

This chapter explores students' understanding and appreciation of the perspectives and worldviews of others. In particular, it examines students' ability to adapt to new situations, their interest in learning about other cultures and their attitudes towards people from other cultures and towards immigrants. All factors are explored through the prism of students' socio-demographic backgrounds. Moreover, the chapter explores students' performance on the cognitive test items corresponding to this second dimension of global competence.

What the data tell us

- Students in Albania, Bosnia and Herzegovina, Korea, Kosovo, Lebanon, the Republic of North Macedonia, Romania and Turkey exhibited the greatest capacity for perspective taking, while those in Colombia, France, Italy, Lithuania and the Slovak Republic showed the least.
- Of the 63 countries and economies that had valid data on the index of students' interest in learning about other cultures, students in Albania, Bosnia and Herzegovina, Costa Rica, the Dominican Republic, Jordan, Kosovo, Montenegro, Panama, the Philippines and Turkey showed the greatest interest.
- Students in Albania, Australia, Canada, Ireland, Korea, New Zealand, Scotland (United Kingdom), Spain and Chinese Taipei reported the most positive attitudes towards immigrants, with values in the index that were significantly higher than the OECD average. The least positive attitudes, with values significantly lower than the OECD average, were observed in Bulgaria, Hungary, Latvia, Poland, Saudi Arabia, the Slovak Republic and Turkey.
- The association between students' attitudes towards immigrants and the proportion of immigrant students at school was positive and significant in Australia, Austria, Canada, Germany, Ireland, Jordan, Latvia and Saudi Arabia.
- The largest proportion of correct answers on the cognitive test related to students' ability to understand and appreciate the perspectives of others was observed in Canada, Croatia, Hong Kong (China), Korea, Scotland (United Kingdom), Singapore, Spain and Chinese Taipei. The smallest proportion of correct answers was observed in Albania, Brunei Darussalam, Indonesia, Kazakhstan, Morocco, Panama, the Philippines and Thailand.

The second dimension of global competence focuses on students' ability to understand and appreciate the perspectives and worldviews of others. As individuals acquire knowledge about other cultures' histories, values, communication styles, beliefs and practices, they acquire the means to recognise that their own perspectives and behaviours are shaped by multiple influences, that they are not always fully aware of these influences and that others have views of the world that are profoundly different from their own (Hanvey, 1982_[1]).

Engaging and understanding different perspectives requires certain knowledge, skills, attitudes and dispositions, such as respect towards others and interest in who they are, their emotions and their concept of reality. Individuals who are proficient in this dimension are able to express sensitivity towards cultural diversity and towards worldviews and values that are different from their own (Council of Europe, $2018_{[2]}$). Competencies in this area include: 1) curiosity and interest in discovering and learning about other cultures, worldviews, beliefs, values and practices; 2) adaptability to new situations; 3) willingness to suspend judgement of other people's beliefs and values and willingness to question the universal validity of one's own beliefs; and 4) emotional readiness to relate to other people and willingness to seek the opportunity to engage and co-operate with others, even though they might have different views, beliefs and cultural backgrounds (Fennes and Hapgood, $1997_{[31)}$).

The ability to understand and appreciate others' worldviews was assessed in PISA 2018 using 18 items in the cognitive test and 5 questions in the student questionnaire. The questions focus on perspective taking, interest in learning about other cultures, respect for people from other cultures, cognitive adaptability and attitudes towards immigrants.

STUDENTS' ABILITY TO UNDERSTAND THE PERSPECTIVES OF OTHERS

The ability to see the world from the perspective of others¹ who might differ in their cultural backgrounds, beliefs, attitudes and practices depends on self-awareness and understanding of one's own perspective, as well as those of others. It depends on knowing and understanding the assumptions that underlie one's own perspective, understanding how one's worldview is shaped by one's own cultural affiliation and experiences and, in turn, how these affect one's judgements and reactions to other people. In addition, self-awareness requires awareness of one's own motives, feelings and emotions and a clear understanding of the limits of one's own competence and expertise (Council of Europe, $2016_{[4]}$, Council of Europe, $2018_{[2]}$). Perspective taking also relies on the ability to operationalise cultural knowledge and appraise cultural situations involving multiple perspectives (Gehlbach, $2011_{[5]}$; LaRusso et al., $2016_{[6]}$). Critical thinking and analytical skills are also essential as individuals assess information and situations and make sense of their surroundings (Garside, $1996_{[7]}$; OECD, $2018_{[8]}$).

PISA 2018 asked students to report on their ability to understand different perspectives by responding to five statements: "I try to look at everybody's side of a disagreement before I make a decision"; "I believe that there are two sides to every question and try to look at them both"; "I sometimes try to understand my friends better by imagining how things look from their perspective"; "Before criticising somebody, I try to imagine how I would feel if I were in their place"; and "When I'm upset at someone, I try to take the perspective of that person for a while". Responses were given on a five-point scale ("very much like me" "mostly like me", "somewhat like me", "not much like me", and "not at all like me") and were combined into an index of students' ability to understand the perspectives of others. Positive values in this index indicate a greater ability to understand and take different perspectives than the average student across OECD countries.

Large variations in the average of the index of students' ability to understand the perspectives of others were observed across the 65 countries and economies that took the questionnaire (Figure VI.3.1). Students in Albania, Bosnia and Herzegovina, Korea, Kosovo, Lebanon, the Republic of North Macedonia (hereafter "North Macedonia"), Romania and Turkey, reported the greatest capacity for perspective taking, while those in Colombia, France, Italy, Lithuania and the Slovak Republic showed the least. Of the five statements related to perspective taking, on average across OECD countries, 64% of students reported a capacity to understand their friends better by imagining how things look from their own perspective (i.e. the students responded "very much like me" and "mostly like me"). Similarly, 63% of students reported that they believe that there are two sides to every question and that they try to look at them both, and 59% reported that they try to look at everybody's side of a disagreement before taking a decision. However, fewer students reported that they try to imagine how they would feel if they were in the place of someone before criticising them (55%) and that they try to take someone else's perspective when they are upset at them (40%). These results are not surprising: understanding the perspective of others becomes more challenging in the context of conflict (Table VI.B1.3.1).

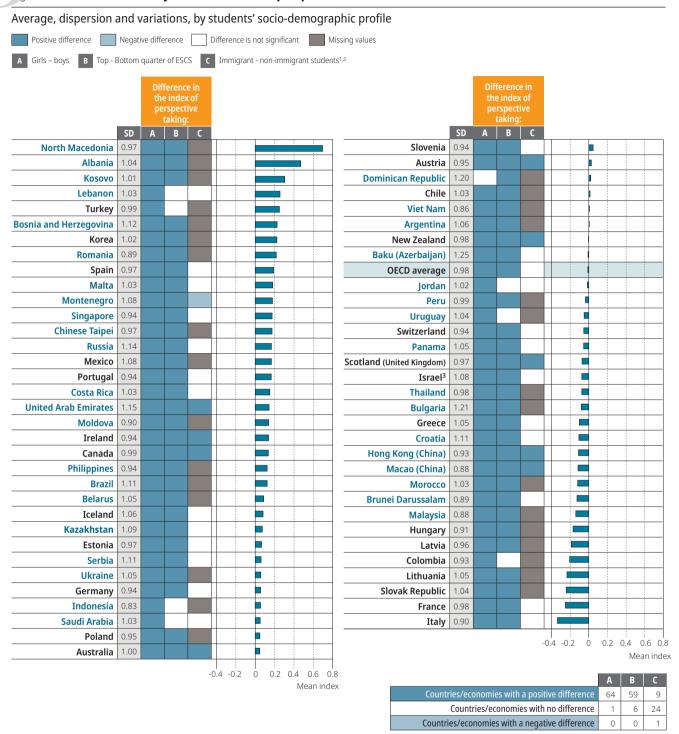
Large differences within countries were observed in Baku (Azerbaijan), Bulgaria, the Dominican Republic and the United Arab Emirates, while students in Brunei Darussalam, Indonesia, Italy, Macao (China), Malaysia, Romania and Viet Nam reported relatively similar capacity for perspective taking. As with other indices derived from student-reported data, most of the variations were observed within schools. Between-school variance as a proportion of total variance never exceeded 9% and was the greatest (exceeding 5%) only in Lebanon, Thailand and the United Arab Emirates. Between-school variations were the smallest in Greece, Iceland, Kazakhstan, Saudi Arabia and Scotland (United Kingdom) (Table VI.B1.3.1).

The index of students' ability to understand the perspectives of others varied according to students' socio-demographic characteristics. In all countries and economies except the Dominican Republic, girls reported a greater capacity than boys to take others' perspective. Differences in favour of girls were the largest in Albania, Bulgaria, Croatia, Ireland, Kosovo, Serbia and the United Arab Emirates. In all but six countries and economies with available data, socio-economically advantaged students (those in the top quarter of the PISA index of economic, social and cultural status) reported a greater capacity to understand the perspectives of others than disadvantaged students (Table VI.B1.3.3). Such large differences related to socio-economic status could reflect differential access to related learning activities across socio-economic groups, resulting from policies to select or sort students, such as tracking, ability grouping and school segregation based on residence. They could also reflect differences in home resources and parenting styles. Some of these possible influences are examined in Chapter 8.

Differences in the capacity to understand the perspectives of others were observed between immigrant and native-born students in ten countries. In Australia, Australia, Canada, Hong Kong (China), Ireland, Macao (China), New Zealand, Scotland (United Kingdom) and the United Arab Emirates, immigrant students reported a greater capacity to understand different perspectives. The reverse was observed only in Montenegro. One possible explanation is that immigrants have to deal with at least two cultural perspectives in their daily lives, that of their country of immigration and that of their country of origin. This capacity could also act as a protective factor, compensating for their relative socio-economic disadvantage in some countries.

Figure VI.3.2 shows some patterns of polarisation in the index of students' capacity to understand different perspectives. Findings show that students in the bottom quarter tended to have markedly less capacity to understand different perspectives than students in the second quarter. The same pattern was observed when comparing the third and fourth quarters. Students in the second and third quarters, on the other hand, tended to be closer to each other on this measure. Differences between the top and bottom quarters of this index were the largest in Baku (Azerbaijan), Bulgaria, the Dominican Republic, the Russian Federation (hereafter "Russia") and the United Arab Emirates.

Figure VI.3.1 Students' ability to understand the perspectives of others



^{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).

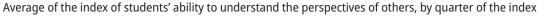
Countries and economies are ranked in descending order of the index of students' perspective taking.

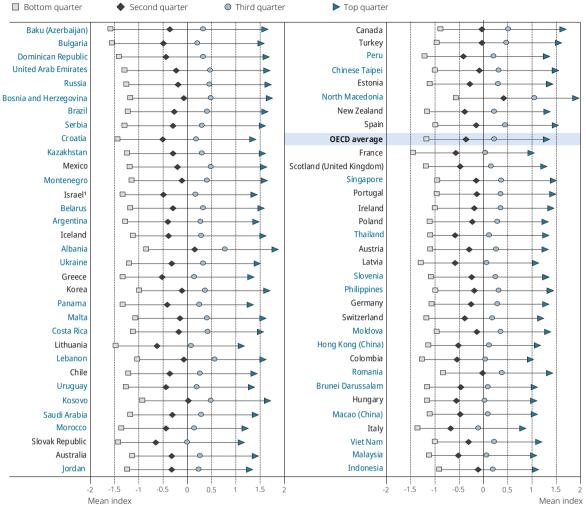
Source: OECD, PISA 2018 Database, Tables VI.B1.3.1 and VI.B1.3.3. StatLink III https://doi.org/10.1787/888934169538

^{2.} Differences between immigrant and non-immigrant students are only presented for countries and economies where more than 5% of students have an immigrant background. The values for countries/economies with smaller proportions of immigrant students are reported as missing.

^{3.} 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.

Figure VI.3.2 Polarisation of students' ability to understand the perspectives of others





^{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.

Note: All differences between top and bottom quarters are statistically significant.

Countries and economies are ranked in descending order of difference between the top and bottom quarters of the index of students' perspective taking.

Source: OECD, PISA 2018 Database, Table VI.B1.3.3.

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STUDENTS' INTEREST IN LEARNING ABOUT OTHER CULTURES

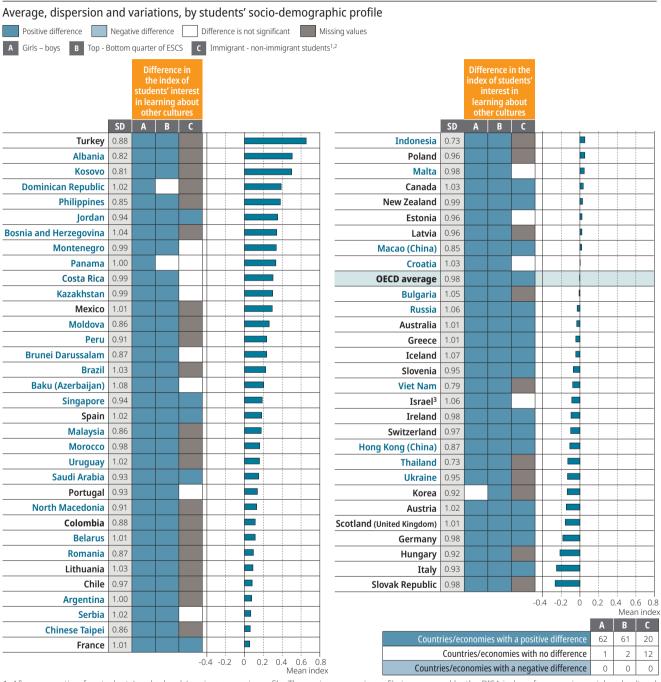
Interest in people from other cultures is likely to be related to knowledge and critical understanding of culture, as described in Chapter 1. Interest focuses on the willingness to engage with cultures, beliefs and worldviews other than a person's own. It relies on attitudes like curiosity and willingness to learn about new cultures and on sensitivity towards people from different backgrounds (Huber et al., $2014_{[9]}$; Clark and Seider, $2017_{[10]}$). It also requires an ability to refrain from making judgements about people's beliefs or questioning the "naturalness" of their values and practices, in addition to an ability to relate to them. Interest in other people's cultures expresses itself in the willingness to be exposed to different cultural influences and to engage and interact with people perceived to have cultural affiliations other than one's own (Council of Europe, $2018_{[2]}$).

PISA 2018 asked students about their interest in learning about other cultures. An index of students' interest in learning about other cultures was derived from responses to the following four statements: "I want to learn how people live in different countries"; "I want to learn more about the religions of the world"; "I am interested in how people from various cultures see the world"; and "I am interested in finding out about the traditions of other cultures". The five response categories were: "very much like me", "mostly like me", "somewhat like me", "not much like me", and "not at all like me". Positive values in the index indicate that the student exhibits a greater interest in learning about other cultures.

Of the 63 countries and economies that had non-missing data on the index of students' interest in learning about other cultures, students in Albania, Bosnia and Herzegovina, Costa Rica, the Dominican Republic, Jordan, Kosovo, Montenegro, Panama,

the Philippines and Turkey showed the greatest interest (Figure VI.3.3). On average across OECD countries, 59% of students reported that they want to learn about how people live in other countries (very much or mostly like them), 55% reported that they are interested in how people from various cultures see the world, and 54% reported that they are interested in finding out about traditions of other cultures. By contrast, only 40% of students reported that they are interested in learning about the religions of the world. Those findings show a distinction in students' understanding of the two concepts – culture and religion – with the latter representing a more complex or sensitive notion.

Figure VI.3.3 Students' interest in learning about other cultures



^{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).

Countries and economies are ranked in descending order of the index of students' interest in learning about other cultures.

Source: OECD, PISA 2018 Database, Tables VI.B1.3.4 and VI.B1.3.6.

StatLink https://doi.org/10.1787/888934169576

^{2.} Differences between immigrant and non-immigrant students are only presented for countries and economies where more than 5% of students have an immigrant background. The values for countries/economies with smaller proportions of immigrant students are reported as missing.

^{3.} 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.

As in previous findings, girls and socio-economically advantaged students showed greater interest in other cultures than boys and disadvantaged students. Differences in favour of girls were statistically significant in all countries and economies except Korea, while the differences between students in the top quarter and those in the bottom quarter of socio-economic status were significant in all countries and economies except the Dominican Republic and Panama. The largest gender gaps were observed in Australia, Canada, Estonia, Germany, Iceland, Lithuania, New Zealand, Slovenia and Switzerland, and the largest gaps related to socio-economic status were found in Bulgaria, France, Hungary, Iceland, Ireland, Lithuania, Mexico and Poland. Moreover, in 20 out of 32 countries and economies with more than 5% immigrant students, students with an immigrant background reported higher interest in learning about other cultures than their native-born peers.

Box VI.3.1. Parents' and children's interest in learning about other cultures

As discussed in Chapter 1, parents play a key role in developing and shaping their children's interests (Schönpflug, 2001_[11]). Parents who are interested in learning about other cultures are likely to transmit this sense of curiosity to their children. This happens through a long, incremental and informal process in which a child is exposed to various cultural experiences and influences. Ultimately, this process will shape the adult this child will become and will define his/her perspectives and attitudes. This box examines students' interest in learning about other cultures in light of their parents' interest in doing so.

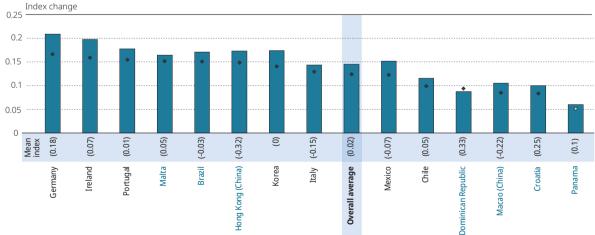
In 14 countries/economies, parents were asked to respond to the same four statements as their children about their interest in learning about other cultures. The five response categories were: "very much like me", "mostly like me", "somewhat like me", "not much like me", and "not at all like me". The index of parents' interest in learning about other cultures was constructed by combining responses to those four statements using item response theory scaling. A positive value in this index indicates that parents have a greater interest in learning about other cultures.

Parents in Croatia, the Dominican Republic and Germany reported the greatest interest in learning about other cultures, while parents in Hong Kong (China), Italy and Macao (China) reported the least interest (Figure VI.3.4). In all countries except Panama, students' interest in learning about other cultures was positively associated with their parents' interest in doing so. On average across the 14 countries and economies, a one-unit increase in the index of parents' interest in learning about other cultures was associated with an increase of 0.12 of a unit in the index of students' interest, after accounting for students' and schools' socio-economic profile. Associations were positive and significant in 13 countries/economies and were attenuated after accounting for students' and schools' socio-economic profile. The strongest associations were in Brazil, Germany, Hong Kong (China), Ireland, Malta and Portugal.

Figure VI.3.4 Students' and parents' interest in learning about other cultures

Change in students' interest in learning about other cultures associated with a one-unit increase in the index of parents' interest in learning about other cultures

■ Before accounting for students' and schools' socio-economic profile¹
◆ ♦ After accounting for students' and schools' socio-economic profile



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

Note: Statistically significant values are shown in darker tone.

Countries and economies are ranked in descending order of the change in the index of students' interest in learning about other cultures associated with a one-unit increase in the index of their parents' interest in learning about other cultures, after accounting for gender, immigrant background, and students' and schools' socio-economic profile.

Source: OECD, PISA 2018 Database, Table VI.B1.3.16.

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RESPECT FOR PEOPLE FROM OTHER CULTURES

Respect for others is an attitude where the subject of respect is judged to have importance, worth and value that warrants positive regard and esteem (Council of Europe, $2016_{[4]}$; Council of Europe, $2018_{[2]}$). One important form of respect in the context of cultural diversity is the respect shown to people who are perceived to have different cultural affiliations or different opinions and beliefs. Such respect assumes that all human beings have the same intrinsic dignity and enjoy an inalienable right to choose their own affiliation, beliefs, practices and opinions. This type of respect does not require agreement with the other person's beliefs or a minimisation of the differences between those beliefs and one's own views (Leask, $2009_{[12]}$).

PISA 2018 asked students the extent to which they respect people from other countries. The five response categories were: "very much like me", "mostly like me", "somewhat like me", "not much like me", and "not at all like me". The index of respect for people from other cultures was derived from responses to the following statements: "I respect people from other cultures as equal human beings"; "I treat all people with respect regardless of their cultural background"; "I give space to people from other cultures to express themselves"; "I respect the values of people from different cultures"; and "I value the opinions of people from different cultures". Positive values in this index indicate that students reported greater respect for people from other cultures than the average student across OECD countries.

Students' responses to the five statements about respect for people from other cultures varied substantially across countries. The highest averages in the index were observed in Albania, Canada, Costa Rica, Ireland, Korea, Mexico, North Macedonia, Scotland (United Kingdom) and Spain. The lowest were observed in Baku (Azerbaijan), Bulgaria, Colombia, Hungary, Indonesia, Italy, the Slovak Republic, Thailand and Viet Nam (Figure VI.3.5). On average across OECD countries, about 82% of students reported that they respect people from other cultures as equal human beings (i.e. the students responded "very much like me" and "mostly like me"), while 81% reported that they treat all people with respect regardless of their cultural background. Slightly fewer students reported that they respect the values of people from different cultures (79%), that they give space to people from other cultures to express themselves (78%) and that they value the opinions of people from different cultures (78%).

The largest variations in the index were observed in Baku (Azerbaijan), Bulgaria, Croatia, the Dominican Republic, Russia and the Slovak Republic. Most of those variations were observed within schools, rather than between schools. However, the between-school variation was relatively more prevalent for this index than for other indices. It exceeded 10% in Germany, Hungary, Lebanon, Morocco, Slovenia, Thailand and the United Arab Emirates. This could indicate that system- or school-level practices or policies may be shaping students' attitudes towards other cultures (Table VI.B1.3.9).

In all countries and economies, girls reported greater respect for people from other cultures than boys. The largest gender gaps in favour of girls were observed in Croatia, Estonia, Greece, Lithuania and Poland; the smallest were observed in Colombia, Indonesia and Viet Nam. Advantaged students (those in the top quarter of the PISA index of economic, social and cultural status) were also more likely than their disadvantaged peers (those in the bottom quarter of that index) to report greater respect for people from other cultures. This difference was statistically significant in all countries and economies.

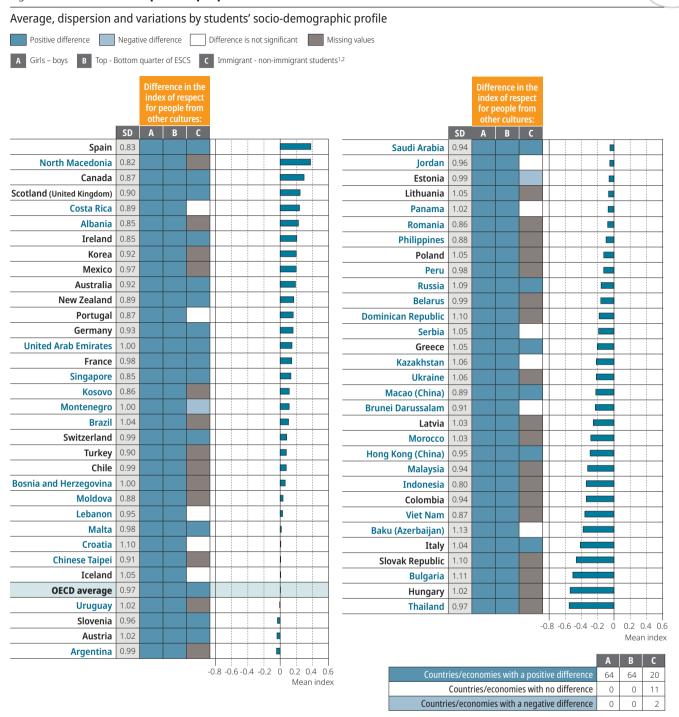
In 20 countries/economies, students with an immigrant background reported greater respect for people from other cultures than their native-born peers. The opposite was observed only in Estonia and Montenegro. The largest gaps in favour of immigrant students were observed in Austria, France, Malta, Slovenia, Switzerland and the United Arab Emirates. This finding might reflect the fact that immigrants themselves might have a hybrid culture, encompassing aspects of the culture of their country of immigration and that of their country of origin.

Respect for people from other cultures and students' interest in learning about other cultures

How can students show respect for other cultures if they have no interest in knowing about them? One of the key drivers of respect for other cultures could be knowledge and interest in learning about them. Figure VI.3.6 presents average levels of the index of respect for people from other cultures by quarter of the index of interest in learning about other cultures. The findings show large differences in respect for other cultures in favour of students in the top quarter of the index of interest in learning about other cultures (compared to students in the bottom quarter of that index). The largest differences were observed in Baku (Azerbaijan), Bulgaria, the Dominican Republic, Kazakhstan, Morocco and Peru.

Moreover, on average across OECD countries, a one-unit increase in the index of interest in learning about other cultures was associated with a 0.39 of a unit rise in the index of respect for people from other cultures, after accounting for students' and schools' socio-economic profile (Table VI.B1.3.21). This association was positive and strong in all countries and economies. It is worth noting that the reverse causation is also possible. Students who have respect for people from other cultures are also likely to show interest in learning about them.

Figure VI.3.5 Students' respect for people from other cultures



^{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).

Note: 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 index of respect for people from other cultures.

Source: OECD, PISA 2018 Database, Table VI.B1.3.7 and Table VI.B1.3.9.

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^{2.} Differences between immigrant and non-immigrant students are only presented for countries and economies where more than 5% of students have an immigrant background. The values for countries/economies with smaller proportions of immigrant students are reported as missing.

■ Bottom quarter Second quarter Third guarter ► Top quarter Quarters of the index of students interest in learning about other cultures Chinese Taipei Baku (Azerbaijan) **Dominican Republic** Chile Bulgaria Turkey Hong Kong (China) Peru France Kazakhstan Malta Morocco OECD average Russia Switzerland Serbia Malaysia Kosovo Panama Croatia Lithuania Macao (China) Jordan Mexico

Romania Albania

Slovenia

Saudi Arabia Moldova

> Argentina Singapore

Costa Rica

Portugal

Australia

Ukraine

Germany New Zealand

Indonesia

Canada

Ireland

Korea

Spain

North Macedonia

Scotland (United Kingdom)

-0.5

Mean index of students' respect for people from other cultures

Figure VI.3.6 Students' respect for people from other cultures, by students' interest in learning about other cultures

Note: All differences between the top and bottom guarters are statistically significant.

Mean index of students' respect for people from other cultures

Countries and economies are ranked in descending order of the difference in students' respect for people from other cultures between the top and bottom quarters of the index of interest in learning about other cultures

Source: OECD, PISA 2018 Database, Table VI.B1.3.21.

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COGNITIVE ADAPTABILITY

Philippines

Latvia Colombia

Thailand

Austria

Greece Slovak Republic

Iceland

Poland

Belarus

Uruguay Viet Nam

Italy

Estonia

Brunei Darussalam

Montenegro

Hungary

Brazil

Bosnia and Herzegovina

Cognitive adaptability refers to the ability to adapt one's thinking and behaviour to the prevailing cultural environment or to novel situations and contexts that might present new demands or challenges. Individuals who acquire this skill are able to handle the feelings of "culture shock", such as frustration, stress and alienation in ambiguous situations in new environments (Levin, 2015_[13]). Adaptable learners can more easily develop long-term interpersonal relationships with people from other cultures, and remain resilient in changing circumstances (Lepine, Colquitt and Erez, 2000_{[141}).

Cognitive adaptability is likely to be associated with various student academic and non-academic outcomes (Martin et al., $2013_{[15]}$). Students go through many changes throughout their childhood, including starting school, making new friends, interacting with teachers, adjusting to school subjects and overcoming both academic and social difficulties. Such changes can disrupt routines and create uncertainty in their lives. How students deal with uncertainty and novelty can play a key role in their success (Tomasik, Silbereisen and Heckhausen, $2010_{[16]}$).

PISA 2018 asked students about their ability to adapt to new situations. Students were asked to respond to six statements: "I can deal with unusual situations"; "I can change my behaviour to meet the needs of new situations"; "I can adapt to different situations even when under stress or pressure"; "I can adapt easily to a new culture"; "When encountering difficult situations with people, I can think of a way to resolve the situation"; and "I am capable of overcoming my difficulties in interacting with people from other cultures". Responses were given on a five-point scale: "very much like me", "mostly like me", "somewhat like me", "not much like me", and "not at all like me". Positive values in the index indicate that students have a greater ability to adapt than the average student across OECD countries.

Figure VI.3.7 presents the average of the index of students' cognitive adaptability and cross-tabulations of the index by students' socio-demographic characteristics. Among the 65 participating countries and economies that distributed the PISA 2018 global competence questionnaire, the highest levels of cognitive adaptability reported by students were observed in Bosnia and Herzegovina, Canada, Mexico, North Macedonia, Spain and Turkey; the lowest were observed in Brunei Darussalam, Greece, Hong Kong (China), Italy, Macao (China), Malaysia, the Slovak Republic, Thailand and Viet Nam.

In 28 out of the 65 countries/economies that took the questionnaire, boys reported greater cognitive adaptability than girls. The largest gaps in favour of boys were observed in Costa Rica, France, Greece, Iceland, Korea and Scotland (United Kingdom). Girls reported greater cognitive adaptability than boys in only six countries/economies: Baku (Azerbaijan), Bosnia and Herzegovina, Bulgaria, Jordan, Lithuania and the United Arab Emirates. The gender differences in this index were mostly the inverse of what was observed for the two indices of interest in learning about other cultures and ability to understand different perspectives. However, average differences can mask large disparities within each group. Those differences should not be regarded as definitive descriptions of what boys and girls can and cannot do.

Students in the top quarter of the PISA index of economic, social and cultural status reported greater cognitive adaptability than those in the bottom quarter. Those differences were found to be statistically significant in all countries and economies except Indonesia. The largest gaps in the index of cognitive adaptability related to socio-economic status were observed in Australia, Bulgaria, Iceland, Korea, Lithuania, New Zealand and Scotland (United Kingdom). In addition, in 13 countries/economies (Australia, Austria, Brunei Darussalam, France, Germany, Hong Kong [China], Ireland, Macao [China], Scotland [United Kingdom], Singapore, Slovenia, Spain and the United Arab Emirates), students with an immigrant background reported higher levels of cognitive adaptability than native-born students. This finding provides evidence that, in some countries, the multicultural background of immigrant students may act as a factor promoting intercultural skills such as adaptability.

Students were particularly confident in their ability to change their behaviour to meet the needs of new situations (about 67% of students across OECD countries reported "very much like me" or "mostly like me"). Moreover, about 59% of students reported that they can deal with unusual situations, think of ways to resolve difficult situations and overcome difficulties in interacting with people from other cultures. However, they were less confident in their ability to adapt to different situations when under stress or pressure (57%) or to adapt to a new culture (49%).

The largest dispersions in the index of cognitive adaptability were observed in Baku (Azerbaijan), Bulgaria, the Dominican Republic and the United Arab Emirates. Most variations in the index were observed within schools, with limited between-school differences. The only country where the between-school variation as a proportion of total variation exceeded 5% was Lebanon. The patterns of differences between quartiles were slightly different for this index, as differences between the first and second quarters were relatively similar to those between the second and the third quarters. Only students in the top quarter of the index showed substantially greater cognitive adaptability compared to those in the third quarter (Table VI.B1.3.12).

Cognitive adaptability and how it is related to perspective taking and resilience

Cognitive adaptability could be at the root of various attitudes, such as the ability to understand multiple perspectives and the ability to overcome adverse circumstances. Both resilience and understanding perspectives require a certain degree of cognitive adaptability, as students have to deal with novel and uncertain situations (Levin, 2015_[13]). The following section investigates the association between cognitive adaptability and students' resilience and capacity to take others' perspective.

Figure VI.3.8 shows the association between the index of cognitive adaptability and the index of students' capacity to understand different perspectives, before and after accounting for for students' and schools' socio-economic profile. The findings show a positive relationship across all countries and economies that remains strong after accounting for students' and schools' socio-economic profile. On average across OECD countries, a one-unit increase in the index of cognitive adaptability was associated with a rise of 0.45 of a unit in the index of perspective taking. The associations were the strongest (exceeding 0.55 of a unit increase in the index of perspective taking) in Bulgaria, the Dominican Republic, Hong Kong (China), Mexico, Peru, the Philippines, Chinese Taipei and Thailand.

Figure VI.3.7 **Students' cognitive adaptability**

Average, dispersion	and \	/ariat	ions,	by st	udents	s' soci	o-demo	grap	hic profile									
Positive difference	Negati	ive differ	rence [Di	fference is	s not sign	ificant	Mis	sing values									
A Girls – boys B Top -	Bottom	quarter	of ESCS	С	Immigrar	nt - non-ir	mmigrant sti	udents'	,2									
		Difference in the index of cognitive adaptability: Difference in the index of cognitive adaptability:																
	SD	A	В	С						SD	Α	В	С					
Bosnia and Herzegovina	1.14								Kazakhstan	1.10								
North Macedonia	0.98								Singapore							_		
Spain									Latvia	0.98								
Mexico	1.09								Scotland (United Kingdom)	0.97								
Turkey	0.99								Peru	1.02								
Canada	1.00								Panama	1.09								
Moldova	0.92								Bulgaria	1.18								
Jordan								_	Lebanon	0.96						_		
Belarus	1.04							_	Hungary	0.93						_		
Montenegro	1.07								Saudi Arabia	1.05								
Albania	1.01							_	Uruguay	1.04								
Romania	0.88								Chile	1.04								
Ukraine	1.05								Austria	0.93								
Australia	1.01								Korea	1.02								
United Arab Emirates	1.17								Brazil	1.10								
Iceland	1.12								Philippines	0.89								
Ireland	0.95								Argentina	1.03								
Estonia	0.97								Indonesia	0.79								
Russia	1.12								France									
New Zealand	0.97								Colombia	0.99								
Malta	0.99								Portugal	0.89								
Germany	0.88								Chinese Taipei	0.92								
Poland	1.00								Morocco	1.02								
Costa Rica	1.05						•		Slovak Republic	0.98								
Serbia	1.08								Hong Kong (China)	0.92								
Kosovo	0.99								Greece	1.00					=			
Dominican Republic	1.23							_	Thailand	0.89					_			
Lithuania	1.11								Malaysia	0.91								
Switzerland	0.88								Italy	_								
Slovenia	_								Brunei Darussalam					-				
OECD average									Viet Nam					-				
Israel ³									Macao (China)	0.84								
Croatia	_							_					-	l 0.6 -0.4	4 -0.2	. 0	0.	.2 O.
Baku (Azerbaijan)	1.30																Mea	n inde
				-0.6	5 -0.4	-0.2	0 0.2	0.4							r			
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^{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).

Countries and economies are ranked in descending order of the index of students' cognitive adaptability.

Source: OECD, PISA 2018 Database, Table VI.B1.3.10 and Table VI.B1.3.12.

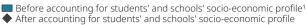
StatLink https://doi.org/10.1787/888934169652

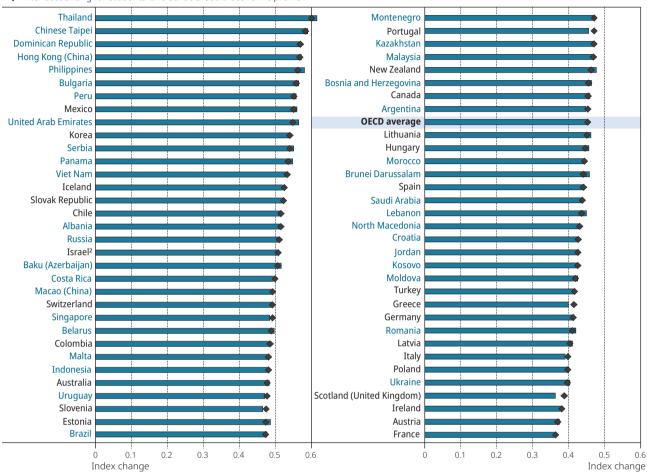
^{2.} Differences between immigrant and non-immigrant students are only presented for countries and economies where more than 5% of students have an immigrant background. The values for countries/economies with smaller proportions of immigrant students are reported as missing.

^{3.} 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.

Figure VI.3.8 Students' cognitive adaptability and their capacity to understand different perspectives

Change in students' capacity to understand different perspectives associated with a one-unit increase in the index of students' cognitive adaptability





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

Countries and economies are ranked in descending order of the change in the index of students' perspective taking associated with a one-unit increase in the index of cognitive adaptability, after accounting for gender, immigrant background, and students' and schools' socio-economic profile.

Source: OECD, PISA 2018 Database, Table VI.B1.3.19.

StatLink https://doi.org/10.1787/888934169671

Resilience, or self-reported capacity to overcome adversity, was assessed by asking students to report the extent to which they agree ("strongly disagree", "disagree, "agree", "strongly agree") with the following statements about themselves: "I usually manage one way or another"; "I feel proud that I have accomplished things"; "I feel that I can handle many things at a time"; "My belief in myself gets me through hard times"; and "When I'm in a difficult situation, I can usually find my way out of it". These statements were combined to create the index of resilience. Positive values in this index mean that the student reported a greater capacity to deal with adversity than the average student across OECD countries. This index should not be confused with measures of student resilience published in Volume II of PISA 2018, which are based on students' reading proficiency and socio-economic profile (OECD, 2019_[17]).

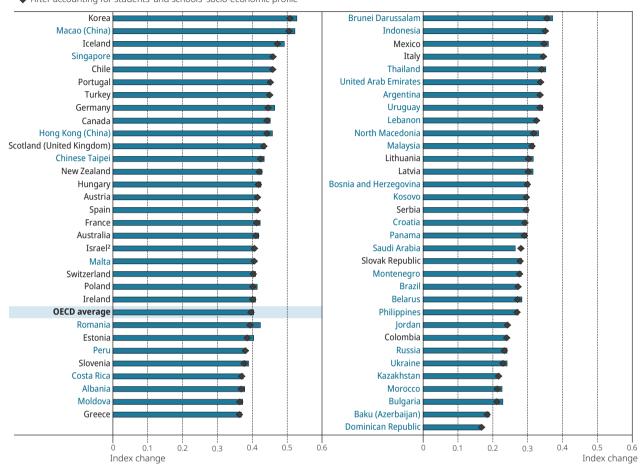
Positive associations between the index of cognitive adaptability and the index of student resilience were observed across all countries and economies. On average across OECD countries, an increase of one unit in the index of cognitive adaptability was associated with a rise of 0.4 of a unit in the index of resilience, after accounting for students' and schools' socio-economic profile. Associations were particularly strong (exceeding 0.45 of a unit increase in the index of resilience) in Chile, Iceland, Korea, Macao (China), Portugal, Singapore and Turkey (Figure VI.3.9).

^{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.

Figure VI.3.9 Students' cognitive adaptability and their resilience to adversity

Change in students' resilience to adversity associated with a one-unit increase in the index of students' cognitive adaptability

■ Before accounting for students' and schools' socio-economic profile¹
◆ After accounting for students' and schools' socio-economic profile



- 1. The socio-demographic 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 ranked in descending order of the change in the index of students' resilience associated with a one-unit increase in the index of cognitive adaptability, after accounting for gender, immigrant background, and students' and schools' socio-economic profile.

Source: OECD, PISA 2018 Database, Table VI.B1.3.20

StatLink https://doi.org/10.1787/888934169690

The findings in Figures VI.3.8 and VI.3.9 clearly indicate that cognitive adaptability among adolescents could be a way of fostering resilience, capacity to cope with uncertainty and ability to understand different perspectives. These life skills enable students not only to overcome adverse circumstances but also to rise to the challenges when facing unfamiliar situations. Cognitive adaptability will help students understand the diversity of the world they are living in, appreciate the worldviews of others and enjoy encounters with the unfamiliar.

STUDENTS' ATTITUDES TOWARDS IMMIGRANTS

Many countries around the world witnessed a sharp rise in the size of their immigrant populations in recent years. In 2015 alone, an estimated 4.8 million immigrants arrived in OECD countries, reinforcing a long-term upward trend in migration (OECD/European Union, $2018_{[18]}$). As societies become increasingly diverse, the question arises of how welcoming host countries are. If native populations adopt exclusionary attitudes towards immigrants, integration will be severely compromised (Janmaat, $2014_{[19]}$; Hainmueller and Hopkins, $2014_{[20]}$). How schools and education systems respond to these challenges can be a decisive factor in shaping relations between native-born and immigrant populations and in creating cohesive and harmonious societies (Charette and Kalubi, $2018_{[21]}$; Bilgili, $2019_{[22]}$).

A number of hypotheses have been advanced on what influences opinions about immigrants. These range from economic interests of the native-born population to cultural concerns about integration and identity. The first focuses on economic arguments, under which immigrants are seen as competitors for scarce jobs and resources (Mayda, $2006_{[23]}$). For instance, high-skilled native-born workers might oppose high-skilled immigrants but not low-skilled immigrants. A variant of the same argument highlights the impact of immigration on public finances and spending (Facchini and Mayda, $2009_{[24]}$).

Another theory focuses on immigrants' ability to integrate or assimilate into their host societies and on how such processes affect native identity (Burns and Gimpel, 2000_[25]). The extent to which these hypotheses are influential in a society depends on many factors, including the cultural differences between immigrants and host societies and the attitudes, values and skills of both immigrant and host populations. Such attitudes might include any of those mentioned earlier, such as openness, interest in and respect for other cultures, the ability to understand different perspectives, and knowledge and understanding of other cultures. This section focuses on students' attitudes towards immigrants and tries to identify some of the key factors associated with them, namely diversity at school, and other attitudes, such as openness and respect.

PISA 2018 asked students to report their overall attitude towards immigrants. An index of attitudes towards immigrants was derived from responses to the following statements: "Immigrant children should have the same opportunities for education that other children in the country have"; "Immigrants who live in a country for several years should have the opportunity to vote in elections"; "Immigrants should have the opportunity to continue their own customs and lifestyle"; and "Immigrants should have all the same rights that everyone else in the country has". Responses were provided on a four-point scale: "strongly disagree", "disagree", "agree", and "strongly agree". A positive value in this index indicates that students have more positive attitudes towards immigrants than the average student across OECD countries.

Figure VI.3.10 shows that students in Albania, Australia, Canada, Ireland, Korea, New Zealand, Portugal, Scotland (United Kingdom), Spain and Chinese Taipei reported the most positive attitudes towards immigrants, with values in the index that were significantly higher than the OECD average. The opposite was observed in Bulgaria, Hungary, Latvia, Poland, Saudi Arabia, the Slovak Republic and Turkey, where students' attitudes towards immigrants tended to be negative and below the OECD average. In all countries and economies except Hong Kong (China), Macao (China) and Viet Nam, girls showed more positive attitudes towards immigrants than boys. These gender differences were particularly large in Australia, Iceland, Ireland, Lithuania, New Zealand, North Macedonia and Scotland (United Kingdom). Socio-economically advantaged students (those in the top quarter of the PISA index of economic, social and cultural status) also reported more positive attitudes towards immigrants than their disadvantaged peers (those in the bottom quarter) in all countries and economies except Hong Kong (China), Italy and Turkey. The largest differences in this index related to students' socio-economic status were observed in Australia, Brazil, Brunei Darussalam, Germany, Iceland, Ireland, Mexico, the Philippines, Romania and Scotland (United Kingdom) (Table VI.B1.3.13).

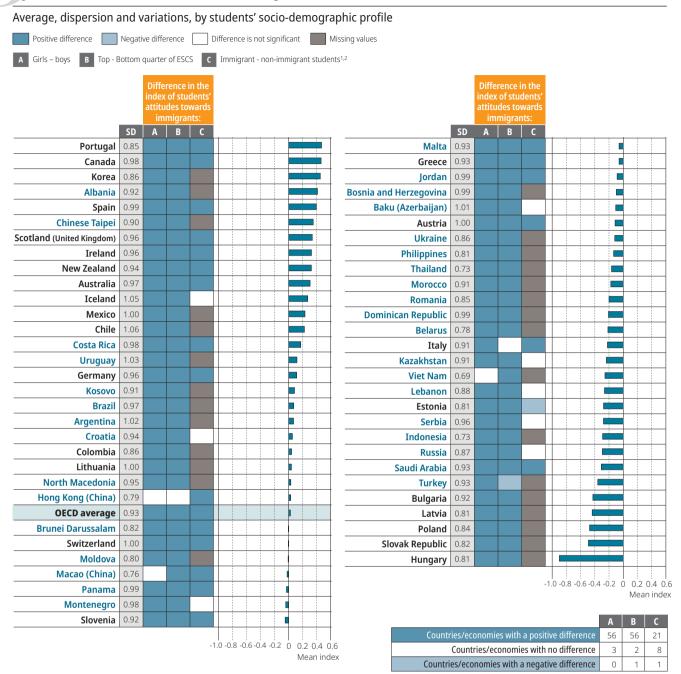
Students with an immigrant background had more positive attitudes towards immigrants than native-born students. This was true in 21 of the 30 countries and economies with more than 5% immigrant students, with the exception of Estonia where the difference was negative. This finding was particularly marked in Australia, Austria, Costa Rica, Germany, Greece, Ireland, Italy, Jordan, Malta, Panama, Saudi Arabia, Scotland (United Kingdom), Slovenia, Spain and Switzerland.

On average across OECD countries, 85% of students agreed or strongly agreed that immigrant children should have the same opportunities for education that other children in the country have; 80% agreed that immigrants should have all the same rights that everyone else in the country has; 76% agreed that immigrants should have the opportunity to continue their own customs and lifestyle; and 72% agreed that immigrants who live in a country for several years should have the opportunity to vote in elections. These results show that students tended to be more positive when it comes to universal rights, such as the right to education, but less positive when the question touched on issues related to identity or political rights, such as voting (Table VI.B1.3.13).

The index of attitudes towards immigrants varied to some extent within countries, with the widest dispersions observed in Argentina, Baku (Azerbaijan), Chile, Iceland, Lithuania and Uruguay, and the narrowest in Belarus, Hong Kong (China), Indonesia, Macao (China), the Republic of Moldova (hereafter "Moldova"), Thailand and Viet Nam. As with other indices, most of the variations were observed within schools, as opposed to between schools. The ratio of between-school variation to total variation exceeded 5% in 16 countries and exceeded 10% only in Lebanon (Table VI.B1.3.13).

In most countries, students in the middle two quarters of the index of attitudes towards immigrants were clustered close to each other. By contrast, students in the top quarter had considerably more positive attitudes than those in the third quarter (Figure VI.3.11). This shows some clear patterns of polarisation for this index.

Figure VI.3.10 Students' attitudes towards immigrants



^{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).

Note: 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.

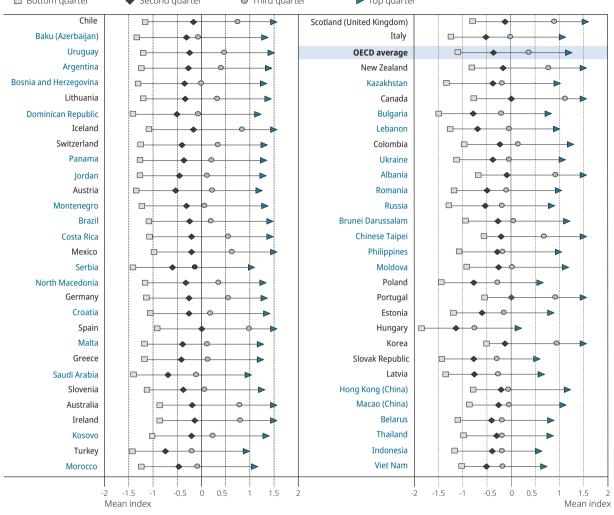
Countries and economies are ranked in descending order of the index of students' attitudes towards immigrants.

Source: OECD, PISA 2018 Database, Tables VI.B1.3.13 and VI.B1.3.15 StatLink imp https://doi.org/10.1787/888934169709

^{2.} Differences between immigrant and non-immigrant students are only presented for countries and economies where more than 5% of students have an immigrant background. The values for countries/economies with smaller proportions of immigrant students are reported as missing.

Figure VI.3.11 Polarisation of students' attitudes towards immigrants





Note: All differences between the top and bottom guarters are statistically significant.

Countries and economies are ranked in descending order of difference between the top and bottom quarters of the index of students' attitudes towards immigrants. Source: OECD, PISA 2018 Database, Table VI.B1.3.15.

StatLink https://doi.org/10.1787/888934169728

STUDENTS' ATTITUDES TOWARDS IMMIGRANTS AND DIVERSITY AT SCHOOL

A number of important questions remain. Does diversity in itself create better attitudes towards immigrants? Would exposure to students from different backgrounds facilitate understanding of others and foster tolerance? What factors are correlated with positive attitudes towards immigrants?

Existing evidence suggests that in 90% of 700 studies drawn from a wide range of national contexts, interethnic contact is positively related to attitudes towards those with a different background (Pettigrew and Tropp, 2006_[26]). However, most evidence is based on single-country analyses. PISA has the unique advantage of providing a comprehensive picture across a large number of countries and economies. If such positive associations are found, then mixing students from different backgrounds by reducing segregation in the education system could be the way forward.

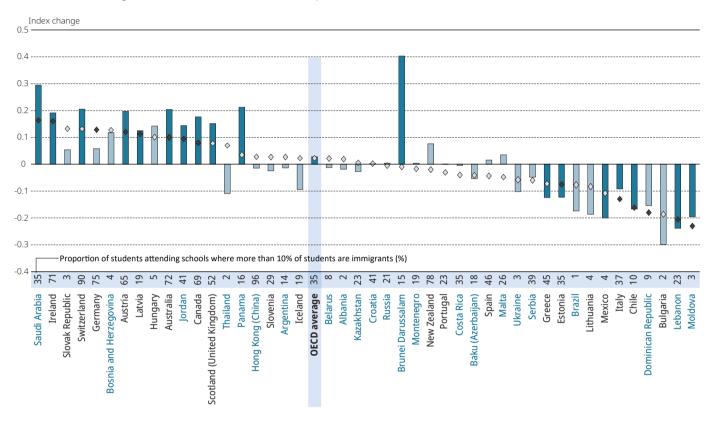
Figure VI.3.12 shows the association between the proportion of immigrant students in school and students' attitudes towards immigrants, before and after accounting for students' and schools' socio-economic profile. In eight countries, the findings show a positive but weak association between attending a school where more than 10% of students have an immigrant background and students' attitudes towards immigrants. The associations were significant in Australia, Austria, Canada, Germany, Ireland, Jordan, Latvia and Saudi Arabia. In seven of those eight countries, more than 35% of students attended schools where more than 10% of students have an immigrant background. By contrast, the associations were negative in Chile, the Dominican Republic, Estonia, Italy, Lebanon and Moldova.

Interestingly, countries where the associations were positive are either longstanding immigrant destinations or high-income countries. This could indicate that a positive association between attitudes towards immigrants and the proportion of immigrant students in school is conditional on successful integration policies and the availability of resources to fund quality education for all.

Figure VI.3.12 Students' attitudes towards immigrants and the proportion of immigrants in school

Change in students' attitudes towards immigrants associated with attending schools where more than 10% of students have an immigrant background

■ ■ Before accounting for students' and schools' socio-economic profile¹
◆ ♦ After accounting for students' and schools' socio-economic profile



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

Note: Statistically significant values are shown in darker tones.

Countries and economies are ranked in descending order of the change in the index of students' attitudes towards immigrants associated with attending a school where more than 10% of students have an immigrant background, after accounting for gender, immigrant background, and students' and schools' socio-economic profile.

Source: OECD, PISA 2018 Database, Table VI.B1.3.22.

StatLink https://doi.org/10.1787/888934169747

STUDENTS' AND PARENTS' ATTITUDES TOWARDS IMMIGRANTS

Another factor that may influence students' attitudes towards immigrants is their parents' attitudes towards immigrants. Parents' attitudes were assessed through the parent questionnaire, using responses to the same statements as those used in the student questionnaire. A similar index was constructed. Figure VI.3.13 shows the association between the two indices before and after accounting for students' and schools' socio-economic profile. The findings show a positive association in all 14 countries/economies that collected data from the parents' questionnaire. On average across all countries and economies, a one-unit increase in the index of parents' attitudes towards immigrants was associated with a rise of 0.17 of a point in the index of students' attitudes towards immigrants. Associations were the strongest in Brazil, Germany, Ireland, Italy and Malta.

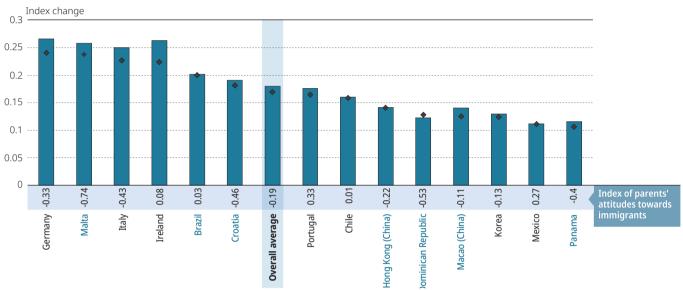
While most indices related to living together in an interconnected world tended to be positively associated, some might be more strongly correlated than others. Figure VI.3.14 presents the average correlation coefficient between pairs of the five indices discussed above. On average across OECD countries, the strongest correlations were between the index of perspective taking and the indices of

cognitive adaptability (correlation coefficient of 0.45). The weakest correlations were observed between attitudes towards immigrants, on the one hand, and cognitive adaptability and perspective taking, on the other. Attitudes towards immigrants were found to be correlated with respect for people from other cultures (0.38). While there were some variations across countries, most countries and economies clustered around the average (Table VI.B1.3.18).

Figure VI.3.13 Students' and parents' attitudes towards immigrants

Change in students' attitudes towards immigrants associated with a one-unit increase in the index of parents' attitudes towards immigrants.

■ Before accounting for students' and schools' socio-economic profile¹
◆ After accounting for students' and schools' socio-economic profile



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

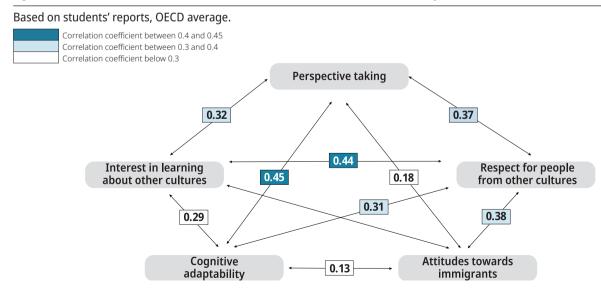
Note: All associations are statistically significant.

Countries and economies are ranked in descending order of the change in the index of students' attitudes towards immigrants associated with a one-unit increase in the index of parents' attitudes towards immigrants, after accounting for gender, immigrant background, and students' and schools' socio-economic profile.

Source: OECD, PISA 2018 Database, Table VI.B1.3.23.

StatLink https://doi.org/10.1787/888934169766

Figure VI.3.14 Correlations between students' intercultural attitudes and dispositions



Source: OECD, PISA 2018 Database, Table VI.B1.3.18.

StatLink https://doi.org/10.1787/888934169785

UNDERSTANDING THE PERSPECTIVES OF OTHERS: PERFORMANCE ON THE COGNITIVE TEST

Students who sat the global competence test in the 27 participating countries and economies answered 18 test items that focused on understanding and appreciating others' worldviews. Answers to those questions were scored as either full credit, partial credit or no credit. For the purpose of this analysis, partial credit was coded as no credit. Figure VI.3.15 shows the average proportion of correct answers on those test items. The largest proportions were observed in Canada, Croatia, Hong Kong (China), Korea, Scotland (United Kingdom), Singapore, Spain and Chinese Taipei; the smallest were observed in Albania, Brunei Darussalam, Indonesia, Kazakhstan, Morocco, Panama, the Philippines and Thailand. On average across the 27 countries and economies, students answered 38% of the test items correctly.

Six released test items covered students' capacity to understand and appreciate the worldviews of others. The test items originated from four test units: Refugee Olympians, ethical clothing, a single story and rising sea levels. Those test items ranged in difficulty from proficiency Level 1 to proficiency Level 4.

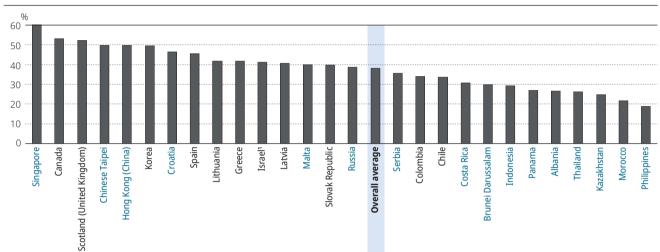


Figure VI.3.15 Percentage of correct answers: Understanding the perspectives of others

Notes: Understanding the perspectives of others was assessed using 18 items in the cognitive test.

Only the 27 countries and economies that conducted the cognitive test are shown.

Countries and economies are ranked in descending order of the percentage of correct answers in the cognitive test.

Source: OECD, PISA 2018 Database, Table VI.B1.3.17.

StatLink | https://doi.org/10.1787/888934169804

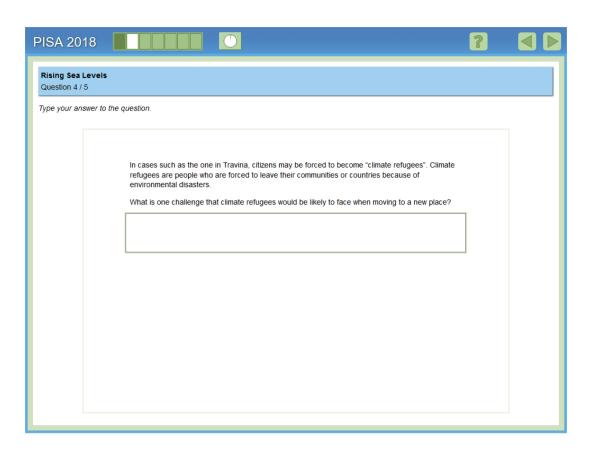
Rising sea levels: Item 4

The test item with the highest proportion of students answering correctly came from the rising sea levels test unit. This unit begins with a brief introduction that describes the effects of rising temperatures on sea levels, as described in Chapter 2.

The fourth item on this test unit asks students to provide one challenge that climate refugees would face when moving to a new place. This item was one of the easiest items in the cognitive test's item pool. While the item is focused on a climate refugee, all refugees face a similar set of challenges when leaving their home and moving somewhere else. While the majority of PISA students were not refugees, the challenges of moving to a new place are ones that many students can imagine or have experienced themselves. Thus, students could apply their prior knowledge to this context in order to recognise the challenges that affect climate refugees. Four broad categories of challenges relevant for climate refugees are: communication; financial or economic; difficulties adjusting to life in new places; and difficulties associated with leaving or losing the community or home and/or finding a new place to live. If students provided a response that fell within one of those categories, they received full credit. The item corresponded to proficiency Level 1.

On average, across the 27 countries and economies that took the cognitive test, 65% of the students answered this question correctly (Table VI.B1.3.17). The countries/economies with the largest proportion (exceeding 80%) of students answering the question correctly were Canada, Hong Kong (China), Korea, Scotland (United Kingdom), Singapore and Chinese Taipei, while the lowest proportion (lower than 50%) were observed in Brunei Darussalam, Morocco, the Philippines, the Slovak Republic and Thailand.

^{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.



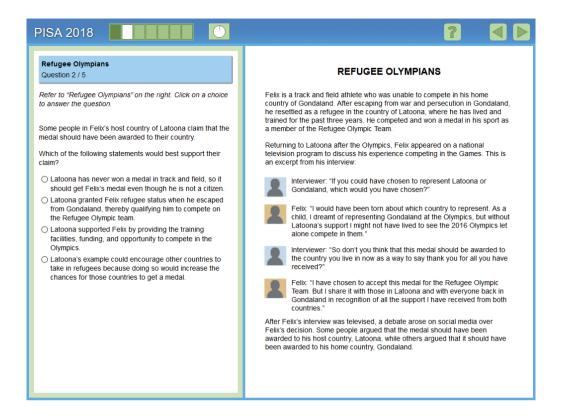
Refugee Olympians

This unit focused on the experience of team of refugees who participated in the 2016 Olympic games in Rio de Janeiro. The unit contained an introduction that explains the context of the Refugee Olympic Team. Background information was provided so that all students would start with a similar level of knowledge of the topic. The rest of the unit focused on a fictional character's participation on the Refugee Olympic Team. The stimulus for this unit introduces Felix, an athlete who fled his homeland and has been living as a refugee in another country. He was an athlete who trained in his home country before fleeing and has been training in his new country of residence. In the stimulus, the student learns that Felix participated as a member of the Refugee Olympic Team and won a medal. The stimulus then presents an interview with Felix about his feelings on accepting the medal for the Refugee Olympic Team rather than his homeland or his current country of residence. Finally, the student learns that a debate took place on social media about his decision. The content domain of this unit is institutions, conflicts and human rights, with a focus on universal human rights and local traditions.

Item 2

This item requires the student to consider the perspective of some residents of the country of Latoona who feel the medal should have been awarded to their country, where Felix has refugee status and asks students to select the statements which would best support this claim. The correct answer is C because this statement provides the best support for this claim: Latoona made a commitment by supporting Felix's training, and therefore the medal should be awarded to Latoona. The other answers are either not relevant to the specific scenario described in the stimulus or they fall short of recognising the perspective of the people described in the item. The item corresponded to proficiency Level 3.

On average across the 27 participating countries and economies, 47% of the students answered this item correctly (Table VI.B1.3.17). The proportion of correct answers exceeded 60% in Croatia, Singapore and the Slovak Republic and was below 30% in Panama and Thailand.



Item 5

The item with the lowest proportion of students answering correctly was item 5 in the test unit Refugee Olympians. In the fifth item of the unit, the student must consider Felix's perspective based on what is provided in the stimulus, go beyond what is explicitly written in the text and provide a reason for why Felix thought it was appropriate to accept the medal for the Refugee Olympic Team. Felix never directly states why he made the decision or why he thought it was the appropriate decision to make. The coding guide for this item specified ways to receive both full credit and partial credit. The partial credit description represents a more literal or fact-based way to answer the question which only references the fact that Felix is a refugee. Such responses like this are technically correct but, unlike the full-credit responses, they don't fully demonstrate an attempt to take Felix's perspective and construct an answer that reflects why he may have felt his decision was the most appropriate one. The item corresponded to proficiency Level 4 and was coded as follows:

Full credit

Code 2: Refers to one of the following reasons why Felix may have wanted to accept the medal for the Refugee Olympic Team.

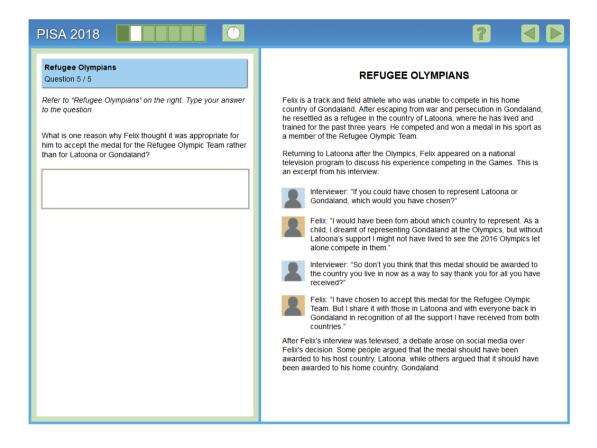
- 1. It helped resolve his conflict about which country to represent. (Note: This reason refers to an internal conflict within Felix, not a conflict between Latoona and Gondaland).
- 2. It reflects the financial, emotional and/or training support of the Refugee Olympic Team. (Note: This information is not provided in the interview, but it is factually correct that the Refugee Olympic team provides support for its athletes. Students may have outside knowledge of this fact and it is acceptable for them to apply this knowledge.)
- 3. It provides inspiration for other refugees.
- There was no good way for him to decide between Latoona and Gondaland.
- He could call two countries home.
- He wanted to share it between both countries.
- He didn't want to offend either country.
- It was difficult for him to decide.
- It was Felix's training with the Refugee Olympic Team that directly supported him to win the gold model.
- He probably felt supported by the people going through the same thing he was.
- Felix should have accepted the medal for the team because it will encourage the refugees.

Partial credit

Code 1: Refers to Felix's status as a refugee or that he competed as a member of the Refugee Olympian Team.

- Felix is a refugee so the Refugee Olympic Team best represents his situation.
- He was competing for the Refugee Olympic Team.
- He was a refugee.

On average across the 27 countries and economies taking the cognitive test, 33% of students answered this correctly (full credit only). The largest proportions of correct answers (exceeding 40%) were observed in Canada, Colombia, Greece, Indonesia, Israel², Scotland (United Kingdom), Singapore, Spain and Chinese Taipei, while the smallest (below 20%) were observed in Albania, Brunei Darussalam, Kazakhstan, Latvia and the Philippines (Table VI.B1.3.17).



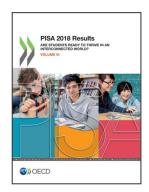
Note

- 1. The comparability of scaled indices across countries and economies is examined in Annex A5. The annex presents the findings of in-depth measurement invariance analyses for every index used in PISA 2018, Volume VI.
- 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.

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