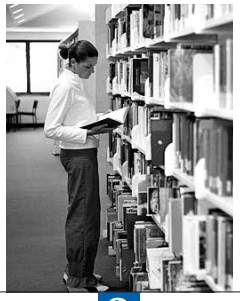


3

Students' satisfaction with their life

This chapter discusses how students' overall satisfaction with their life varies across countries, among subgroups of students within a country, and by school characteristics. The chapter also examines the associations between students' satisfaction with life, performance at school and the time students invest in studying.

Good educators strive to improve children's life prospects but also care about the quality of their students' current life. Much of the thinking around the link between education and the quality of students' lives has focused on mental health problems that children might manifest at school. Teenagers are particularly at risk of psychological disorders, because adolescence is a period of intense emotional upheaval (Gilman and Huebner, 2003). Satisfaction with life is known to decrease during adolescence (Goldbeck et al., 2007), and low life satisfaction has been linked to school dropout, substance abuse, aggression and misbehaviour among students (Huebner and Alderman, 1993; Valois et al., 2001; Zullig et al., 2001). Approaches that aim only to address mental health and behavioural problems might not devote enough attention to creating the conditions in which children and adolescents can flourish. Helping students find greater satisfaction with their lives, rather than just responding when students exhibit behaviours associated with dissatisfaction with life, can sustain the psychological, social and cognitive development of all students (Huebner and Hills, 2013; Suldo and Huebner, 2006).

What the data tell us

- On average across OECD countries, 15-year-old students are satisfied with the life they are living: they report a level of 7.3 on a scale of life satisfaction that ranges from 0 to 10.
- Girls and disadvantaged students are less likely than boys and advantaged students to report high levels of life satisfaction (a level of 9 or 10 on the scale).
- The relationship between performance at school and overall life satisfaction is weak. In most countries, top-achieving students report similar levels of life satisfaction as low-achieving students.
- On average, there is no significant relationship between the time students spend studying, whether in or outside of school, and their satisfaction with life.
- Students in schools where their peers collectively reported higher-than-average life satisfaction reported that they receive more support from teachers than students in schools where their peers reported lower-than-average life satisfaction.

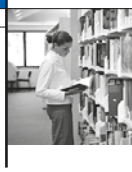
Life satisfaction can be defined as a subjective appraisal of the quality of one's life (Diener et al., 1999). Satisfaction with life is one measure of students' "subjective" well-being (defined as people's self-reported experience and evaluation of life), together with the frequency of positive emotions, such as joy and pride, the frequency of negative emotions, such as anger or sadness, and the sense of having a purpose in life (OECD, 2015a). This chapter presents the measure of students' overall life satisfaction in PISA 2015, discusses variations in life satisfaction between countries and across groups or schools within countries, and analyses the relationship between life satisfaction, performance at school and time spent studying. The relationships between life satisfaction and other aspects of well-being (e.g. quality of social life at school, living habits outside of school) will be explored in the next chapters.

DIFFERENCES IN STUDENTS' SATISFACTION WITH LIFE

PISA 2015 asked students to rate their life on a scale from 0 to 10, where 0 means the worst possible life and 10 means the best possible life. Self-reported measures of life satisfaction are more stable indicators of subjective well-being than reports of positive or negative affective states (Gilman et al., 2008).

Figure III.3.1 shows that, on average across OECD countries, students reported a level of 7.3 on a life satisfaction scale ranging from 0 to 10. Roughly speaking, this figure suggests that the "average" adolescent in an OECD country is satisfied with life. Still, there are large variations in life satisfaction across countries. For example, while less than 4% of students in the Netherlands reported that they are not satisfied with their lives (they reported a level of 4 or below on the scale), more than 20% of students in Korea and Turkey reported so. In Montenegro, and in the Latin American countries of Colombia, Costa Rica, the Dominican Republic and Mexico, more than one in two students reported that they are very satisfied with their life (they reported a life satisfaction level of 9 or 10 out of 10). Fewer than one in five students in the Asian countries/economies of Hong Kong (China), Korea, Macao (China) and Chinese Taipei reported similarly high levels of life satisfaction.

There is no evident relationship between adolescents' life satisfaction and a country's/economy's per capita GDP or similar measures of economic development. This finding is markedly different from what is observed among adults, who tend to report greater satisfaction with life if they live in higher-income countries (Deaton, 2008; Helliwell, Layard and

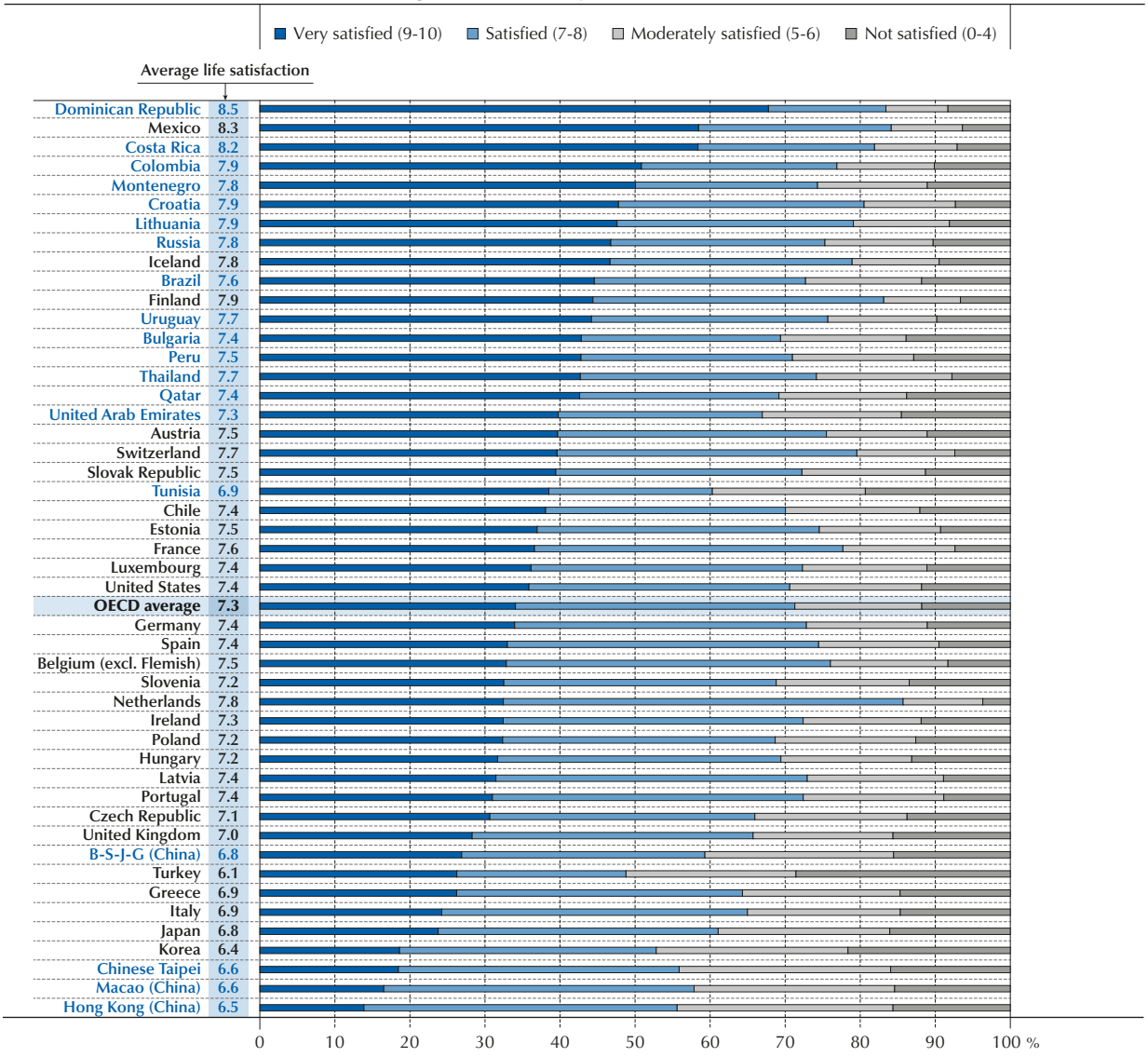


Sachs, 2016). In fact, countries where students reported the highest levels of life satisfaction in PISA are not necessarily those where adults were most satisfied with their life (among the countries with available data, the correlation between students' life satisfaction, as measured by PISA, and the life satisfaction reported by adults in the Gallup survey is only 0.2; see Table III.3.12). The lack of a correlation between per capita GDP and students' satisfaction with life might be partly explained by the fact that PISA includes only those 15-year-olds who are enrolled in school, thereby excluding large numbers of adolescents in low-income countries who are not enrolled and tend to live in poverty. The PISA for Development initiative is now piloting a programme that specifically targets the out-of-school population of adolescents in low-income countries. The relationship between income and life satisfaction within countries is explored in Chapter 10.

Comparing average levels of subjective well-being across countries is challenging. Variations in students' reports of life satisfaction or happiness across countries might be influenced by cultural interpretations of what defines a happy life, and by differences in how life experiences are integrated into judgements of life satisfaction (Diener, Oishi and Lucas, 2003; Park, Peterson and Ruch, 2009; Proctor, Linley and Maltby, 2009).

Figure III.3.1 ■ **Life satisfaction among 15-year-old students**

Percentage of students, by level of life satisfaction



Countries and economies are ranked in descending order of the percentage of students who reported being very satisfied with their life.

Source: OECD, PISA 2015 Database, Tables III.3.2 and III.3.8.

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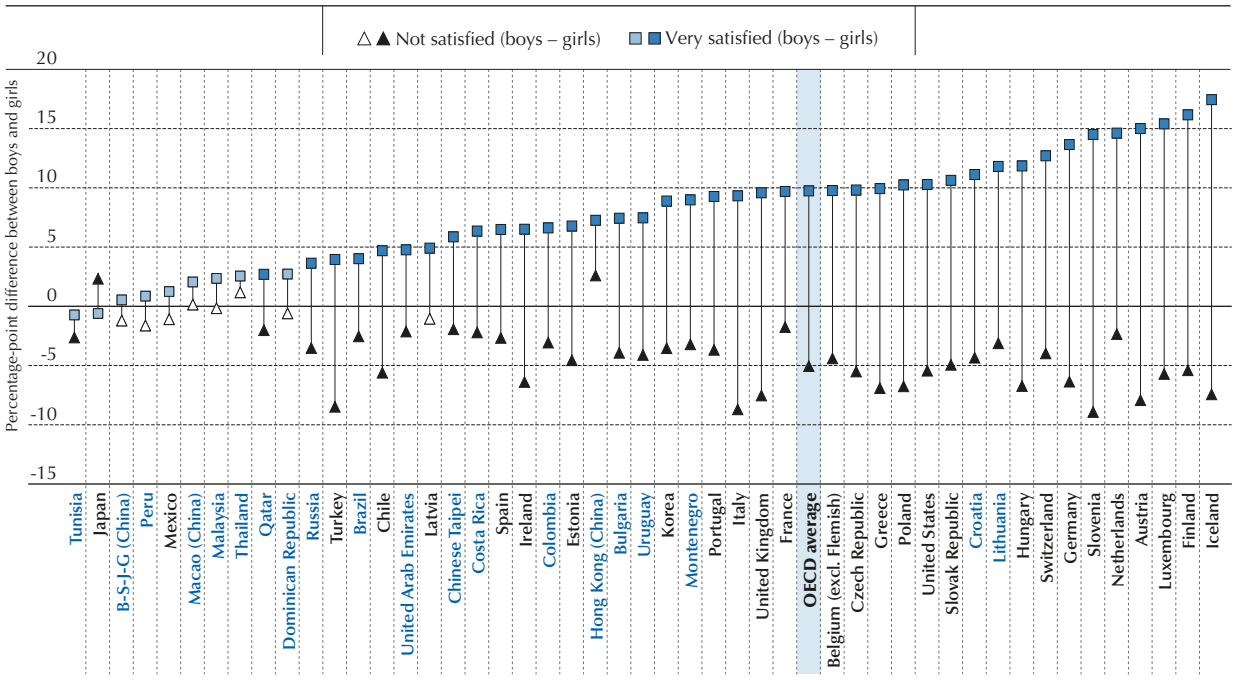
Research has documented cultural differences in how people think about "happiness", a construct that is closely related to life satisfaction. In some languages, including Chinese, Estonian, French, German, Japanese, Korean, Norwegian and Russian, happiness is closely associated with luck, while in others, notably Italian, Portuguese and Spanish, definitions of happiness focus on the realisation of one's desires, wishes and goals (Oishi, 2010). Tsai et al. (2007) found that American children's picture-book characters had wider smiles than those in Taiwanese books, and concluded that Americans value high-activation emotions, such as excitement, more than East Asians do. Differences in self-presentation can also play an important role. In some cultures, for example, it might not be desirable to say that you are happy, while in others it might be highly desirable to say so.

Overall life satisfaction summarises students' satisfaction with different aspects of their life, such as their autonomy, feelings and use of time (the "self"), peer relationships, and quality of family and community life. The relative importance of all these aspects in students' overall life satisfaction can differ across cultures. Research has found that for adolescents from Western cultures, such as that in the United States, where independence, personal feelings and interests are highly valued, self-related aspects are more important for overall judgements of life satisfaction. On the other hand, in Asian cultures, such as that in Korea, where social obligations and education are highly valued, meeting these social norms and expectations are the primary sources of life satisfaction for students (Park and Huebner, 2005).

In all countries, however, large variations in students' reports of life satisfaction are observed. Regardless of the dominant culture in their country/economy or of their language, a large number of students in every education system reported that they are very satisfied with their life, and a smaller, but not negligible, number of students reported that they feel dissatisfied with their life. This suggests that, notwithstanding the possible effect of cultural differences on the country averages, the measure of life satisfaction in PISA can be useful for identifying personal, school and other factors that might influence students' self-reported well-being within each country.

Gender, for example, is related to adolescents' life satisfaction. On average across OECD countries, around 29% of girls but 39% of boys reported that they are very satisfied with their life – a difference of almost 10 percentage points (Figure III.3.2 and Table III.3.8). Girls were also more likely than boys to report low satisfaction with life. On average across OECD countries, about 9% of boys but 14% of girls reported a level of life satisfaction equal to 4 or lower on a scale of 0 to 10. Gender differences in favour of boys are thus more marked at the top of the life satisfaction scale.

Figure III.3.2 ■ **Gender differences in life satisfaction**



Note: Statistically significant values are marked in a darker tone (see Annex A3).
Countries and economies are ranked in ascending order of the percentage-point difference between boys and girls who reported being very satisfied with their life.
Source: OECD, PISA 2015 Database, Table III.3.8.

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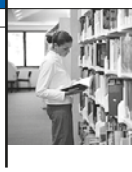


In no country did larger shares of girls than boys report to be very satisfied with their life (Figure III.3.2). In Austria, Finland, Iceland, Luxembourg, the Netherlands, and Slovenia – all countries where students' satisfaction with life is higher than the OECD average – the difference in the share of boys and girls who reported high life satisfaction is greater than 14 percentage points in favour of boys. In Austria, Iceland, Italy, Slovenia Turkey and the United Kingdom, girls were at least 7 percentage points more likely than boys to report that they are not satisfied with their life. Research has found that the relationship between life satisfaction and behaviour tends to be stronger for boys than for girls. In particular, boys are at greater risk of ill health and disruptive behaviour than girls when they are dissatisfied with their life (Heffner and Antaramian, 2016).

Among adults, gender does not seem to play a major role in shaping people's evaluation of their own lives (OECD, 2013). The lower life satisfaction reported by 15-year-old girls in PISA seems linked to the transition from childhood to adulthood, and is possibly a reflection of girls' harsh self-criticism, particularly related to their image of their own bodies, as they undergo dramatic physical changes (Goldbeck et al., 2007). PISA 2015 does not collect data on students' body image, but other research suggests that exposure to images of overly thin girls and young women in traditional media and to photo sharing in new social media has a significant negative impact on adolescent girls' satisfaction with themselves (Voelker, Reel and Greenleaf 2015; see also Box III.8.3). Weight-based teasing from peers is also associated with body dissatisfaction among girls (Schaefer and Blodgett Salafia, 2014).

Differences in life satisfaction related to socio-economic status are also marked in the majority of PISA-participating countries and economies. On average across OECD countries, disadvantaged students report themselves around 0.4 points lower than advantaged students on the 10-point life satisfaction scale (Table III.3.2). Differences greater than 0.6 point between advantaged and disadvantaged students are observed in the Czech Republic, Estonia, Hungary, Iceland, Latvia, Tunisia, the United Arab Emirates and the United States. Only in Brazil and Colombia did disadvantaged students report higher life satisfaction than advantaged students.

Students from advantaged families might have easier access to resources that enable them to fulfil basic needs and achieve their material, education, health and leisure goals. The association between socio-economic status and satisfaction with life might strengthen in times of economic crisis, as the most disadvantaged groups often shoulder the heaviest burden when living conditions become more difficult. Markers of wealth or social status can also influence how adolescents evaluate themselves in comparison with their peers (see Chapter 10). Research has shown that wealth can affect a person's perceptions about his or her life, but greater wealth does not buy happiness (Kahneman and Deaton, 2010).

Immigrants often experience culture shock and stress while adjusting to their new life in their host country; and changes in living conditions and peer influences may affect adolescents more than adults. Data from PISA 2015 show that students with an immigrant background reported lower life satisfaction than students without an immigrant background, on average across OECD countries (Table III.3.2). First-generation immigrant students (foreign-born students whose parents are also foreign-born) reported, on average, a life satisfaction of 0.2 point lower than non-immigrant students. This is particularly evident in Qatar and Spain (a difference of more than 0.6 point), which saw large increases in the shares of first-generation immigrant students between 2006 and 2015 (Table I.7.1). Important mediators of life satisfaction among immigrants include how students perceive their country of origin and culture, the proximity of young people from the same cultural background, and exposure to open and welcoming peers and teachers in the host country (Liebkind and Jasinskaja-Lahti, 2000; OECD, 2015b).

LIFE SATISFACTION AND PERFORMANCE AT SCHOOL

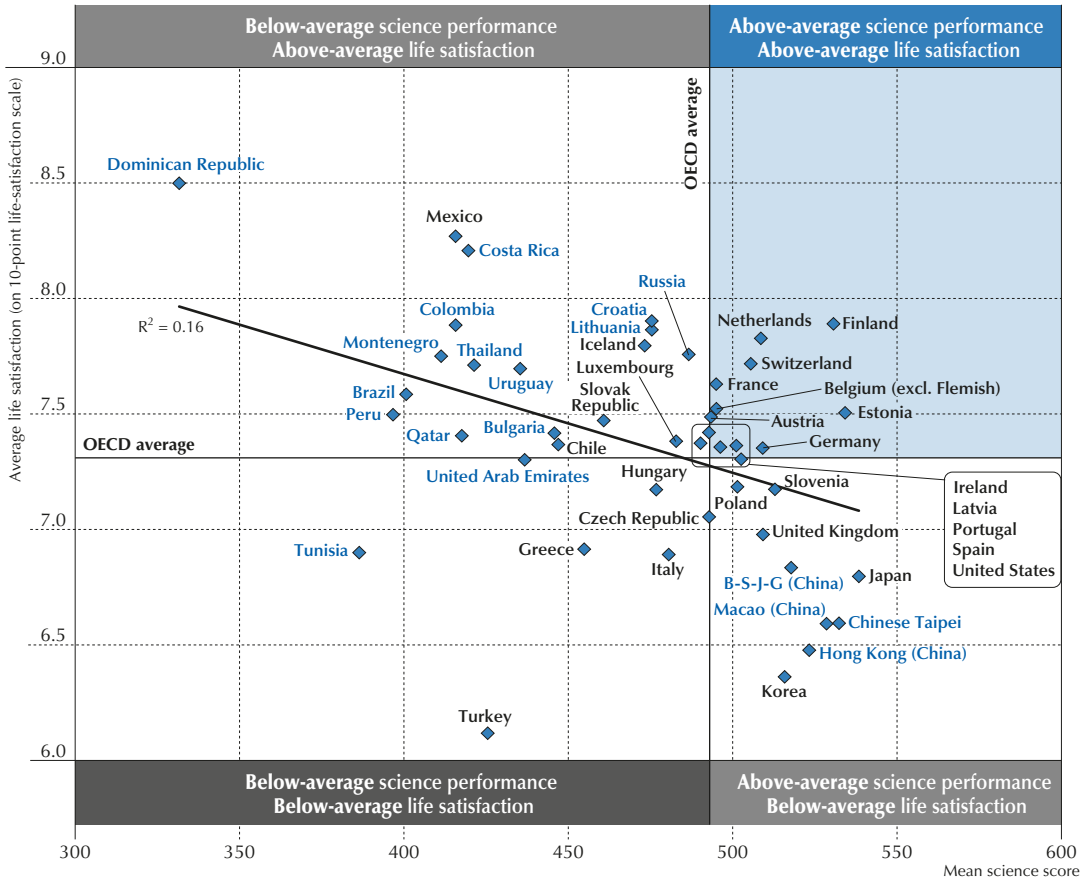
Are students who do better at school more satisfied with their life? As schoolwork represents one of the main life activities for 15-year-old students, high-performing students can be expected to have a sense of achievement and a more positive outlook on life. But empirical evidence of "the virtuous circle" – high achievement increases students' life satisfaction, which, in turn, motivates students to work harder – is limited. Perceived academic competence has been shown to predict life satisfaction (Huebner, Gilman and Laughlin, 1999; Suldo and Huebner, 2004), but the relationship between objective indicators of academic achievement and life satisfaction is much less clear (Chang et al., 2003).

Data from PISA 2015 show that, across countries, there is a modest, negative relationship between average performance in science and the average life satisfaction of 15-year-old students (Figure III.3.3). In other words, students in low-achieving countries tend to report higher levels of life satisfaction than students in high-achieving countries. Some countries stand out from this general pattern. In Finland, the Netherlands and Switzerland, for example, students perform above average in science and were more likely to report that they are satisfied with their life. Students in Turkey score below average in science and were more likely to report low life satisfaction.

Students in the countries in the upper left quadrant of Figure III.3.3, notably those in Colombia, Costa Rica, the Dominican Republic, Mexico and Montenegro, reported relatively high life satisfaction, but the countries score lower than average in science. Countries and economies in East Asia, including Hong Kong (China), Korea, Macao (China) and Chinese Taipei, perform much better than the OECD average, but students in these countries and economies reported relatively low satisfaction with life.

This correlation should not be interpreted as evidence of a trade-off between high achievement and student well-being. The results might, in fact, partly reflect cultural differences in response styles and self-presentation. The data cannot distinguish cultural factors that might affect adolescents' reports of life satisfaction from school influences on students' quality of life.

Figure III.3.3 ■ **Life satisfaction and performance across education systems**



Source: OECD, PISA 2015 Database, Tables I.2.3 and III.3.2.

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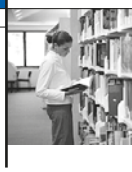
Analyses of the within-country variation in students' satisfaction with their life can provide a more nuanced picture of the relationship between performance and self-reported well-being. In most countries, top-achieving students (those in the top 10% of the performance distribution) and low-achieving students (those in the bottom 10% of the performance distribution) reported similar levels of life satisfaction (Tables III.3.3a and III.3.3b). Higher scores in reading are not associated with higher life satisfaction, on average, while stronger performance in mathematics and science is related to modest increases in self-reported quality of life (Figure III.3.4). Only in France, Japan and Macao (China) are top achievers in reading more satisfied with their life than low achievers.

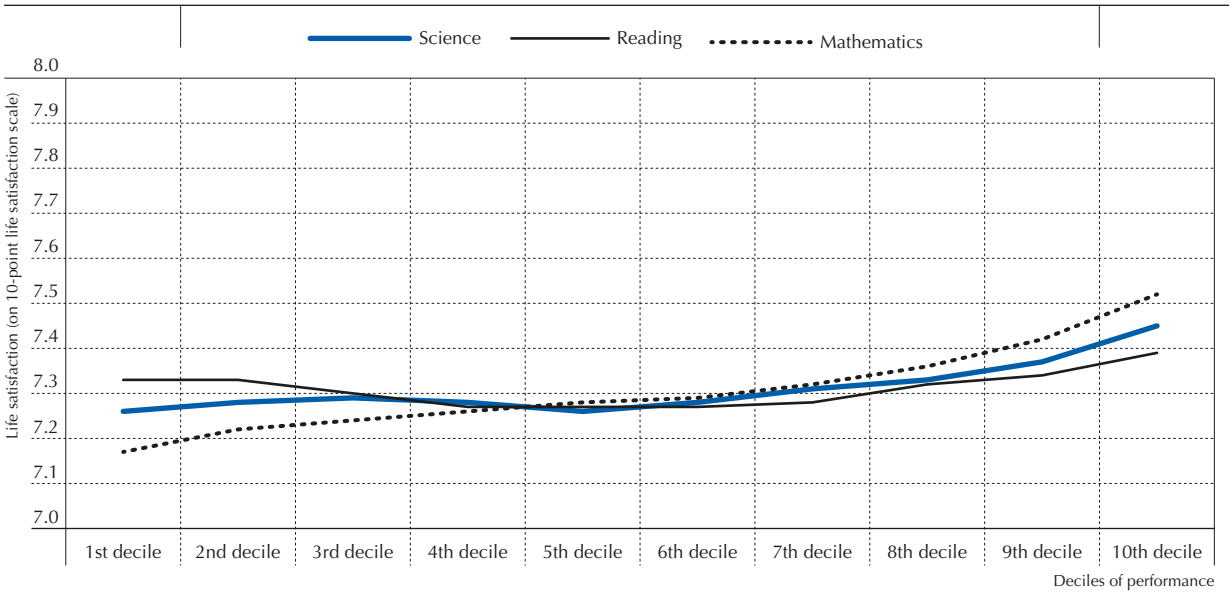
The relationship between performance and life satisfaction tends to be stronger among girls than among boys (Table III.3.5). On average across OECD countries, top-achieving girls in science reported an average life satisfaction of 7.3, while low-achieving girls reported 6.9 (a difference of 0.4 point). Top-achieving and low-achieving boys in science reported the



same level of life satisfaction (both 7.6). In Costa Rica, Croatia, the Netherlands and the Russian Federation (hereafter "Russia"), top-achieving boys in science reported a life satisfaction that is at least 0.5 point below low-achieving boys, while in France, Macao (China) and Peru, high-achieving boys reported higher life satisfaction than low-achieving boys by around 0.5 point.

Figure III.3.4 ■ **Life satisfaction and performance in core PISA subjects**

OECD average



Source: OECD, PISA 2015 Database, Tables III.3.3a and III.3.3b.

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Box III.3.1 **Time spent studying, performance and life satisfaction**

It has become conventional wisdom that the highest-achieving education systems build their success on making students work around the clock. Educators and parents are increasingly concerned about the culture of overwork in education, where high achievement equals hours of homework, catch-up classes, after-school lessons, long school terms and frequent testing (*The Guardian*, 2014; Deb et al., 2015; Leonard et al., 2015; *Shanghai Daily*, 2015). Adolescents, just like adults, need time every day to unwind and interact with their peers. Too much pressure in schools might mean that students feel compelled to spend more time studying, leaving less time for these non-academic activities, at the expense of students' quality of life.

Data from PISA can help establish whether these concerns about overwork are well placed or exaggerated. In 2015, students from Beijing-Shanghai-Jiangsu-Guangdong (China) (hereafter "B-S-J-G [China]"), Chile, Costa Rica, Korea, Chinese Taipei, Thailand and Tunisia spent at least 30 hours per week in regular lessons (all subjects combined; Table II.6.32). Long hours of study at school are observed among both the high-performing and low-achieving students of these school systems.

A significant number of 15-year-old students spend a large fraction of their waking hours in school lessons or studying school subjects. On average across OECD countries, 13% of students spend at least 60 hours per week studying at school (taking science, language-of-instruction and mathematics lessons) and outside of school (on homework, additional instruction, and in private study; Figure III.3.5). More than 40% of students in B-S-J-G (China) and the United Arab Emirates reported spending that many hours studying, while less than 5% of students in Finland and Germany reported so.

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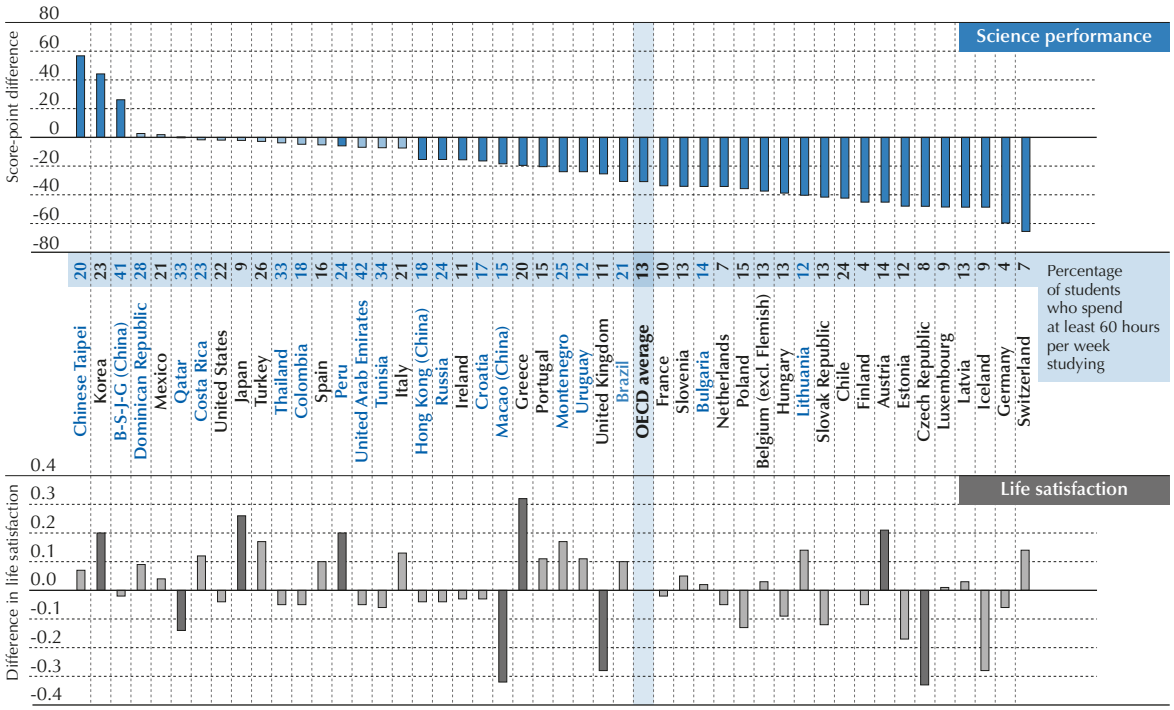
Figure III.3.5 ■ **Long study hours, performance and life satisfaction**

Differences between students who study at least 60 hours per week and students who study up to 40 hours per week in and out of school



Note: Statistically significant values are marked in a darker tone (see Annex A3).

Countries and economies are ranked in descending order of the score-point difference in science between students who study at least 60 hours a week and students who study up to 40 hours a week.

Source: OECD, PISA 2015 Database, Tables III.3.6 and III.3.7.

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Do long hours of study result in better performance on the PISA test? Previous analysis of PISA 2015 data shows that more time spent in science lessons is positively related to performance, while additional hours of study after school are related to poorer performance (OECD, 2016). On average across OECD countries, students who spend at least 60 hours per week on schoolwork (either at school or outside of school) score 28 points lower in mathematics, 33 points lower in reading, and 31 points lower in science than students who study 40 hours per week at most, after accounting for students' socio-economic status (Table III.3.6). This result is clearly related to the fact that, in most countries, low-achieving students are more likely than high-achievers to attend additional lessons for remedial purposes (OECD, 2016).

Differences across countries in the association between long study time and performance are striking, and reflect institutional and cultural variations in how after-school learning activities are organised, what they are intended to achieve, and how students are selected for them. In Germany and Switzerland, students who study for long hours score 60 points or more lower in science than students who spend fewer hours studying; while in B-S-J-G (China), Korea and Chinese Taipei, studying 60 hours or more per week is associated with large improvements in performance (Figure III.3.5). In these Asian countries/economies, spending many hours on homework and in additional instruction seems to be central to the life of top-performing students.

Studying very long hours is not necessarily associated with a lower quality of life, as perceived by students. On average, students who spend 60 hours or more per week on their studies report the same level of life satisfaction as students who study 40 hours per week or less. After accounting for students' socio-economic status, in Austria, Greece, Japan, Korea and Peru, students who study longer hours reported life satisfaction at least 0.2 point higher on the life satisfaction scale than students who reported studying fewer hours. The opposite relationship is found in the Czech Republic, Macao (China), and the United Kingdom. Korea is the only countries where students who

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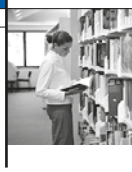

spend many hours studying reported higher life satisfaction and score higher than students who spend fewer hours studying. Korean adolescents who work hard and are successful in their studies may be more likely to receive positive feedback, attention, and respect from parents and teachers, which can, in turn, contribute to a greater satisfaction with life (Park and Huebner, 2005).

The relationship between study time and life satisfaction is likely to depend on how much students enjoy learning, and on the motivations that lead them to study outside of regular school hours. In particular, a student who spends more than 60 hours per week studying, but believes that this is what is expected from any 15-year-old student, and is what must be done to succeed (i.e. the student has internalised the cultural norms and value of long hours of study) is less likely to perceive an imbalance in the use of his or her time than a student who studies 40 hours per week only because his or her parents insist, or because all of his or her peers do.

The prevalence of additional instruction after school hours

The PISA educational career questionnaire includes detailed information on additional instruction in 22 countries and economies. Figure III.3.6 shows that, on average across these 22 countries and economies, about 60% of students take additional lessons in science and 72% take additional lessons in mathematics. Students in Thailand are most likely to attend additional lessons in both subjects (more than 89% of students do) and spend more hours on extra courses (over five hours per week, on average, in both subjects). In Korea, students start to take additional lessons when they are still very young. On average, 15-year-old Korean students who sit the PISA test have already taken 6.4 years of extra courses. At least one in two students across the 22 countries and economies reported taking extra courses with their regular teacher.

Figure III.3.6 ▪ **Prevalence of and motivations for additional instruction**

	Attendance at additional lessons					Percentage of students who attend additional lessons because:				
	Additional science lessons		Additional mathematics lessons							
	Percentage of students attending additional lessons	Hours per week spent in additional lessons	Percentage of students attending additional lessons	Hours per week spent in additional lessons	Number of years spent attending additional instruction	They want to learn more	Their parents wanted them to attend	They want to improve their grades	Attending additional lessons is gratifying	The teacher in the additional science instruction is one of the regular teachers in the school courses in 2015
Thailand	89.7	5.6	91.2	5.4	5.6	88.9	63.6	70.3	64.3	79.0
Greece	85.1	3.9	88.8	4.1	4.2	54.7	38.0	58.3	23.0	32.5
Bulgaria	84.0	3.8	87.2	3.8	4.3	58.6	21.5	47.0	28.1	56.6
United Kingdom (England)	74.7	3.0	74.3	2.8	3.9	60.3	40.9	67.6	23.1	71.6
Slovenia	68.6	2.2	81.9	3.1	4.5	45.4	11.5	40.0	12.6	38.9
Korea	67.7	2.3	88.7	5.0	6.4	46.0	12.7	52.2	9.7	54.1
Peru	63.6	2.7	73.7	3.6	3.9	85.6	45.0	74.3	54.0	75.1
Poland	62.2	2.2	72.3	2.3	5.3	59.5	31.2	52.0	28.6	68.4
Australia	61.2	2.8	73.8	3.3	4.5	48.3	32.3	45.8	22.6	56.9
Average-22	**59.6**	**2.5**	**72.4**	**3.1**	**4.1**	**56.0**	**30.0**	**50.8**	**25.9**	**51.3**
B-S-J-G (China)	59.4	2.5	74.0	3.7	3.5	82.6	42.6	75.1	43.6	58.2
Hong Kong (China)	58.7	2.3	76.9	3.1	4.8	72.2	38.0	65.3	35.5	45.2
Latvia	58.3	2.3	75.8	3.0	5.2	69.3	34.2	60.6	27.6	59.0
Slovak Republic	58.1	2.7	72.8	3.3	3.3	53.7	29.0	41.5	25.0	45.0
Italy	57.5	2.5	68.1	2.9	3.6	46.6	24.6	37.9	19.6	39.6
Spain	56.5	2.1	70.5	2.5	4.9	40.7	30.8	50.5	13.8	28.1
Lithuania	55.8	2.4	65.6	2.9	2.7	60.6	26.6	46.3	24.4	51.5
Belgium (French)	54.2	2.2	68.4	2.7	2.5	35.4	23.8	29.2	18.0	33.5
Croatia	46.8	2.1	66.6	2.6	3.7	57.5	29.6	50.9	22.2	53.5
Germany	45.0	1.7	68.1	3.0	m	43.1	23.8	50.8	18.5	m
Hungary	44.7	1.9	62.6	2.2	3.6	42.6	23.3	32.6	18.5	40.3
Iceland	34.1	1.5	59.2	2.1	2.2	40.6	21.0	37.1	21.4	45.4
Denmark	24.5	1.0	32.7	1.3	3.1	40.4	15.4	32.0	16.2	44.0

Note: The figure only includes countries and economies that participated in the optional Education Career questionnaire.
Countries and economies are ranked in descending order of the percentage of students attending additional science lessons.
Source: OECD, PISA 2015 Database, Table III.3.9.

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...

According to students' self-reports, the desire to learn more and improve their school marks motivates students to take additional lessons, particularly so in B-S-J-G (China), Hong Kong (China), Peru and Thailand. It was much less common for students to report that they take additional lessons because their parents want them to. For example, in Korea and Slovenia only one in eight students so reported. The pleasure of learning is not often cited as a reason for taking additional lessons. Some 64% of students in Thailand and 54% of students in Peru reported that they take additional lessons because they find it gratifying to study; only 10% of Korean students cited the pleasure of studying as a motive for taking additional classes.

The weak relationship between performance in PISA and students' satisfaction with their life does not necessarily mean that efforts invested in schoolwork and success at school cannot improve students' quality of life. The relationship between students' perceived quality of life and the effort they put into their schoolwork is complex. If some aspects of high academic performance, such as a sense of achievement, can boost students' satisfaction with life, other aspects, such as intense competition, psychological pressure and a work-leisure imbalance, might sap the energy and positive attitudes that adolescents need to flourish in life (Suldo et al., 2013).

SCHOOL CLIMATE, TEACHING PRACTICES AND VARIATIONS IN LIFE SATISFACTION ACROSS SCHOOLS

Adolescence is a turning point in life: depending on the kinds of care and opportunities that adults and institutions provide to adolescents, young people emerge from this phase of life full of promise, or full of problems (Roeser, Eccles and Sameroff, 2000). Schools are one of the most important social institutions for most adolescents, and the environment in which students learn can shape students' development and life satisfaction (Aldridge et al., 2016). Every school has its own distinct climate, which is composed of both psychological and institutional attributes (Modin and Östberg, 2009). There is no universal recipe to make a "happy school", and schools cannot be expected to make every student feel very satisfied with their life. But a growing body of research shows that schools, together with other social institutions, can attend to children's fundamental psychological and social needs, and help students develop a sense of control over their life and resilience in the face of unfavourable situations (Natvig et al., 2003; Suldo, 2016).

Specific instructional, interpersonal and organisational processes at school can be associated with students' socio-emotional functioning, depending on whether or not they meet adolescents' needs for competence, autonomy and quality relationships (Roeser, Eccles and Sameroff, 2000). Empirical studies, school interventions and interviews with school-aged children have identified the following characteristics common to schools where students feel the most satisfied (Aldridge et al., 2016; Comer and Ben-Avie, 1996; Gilman and Huebner, 2003; Suldo et al., 2013): engaging academic activities; order and discipline; parental involvement; care, respect and trust among students; positive student-teacher relations (i.e. competence and relational ability of teachers); and fairness (i.e. boys and girls of all ethnicities and socio-economic status are treated equally by adults in the school and have access to the same materials, activities and opportunities).

Teachers can play a particularly important role in creating the conditions for students' psychological well-being at school. Happier students tend to report positive relations with their teachers (Hoge, Smit and Hanson, 1990; Reddy, Rhodes and Mulhall, 2003; Roeser, Eccles and Sameroff, 1998). When students perceive that their teachers support them, they can cope better with stress at school (Malecki and Demaray, 2006).

PISA 2015 includes several questions on students' perceptions about their learning environment, with a focus on science classes. PISA asked students how often ("every lesson", "most lessons", "some lessons" or "never or hardly ever") their science teachers show an interest in every student's learning; give extra help when students need it; help students with their learning; continue teaching until students understand the material; and give students an opportunity to express their opinions. Students' responses were combined to create the index of teacher support in science classes (OECD, 2016). Figure III.3.7 shows that relatively "happy" schools (schools where students' life satisfaction is above the average in the country) have a higher index of teacher support than relatively "unhappy" schools (schools where students' life satisfaction is below the average in the country). In other words, students' perceptions of support from teachers seem to be a characteristic feature of schools where students report greater subjective well-being.

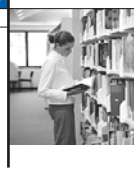
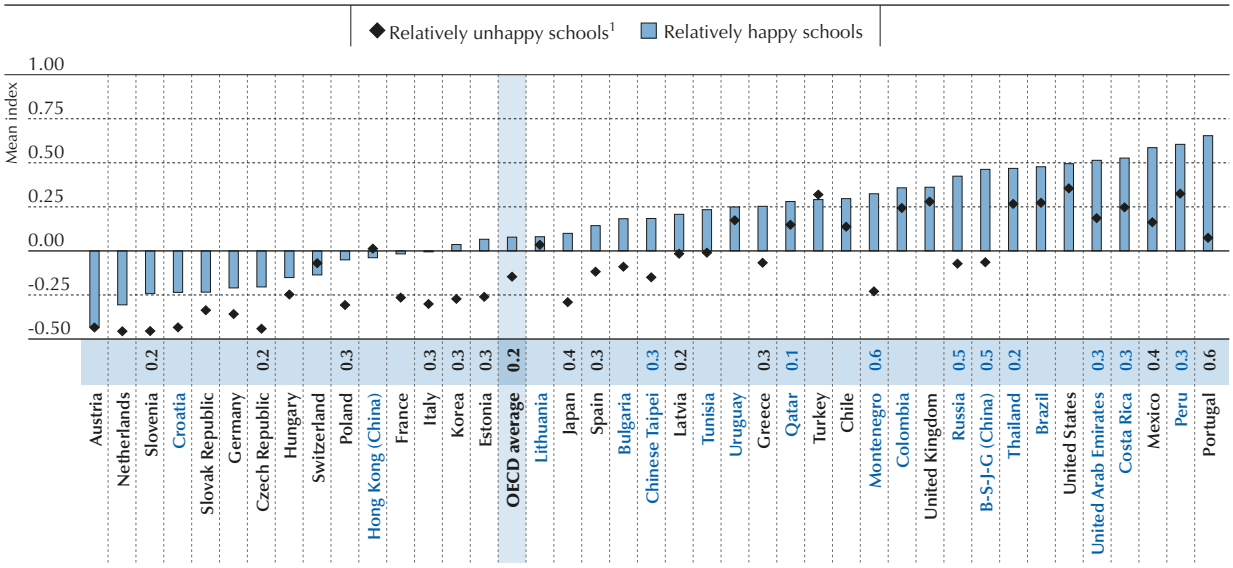


Figure III.3.7 ■ **Teacher support in "happy" and "unhappy" schools**

Index of teacher support in schools where students' life satisfaction is statistically significantly above/below the average in the country/economy



1. Relatively happy (unhappy) schools are schools where students' life satisfaction is statistically significantly above (below) the average in the country/economy.

Note: Statistically significant differences in the index of teacher support between schools that are relatively happy and those that are relatively unhappy are shown next to the country/economy name (see Annex A3).

Countries and economies are ranked in ascending order of the index of teacher support in relatively happy schools.

Source: OECD, PISA 2015 Database, Table III.3.10.

StatLink http://dx.doi.org/10.1787/888933470657

Table III.3.11 shows that other students' perceptions about their science teachers are also more marked in happy schools than in unhappy schools. On average across OECD countries, the PISA index of adaptive instruction (how much science teachers in the school tailor lessons to the students in their classes, including to individual students who are struggling with a task), the index of perceived feedback (how much students perceive that their science teachers provide them with regular feedback), the index of enquiry-based instruction (the extent to which students engage in experimentation, debate and hands-on activities in their science classes) are all higher in happy schools than in unhappy schools.

More analysis is needed to identify the methods of teaching, assigning tasks, grading and communicating with students that can make the process of learning more enjoyable and rewarding for students, so that more students see their time learning at school and studying outside of school as time well spent. More research is also needed to determine the direction of the relationships between the school climate, teaching practices, and students' life satisfaction.

What do these results imply for policy?

- The weak link between life satisfaction and performance at school suggests that academic excellence does not always result in a better quality of life for students. Education systems should explore solutions that make learning more enjoyable and fulfilling for all students, so that high performance and personal happiness become self-reinforcing goals.
- More analysis of characteristics of schools where most students report high levels of life satisfaction could shed light on teaching practices that support psychological well-being (particularly among girls and disadvantaged students). This analysis can have implications for teacher education and training.

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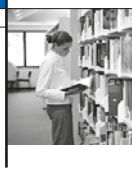

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