

# Survey on Social and Emotional Skills (SSES): Manizales (Colombia)



## The OECD's Survey on Social and Emotional Skills

Research shows that both cognitive, and social and emotional skills improve life outcomes at a societal and an individual level. Considerable information exists on the development of cognitive skills but is lacking for social and emotional skills. The OECD's Survey on Social and Emotional Skills (SSES) was established to fill this important information gap.

The SSES aims to:

- Provide participating cities with information on their students' social and emotional skills.
- Identify factors in students' home, school and peer environments that promote or hinder the development of social and emotional skills.
- Explore how broader policy, cultural and socio-economic contexts influence these skills.
- Demonstrate that valid, reliable, comparable information on social and emotional skills can be produced across diverse populations and settings.

## What are social and emotional skills?

Social and emotional skills are individual abilities, attributes and characteristics that are important for academic success, employability, active citizenship and well-being. They encompass behavioural dispositions, internal states, approaches to tasks, and management and control of behaviour and feelings. Beliefs about the self and the world that characterise an individual's relationships to others are also components of social and emotional skills.

Educators and policy makers are increasingly seeking to complement the focus on academic abilities such as mathematics, reading, or scientific literacy with attention to social and emotional capabilities in order to boost students' prospects as full participants in society and active citizens. Enhancing specific social and emotional skills boosts students' ability to develop their cognitive skills. But the benefits of developing children's social-emotional skills go beyond cognitive development and academic outcomes. They also improve mental health and other important life outcomes. Inconspicuous yet significantly impactful, social and emotional skills help shape individuals' behaviours and lifestyles, which, in turn, shape their socio-economic outcomes. Together, social, emotional and cognitive skills constitute a comprehensive toolbox, essential to students' success at school and beyond.

The OECD Survey on Social and Emotional Skills (SSES) focuses on 17 social and emotional skills ranging from curiosity and creativity through to emotional control (see Figure 1). These skills have been selected according to three main criteria. First, previous research shows that they are associated with individuals' educational attainment, labour market outcomes, health and well-being. Second, they can be improved through interventions and policy measures during the years a student spends in school. Third, they are suitable for comparability across countries and age cohorts.

**Figure 1. Description of the skills included in the Survey on Social and Emotional Skills**

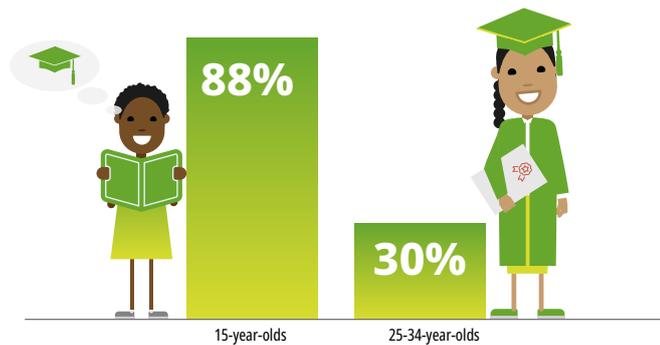
DOMAINS	SKILLS	DESCRIPTION
<b>OPEN-MINDEDNESS</b> (Openness to experience)	CURIOSITY	Interest in ideas and love of learning, understanding and intellectual exploration; an inquisitive mind-set.
	TOLERANCE	Is open to different points of view, values diversity, is appreciative of foreign people and cultures.
	CREATIVITY	Generating novel ways to do or think about things through exploring, learning from failure, insight and vision.
<b>TASK PERFORMANCE</b> (Conscientiousness)	RESPONSIBILITY	Able to honour commitments, and be punctual and reliable.
	SELF-CONTROL	Able to avoid distractions and sudden impulses and focus attention on the current task in order to achieve personal goals.
	PERSISTENCE	Persevering in tasks and activities until they get done.
<b>ENGAGING WITH OTHERS</b> (Extraversion)	SOCIABILITY	Able to approach others, both friends and strangers, initiating and maintaining social connections.
	ASSERTIVENESS	Able to confidently voice opinions, needs, and feelings, and exert social influence.
	ENERGY	Approaching daily life with energy, excitement and spontaneity.
<b>EMOTION REGULATION</b> (Emotional stability)	STRESS RESISTANCE	Effectiveness in modulating anxiety and able to calmly solve problems (is relaxed, handles stress well).
	OPTIMISM	Positive and optimistic expectations for self and life in general.
	EMOTIONAL CONTROL	Effective strategies for regulating temper, anger and irritation in the face of frustrations.
<b>COLLABORATION</b> (Agreeableness)	EMPATHY	Understanding and caring for others and their well-being that leads to valuing and investing in close relationships.
	TRUST	Assuming that others generally have good intentions and forgiving those who have done wrong.
	CO-OPERATION	Living in harmony with others and valuing interconnectedness among all people.
<b>ADDITIONAL INDICES</b>	ACHIEVEMENT MOTIVATION	Setting high standards for oneself and working hard to meet them.
	SELF-EFFICACY	The strength of individuals' beliefs in their ability to execute tasks and achieve goals.

**Source:** Assessment Framework of the Survey on Social and Emotional Skills (Kankaraš and Suarez-Alvarez, 2019[1])

# HIGHLIGHTS FOR MANIZALES (COLOMBIA)



More social and emotional skills matter for students' school performance in Manizales than on average across participating cities. On top of intellectual curiosity and persistence, responsibility, assertiveness and emotional control are the social and emotional skills most positively related to school grades for 15-year-olds.



15-year-olds in Manizales are ambitious. Manizales has one of the largest proportions of 15-year-olds who reported that they expected to go on and complete a tertiary degree (88%) of the participating cities – much larger than the share of 25-34-year-olds who are tertiary-educated in Colombia (30%).



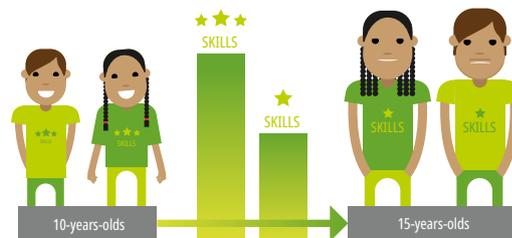
In Manizales, students who are more curious, assertive and tolerant also tend to have higher educational expectations.

In Manizales, socio-economically advantaged students generally exhibit higher levels of every social and emotional skill measured by SSES except for stress resistance.

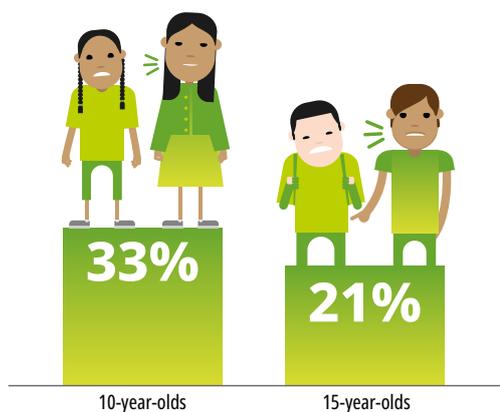


Gender differences are significantly larger in Manizales than on average across participating cities for the skills of responsibility and achievement motivation, which are in favour of girls, and emotional control, assertiveness and energy, which are in favour of boys.

In Manizales and on average across cities, gender differences in students' social and emotional skills tend to be more pronounced among 15-year-olds than 10-year-olds.



As on average across participating cities, 15-year-olds exhibit lower social and emotional skills than 10-year-olds in Manizales – especially in the domain of task performance, and in trust and achievement motivation, which drop more substantially than in most of the other participating cities.



In Manizales, 33% of 10-year-old students and 21% of 15-year-old students have experienced bullying at least a few times a month or more. Students' exposure to bullying is negatively related to almost all social and emotional skills.

Find more about the findings of the **Survey on Social and Emotional Skills** in the international report: OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>

## The context of social and emotional learning in Manizales (Colombia)

Manizales (Colombia) is one of the 10 cities that took part in the OECD Survey on Social and Emotional Skills (SSES) in 2019. With approximately 400 000 inhabitants, Manizales is one of the least populous cities in the SSES and is relatively smaller compared to Bogotá, the capital city of Colombia, which also took part in the SSES. Compared to the rest of Colombia, Manizales exhibits a rate of unemployment of 8.4%, which is lower compared to the whole of Colombia (12.9%) and higher compared to Bogotá (6.5%).

Education is a key area of investment for Colombia, with an estimated 6% of the Gross Domestic Product (GDP) spent on education (from pre-primary to tertiary education programmes), which is above the OECD average of 5% in 2017 (OECD, 2020<sup>[2]</sup>).

OECD surveys such as the Programme for International Student Assessment (PISA) have shed light on Colombian students' knowledge and cognitive skills in mathematics, science and reading, providing the opportunity to make cross-country comparisons and observe important trends over time. PISA 2018 showed that 15-year-old students in Colombia had lower cognitive skills than the OECD average in reading, mathematics and science despite a consistent improvement in student performance since 2006. Girls outperformed boys in reading by the smallest difference observed across participating countries. In contrast, the difference between boys' and girls' mathematics and science scores was the largest across all participating countries. In PISA 2018, differences in performance across subjects were also explained by socio-economic status; socio-economically advantaged students outperformed disadvantaged students by a score gap that is slightly lower than the OECD average. PISA 2018 additionally revealed that, compared to the OECD average, students in Colombia were more satisfied with their lives. However, students reported being bullied more frequently, and felt lonely more often than on average across OECD countries (OECD, 2019<sup>[3]</sup>). However, little is known about students' social and emotional skills and how these relate to their key outcomes despite the attention paid to these skills in Colombia as well as in the city of Manizales (Colombia). Manizales' participation in SSES in 2019 helps fill this important information gap.

Schools in Manizales (Colombia) follow policies and curricula that promote the overall social and emotional development of students. Additionally, schools in Manizales assess students' social and emotional skills based on competencies defined by the national government (see Box 1 for an overview of the test). Compared to other cities participating in the SSES, Manizales has introduced policies covering a wide variety of social and emotional skills at different levels of the education system, mainly through the Active Urban School model. Manizales' main reasons for investing in students' social and emotional learning are manifold and encompass the goals of decreasing bullying, increasing student participation and engagement in school, improving academic outcomes and increasing completion rates at all levels of the education system and employment rates.

## Social and emotional learning in primary schools

Social and emotional skills in primary education are promoted in the Colombian official curriculum through citizen skills standards, which emphasise the development of skills to act constructively in society. They are organised into three categories: coexistence and peace; participation and democratic responsibility; and plurality, identity and appreciation of differences. They are incorporated into the primary education curriculum in groups of school grades (for grades 1 to 3 and for grades 4 and 5) in increasing levels of complexity. The standards serve as a guideline to build study plans in all mandatory curricular areas so there is no limit on the number of hours that must be invested in their promotion. However, regulations establish a minimum intensity of 1 000 effective hours per year for the development of the primary school curriculum. These standards are in line with the national guidelines of public policy, which indicate that citizenship skills should be promoted across the board in all core areas of the curriculum. In primary education, however, these are emphasised in the areas of social sciences and other related subjects like Ethics and Values or Constitution and Democracy.

In order to develop students' social and emotional skills from an early age, the Colombian government has also initiated specific programmes such as the Emotions for Life curriculum in primary schools. Through this curriculum, students are taught to know and manage their emotions, understand different points of view, resolve conflicts in a creative manner and improve their personal, family and work relationships. Teachers and parents are provided guides detailing various in-class and at-home activities that can enable students to develop key skills such as open-mindedness, engagement, co-operation, emotional control and empathy. The overall aim of this curriculum is to create competencies that contribute towards developing students' social and emotional skills both at home and in school.

## Social and emotional learning in secondary schools

At the secondary level of education, the approach of promoting citizen skills standards in the national curriculum continues, and is organised separately for grades 6-7, 8-9, and 10-11. Again, just as in primary education, these citizen competencies are promoted in a transversal manner in all the compulsory areas of the curriculum as mandated by national public policy guidelines but more specifically in the areas of Social Sciences, Ethics and Values and Philosophy.

The municipality of Manizales and the Luker Foundation also initiated the Active Urban School Programme for students of public schools in the urban area of the city of Manizales. It promotes the development of social and emotional skills through active pedagogies from preschool to grade 11. It operates through a public-private alliance between the Municipal Education Secretariat and the Luker Foundation. The programme promotes intentional activities and strategies for the development of social and emotional skills through interactions between students, teachers, managers and parents. These interactions serve as a space for debate around the individual and collective capacities and abilities to be developed to build equitable, democratic, participatory and fair relationships. Another goal is to promote an environment of interactive decision-making on critical aspects of education and the social development of young people. In this sense, the model is intended to encourage participation, democracy, tolerance, respect, conflict resolution within the classroom, co-operation, teamwork, leadership and motivation of students in the learning process.

Furthermore, primary and secondary teachers as well as educational institutions in Colombia are encouraged to incorporate social and emotional learning into the general curriculum by way of a set of guidelines and materials to use with students in the classroom. The former includes transversal incorporation of social and emotional skills in all curricular areas as well as the design of specific spaces for citizen education (for example, through real or simulated cases that integrate different academic areas). At the institutional level, four environments are proposed to promote citizen skills in the school environment: (i) institutional management, which incorporates policies for inclusion, coexistence, conflict management among others; (ii) instances of student participation such as the Council and the school government; (iii) intentional activities in the classroom that promote the teaching of citizenship competencies in mandatory areas; (iv) pedagogical projects, which are academic activities that enable students to solve problems and face situations related to the context in which they live.

In order to gain a holistic understanding of student progress, the Colombian government also formally assesses students' cognitive and non-cognitive skills through the SABER test (see Box 1 below). This allows educational establishments, schools and teachers to develop effective strategies to enhance student learning in a targeted manner.

## Box 1. SABER test in Colombian schools

In 2004, Colombia's Ministry of National Education published the basic standards of citizen competencies required to form a peaceful, democratic and participatory society. These competencies are evaluated using the SABER test administered by the Colombian Institute of Evaluation of Education (ICFES). The test evaluates students' social and emotional skills such as emotional regulation and citizenship competencies as well as cognitive abilities in mathematics, science and languages to develop a holistic understanding of student progress. This allows educational establishments, schools and teachers to develop effective strategies to enhance student learning in a targeted manner. The assessment is applied to primary and secondary school students and contains independent tests in the following areas:

- Citizen thinking: This test assesses citizenship knowledge and the ability of students to perform various mental processes in everyday contexts that encourage peer interaction and the exercise of citizenship, thereby promoting positive engagement with other stakeholders within the school community.
- Citizen actions and attitudes: This test evaluates students' beliefs, perceptions, attitudes and actions around different aspects of citizenship.
- Social and emotional skills: This test focuses on measuring the extent of emotional regulation through the recognition and management of one's own emotions and those of others. Additionally, it measures students' confidence in their skills in achieving the goals they set, which include social and emotional skills such as achievement motivation, assertiveness, emotional control, empathy, responsibility, self-control, self-efficacy and group work.

**Source:** : ICFES (2018<sup>(4)</sup>)

While this overview provides some context to examine findings from the SSES for the city of Manizales (Colombia), no conclusion can be drawn from SSES as to how elements of this context influence social and emotional learning in Manizales.

## Social and emotional skills matter for academic success

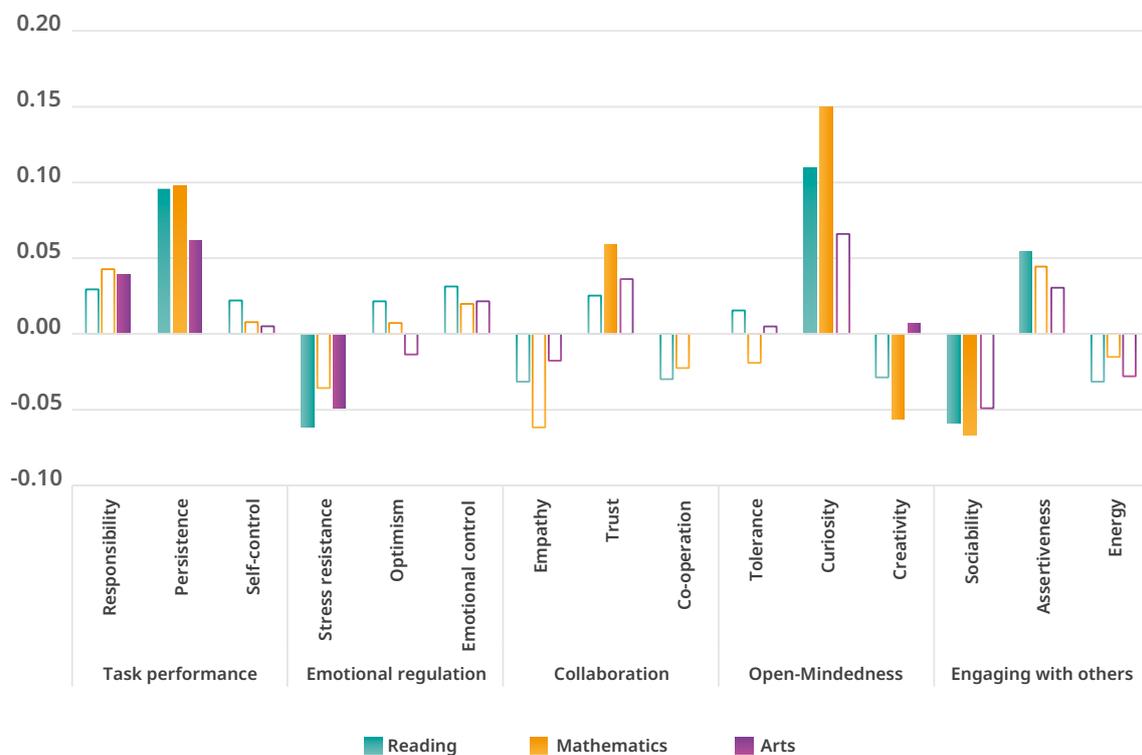
Students' school achievement is one of the main drivers of success in life. It is linked to later educational attainment but also to important life outcomes like employment, earnings, health and well-being. However, having the same academic performance in school does not always lead to the same life outcomes. One potential reason why some students are more likely to succeed than others is that they have developed specific social and emotional skills, which intervene in the equation.

In all participating cities but Ottawa (Canada), SSES collected information on students' school grades in three subjects: reading, mathematics and the arts along with the results of a short cognitive ability test administered to participating students. SSES data show that students' social and emotional skills are significant predictors of school grades (Figure 2 and Figure 3). The strengths of the associations between certain social and emotional skills and school grades are relatively weak but consistent across age cohorts and subjects and they remain after accounting for gender and socio-economic differences across students. In particular, being intellectually curious and persistent are the social and emotional skills most strongly related to school grades for both 10- and 15-year-olds in all three subjects. To a lesser extent, students who are more assertive and responsible also tend to have better school grades. These findings stress the importance of not only pursuing objectives in the face of difficulties but also to have an intellectual curiosity about a diverse set of topics and to love learning new things.

Fifteen-year-olds who reported being more stress-resistant (relaxed) and sociable have, on average, lower school grades (Figure 2). This does not mean that calmness in face of adversity (a benefit of being stress-resistant) and seeking support from peers are harmful to school achievement. Instead, this finding might be related to the fact that older students who typically have more autonomy than younger students may prioritise their social interactions at the expense of school work. Students who assess themselves as more stress-resistant might also be those who feel more remote from school and school demands. In fact, among the younger cohort, which is typically more supervised by parents and teachers, these relationships are not observed (Figure 3). In other words, younger students may have a less demanding school environment and are surrounded by adults who help them contain and channel their energy and desire to interact socially in ways that do not harm their school performance.

## Figure 2. Average relationship between social and emotional skills, and school performance of 15-year-old students

Coefficients of (standardised) grades in reading, mathematics and the arts on (standardised) scores on social and emotional skills scales (international average)

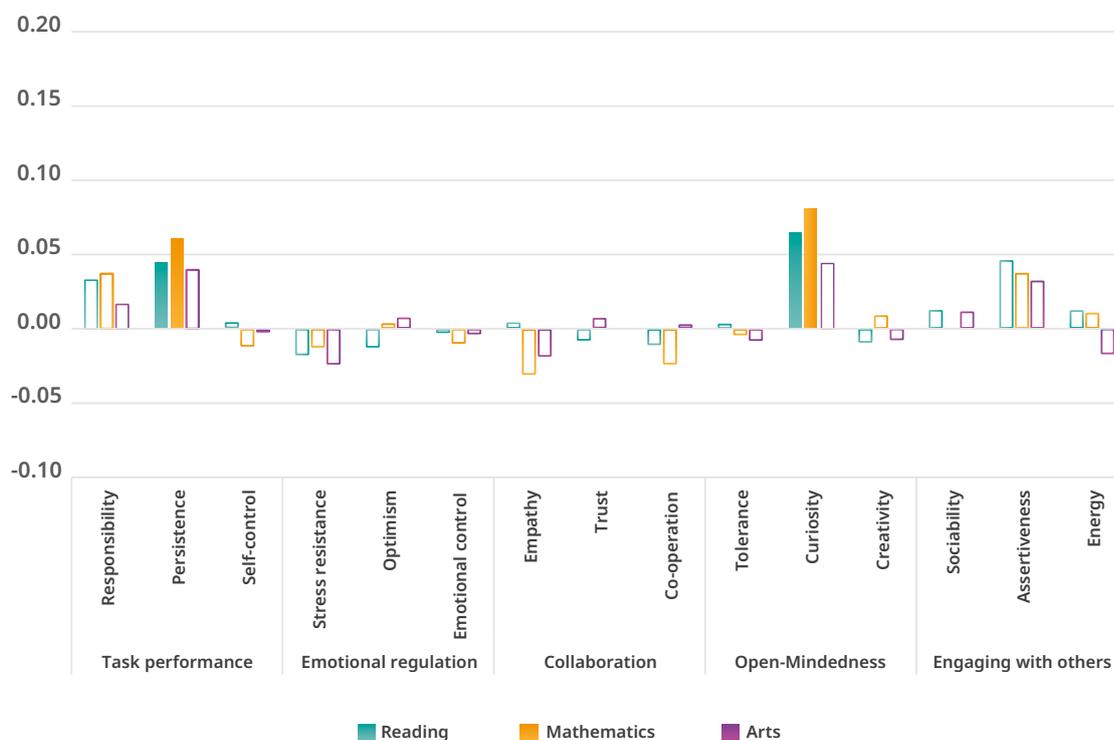


**Note:** Data for Sintra (Portugal) did not reach student response rate standards and are not included in international averages. The regressions are city-specific and control for gender, socio-economic status, and scores in the cognitive ability test, with the exception of Houston (United States), where the cognitive ability test was not administered. Ottawa (Canada) is excluded from the analysis of school grades as students' grades were not available. Coloured bars represent significant differences in at least five cities, bars that are only outlined represent significant differences in fewer than five cities.

**Source:** Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Figure 2.1.

### Figure 3. Average relationship between social and emotional skills, and school performance of 10-year-old students

Coefficients of (standardised) grades in reading, mathematics and the arts on (standardised) scores on social and emotional skills scales (international average)



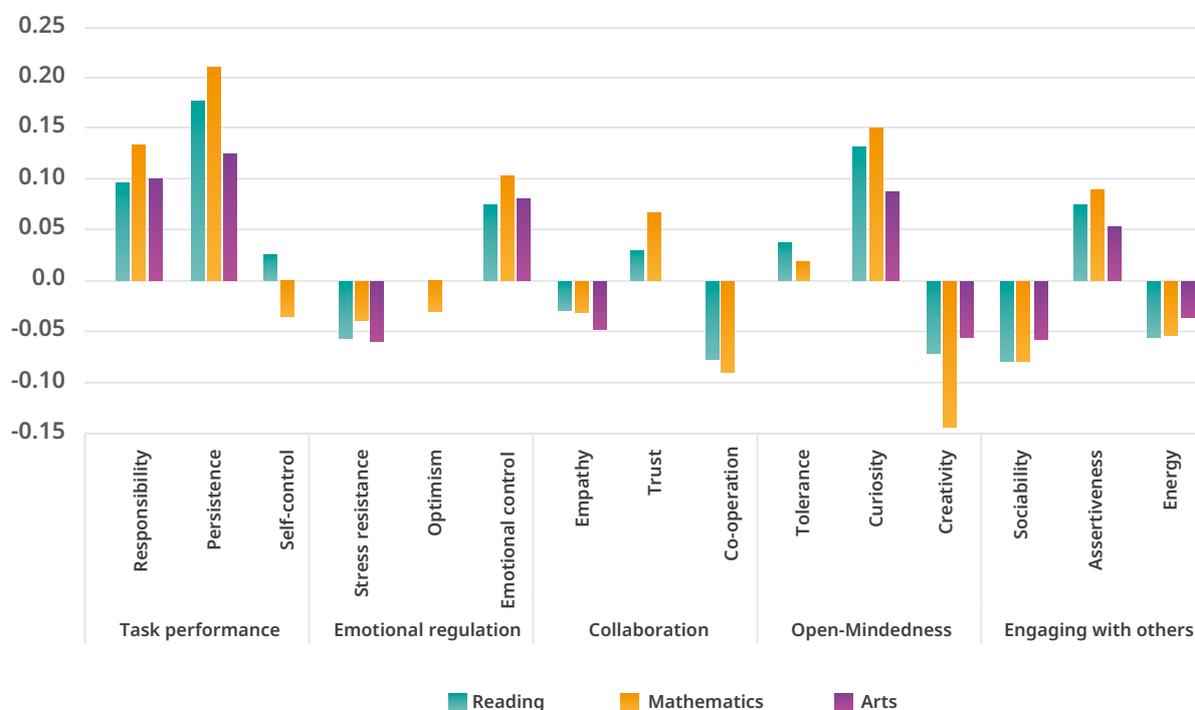
**Note:** Data for Sintra (Portugal) did not reach student response rate standards and are not included in international averages. The regressions are city-specific and control for gender, socio-economic status, and scores in the cognitive ability test, with the exception of Houston (United States), where the cognitive ability test was not administered. Ottawa (Canada) is excluded from the analysis of school grades as students' grades were not available. Coloured bars represent significant differences in at least five cities, bars that are only outlined represent significant differences in fewer than five cities.

**Source:** Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Figure 2.2.

Figure 4 provides an overview of the social and emotional skills that are most strongly related with students' grades in all three subjects for the city of Manizales (Colombia). Interestingly, more social and emotional skills matter for school performance in Manizales than in other cities. Not only intellectual curiosity and persistence but also responsibility, assertiveness and emotional control are the social and emotional skills most positively related to school grades for 15-year-olds in all three subjects considered as part of the SSES analysis; reading, mathematics and arts. These findings emphasise the importance of not only dedication in pursuing predetermined goals, even in the face of difficulties, but also cultivating an intellectual curiosity for a diverse range of topics. Those students who are curious about a diverse set of topics and love learning new things are better equipped to face difficulties and are more likely to reach their goals. Furthermore, 15-year old students who reported being more responsible and assertive may be able to better balance their peer relationships with their schoolwork. In Manizales, 15-year-old students who report being more sociable have, on average, lower grades in school. Schoolwork towards the end of compulsory education can be demanding and academic achievement in high school is made even more challenging than in primary school by students' peer relationships, which are often more complex. This may require students to reevaluate priorities and reconfigure relationships with their peers.

**Figure 4. Skills most strongly associated with students' performance in Manizales (Colombia)**

Coefficients of (standardised) grades in reading, mathematics and the arts on (standardised) scores on social and emotional skills scales (international average)



**Note:** Coefficients from regressions of 15-year-olds' (standardised) grades in reading, mathematics and the arts on (standardised) scores on social and emotional skills scales. Each regression controls for gender, socio-economic status, and scores in the cognitive ability test. Only significant and lasso-selected relationships are reported.

**Source:** Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Tables A2.1, A2.2, A2.3, A2.4, A2.5 and A2.6.

## Social and emotional skills matter for future educational and occupational outcomes

Adolescence is a period when young people start to prepare for adult life. Teenagers have to make important decisions relevant to their future lives such as what field of study or type of education they will pursue and what job they will have. But young people often have a distorted perception of their cognitive, social and emotional strengths, which is influenced by their immediate environment more than by objective information; and they may lack sufficient knowledge about the breadth of educational opportunities and careers open to them. Importantly, past research has argued and shown that social and emotional skills are an integral component of individuals' employability, i.e. individuals' capability of getting and keeping fulfilling work (Pool and Sewell, 2007<sup>[5]</sup>).

Education systems can play a crucial role in channelling these skills into the labour market, and helping young people develop a fair assessment of themselves and of their future educational opportunities. In doing so, they can ensure that students' skills, interests and aptitudes find a suitable match in the economy (Musset and Kurekova, 2018<sup>[6]</sup>).

In Manizales (Colombia) 88% of 15-year-olds reported that they expected to go on and complete a tertiary degree – one of the largest proportions observed across the participating cities, same as Bogotá (Colombia) at 88% and slightly below that of Suzhou (China) at 91%. This share is not only higher in comparison to that of other cities participating in SSES, it is also much larger than the estimated current share of tertiary-educated individuals in Colombia as a whole (30%) (OECD, 2020<sup>[2]</sup>). This suggests that 15-year-old students in Manizales are particularly ambitious. This discrepancy can result from a lack of opportunities or means that might be needed to realise these educational expectations. However, the city of Manizales and the Luker foundation have initiated efforts to support students’ access to higher education in the city. This may explain the high share of students expecting to go on to complete a tertiary degree.

Across all SSES-participating cities with available data, the proportion of students who hold high expectations for further education is related to how they portrayed their own social and emotional skills. Among students of similar socio-economic background, differences in education expectations are often related to differences in social and emotional skills. In particular, in Manizales (Colombia) and in all participating cities, highly intellectually curious students tend to have higher educational expectations. Higher levels of assertiveness and tolerance are also, in Manizales as well as in most cities, associated with expectations of completing higher education. Unlike other participating cities, persistence and optimism do not seem to be related with students’ educational expectations of enrolling in higher education (Figure 5).<sup>1</sup>

Why is curiosity strongly and consistently related to expectations for completing tertiary education? This likely reflects the fact that students with a great deal of curiosity and love of learning tend to have positive dispositions not only towards learning, in general, but also towards formal tertiary-education institutions; these students see tertiary institutions such as universities as places where their desire for knowledge can be satisfied. This indicates the importance of cultivating the affective dimensions that support academic performance – and not only behavioural tendencies such as persistence and self-control – in order to prepare students for lifelong learning.

**Figure 5. How social and emotional skills relate to expectations of completing tertiary education**  
 Darker colour represent stronger relations between skills and expectations of completing tertiary education - 15-year-olds



**Note:** Shades of green indicate positive and significant relations, with a darker tone indicating a stronger relationship. Shades of orange indicate negative relations. Numbers in the legend refer to the percentage-point change in the likelihood of 15-year-old students holding this expectation that is associated with a 100-point increase in the corresponding skill score. All models include controls for socio-economic status and gender. Data for Helsinki (Finland) is not available. For more details on the analyses, please refer to the annex of the international report – OECD (2021).

**Source:** Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Figure 2.6.

<sup>1</sup> All these findings hold while accounting for other skill differences and for differences in gender and socio-economic status.

Similar to educational expectations, students' occupational expectations are related to specific patterns of social and emotional skills. First, the relations between social and emotional skills, and occupational expectations are much stronger among 15-year-olds than 10-year-olds. This might signal the interdependence of these two factors – students might develop job preferences adapted to their own cognitive, and social and emotional skills at the same time as they improve their skills to meet the requirements of their personal job aspirations.

Looking at 15-year-olds' job expectations, certain patterns of social and emotional skills emerge that are associated with aspirations to work in certain occupational groups. A few exemplar cases illustrate this. For example, in Manizales (Colombia), as well as in all other participating cities, 15-year-old students who reported aspiring to become health professionals (i.e. medical doctors, nursing and midwifery professionals) are also more curious than peers aspiring to other occupations (Figure 6). In Manizales more than in other cities, these students also represent themselves as more persistent and cooperative but also less assertive and tolerant than other students. This combination of social and emotional skills is not surprising given that health occupations require curiosity for sciences and interpersonal skills to cater to patients' needs. Social and emotional skills such as persistence and co-operation become especially important when dealing with occupational distress brought on by long working hours, difficult patient cases that cause emotional exhaustion, or reduced level of peer and supervisor assistance.

**Figure 6. Skills most strongly associated with expectations of working as health professionals**  
Darker colours present stronger relations between skills and students' expectation - 15-year-olds



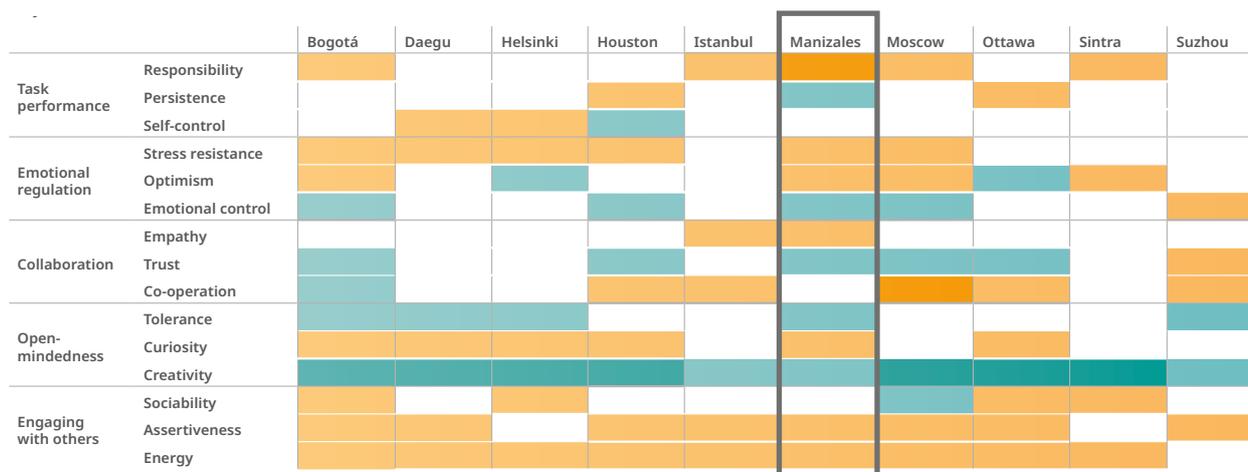
**Note:** Shades of green indicate positive and significant relations, with a darker tone indicating a stronger relationship. Shades of orange indicate negative relations. Numbers in the legend refer to the percentage-point change in the likelihood of 15-year-old students holding this expectation that is associated with a 100-point increase in the corresponding skill score. All models include controls for socio-economic status and gender. For more details on the analyses, please refer to the annex of the international report – OECD (2021).

**Source:** Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Figure 2.7.

In all cities including Manizales (Colombia), students expecting to work in a creative occupation also represent themselves as more creative (Figure 7). Creative occupations include, for example, artists, musicians, actors but also marketing directors, professionals and associate professionals, architects, journalists, public relations officers, and software professionals. In Manizales especially, students expecting a creative occupation also tend to be more persistent, trusting, tolerant and in control of their emotions as compared to their peers.

### Figure 7. Skills most strongly associated with expectations of working in a creative occupation (15-year-olds)

Darker colour represent stronger relations between skills and expectations of working in a science-related occupation - 15-year-olds



- The skill was not selected by Lasso
- The skill was selected by Lasso, but the post lasso coefficient is not significant
- The skill was selected by Lasso, the post lasso coefficient is significant at 5% and the coefficient is positive but below 5
- The skill was selected by Lasso, the post lasso coefficient is significant at 5% and the coefficient is positive and above 5
- The skill was selected by Lasso, the post lasso coefficient is significant at 5% and the coefficient is negative but above 5
- The skill was selected by Lasso, the post lasso coefficient is significant at 5% and the coefficient is negative and below 5

**Note:** Shades of green indicate positive and significant relations, with a darker tone indicating a stronger relationship. Shades of orange indicate negative relations. Numbers in the legend refer to the percentage-point change in the likelihood of 15-year-old students holding this expectation that is associated with a 100-point increase in the corresponding skill score. All models include controls for socio-economic status and gender. For more details on the analyses, please refer to the annex of the international report – OECD (2021).

**Source:** Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Figure 4.10.

## Social and emotional skills matter for well-being

Well-being is an important measure of quality of life alongside other social and economic dimensions (OECD, 2013<sup>[7]</sup>). Adolescence is a period of rapid physical growth and brain development, increasing demands and expectations regarding school performance, changing relationships with parents and peers as well as increasing autonomy as students start to make their own decisions and develop behaviours that can influence their current and future well-being (Inchley et al., 2020<sup>[8]</sup>; Patton, 2016<sup>[9]</sup>). Education policies increasingly address student well-being as part of a whole-child perspective to education. This has led to increased emphasis on social and emotional skills alongside cognitive skills as drivers of future well-being.

The three aspects of students' psychological well-being measured in the SSES (life satisfaction, current psychological well-being and test anxiety) are strongly related to skills in the domain of emotional regulation: stress resistance, optimism and emotional control. All three aspects of students' psychological well-being are also only weakly related to skills in the domains of task performance and engaging with others.

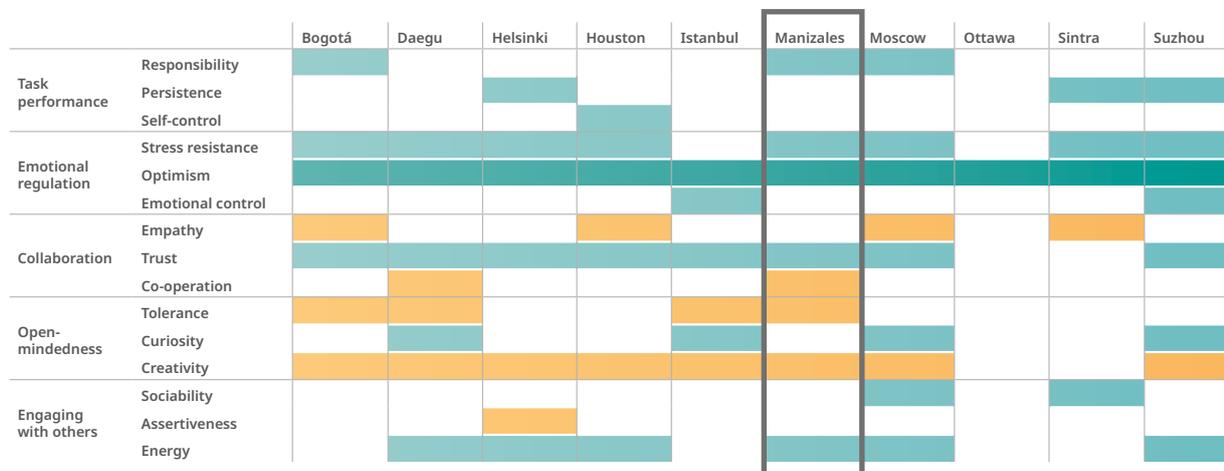
### Life satisfaction

Students' life satisfaction is an evaluation that students make of their perceived quality of life according to their chosen criteria. This can be determined in part by the student's current mood and memory, and by the immediate context. In Manizales (Colombia) and in all other participating cities, 15-year-old students who are more optimistic also reported higher levels of life satisfaction (Figure 8). This also holds true for 10-year-old students. Students who are optimistic have a positive attitude and favourable outlook towards life. At the same time, students who have a more privileged life might be more optimistic. Most importantly, higher levels of optimism are inversely related to depressive disorders. Optimism confers resilience and coping skills in dealing with stressful events, and is related to factors such as socio-economic status and social integration, which generally have protective effects for both psychological and physical well-being (Carver, Scheier and Segerstrom, 2010<sup>[10]</sup>).

In Manizales (Colombia), optimism is the sole social and emotional skill that is strongly and positively related to 15-year-old students' life satisfaction. Stress resistance, responsibility, trust and energy are also positively yet moderately related to the life satisfaction of 15-year-olds in Manizales.

### Figure 8. Skills most strongly associated with life satisfaction

Darker colours present stronger relations between skills and students' life satisfaction - 15-year-olds



- The skill was not selected by Lasso
- The skill was selected by Lasso, but the post lasso coefficient is not significant
- The skill was selected by Lasso, the post lasso coefficient is significant at 5% and the coefficient is positive but below 0.005
- The skill was selected by Lasso, the post lasso coefficient is significant at 5% and the coefficient is positive and above 0.005
- The skill was selected by Lasso, the post lasso coefficient is significant at 5% and the coefficient is negative but above -0.005
- The skill was selected by Lasso, the post lasso coefficient is significant at 5% and the coefficient is negative and below -0.005

**Note:** Shades of green indicate positive and significant relations, with a darker tone indicating a stronger relationship. Shades of orange indicate negative relations. Numbers in the legend refer to coefficients from a regression of life satisfaction on (standardised) scores on social and emotional skill scales. The regression controls for gender and socio-economic status. Data for Sintra (Portugal) did not reach student response rate standards. For more details on the analyses, please refer to the annex of the international report – OECD (2021).

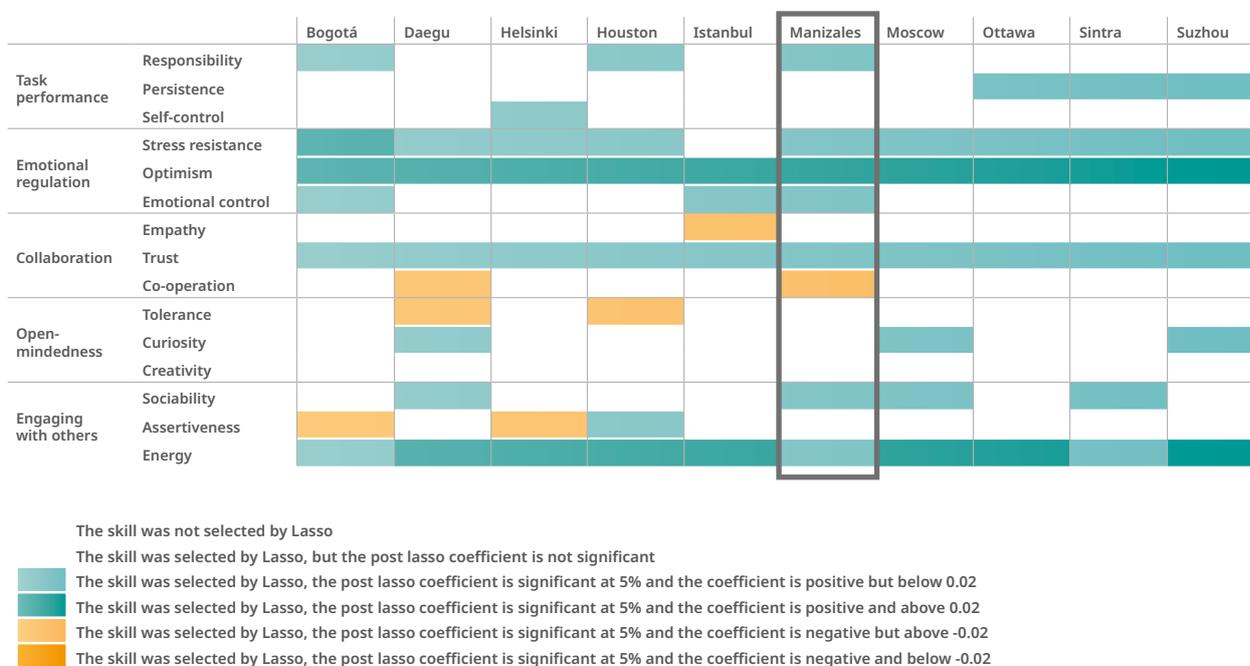
**Source:** Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Figure 3.5.

## Current psychological well-being

Students' current psychological well-being is an evaluation of students' feelings and experiences during the two weeks prior to the survey. In Manizales (Colombia) and in all other participating cities, being optimistic is strongly related to one's current psychological well-being (Figure 9). This holds true for both cohorts of students. Other social and emotional skills that matter for both 10- and 15-year-old students' current psychological well-being in Manizales are their levels of stress resistance, trust of others, their energy and their ability to control emotions. Students who are more optimistic generally respond differently to challenging situations than students who are less optimistic. Optimists are more likely to experience less distress than pessimists when dealing with difficulties in their lives (Scheier, Carver and Bridges, 2004<sup>[11]</sup>). This is not necessarily because optimists have unrealistic expectations (though that may sometimes be the case) but because they have more coping strategies to deal with challenging situations. Thinking that things will only get worse – even if true – may disengage someone from confronting a situation while thinking that things can improve – even if false – may motivate them to get the best out of a given situation.

**Figure 9. Skills most strongly associated with students' current psychological well-being**

Darker colours present stronger relations between skills and students' current psychological well-being - 15-year-olds



**Note:** Shades of green indicate positive and significant relations, with a darker tone indicating a stronger relationship. Shades of orange indicate negative relations. Numbers in the legend refer to coefficients from a regression of current psychological well-being on (standardised) scores on social and emotional skill scales. The regression controls for gender and socio-economic status. Data for Sintra (Portugal) did not reach student response rate standards. For more details on the analyses, please refer to the annex of the international report – OECD (2021).

**Source:** Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Figure 3.6.

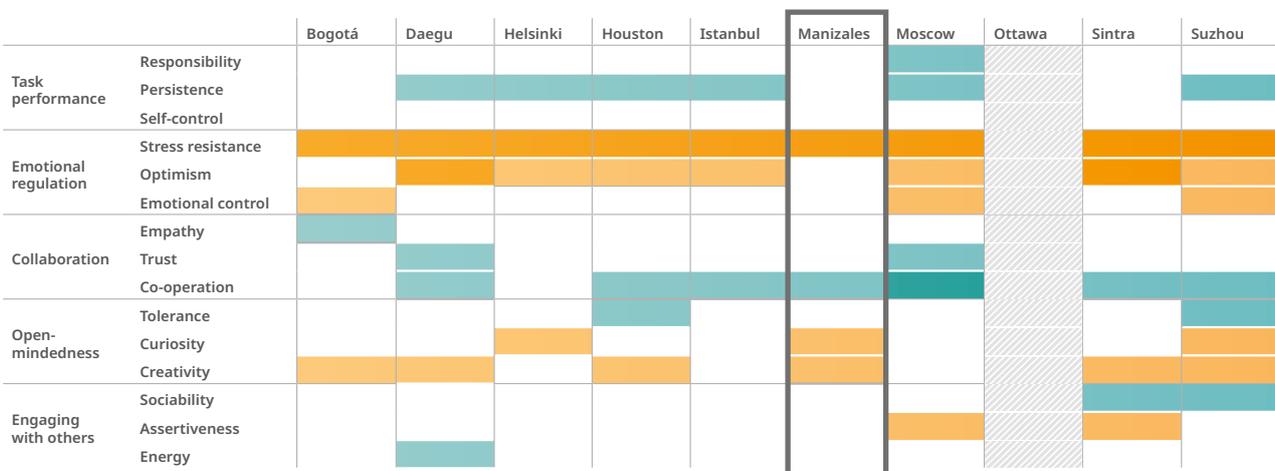
## Test anxiety

Test anxiety can be described as “the set of phenomenological, physiological, and behavioural responses that accompany concern about possible negative consequences or failure in an evaluative situation” (Zeidner, 2007<sup>[12]</sup>). It typically arises in educational settings where students believe their abilities are stretched or exceeded by the demands of the test situation. In Manizales (Colombia) and in all participating cities with available data, students who indicated higher stress resistance reported a lower level of test anxiety. This holds true for students aged 10 and 15 while accounting for students’ grades in both mathematics and reading, which are typically correlated with a lower level of test anxiety (Figure 10). Among 10- and 15-year-olds, higher levels of optimism, creativity and emotional control are also related to lower levels of test anxiety in quite a few cities.

In Manizales (Colombia) more specifically, students aged 10 and 15 who reported being more creative had lower levels of test anxiety. Higher levels of curiosity were also related to lower levels of test anxiety among 15-year-old students but those who reported being more cooperative showed higher levels of test anxiety. Previous studies, which have found a relation between students’ test anxiety, and social and emotional skills corroborate these findings from SSES data. For example, Chamorro-Premuzic, Ahmetoglu and Furnham (2008<sup>[13]</sup>) used samples of university students in the United States and the United Kingdom to investigate the relationships between test anxiety, and social and emotional skills, core self-evaluations and self-assessed intelligence. They found that higher test anxiety was largely a function of liking to engage with others, among other factors, hence indicating that being more cooperative could be associated with higher test anxiety.

**Figure 10. Skills most strongly associated with test anxiety**

Darker colours present stronger relations between skills and students’ test anxiety - 15-year-olds



The skill was not selected by Lasso

The skill was selected by Lasso, but the post lasso coefficient is not significant

The skill was selected by Lasso, the post lasso coefficient is significant at 5% and the coefficient is positive but below 0.02

The skill was selected by Lasso, the post lasso coefficient is significant at 5% and the coefficient is positive and above 0.02

The skill was selected by Lasso, the post lasso coefficient is significant at 5% and the coefficient is negative but above -0.02

The skill was selected by Lasso, the post lasso coefficient is significant at 5% and the coefficient is negative and below -0.02

**Note:** Shades of green indicate positive and significant relations, with a darker tone indicating a stronger relationship. Shades of orange indicate negative relations. Numbers in the legend refer to coefficients from a regression of (standardised) test anxiety on (standardised) scores on social and emotional skill scales. The regression controls for gender, socio-economic status, and scores in math and reading. The model for Ottawa (Canada) is excluded as Ottawa did not provide information on grades. Data for Sintra (Portugal) did not reach student response rate standards. For more details on the analyses, please refer to the annex of the international report – OECD (2021).

**Source:** Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Figure 3.8.

## Students' social and emotional skills are related to students' background characteristics...

SSES data and past research show that students' social and emotional skills are important for students' academic success, employment outcomes and well-being as well as for the prosperity of societies in general. The United Nations Sustainable Development Goals (SDGs) Target 4.7 advocates:

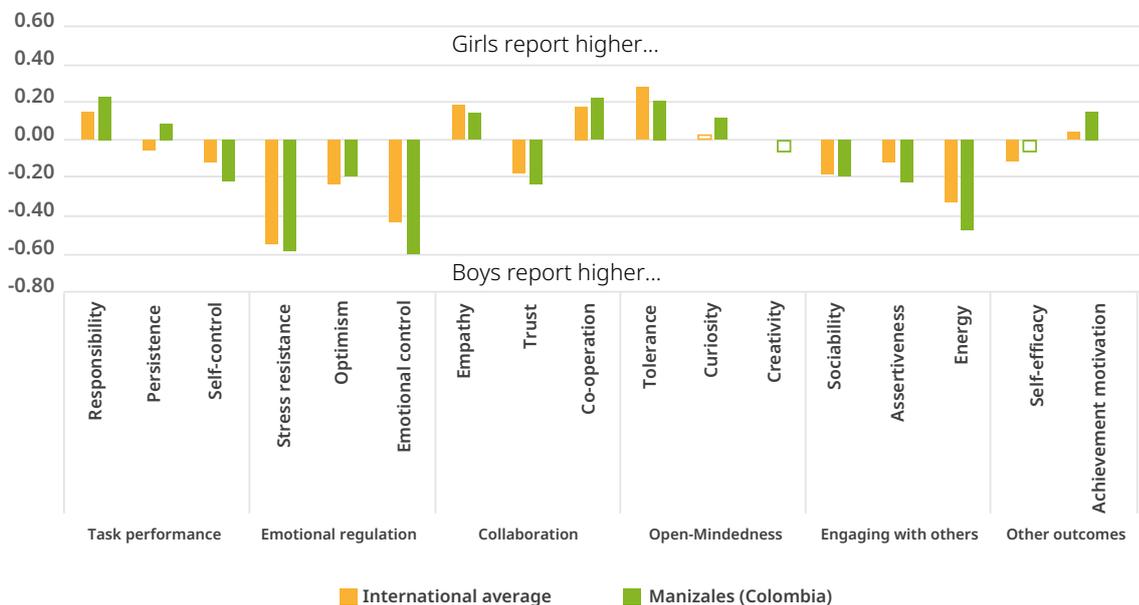
*“ensuring that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development”.*

In this context, social and emotional skills such as co-operation, empathy and tolerance are key for citizens and societies to achieve these goals and secure the basis for functioning democracies. However, students with different background characteristics tend to possess different combinations of social and emotional skills.

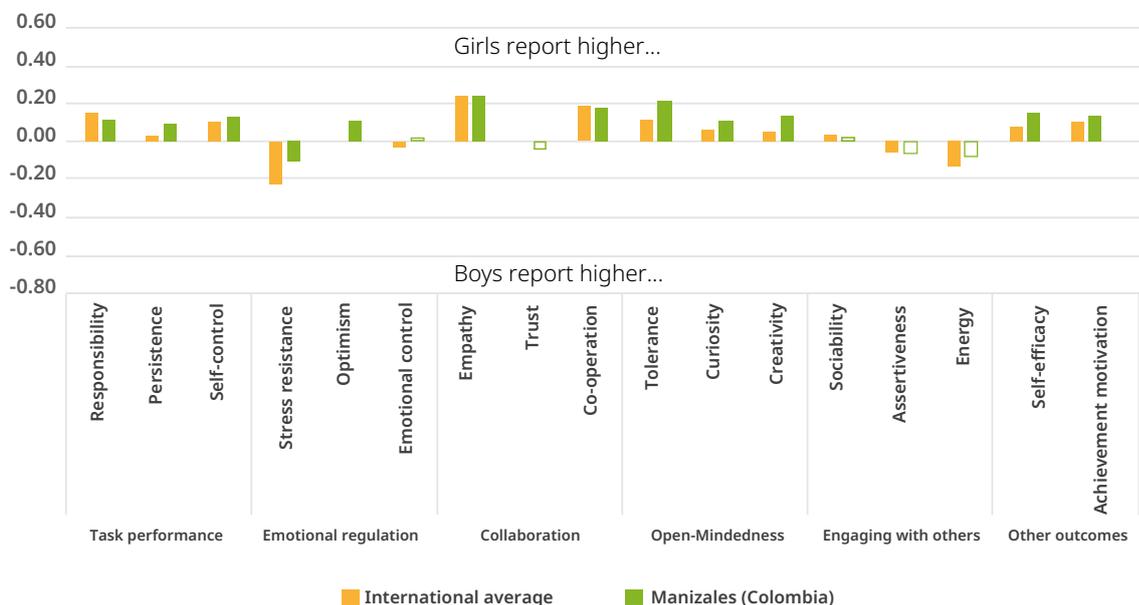
In Manizales (Colombia) as on average across participating cities, 15-year-old boys exhibit higher skills in the domains of emotional regulation (stress resistance, optimism and emotional control) and engaging with others (sociability, assertiveness, energy). Likewise, 15-year-old girls exhibit higher levels of responsibility, empathy and co-operation, tolerance and achievement motivation. There are a few skills for which gender differences are significantly larger in Manizales than on average across participating cities: responsibility and achievement motivation in favour of girls, and emotional control, assertiveness and energy in favour of boys. In addition, both in Manizales and on average across cities, gender differences in students' social and emotional skills seem to increase with age and become more significant as they tend to be more pronounced among 15-year-olds than 10-year-olds (Figure 11). In Manizales, this holds particularly true for skills in the domain of engaging with others (sociability, assertiveness and energy), and stress resistance and optimism, in favour of boys. Some gender differences also change direction as students age. For example, girls reported higher optimism and self-control at the age of 10 and lower optimism and self-control at the age of 15 compared to boys.

### Figure 11. Gender differences in social and emotional skills

Standardised gender differences in skill scores (15-year-old girls – 15-year-old boys)



Standardised gender differences in skill scores (10-year-old girls – 10-year-old boys)



**Note:** Data for Sintra (Portugal) did not reach student response rate standards and are not included in international averages. The figures report standardised differences, whereby the raw scale points have been divided by the (city-specific) standard deviation. Significant differences are coloured, non-significant differences are outlined.

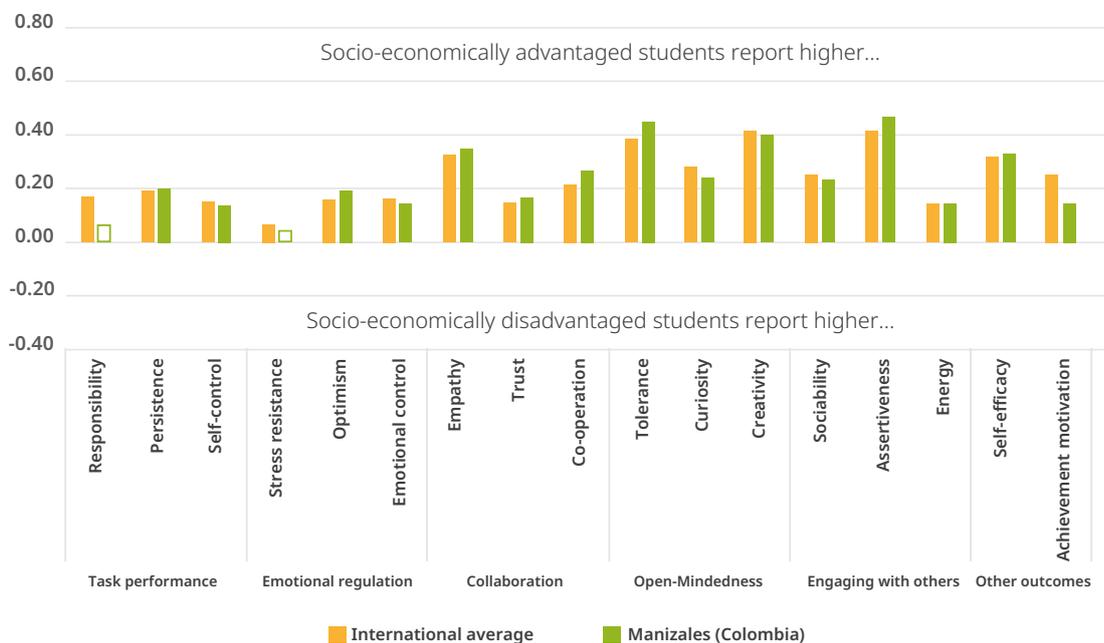
**Source:** Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Tables A1.4, A1.5. and Figure 1.3.

On average across participating cities, socio-economically advantaged students exhibit higher levels on every social and emotional skill measured by SSES. The difference in skills between students with low or high socio-economic status is especially pronounced in skills related to the domain of open-mindedness such as tolerance, curiosity, and creativity, as well as empathy, assertiveness and self-efficacy. In Manizales (Colombia), socio-economic differences are of similar magnitude to the average observed across participating cities among 15-year-olds. In Manizales, no significant socio-economic differences are found for the skills of responsibility and stress resistance among 15-year-olds and those pertaining to the domain of emotional regulation (stress resistance and emotional control) among 10-year-olds. In Manizales and on average across cities, socio-economic differences in students' social and emotional skills tend to decrease between the ages of 10 and 15 (Figure 12).

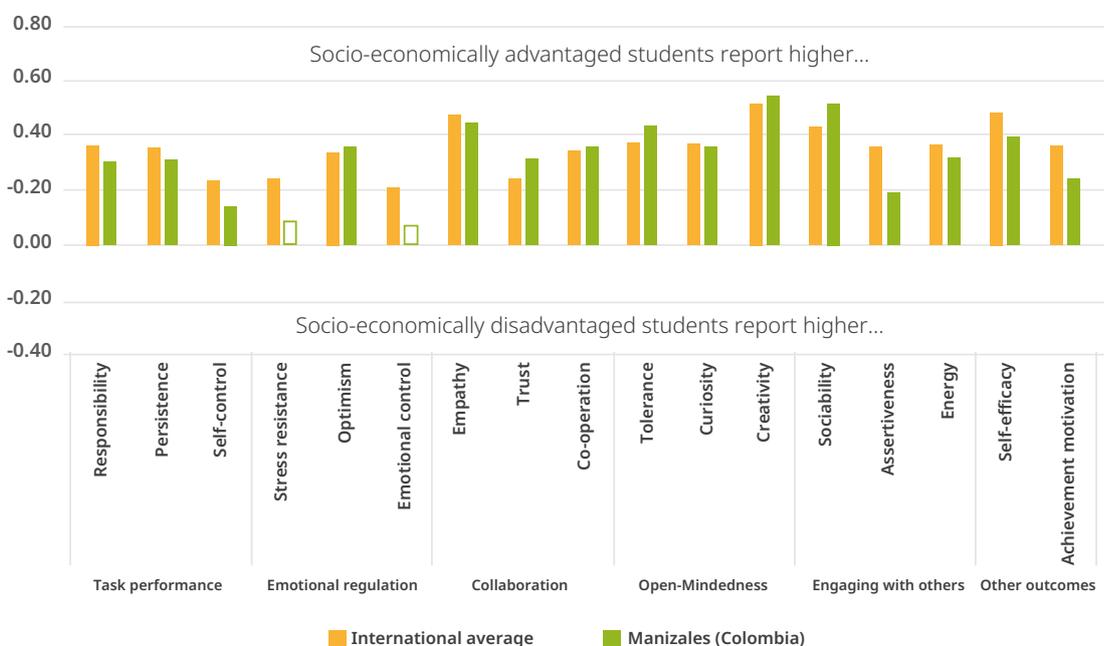
In Manizales (Colombia), 10-year-old students with a migrant background exhibit lower levels of skills than students without a migrant background for nearly all skills – optimism as well as skills in the domains of task performance (responsibility, persistence and self-control); collaboration (empathy, trust and co-operation); open-mindedness (tolerance, curiosity and creativity); engaging with others (sociability and energy) and other compound skills (self-efficacy and achievement motivation). These differences change direction and are significant only in the case of responsibility, self-control, emotional control, stress resistance and trust among 15-year-old students. In other words, 15-year-old students with a migrant background show higher levels of responsibility, self-control, emotional control, stress resistance and trust compared to native-born students (Tables A1.12 and A1.13).

**Figure 12. Differences in social and emotional skills by socio-economic status**

Standardised differences in skill scores (high socio-economic status – low socio-economic status) among 15-year-olds



Standardised differences in skill scores (high socio-economic status – low socio-economic status) among 10-year-olds



**Note:** Data for Sintra (Portugal) did not reach student response rate standards and are not included in international averages. Socio-economically advantaged students are those in the top quarter of the city-specific distribution of the index of socio-economic status. Socio-economically disadvantaged students are in the bottom quarter of the city-specific distribution of the index of socio-economic status. The figures report standardised differences, whereby the raw scale points have been divided by the (city-specific) standard deviation. Significant differences are coloured, non-significant differences are outlined.

**Source:** Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Figures 1.8. and 1.9.

## ... But students' social and emotional skills are malleable...

Inequalities in social and emotional skills among students are not set in stone. SSES data as well as previous research support the notion that social and emotional skills are characteristics and abilities that are malleable and change with biological and psychological maturation, environmental influences, individual effort and important life events (Specht et al., 2014<sup>[14]</sup>; Kankaraš and Suarez-Alvarez, 2019<sup>[15]</sup>; OECD, 2015<sup>[16]</sup>; Roberts, Walton and Viechtbauer, 2006<sup>[17]</sup>).

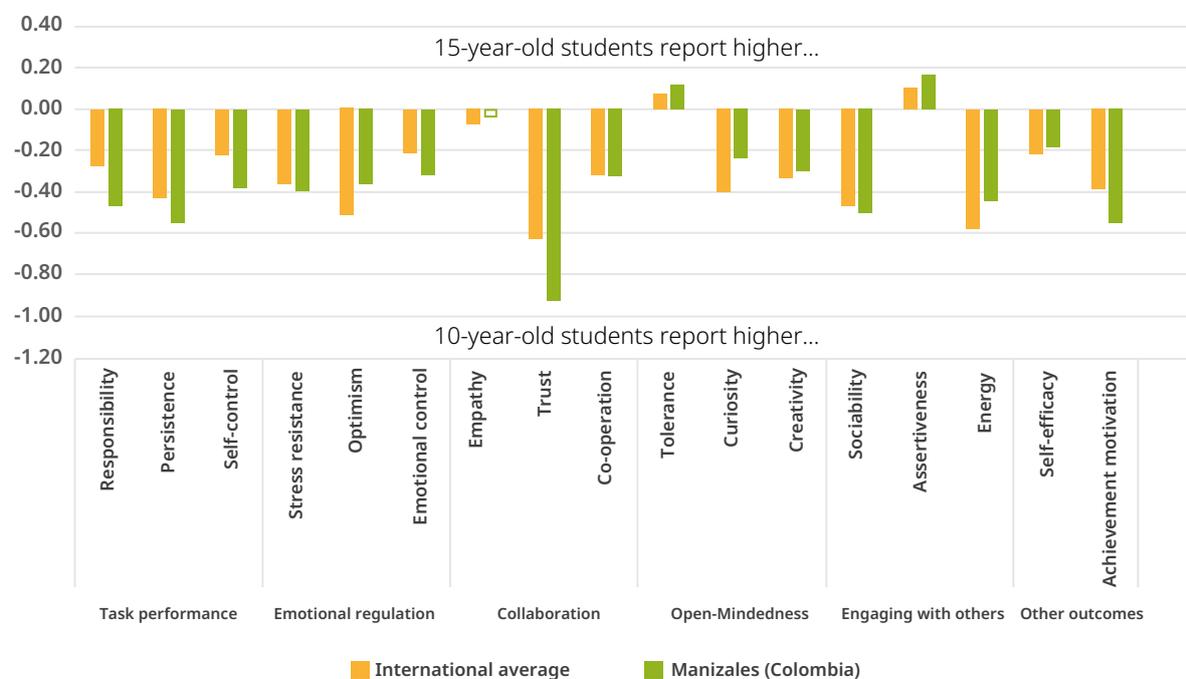
In Manizales (Colombia) and on average across participating cities, 15-year-olds exhibited lower levels than 10-year-olds for most of the social and emotional skills. The differences are particularly pronounced when it comes to optimism, trust, energy and sociability but are smaller for empathy. Tolerance and assertiveness are the only two skills that are reportedly higher among 15-year-olds than 10-year-olds. On the one hand, this might be because teachers and schools are usually more effective at developing these skills. Instruction in citizenship and citizen rights may enhance tolerant attitudes among students. School assignments like oral presentations and written essays may encourage students to develop more assertiveness. On the other hand, the longer one spends in school with its fixed learning environments the more students' abilities to build and practise self-regulation skills, interpersonal skills and creativity and curiosity may become inhibited.

Overall, age-related differences in quite a few students' social and emotional skills in Manizales (Colombia) are of higher magnitude than on average across cities. This is particularly the case for skills that fall in the domain of task performance (responsibility, persistence and self-control) as well as trust and achievement motivation whose levels for students between the ages of 10 and 15 drop more substantially than in most of the other participating cities (Figure 13).

The dip in students' social and emotional skills as students age is not uniform for all types of students. In particular, the decline is more acute for socio-economically advantaged students, or in other words, less pronounced for socio-economically disadvantaged students.

**Figure 13. Age differences in social and emotional skills**

Differences (15-year-olds – 10-year-olds) in social and emotional skills



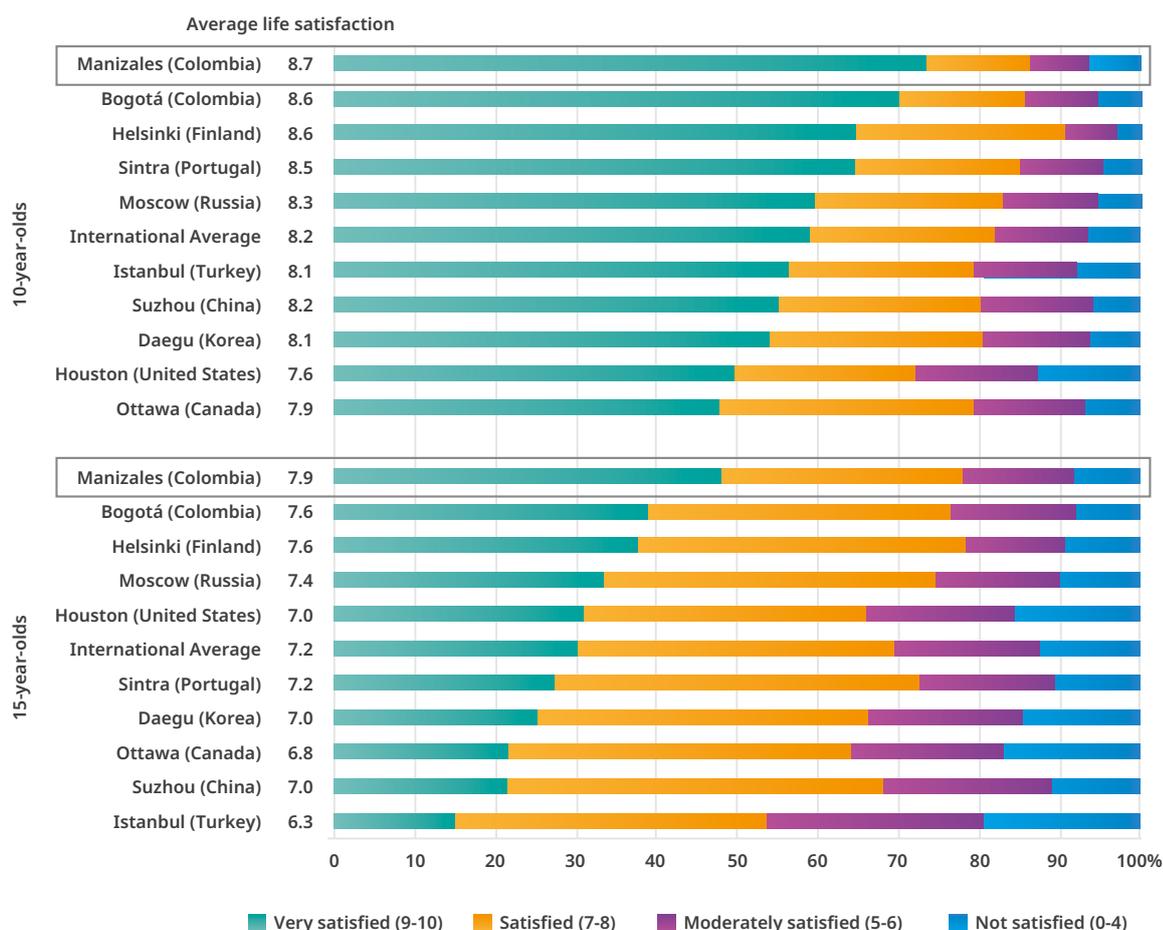
**Note:** Data for Sintra (Portugal) did not reach student response rate standards and are not included in international averages. The figure reports standardised differences, whereby the raw scale points have been divided by the (city-specific) standard deviation. Significant differences are coloured, non-significant differences are outlined.

**Source:** Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Figure 1.3.

Important age-related differences are also observed in other key outcomes examined in SSES. SSES data show that 10-year-old students enjoy higher levels of psychological well-being than 15-year-olds. Life satisfaction and current psychological well-being dip as students get older while test anxiety increases from childhood to adolescence. Figure 14 shows, for example, that the share of students who reported being very satisfied with their life in Manizales (Colombia) goes from nearly 74% among 10-year-olds down to slightly less than 50% among 15-year-olds. This pattern is generally more pronounced among girls than boys.

**Figure 14. Students' life satisfaction, by age cohort and city**

Percentage of students, by level of life satisfaction



**Note:** Cities are ranked in descending order of the percentage of students who reported being very satisfied with their life.

Data for Sintra (Portugal) did not reach student response rate standards.

**Source:** Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Figure 3.1.

Students' educational and occupational expectations also change as they get older. In particular, older students embrace more diverse occupational expectations than their younger peers. On average across cities, 48% of 10-year-olds expect to work in one of the 10 most frequently reported occupations for their age cohort.<sup>2</sup> This goes down to 37% for 15-year-old students. In addition, the relation between students' social and emotional skills, and their occupational expectations is much stronger for 15-year-olds than 10-year-olds. This suggests reciprocal influence between students' social and emotional skills, and their occupational aspirations.

<sup>2</sup> For 10-year-olds in Manizales, the 10 most frequently reported occupations are: athletes and sports players; veterinarians; generalist medical practitioners; police officers; lawyers; teaching professionals; building architects; specialist medical practitioners; musicians, singers and composers; and actors. For 15-year-olds, the 10 most frequently reported occupations are: generalist medical practitioners; specialist medical practitioners; lawyers; athletes and sports players; psychologists; veterinarians; building architects; software developers; civil engineers; and teaching professionals.

## ...And students' social and emotional skills can be influenced by the school environment

The malleability of social and emotional skills enables them to be modified or developed for the better. Schools can play a particularly important role in providing learning environments where skills can be developed, enhanced and reinforced through practice and daily experiences. There are a number of studies that look at the effect of different school-based interventions to enhance students' social and emotional learning (Durlak et al., 2011<sup>[18]</sup>; Park et al., 2008<sup>[19]</sup>; Sklad et al., 2012<sup>[20]</sup>; Smithers et al., 2018<sup>[21]</sup>). A meta-analysis by Durlak et al. (2011<sup>[18]</sup>) shows that social and emotional learning programmes had significant positive effects on targeted social and emotional skills, and attitudes about self, others and school. They increased pro-social behaviour, reduced behavioural problems and improved school performance. A more recent meta-analysis of quality research studies (comprising randomised experimental, quasi-experimental intervention studies and observational studies, controlling for relevant confounding factors) by Smithers et al. (2018<sup>[21]</sup>) found that interventions aiming to improve social and emotional skills had more obvious positive effects on academic achievement outcomes than on psychological, cognitive, language and health outcomes. These findings suggest that people are not born with a fixed set of social and emotional skills. Instead, there is considerable potential in developing these skills throughout people's lives (Helson et al., 2002<sup>[22]</sup>; Srivastava et al., 2003<sup>[23]</sup>). Studies linking data on teachers and students show that teachers have an impact on students' social and emotional skills. Teachers' interactions with students, classroom organisation, and emphasis on critical thinking in specific subjects were found to support students' development in areas beyond their core academic skills (Blazar and Kraft, 2017<sup>[24]</sup>).

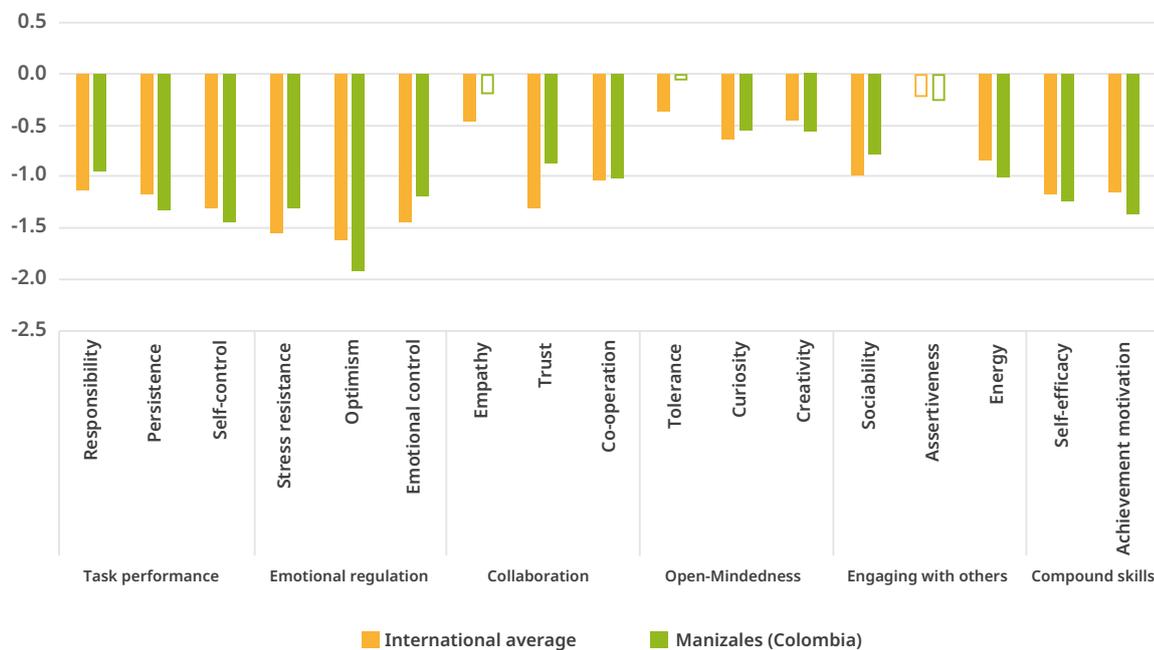
SSES data shed light on teachers' and schools' roles in shaping students' social and emotional skills. A first illustration of this is that students with a greater sense of school belonging and better relations with teachers reported higher social and emotional skills. This holds true for Manizales (Colombia) and for all other participating cities. Fitting in at school is most strongly related to higher co-operation, optimism and sociability. At the same time, students who reported having positive relations with their teachers also view themselves as more optimistic, curious and achievement-focused. These findings suggest that schools that are able to provide a positive disciplinary climate, offer support from teachers and engage with parents in building a positive school culture can help students develop their social and emotional skills. Indeed, all these factors are positively associated with students' sense of belonging at school by other research studies (Allen et al., 2018<sup>[25]</sup>; Crouch, Keys and McMahon, 2014<sup>[26]</sup>; Dotterer, McHale and Crouter, 2007<sup>[27]</sup>; Ma, 2003<sup>[28]</sup>; OECD, 2017<sup>[29]</sup>; Shochet, Smyth and Homel, 2007<sup>[30]</sup>).

Secondly, school climate and anti-bullying policies can be instrumental to students' positive social and emotional development. Bullying at school can affect any schoolchild in any country (Nansel et al., 2004<sup>[31]</sup>). This violent behaviour can have severe long-term physical, social and emotional consequences for students. Teachers, parents, policy makers and the media are increasingly drawing attention to bullying and trying to find ways to tackle it (Phillips, 2007<sup>[32]</sup>). A Korean study established that being bullied in middle school causes the onset of symptoms of psychopathologic behaviours to resurface later (Kim, Leventhal and Koh, 2006<sup>[33]</sup>). Yet, research suggests that a supportive and caring school environment is linked to less bullying and, conversely, students' willingness to seek help (Låftman, Östberg and Modin, 2017<sup>[34]</sup>; Ma, 2002<sup>[35]</sup>; Olweus, 2012<sup>[36]</sup>). In schools where students perceive greater fairness, feel they fit in at school, work in a more disciplined, structured and cooperative environment, and have understanding teachers, students are less likely to engage in risky and violent behaviour (Gottfredson et al., 2005<sup>[37]</sup>; Kuperminc, Leadbeater and Blatt, 2001<sup>[38]</sup>).

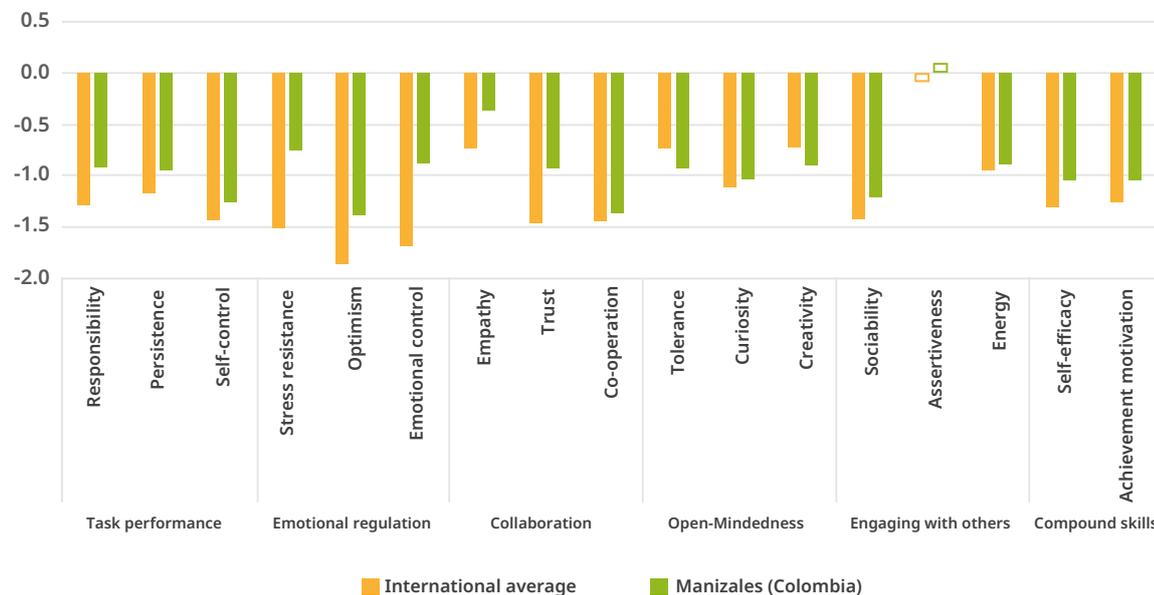
SSES data show that students' exposure to bullying is negatively related to almost all social and emotional skills. In Manizales (Colombia), as well as on average across participating cities, 10-year-old and 15-year-old students' exposure to bullying is most strongly related to lower skills in the domains of emotional regulation. Students who reported greater exposure to bullying tended to report lower levels of optimism, emotional control, stress resistance, and trust in other people (Figure 15). These findings are particularly worrying as, in Manizales, 33% of 10-year-old students and 21% of 15-year-old students have experienced bullying at least a few times a month or more during the 12 months prior to the 2019 survey.

**Figure 15. Relations between students' exposure to bullying, and social and emotional skills**

Change in 15-year-olds' social and emotional skills related to a one-standard deviation increase in exposure to bullying



Change in 10-year-olds' social and emotional skills related to a one-standard deviation increase in exposure to bullying

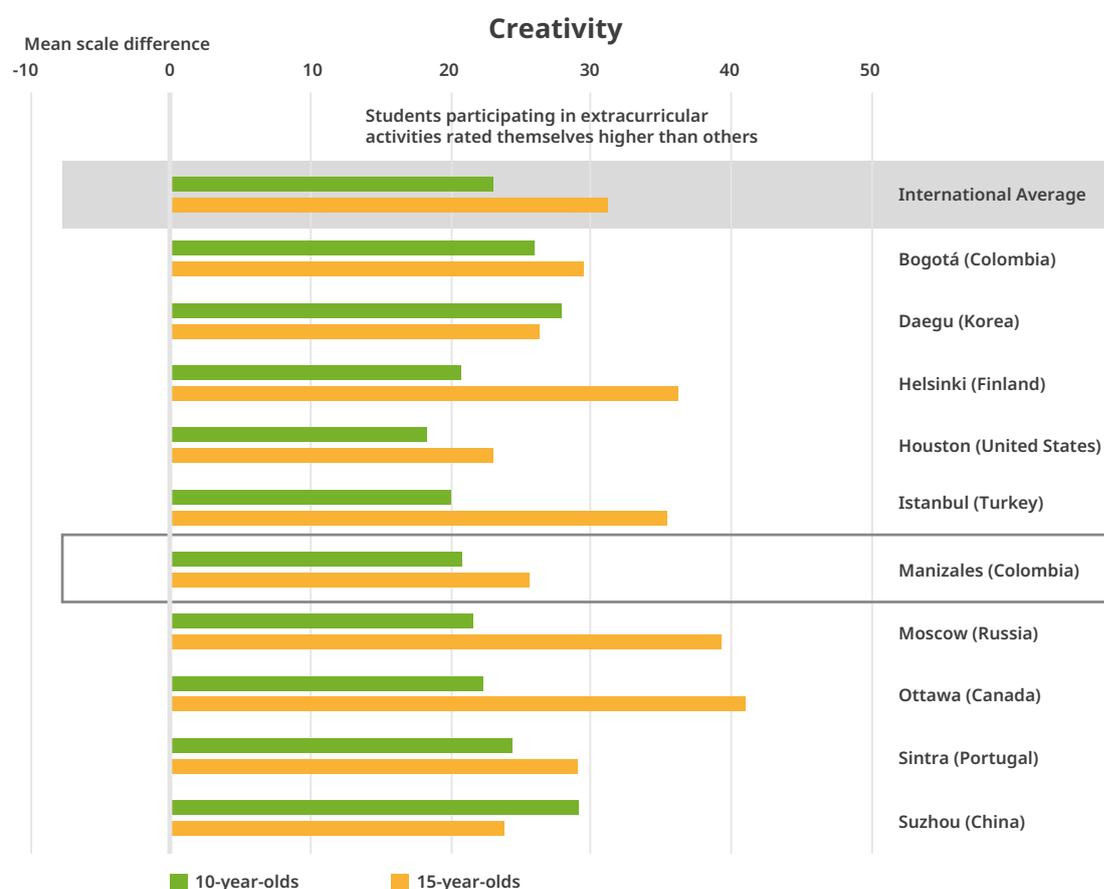


**Note:** Data for Sintra (Portugal) did not reach student response rate standards and are not included in the international average. Control variables include gender, socio-economic status and immigration background. Significant differences are coloured, non-significant differences are outlined. **Source:** Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Table A5.17.

A third area where schools could make a difference in the holistic development of their students is in organising extracurricular activities. Extracurricular activities at school do not only have an academic focus, they usually aim to achieve a broader set of goals such as physical exercise and health; developing creativity and practice or appreciation of the arts; and encouraging volunteering and involvement with the community. Participation in extracurricular activities can also help students develop social and emotional skills (Farb and Matjasko, 2012<sup>[39]</sup>).

SSES data show that, in Manizales (Colombia) as well as in all other participating cities, students who participate in after-school art activities reported higher levels of creativity, particularly among 15-year-olds (Figure 16). This holds true even after accounting for differences in socio-economic status and gender among students. Differences in creativity levels between students who participate in art activities and those who do not are lower in Manizales than in most participating cities for both 10- and 15-year-olds. In Manizales, 60% of 10-year-old students participate in extracurricular art activities outside of school (e.g. playing a musical instrument, dancing, drawing, etc.) – a share that drops down to 39% among 15-year-old students. The pattern of declining participation in art activities as students age combined with wider differences in creativity levels suggests that students who think of themselves as not creative are more likely to discontinue their participation in art activities during adolescence. These findings might also partly derive from the fact that education systems often expect compliance from students, with the potential consequence of driving out curiosity and creativity as students grow older and stay longer in the education system. Extended time in school and being exposed to more rigid learning environments may inhibit student’s abilities to build and practise some of these skills (Bailey et al., 2019<sup>[40]</sup>; Duckworth, Quinn and Tsukayama, 2012<sup>[41]</sup>). Conversely, it is possible that sustained participation in art activities helps students build confidence in their creativity. While the nature of SSES data does not allow us to identify the direction of causality, the data suggest a strong association between art activities at age 15 and creativity.

**Figure 16. How participation in art activities relates to creativity**  
Mean scale differences after accounting for socio-economic status and gender



**Note:** Data for Sintra (Portugal) did not reach student response rate standards and are not included in international averages.  
**Source:** Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Figure 4.9.

### Box 3. Key features of the OECD's Survey on Social and Emotional Skills (SSES)

#### Target populations and samples

The SSES took a single snapshot of two cohorts of primary and secondary school students, at ages 10 and 15. A sample of around 3,000 students was drawn for each of the two age groups in each participating city. The sample design consisted of creating an initial random sample of schools, followed by a random selection of students within sampled schools.

Ten cities participated in the first round of SSES in 2019: Bogotá (Colombia), Daegu (Korea), Helsinki (Finland), Houston (United States), Istanbul (Turkey), Manizales (Colombia), Moscow (the Russian Federation), Ottawa (Canada), Sintra (Portugal) and Suzhou (China).

In Manizales (Colombia), the SSES was administered to a census of all eligible schools and their eligible 10- and 15-year-old students.

#### Survey instruments

SSES assessed students' social and emotional skills directly but also obtained information from their parents, teachers and school principals.

SSES's assessment instruments are self- (student) and others' (parents and teachers) reports on assessed students' typical behaviours, thoughts and feelings. Questions/items are in the form of simple statements such as "I like learning new things" (item assessing students' curiosity) and "I stay calm even in tense situations" (item assessing stress resistance). A 5-point Likert-type agree/disagree response scale was used with answers ranging from 1 – completely disagree to 5 – completely agree. All of the 15 assessment scales used positively and negatively worded items.

These methods are used the most frequently in social and emotional skills assessments. They provide a simple and efficient way to collect information from a large number of respondents, are cost efficient, simple to administer and tend to produce consistent results.

SSES also collected information on students' and their parents' background characteristics as well as family, school, and community learning contexts through four contextual questionnaires developed for: students, parents, teachers and school principals.

SSES data of all participating cities were complemented with information on students' school grades (except in Ottawa [Canada]) and students' scores via a short cognitive test (except in Houston [United States] and Ottawa [Canada]).

#### Administration mode

The students filled out the questionnaires online through desktop or laptop devices. A trained study administrator delivered the survey with school staff present. Parents, teachers and school principals also filled out questionnaires online but in some participating cities, parents could choose a paper and pencil option in case of necessity or personal preference. All instruments were provided using a centrally managed online platform.

## Acknowledgements

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