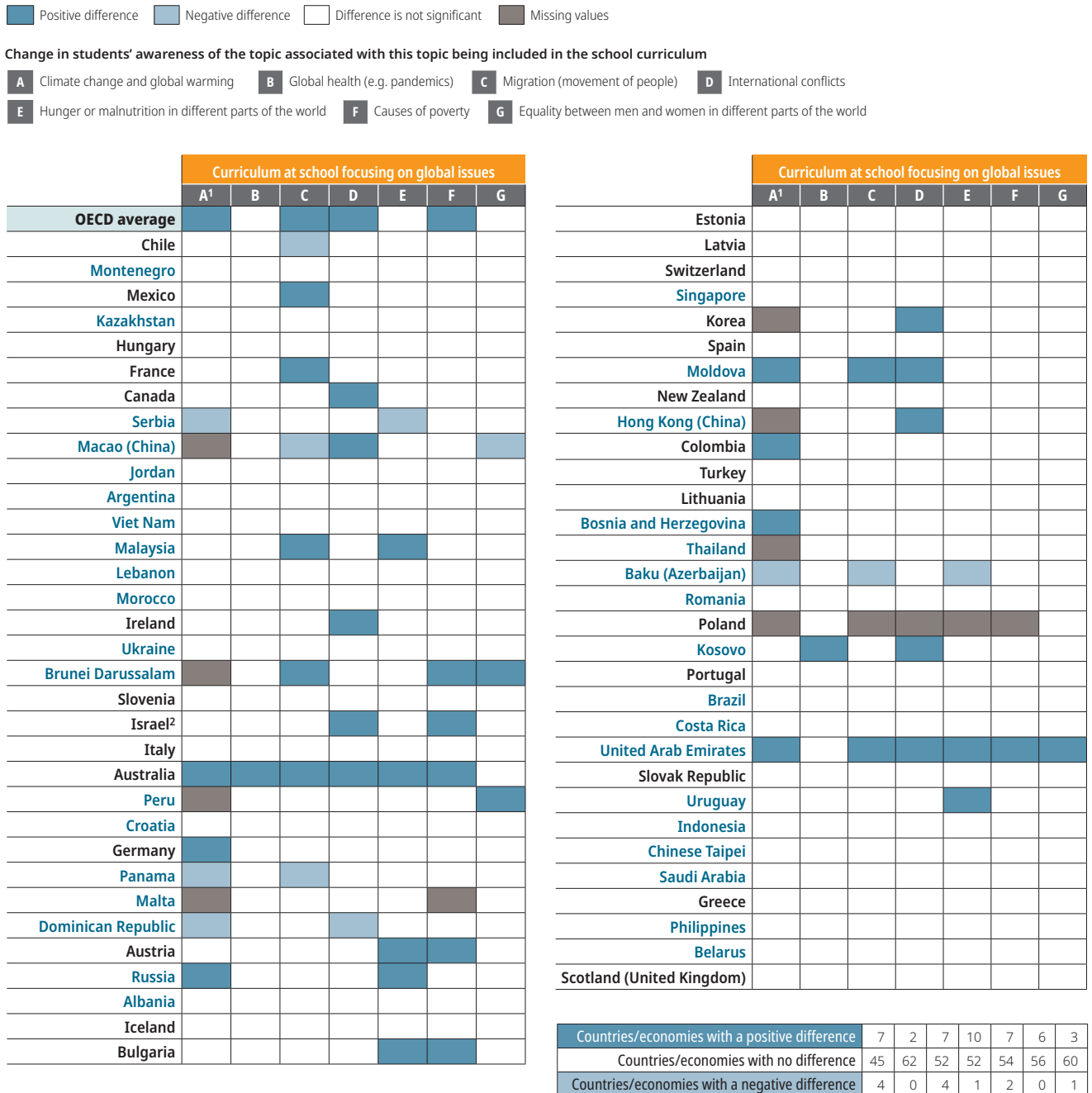
The prevalence of these activities varied substantially across countries and economies (Table VI.B1.7.14). More than 80% of students in the Dominican Republic, Poland, Russia and Thailand attended a school whose principal reported that the curriculum includes communication skills. The proportions were much smaller and did not exceed 30% in Bulgaria, Colombia, Ireland, Scotland (United Kingdom) and Serbia. At least 90% of students in Costa Rica, the Dominican Republic, France, Germany, Latvia, Lithuania, Poland, Russia, the Slovak Republic, Slovenia, Spain, Thailand and Ukraine attended a school whose principal reported that the curriculum includes knowledge of other cultures. Less than 50% of students in Bulgaria, Italy and Serbia attended such schools.

In the Dominican Republic, Poland, Russia, Thailand and Ukraine, more than 90% of students attended a school that has a formal curriculum on openness to other cultures. In Belarus, Bulgaria, Colombia, Moldova, Montenegro and Serbia, less than 50% of students attended such schools.

Respect for cultural diversity is the topic most widely covered in school curricula: more than 90% of students in 31 countries and economies attended a school where this topic is included in the curriculum. In no country or economy was the proportion of students who attended such schools below 50%.

Critical thinking skills are included in the school curriculum in 23 countries and economies with more than 90% of students attended such schools. More than 98% of students in Austria, the Dominican Republic, Macao (China), Poland and Thailand attended a school whose principal reported that the curriculum includes critical thinking skills, while less than 50% of students in Belarus and Serbia attended such schools.

Figure VI.7.10 Coverage in the curriculum and students' awareness of global issues



1. After accounting for students' and schools' socio-economic profile. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

2. The global competence sample from Israel does not include students in ultra-Orthodox schools and, thus, is not nationally representative. See PISA 2018 Technical Report (OECD, forthcoming) for details.

Countries and economies are listed in alphabetical order.

Source: OECD, PISA 2018 Database, Table VI.B1.7.13.


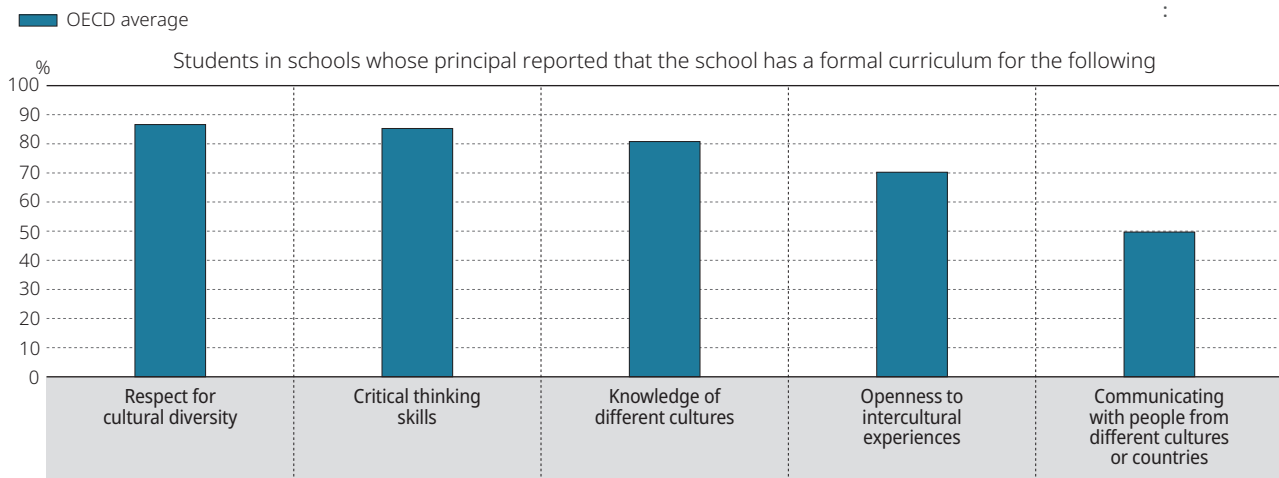
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Figure VI.7.11 Intercultural learning covered in the curriculum

Based on principals' reports, OECD average



Items are ranked in descending order of the percentage of students in schools whose principal reported that the issues are covered in the curriculum.

Source: OECD, PISA 2018 Database, Table VI.B1.7.14.

StatLink <https://doi.org/10.1787/888934170754>

Figure VI.7.12 [1/2] Curriculum coverage and students' intercultural attitudes

Positive difference Negative difference Difference is not significant Missing values

Change in students' awariness of the topic associated with this topic being included in the school curriculum

- A Students' awareness of intercultural communication and learning communication skills
- B Students' interest in learning about other cultures and learning about different cultures
- C Students' interest in learning about other cultures and learning about openness to other cultures
- D Students' respect for people from other cultures and learning respect for cultural diversity
- E Students' perspective taking and learning critical thinking skills
- F Students' cognitive adaptability and learning critical thinking skills

	Based on students' and principals' reports					
	A ¹	B	C	D	E	F
OECD average						
Chile						
Montenegro						
Mexico						
Kazakhstan						
Hungary						
France						
Canada						
Serbia						
Macao (China)						
Jordan						
Argentina						
Viet Nam						
Malaysia						
Lebanon						
Morocco						
Ireland						
Ukraine						
Brunei Darussalam						

	Based on students' and principals' reports					
	A ¹	B	C	D	E	F
Slovenia						
Israel ²						
Italy						
Australia						
Peru						
Croatia						
Germany						
Panama						
Malta						
Dominican Republic						
Austria						
Russia						
Albania						
Iceland						
Bulgaria						

Countries/economies with a positive difference	5	3	4	2	5	4
Countries/economies with no difference	54	56	57	56	56	55
Countries/economies with a negative difference	5	1	1	1	0	2

1. After accounting for students' and schools' socio-economic profile. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

2. The global competence sample from Israel does not include students in ultra-Orthodox schools and, thus, is not nationally representative. See PISA 2018 Technical Report (OECD, forthcoming) for details.

Countries and economies are listed in alphabetical order.

Source: OECD, PISA 2018 Database, Table VI.B1.7.14.

StatLink <https://doi.org/10.1787/888934170773>

Figure VI.7.12 [2/2] **Curriculum coverage and students' intercultural attitudes**

Positive difference Negative difference Difference is not significant Missing values

Change in students' awareness of the topic associated with this topic being included in the school curriculum

A	Students' awareness of intercultural communication and learning communication skills	D	Students' respect for people from other cultures and learning respect for cultural diversity
B	Students' interest in learning about other cultures and learning about different cultures	E	Students' perspective taking and learning critical thinking skills
C	Students' interest in learning about other cultures and learning about openness to other cultures	F	Students' cognitive adaptability and learning critical thinking skills

	Based on students' and principals' reports					
	A ¹	B	C	D	E	F
Estonia						
Latvia	Positive					
Switzerland						
Singapore		Positive			Positive	
Korea						Negative
Spain	Positive					
Moldova	Negative					
New Zealand						
Hong Kong (China)						
Colombia						
Turkey						
Lithuania						
Bosnia and Herzegovina						Negative
Thailand		Missing		Missing	Missing	Missing
Baku (Azerbaijan)						
Romania						
Poland		Missing		Missing	Missing	Missing
Kosovo						

	Based on students' and principals' reports					
	A ¹	B	C	D	E	F
Portugal						
Brazil						
Costa Rica		Missing		Missing		
United Arab Emirates	Positive	Missing	Missing			
Slovak Republic	Positive					
Uruguay						
Indonesia						
North Macedonia	Missing		Negative			
Chinese Taipei						
Saudi Arabia						
Greece						
Philippines						
Belarus						
Scotland (United Kingdom)						


Countries/economies with a positive difference	5	3	4	2	5	4
Countries/economies with no difference	54	56	57	56	56	55
Countries/economies with a negative difference	5	1	1	1	0	2

1. After accounting for students' and schools' socio-economic profile. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

2. The global competence sample from Israel does not include students in ultra-Orthodox schools and, thus, is not nationally representative. See PISA 2018 Technical Report (OECD, forthcoming) for details.

Countries and economies are listed in alphabetical order.

Source: OECD, PISA 2018 Database, Table VI.B1.7.14.

StatLink  <https://doi.org/10.1787/888934170773>

Incorporating intercultural learning topics in the curriculum was correlated with students' attitudes in only a few countries. The associations were mostly weak and sometimes of an unexpected negative sign. For instance, associations between students' awareness of intercultural communication and including communication skills in the curriculum were positive in five countries or economies and negative in another five. Associations between students' interest in learning about other cultures and including knowledge about other cultures in the curriculum were positive in three countries/economies, while the association between students' interest in learning about other cultures and including openness to other cultures in the curriculum were positive in four countries/economies. Associations between students' capacity to understand the perspectives of others and including critical thinking skills in the curriculum were positive in five countries/economies (Figure VI.7.12).

The findings based on data reported by school principals show that, in most countries/economies, global issues and intercultural learning are covered by school curricula, but in varying degrees. In some countries/economies, these topics are almost universally covered by schools, but including them in the curriculum was not positively associated with the corresponding attitudes among students. A possible explanation is that the effectiveness of the intended curriculum depends on teachers' capacity to successfully integrate these topics into their lessons.

ARE TEACHERS PREPARED TO TEACH GLOBAL COMPETENCE?

Teachers participating in PISA 2018 were asked three sets of questions about their readiness to teach their students the skills needed to live in an interconnected world. The questions focused on teachers' professional development needs, opportunities to promote intercultural skills in lessons and their sense of self-efficacy in teaching those topics. Teachers in 18 countries and economies completed the teacher questionnaire.

As noted in Chapter 2, teachers were sampled as part of one of two populations: language teachers and non-language teachers. Moreover, students and teachers were sampled randomly and independently within each school. In other words, it was not possible to determine whether an individual teacher was teaching a particular student. In order to analyse student and teacher data jointly, teacher-reported data were aggregated at the school level. Therefore, any teacher-level variable should be interpreted as a school average of what the teachers within each school reported. For a detailed description of the sampling procedures and the aggregation procedure, see (Mostafa and Pál, 2018_[26]).

Teachers' professional development

A pressing concern for many education systems is to ensure that students acquire the skills and competencies they need to live in a complex and changing world. Against this backdrop, teachers must continuously update and adapt their skills to the needs of their students. Education systems have sought to support their teachers by designing, implementing and promoting diverse forms of continuous professional development. This topic was covered in detail by the OECD Teaching and Learning International Survey (TALIS) in its two most recent reports (OECD, 2019_[27]; OECD, 2020_[28]). In this section, the focus is on the intercultural aspects of teacher training and preparedness.

Teachers were asked four yes-or-no questions about whether they received training in teaching in multicultural or multilingual settings, second-language teaching, teaching intercultural communication skills, and teaching about equity and diversity. The questions covered training in teachers' development programmes and in-service training during the 12 months prior to the PISA 2018 assessment.

Findings show that few teachers had attended those activities in their professional development programmes, and even fewer had done so in the previous 12 months. On average across all countries/economies, about 30% of students attended a school whose teachers received professional development on teaching in multicultural or multilingual settings, second-language teaching or teaching intercultural communication skills in their teacher development programmes, while about 45% of students attended a school whose teachers received training on teaching about equity and diversity. Proportions were particularly larger than the overall average in Albania and Malaysia. The proportions were smaller for training activities attended in the previous 12 months. Only around 20% of students attended a school whose teachers had participated in training activities in the first three areas, and 30% of students attended a school whose teachers reported that they had participated in training on equity and diversity in the previous 12 months (Table VI.B1.7.15).

Teachers were asked five other questions about whether they received professional development for teaching in multicultural settings. The findings show that 30% to 60% of students attended a school whose teachers reported receiving training in the different areas (Figure VI.7.13). For instance: 59% of students attended a school whose teachers reported that they had received training on conflict resolution; 48% attended a school whose teachers reported that they had received training on the role of education in confronting discrimination; 37% attended a school whose teachers reported that they had received training on culturally-responsive teaching approaches; 34% attended a school whose teachers reported that they had received training on intercultural communication; and 33% attended a school whose teachers reported that they had received training on teaching in multicultural classrooms.

Teachers were also asked a set of four questions about their professional development needs. Their answers were given on a four-point scale: "No need at present", "low level of need", "moderate level of need" and "high level of need". The questions covered the need for training in teaching in a multicultural or multilingual setting, second-language teaching, teaching intercultural communication skills and teaching about equity and diversity.

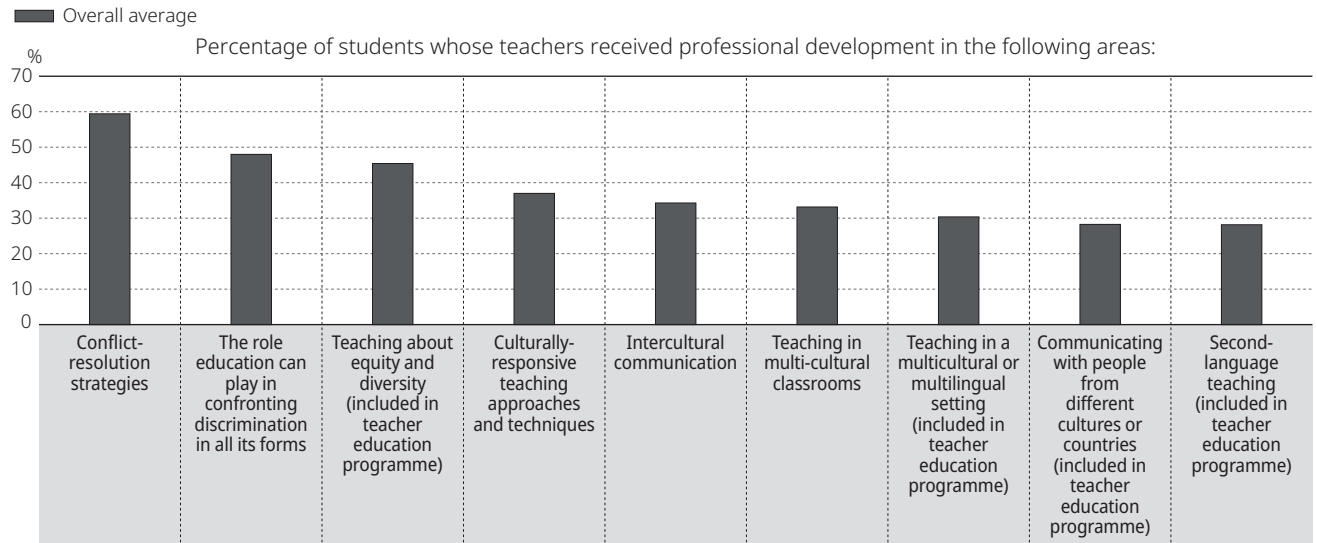
On average across the 18 countries and economies that distributed the teacher questionnaire, 54% of students attended a school whose teachers reported a moderate or high need for professional development in teaching in multicultural and multilingual settings; 46% attended a school whose teachers reported a moderate or high need for training in teaching intercultural communication; 45% of students attended a school whose teachers reported a moderate or high need for training in teaching second languages; and 42% attended a school whose teachers reported a moderate to high need for training in teaching about equity and diversity.

The results varied substantially between countries and economies. The greatest need for professional development in teaching in multicultural and multilingual settings was expressed by teachers in Brazil, Chile, the Dominican Republic, Korea, Malaysia, Morocco, Panama and Peru. The greatest need for training in teaching intercultural communication was reported by teachers in Brazil, Chile, the Dominican Republic, Korea, Malaysia, Morocco, Panama and Peru (Figure VI.7.14).

Teachers in Brazil, Chile, the Dominican Republic, Korea, Malaysia, Morocco, Panama and Peru expressed the greatest need for training in second-language teaching. Those in Korea, Macao (China) and Malaysia expressed the greatest need for training about equity and diversity (Figure VI.7.15).

Figure VI.7.13 **Teachers' professional development in teaching in multicultural settings**

Based on teachers' reports, Overall average



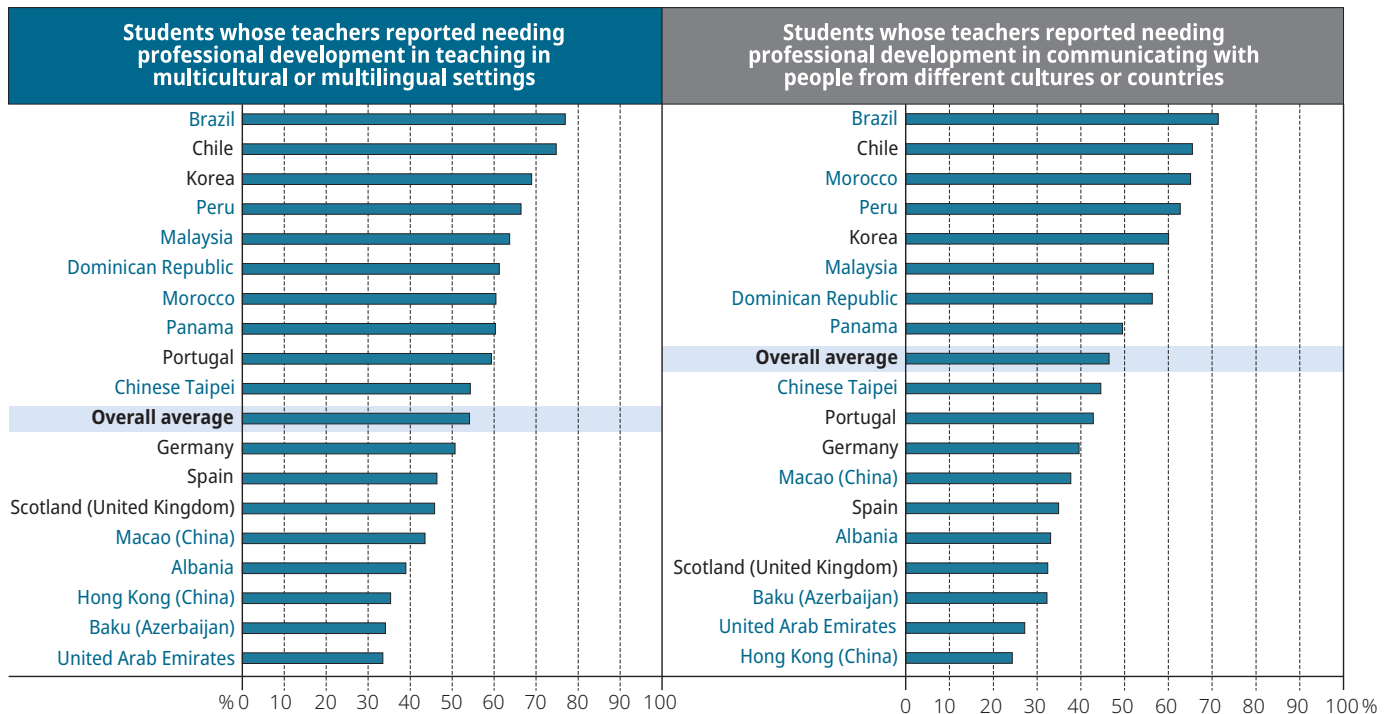
Items are ranked in descending order of the percentage of students whose teachers reported that they received professional development in those areas.

Source: OECD, PISA 2018 Database, Table VI.B1.7.15.

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Figure VI.7.14 **Teachers' need for professional development in teaching culturally diverse students**

Based on teachers' reports



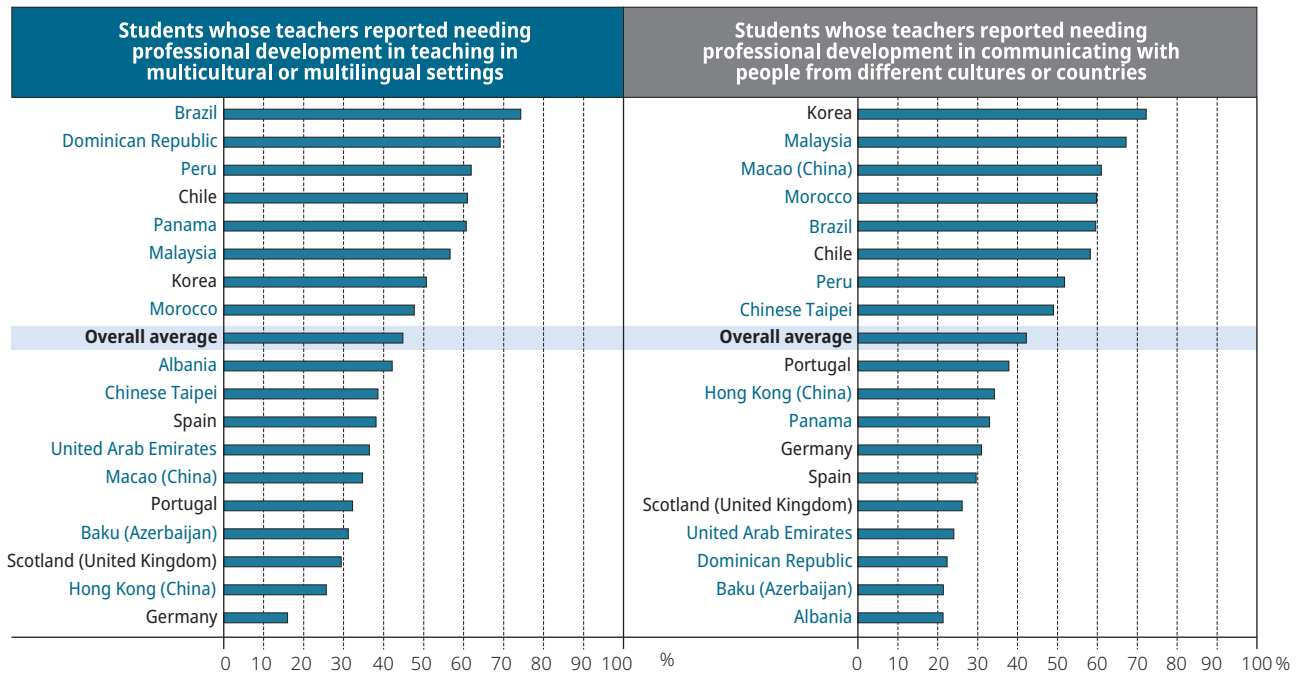
Countries and economies are listed in descending order of the percentage of students whose teachers reported needing professional development in these areas.

Source: OECD, PISA 2018 Database, Table VI.B1.7.15.

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Figure VI.7.15 **Teachers' need for professional development in teaching diverse classes**

Based on teachers' reports



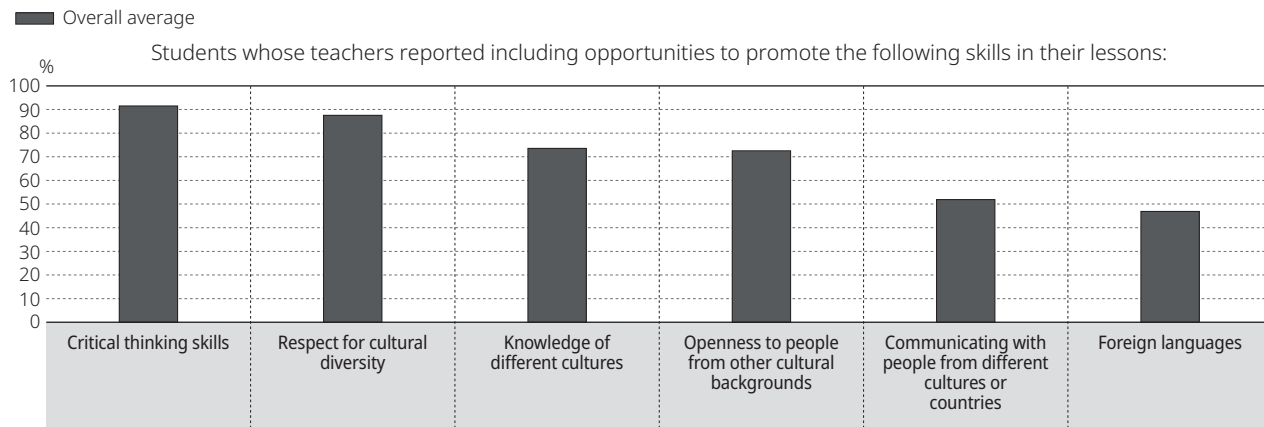
Countries and economies are listed in descending order of the percentage of students in schools whose teachers reported needing professional development in the area.

Source: OECD, PISA 2018 Database, Table VI.B1.7.15.

StatLink <https://doi.org/10.1787/888934170830>

Figure VI.7.16 **Incorporating intercultural skills into school lessons**

Based on teachers' reports, overall average



Items are ranked in descending order of the percentage of students whose teachers reported that those skills are covered in lessons.

Source: OECD, PISA 2018 Database, Table VI.B1.7.16.

StatLink <https://doi.org/10.1787/888934170849>

Opportunities to promote intercultural skills in lessons

Teachers were asked six yes-or-no questions about whether they include opportunities to promote intercultural skills in their lessons. These opportunities covered intercultural communication, openness and respect towards other cultures, foreign languages and critical thinking. On average across the 18 countries and economies that distributed the teacher questionnaire, 92% of students attended a school whose teachers included critical thinking in their lessons (Figure VI.7.16); 88% attended a school whose teachers included respect for cultural diversity; 74% attended a school whose teachers included knowledge of

other cultures; 73% attended a school whose teachers included openness to people from other cultures; 52% attended a school whose teachers included intercultural communication; and 47% attended a school whose teachers included foreign languages in their lessons.

Some variations were observed between countries and economies. Albania, the Dominican Republic, Malaysia and the United Arab Emirates showed the largest proportion of students in schools where teachers promoted all five intercultural skills.

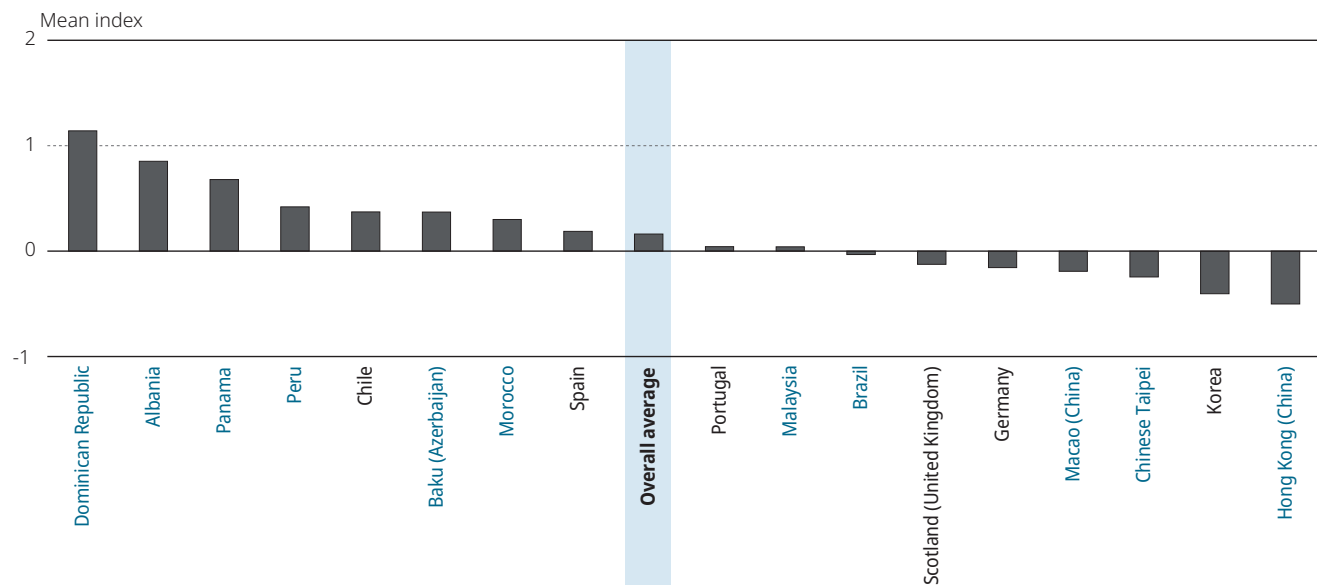
Teachers' self-efficacy in multicultural environments

Teachers' self-efficacy is found to be strongly associated with the quality of teaching practices and with teachers' job satisfaction and commitment (OECD, 2019^[27]). In PISA 2018, teachers were asked to respond to five statements that indicate the extent to which they feel capable of teaching in multicultural settings: "I can cope with the challenges of a multicultural classroom"; "I can adapt my teaching to the cultural diversity of students"; "I can take care that students with and without migrant backgrounds work together"; "I can raise awareness for cultural differences amongst the students"; and "I can contribute to reducing ethnic stereotypes between the students". Responses were given on a four-point scale: "strongly agree", "agree", "disagree" and "strongly disagree". The responses were combined to create the index of teacher self-efficacy in multicultural environments.

More than 80% of students attended a school whose teachers reported a high degree of self-efficacy, as measured by the five statements (Table VI.B1.7.17). Figure VI.7.17 shows the average of the index of teacher self-efficacy in multicultural environments. Teachers in Albania, the Dominican Republic and Panama reported the greatest self-efficacy, while those in Hong Kong (China), Korea and Chinese Taipei reported the least self-efficacy in multicultural environments.


Figure VI.7.17 Teachers' self-efficacy in multicultural environments

Based on teachers' reports



Countries and economies are ranked in descending order of the index of teachers' self-efficacy in multicultural environments.

Source: OECD, PISA 2018 Database, Table VI.B1.7.17.

StatLink  <https://doi.org/10.1787/888934170868>

Box VI.7.2. **Global competence, the Sustainable Development Goals and the future of education**

Education for living in an interconnected world should ultimately contribute to forming new generations of citizens who care about global issues and who are able to take action for sustainability and collective well-being. As stated in the UN Sustainable Development Goal for education (SDG 4.7), by 2030, all learners should acquire the knowledge and skills needed to promote sustainable development, including through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and of culture's contribution to sustainable development (Education 2030, Incheon Declaration and Framework for Action).

Chapters 2 to 7 presented the findings from PISA 2018 covering nine indicators focusing on students' attitudes and dispositions for living in an interconnected world and students' performance on the cognitive global competence test. Those attitudes are directly related to aspects of SDG 4.7 such as gender equality, global citizenship and appreciation of cultural diversity, in addition to promotion of sustainable development and a culture of peace and non-violence.

In general, the findings show that there are large disparities between and within countries/economies in terms of the attitudes and cognitive skills of their students, with some being well behind in terms of achieving the goals of SDG 4.7. Moreover, the findings highlight the role of school-based learning activities and out-of-school experiences. These findings corroborate existing evidence on the role of education as a catalyst for many outcomes, such as public health, interpersonal trust and tolerance, peace, justice, environmental sustainability, in addition to economic outcomes such as innovation, employment and economic growth (UNESCO, 2016^[29]; Borgonovi, 2012^[30])

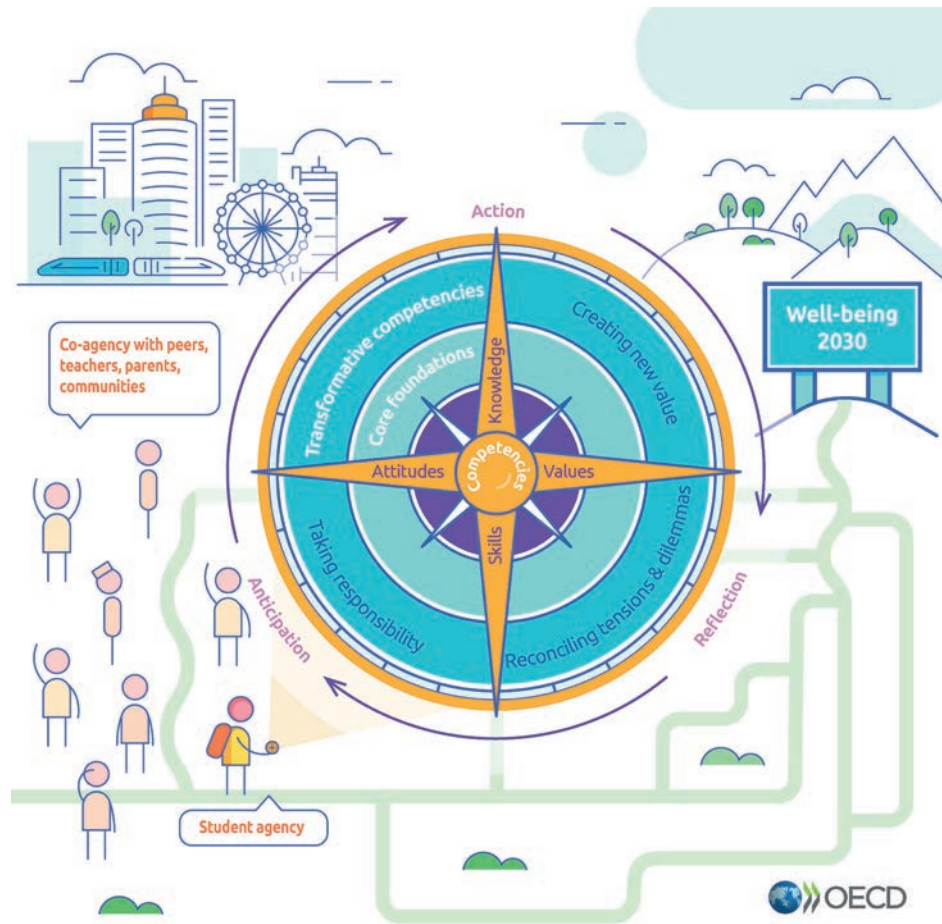
In order to achieve the SDGs, concerted and comprehensive efforts should be made towards expanding the opportunities to develop global competence. Such opportunities could rely on school-based learning activities, but also on a multitude of out-of-school experiences. Students should be able to learn about global issues and how they affect the world around them, and they should be able to develop critical thinking skills and fact-based worldviews. In addition, opportunities that broaden students' horizons and develop their intercultural knowledge and skills should be encouraged, such as exchange programmes and contact with people from other countries in person or virtually. Such experiences would ultimately help students build a sense of value for diversity and encourage sensitivity, respect and appreciation of others.

However, the question remains of how education authorities would develop such learning opportunities.

The OECD's Future of Education and Skills 2030 project responded to those challenges by developing the Learning Compass 2030, a tool that offers a broad vision of the types of competencies students need to thrive in 2030 and beyond (OECD, 2019^[31]). The Learning Compass was developed to help students attain learning objectives and also to contribute to individual and collective well-being, including at the global level. The facets of well-being identified by the Learning Compass overlap largely with those of the SDGs.

The Learning Compass develops a common language and understanding that is globally relevant and informed, while providing space to adapt the framework to local contexts. The aim of the framework is to assist countries (including education authorities, academic researchers, teachers, students and other stakeholders) to reflect together and define what kind of competencies today's students need to thrive in an interconnected world, and to shape the future for better lives and for individual and collective well-being. Building on the commonly agreed taxonomy that a competency encompasses knowledge, skills, attitudes and values, the key components of the compass include student agency, core foundations, transformative competencies and a competency developmental cycle of anticipation, action and reflection as shown in Figure VI.6.18.

Figure VI.7.18 The OECD Learning Compass 2030



Student agency

Student agency is defined as the belief that students have the will and the ability to positively influence their own lives and the world around them as well as the capacity to set a goal, reflect and act responsibly to effect change.

Knowledge

Knowledge includes theoretical concepts and ideas in addition to practical understanding based on the experience of having performed certain tasks.

Skills

Skills are the ability and capacity to carry out processes and be able to use one's knowledge in a responsible way to achieve a goal. The OECD Learning Compass 2030 distinguishes three different types of skills: cognitive and metacognitive, social and emotional, practical and physical.

Attitudes and values

Attitudes and values refer to the principles and beliefs that influence one's choices, judgements, behaviours and actions on the path towards individual, societal and environmental well-being. Strengthening and renewing trust in institutions and among communities require greater efforts to develop core-shared values of citizenship in order to build more inclusive, fair, and sustainable economies and societies.

Core foundations

Core foundations are the fundamental conditions and core skills, knowledge, and attitudes and values that are prerequisites for further learning across the entire curriculum. The core foundations provide a basis for developing student agency and transformative competencies.

Transformative competencies

The Learning Compass identifies three transformative competencies that students need in order to contribute to and thrive in our world, and shape a better future: creating new value, reconciling tensions and dilemmas, and taking responsibility.

Anticipation-Action-Reflection cycle

The Anticipation-Action-Reflection cycle is an iterative learning process whereby learners continuously improve their thinking and act intentionally and responsibly. In the anticipation phase, learners become informed by considering how actions taken today might have consequences for the future. In the action phase, learners have the will and capacity to take action towards well-being. In the reflection phase, learners improve their thinking, which leads to better actions towards individual, societal and environmental well-being.

Another important question to answer is how can such a vision of the future of education be translated into reality?

Given its aspirational and non-prescriptive nature, the framework can serve, for example, as a platform for flexibly designing learning environments that can nurture such competencies, including those related to global competence. As such, it can help education systems design future-oriented curricula that put student agency and wellbeing at the centre in ways that are adapted to local contexts. One example of how various countries have already incorporated some of these competencies into existing curricula comes from an international curriculum analysis that was largely informed by the Learning Compass 2030 named E2030 Curriculum Content Mapping or CCM. Countries participating in this exercise were able to rate to what extent a set of competencies – including global competence and literacy for sustainable development – are explicitly articulated in their official curriculum. Each CCM competency is mapped across standardised content items covering various learning areas of the lower secondary education curriculum. Results from this exercise will be published in November 2020 by the OECD.

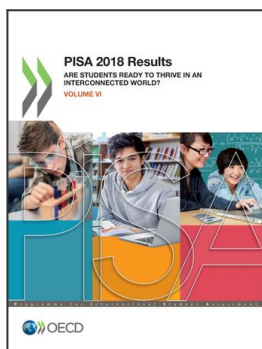
Note

1. The global competence sample from Israel does not include students in ultra-Orthodox schools and, thus, is not nationally representative. See PISA 2018 Technical Report (OECD, forthcoming) for details.

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