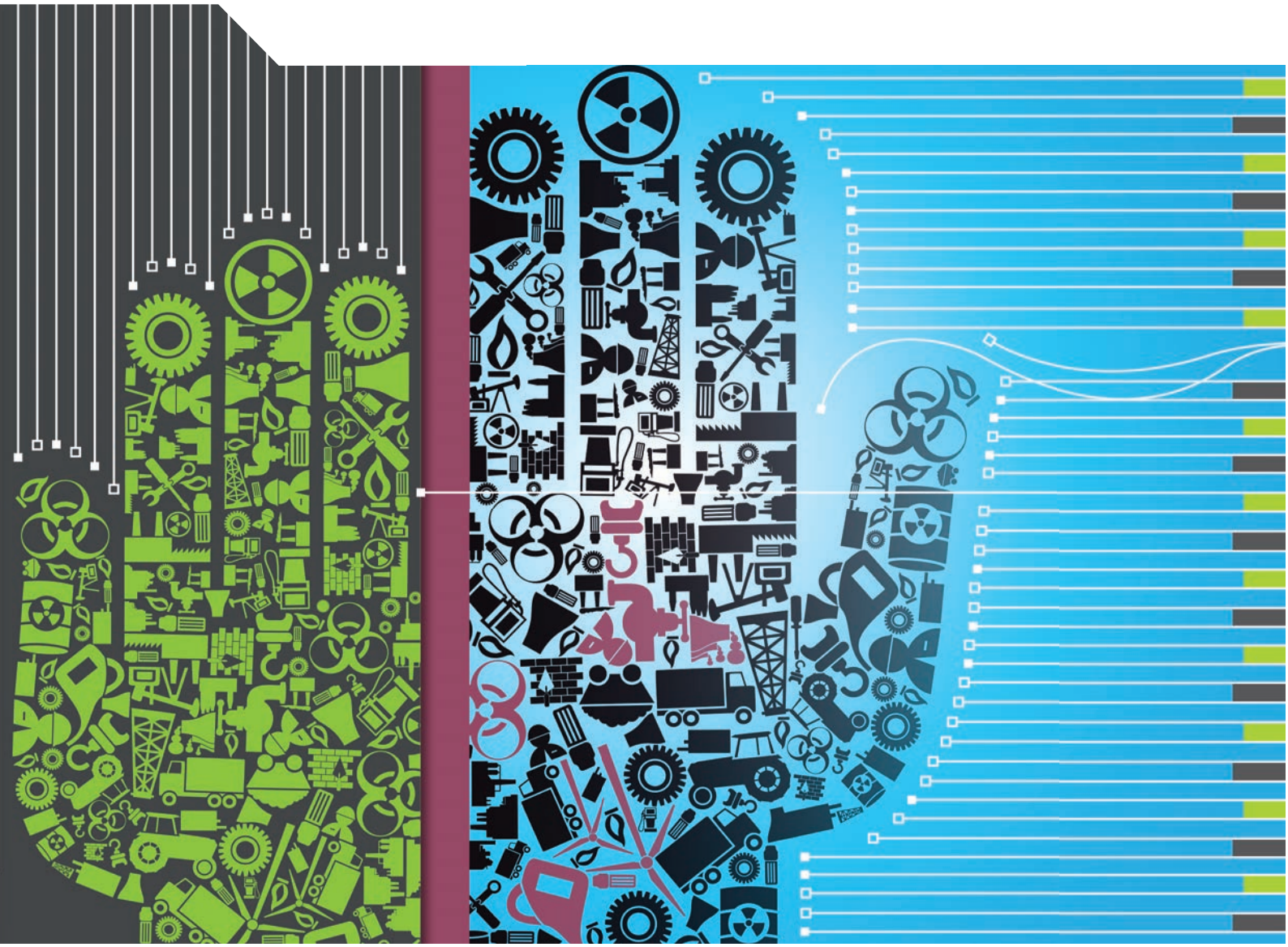
OECD Skills Studies

Skills for Social Progress

THE POWER OF SOCIAL AND EMOTIONAL SKILLS



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THE POWER OF SOCIAL AND EMOTIONAL SKILLS

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BETTER POLICIES FOR BETTER LIVES

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Foreword

Children and adolescents need a balanced set of cognitive, social and emotional skills in order to succeed in modern life. Cognitive skills, including those that are measured by achievement tests and academic grades, have been shown to influence the likelihood of individuals' educational and labour market success. They also predict broader outcomes such as perceived health, social and political participation as well as trust. In turn, social and emotional skills, such as perseverance, sociability and self-esteem have been shown to influence numerous measures of social outcomes, including better health, improved subjective well-being and reduced odds of engaging in conduct problems. Cognitive and socio-emotional skills interact and cross-fertilise, and empower children to succeed both in and out of schools. For example, social and emotional skills may help children translate intentions into actions, and thereby improve their likelihood of graduating from universities, follow through healthy lifestyles and prevent engaging in aggressive behaviours.

Some of the important social and emotional skills are malleable during childhood and adolescence, allowing opportunities for policy makers, teachers and parents to provide the right learning environments to accompany them at those stages. While everyone acknowledges the importance of social and emotional skills, there is often insufficient awareness of "what works" to enhance these skills and efforts made to measure and foster them.

This report synthesises three years of analytical research conducted under the auspices of the Education and Social Progress (ESP) project at the OECD Centre for Educational Research and Innovation (CERI). It includes literature reviews, empirical analyses of longitudinal data and a review of policies and practices in OECD countries and partner economies. The report identifies promising avenues for effective social and emotional development. They include promoting strong relationships between educators (e.g. parents, teachers and mentors) and children, mobilising real-life examples and practical experience in existing curricular activities, and emphasising hands-on learning in extracurricular activities. Improvements in learning contexts and practices do not necessarily require major reforms or resources. We can start this process by adapting the ways in which existing curricular and extracurricular activities are delivered.

Furthermore, this report shows that social and emotional skills can be measured meaningfully within cultural and linguistic boundaries. Such measures can be instrumental to help decision makers better assess children's current skill sets and their future needs, and thereby help teachers and parents to effectively adapt the pedagogy, parenting and learning environments accordingly. The OECD is committed to developing such measures in an international comparative framework. This includes continuing efforts made in the Programme for International Student Assessment (PISA) as well as the new phase of the ESP project. The latter will involve the enhancement of existing social and emotional skills instruments to better understand the levels and developmental processes across countries and cultures.

Andreas Schleicher

Director
Directorate for Education and Skills

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Acronyms and abbreviations

ABC	Abecedarian programme
ATE	Average treatment effects
BAM	Becoming a Man
BMI	Body mass index
CEGO	Centre for Experience-based Education
CERI	Centre for Educational Research and Innovation
CSE	Civic and social engagement
ESP	Education and Social Progress
GDP	Gross domestic product
HBSC	Health and behaviour of school-aged children
IQ	Intelligence quotient
MLES	Montreal Longitudinal Experimental Study
NAEC	New Approaches to Economic Challenges
NEET	Neither in employment nor in education or training
NFP	Nurse-Family Partnership
PEDT	Projet éducatif territorial
PIAAC	Programme for the International Assessment of Adult Competencies
PISA	Programme for International Student Assessment
PSHE	Personal, social, health and economic education
PTE	Pathways to Education
SAFE	Sequenced, active, focused and explicit
SEL	Social and emotional learning
SOL	Social outcomes of learning
SSDP	Seattle Social Development Project
STAR	Steps to Achieving Resilience
WHO	World Health Organization

Executive summary

What are the skills that drive well-being and social progress? Policy makers, including eleven Education Ministers and Vice-Ministers, discussed this question at the OECD's informal Ministerial meeting on *Skills for Social Progress* in Sao Paulo, Brazil on 23-24 March 2014. They unanimously agreed on the need to develop a "whole child" with a balanced set of cognitive, social and emotional skills so that they can better face the challenges of the 21st century. Parents, teachers and employers know that children who are talented, motivated, goal-driven and collegial are more likely to weather the storms of life, perform well in the labour market and consequently achieve lifetime success. Yet, there are considerable differences across countries and local jurisdictions in the availability of policies and programmes designed to measure and enhance social and emotional skills such as perseverance, self-esteem and sociability. Teachers and parents may not know if their efforts at developing these skills are paying off, and what they could do better. These skills are seldom taken into account in school and university admission decisions.

One possible reason behind these gaps is the perception that social and emotional skills are hard to measure. While measuring these skills reliably is indeed challenging, recent developments in psycho-social assessments point to a number of instruments that can be used to reliably measure relevant social and emotional skills within a culture or linguistic boundary, and they are already employed in selected local school districts. Another reason for these gaps may come from the perception that social and emotional skills are hard to improve, particularly through formal schooling. The good news is that at least some of the essential social and emotional skills are malleable, and policy makers, teachers and parents can play a pivotal role by improving learning environments to enhance these skills.

This report presents a synthesis of the OECD empirical work that aims at identifying the types of social and emotional skills that drive children's future outcomes. It also describes evidence on how policy makers, schools and families facilitate social and emotional skills development through teaching practices, parenting and intervention programmes. This report investigates how policy makers and schools are currently responding to the demands for monitoring, and enhancing social and emotional skills. It concludes by questioning whether education stakeholders can do more to better develop and mobilise these skills. The following items provide a summary of the main findings.

Children need a balanced set of cognitive, social and emotional skills for achieving positive life outcomes

Evidence from an analysis of longitudinal studies in nine OECD countries shows that both cognitive and social and emotional skills play a significant role in improving economic and social outcomes. Raising children's levels of cognitive skills — as measured by literacy, academic achievement tests and academic grades — can have a particularly strong effect on tertiary-education attendance and labour market outcomes. Raising levels of social and emotional skills — such as perseverance, self-esteem and sociability — can in turn have a particularly strong effect on improving health-related outcomes and subjective well-being, as well as reducing anti-social behaviours. Results show that

conscientiousness, sociability and emotional stability are among the important dimensions of social and emotional skills that affect children's future prospects. Social and emotional skills do not play a role in isolation, they interact with cognitive skills, cross-fertilise, and further enhance children's likelihood of achieving positive outcomes later in life.

Teachers and parents can help improve children's social and emotional skills by promoting strong relationships with children and mobilising practical learning experiences

Contrary to popular misconception, children are not born with a fixed set of abilities. Some important skills are malleable and there are roles for policy makers, teachers and parents to play in improving the learning environments in which they develop. This report suggests that promoting strong relationships between educators (e.g. parents, teachers and mentors) and children, mobilising real-life examples and practical experience in existing curricular activities, and emphasising hands-on learning in extracurricular activities figure among the effective approaches to enhance their sense of responsibility, capacity to work in a team and self-confidence. Successful early childhood intervention programmes that target disadvantaged families involve parents through training programmes. Programmes aimed at older children emphasise teachers' professional development. Among adolescents, mentoring appears to be particularly important, while hands-on workplace experiences can instil skills like team work, self-efficacy and motivation. Improvements in learning contexts and practices do not necessarily require major reforms or resources. Rather, they can be incorporated into ongoing curricular and extracurricular activities.

As "skills beget skills", early interventions in social and emotional skills can play an important role in efficiently raising skills and reducing educational, labour market and social disparities

Social and emotional skills are relatively more malleable between early childhood and adolescence. Early investment in social and emotional skills is particularly important since these skills develop progressively building on past investments made on these skills. Moreover, those with higher levels of social and emotional skills (e.g. self-confidence and perseverance) are likely to benefit more from further investment in cognitive skills (e.g. maths and science classes). Hence, small ability gaps early in life can lead to significant gaps over the life cycle, and these skill gaps may contribute to worsening economic and social disparities. Intervention and large-scale longitudinal studies, provide evidence on the positive impact of early and continuous investment in social and emotional skills on improving the socio-economic prospects of disadvantaged populations.

Social and emotional skills can be reliably measured within a culture or linguistic boundary

There are reliable measures of social and emotional skills that can be used across age groups at least within a cultural and linguistic boundary. They include self-reported personality, behavioural characteristics and objective psychological assessments. Some of these measures have been demonstrated to predict numerous indicators of educational, labour market and social success. They can provide teachers and parents with a chance to identify the need to adapt teaching and parenting practices to enhance the social and emotional skills that matter. However, more efforts need to be made to identify relevant social and emotional skills constructs and improve measurement instruments so that they are robust to inter-cultural and linguistic diversities and response styles. The OECD will continue contributing to this process by building on efforts made in the Programme for International Student Assessment (PISA) as well as the new phase of the ESP project which will focus on assessing the distribution and development of social and emotional skills.

Education stakeholders would benefit from receiving information on what works and guidelines to help foster children's socio-emotional development

OECD countries and partner economies generally recognise the importance of developing social and emotional skills through schooling. Countries differ, however, in their approaches to fostering these skills. Moreover, there are big gaps between stakeholders' knowledge, expectations and capabilities on how best to mobilise children's social and emotional skills. Widely disseminating detailed evidence-based guidelines would help reduce these gaps and encourage those teachers who may have limited information and experience.

Stakeholders need to work together to ensure that children achieve lifetime success and contribute to social progress

Policy makers, teachers, parents and researchers can help expand children's growth potential by actively engaging in skill development within the domains that they are responsible for. However, given that "skills beget skills", education policies and programmes need to ensure coherence across learning contexts (i.e. family, school and the community) and stages of school progression (i.e. across primary, lower secondary and upper secondary schooling). This is an important way to maximise the returns to skills investment over the life cycle.

Chapter 1

The role of education and skills in today's world

Today's socio-economic climate brings new challenges that affect the future of children and youth. Although access to education has improved considerably, a good education no longer secures a job; youth have been particularly affected by rising unemployment following the economic crisis. Problems such as obesity and declining civic engagement are also increasing while the ageing population and the environmental outlook are worrying. Moreover, inequalities in labour market and social outcomes tend to be widening. Education has strong potential to address these challenges by enhancing a variety of skills. Cognitive skills matter, but social and emotional skills, such as perseverance, self-control and resilience are just as important. All of these skills need to be fostered for individuals and societies to prosper.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

"The greatest glory in living lies not in never falling, but in rising every time we fall."

Nelson Mandela

The objectives of this report

Children need a balanced set of cognitive, social and emotional capabilities to adapt to today's demanding, changing and unpredictable world. Those who are able to flexibly respond to the economic, social and technological challenges of the 21st century are those with higher chances of achieving prosperous, healthy and happy lives. In particular, social and emotional skills matter for facing the unexpected, coping with multiple demands, controlling impulses and working effectively with others.

Contrary to popular misconceptions, children are not born with a fixed set of abilities with little room for improvement. Children are not born as a "maths person", a "creative person" or an "attentive person". Children start their lives with considerable potential to develop these abilities, and whether they flourish or not depends on the learning contexts they are exposed to during childhood and adolescence. Evidence suggests the brain has vast plasticity with an enormous capacity to learn, change and develop during this period. Skills are malleable; they can be developed through practice and reinforced through daily experiences. Cognitive, social and emotional skills may develop independently, but they can also influence each other as individuals progressively develop skills. For instance, children with self-control are more likely to finish reading a book, complete a maths assignment or follow through on a science project, all of which contribute to further enhancing cognitive skills.

Many policy makers, teachers and parents know that social and emotional skills are crucial for children's future prospects. Nevertheless, they generally lack information on the specific types of skills that need to be nurtured, and how best to promote them.

Hence, this report presents evidence on:

- which (and how) social and emotional skills drive individuals' future economic and social prospects
- which (and how) learning contexts shape the development of children's social and emotional skills
- the extent to which education stakeholders acknowledge the importance of fostering social and emotional skills and deliver policies, practices and assessments to encourage their enhancement.

This report concludes by contrasting current education policies and practices with existing evidence on which skills and learning contexts matter and how to enhance these skills. The report then proposes what policy makers, school administrators and researchers can do to bridge the gaps to better enhance children's skills to achieve positive lifetime outcomes and to contribute to societal prosperity.

Today's socio-economic landscape

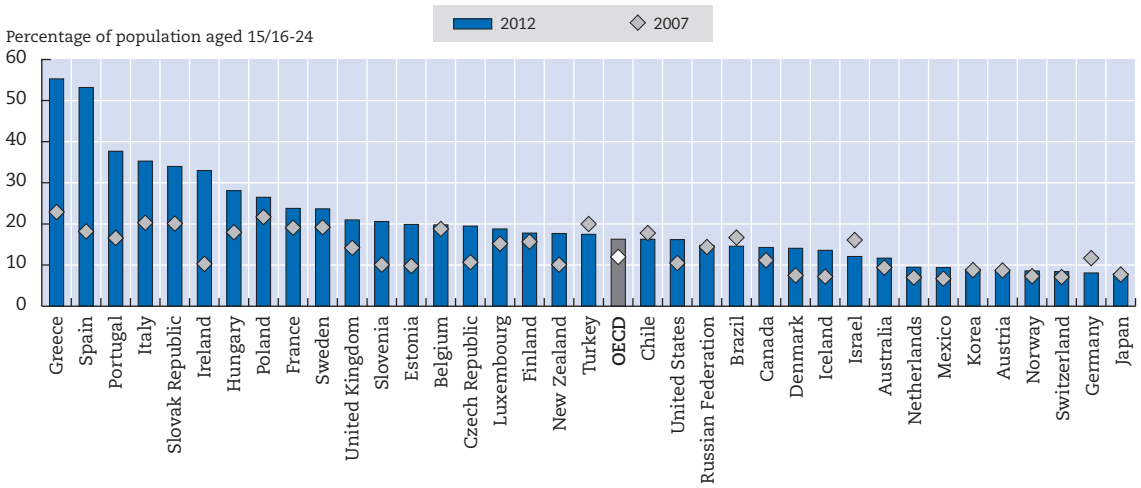
The current socio-economic climate needs strong and innovative approaches to enhance individual well-being and social progress

The recent economic crisis has brought considerable damage to our society, with youth being one of the most affected groups. Today, young people face numerous challenges in achieving economic independence and life satisfaction. The global trends are also imposing new challenges, such as ageing populations, fragmented families, mistrust and environmental threats. Moreover, inequality is on the rise in a number of socio-economic dimensions. This section provides a snapshot of the current socio-economic landscape across OECD countries and partner economies.

One of the biggest societal achievements of recent decades has been the increase in educational attainment. In 2012, close to 40% of 25-34 year-olds had finished tertiary education and only 17% had no upper secondary level education (OECD, 2014). This is an important achievement as high educational attainment is positively related to a number of desirable socio-economic outcomes. However, during recent years it has become clear that educational qualifications are no longer sufficient to find and keep a job, especially during hard economic times. At the same time, employers are also struggling to find employees with the right set of skills.

Unemployment rates are high in most OECD countries. They increased markedly with the recent crisis, and in many countries remain at record levels. Individuals with low educational attainment were hit hardest, especially youth (Figure 1.1). On average across the OECD, youth unemployment rates rose more than 4 percentage points (from 12.0% to 16.3%) between 2007 and 2012 (OECD, 2013a). The transition from school to work has become increasingly more difficult for the new generations, irrespective of their level of education. However, it is less-educated youth who have been struggling the most (OECD, 2014). Approaches to improving young people's employment prospects should consider fostering social and emotional skills, such as perseverance, responsibility and motivation. Evidence suggests the importance of these types of skills in succeeding in the labour market (Kautz et al., 2014).

Figure 1.1. **Youth unemployment is at its highest in many OECD countries**



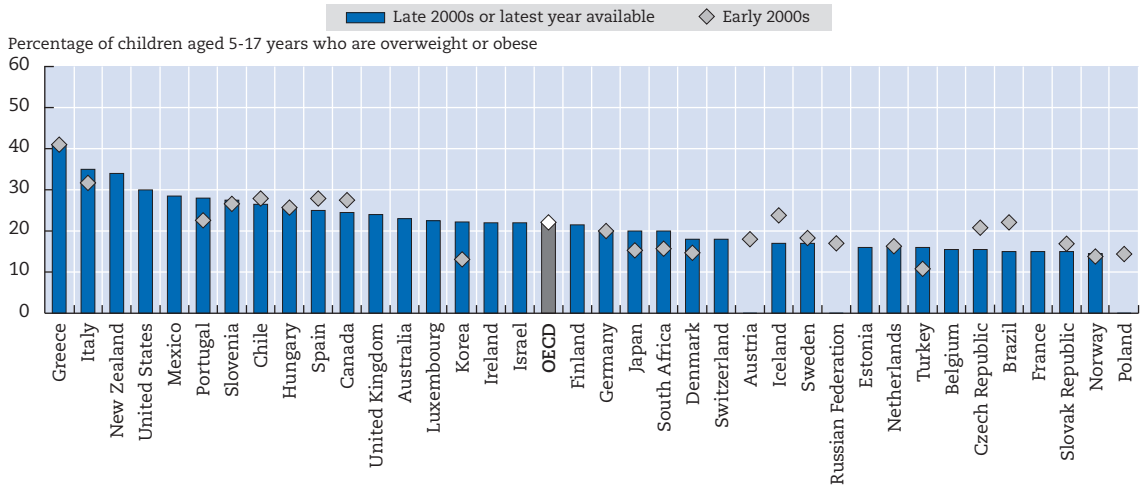
StatLink http://dx.doi.org/10.1787/888933163629

Note: Countries are ranked in descending order of youth unemployment in 2012.

Source: OECD (2013a), *Online OECD Employment Database*, www.oecd.org/employment/database (accessed 12 February 2014).

Health concerns are mounting as well. Decreasing levels of physical activity at work, home and during leisure time is one of the main factors contributing to rising rates of obesity (OECD, 2010a, 2013b). Rates vary widely across countries, but they have been steadily increasing since 1980 for both adults and children across most countries. Today, in 20 out of 34 OECD countries, the rate of overweight and obese adults is over 50% (OECD, 2013b). Child obesity is also high (Figure 1.2), with over 20% of 5-17 year-olds being classified as overweight or obese (OECD, 2013b). Obesity is a major health concern given it is a risk factor for numerous physical (including diabetes and cardiovascular diseases), mental (including poor self-esteem and anxiety) and social problems (such as bullying). Approaches that foster social and emotional skills can contribute to tackling obesity by enabling individuals to follow healthier lifestyles, remain fit, control their impulses and maintain strong personal relationships (OECD, 2010b).

Figure 1.2. **One in five children are affected by excess weight**



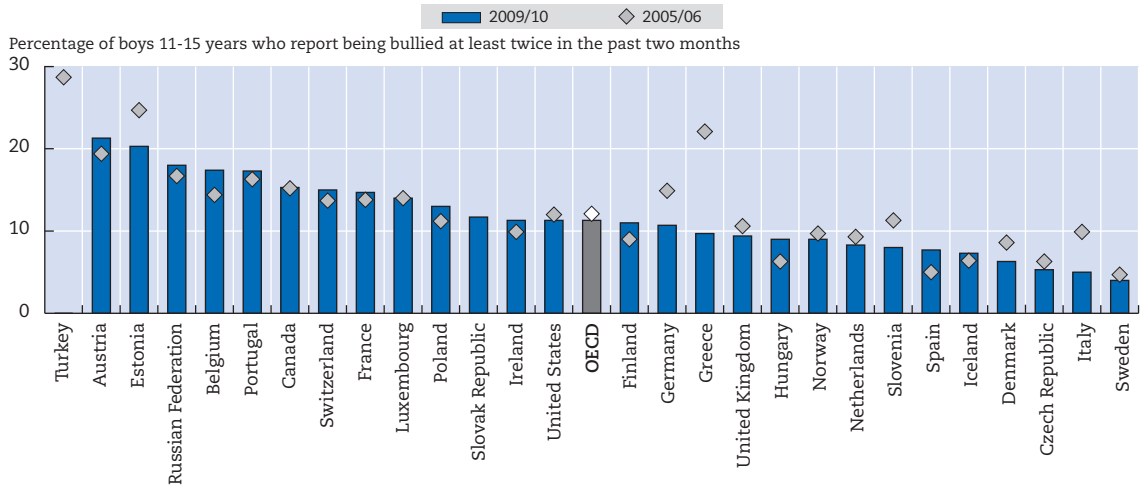
StatLink http://dx.doi.org/10.1787/888933163630

Note: Countries are ranked in descending order of overweight in late 2000s. Estimates are based on national surveys of measured weight and height. Figures represent an unweighted average of the prevalence for boys and girls. Early 2000s data missing for: Australia, Finland, France, Ireland, Israel, Korea, Luxembourg, Mexico, New Zealand, Switzerland and the United States. Late 2000s data missing for: Austria, Poland and the Russian Federation.

Source: OECD (2011a), *OECD Health at a Glance 2011: OECD Indicators*, OECD Publishing, Paris, http://dx.doi.org/10.1787/health_glance-2011-en and OECD (2013b), *OECD Health at a Glance 2013: OECD Indicators*, OECD Publishing, Paris, http://dx.doi.org/10.1787/health_glance-2013-en.

Bullying among young people is a serious, common social problem that can have repercussions through adulthood. Around one in ten adolescent boys in OECD countries report being bullied at school[1] (Figure 1.3); and a similar share report bullying others (Currie et al., 2012). There is no indication that levels of bullying at school have increased since the HBSC study (Health and Behaviour of School-aged Children) started collecting these data in 1994. However, new forms of bullying, such as online and phone bullying that have emerged with digital social networking, are not captured in this study. And, although online bullying is less prevalent than offline bullying, it can cause a higher intensity of harm than offline bullying (Livingstone et al., 2011). Interventions that promote self-esteem, managing emotions such as anger and aggression, and building resilience may help reduce bullying involvement as well as long-term health and social costs (Wolke et al., 2013).

Figure 1.3. **One in ten boys report being bullied at school**



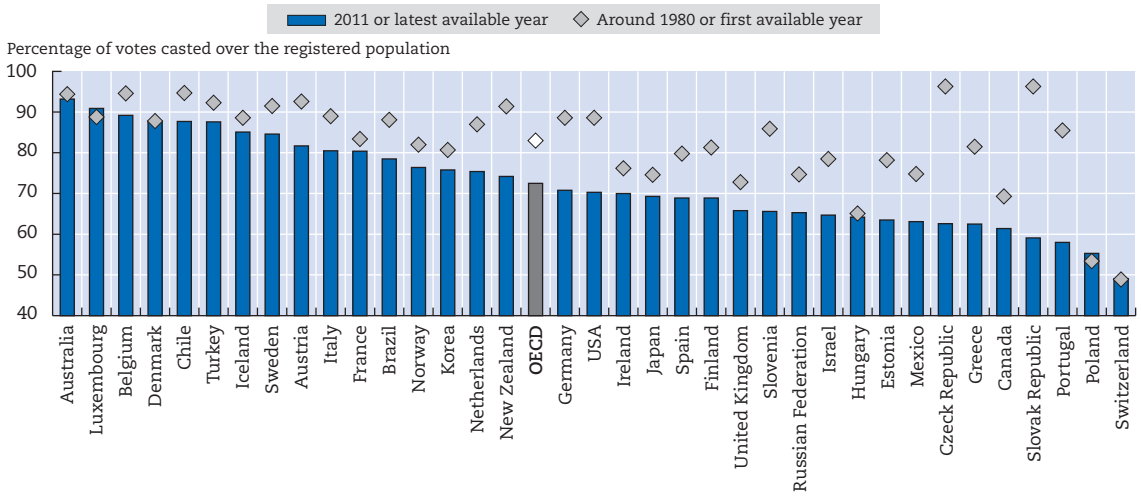
StatLink http://dx.doi.org/10.1787/888933163645

Note: Countries are ranked in descending order of bullying in 2009/10. Data for Australia, Chile, Israel, Japan, Korea, Mexico, New Zealand, the Slovak Republic (2005/06) and Turkey (2009/10) are missing. Data for the United Kingdom do not include Northern Ireland.

Source: Data for 2005/06: Currie, C. et al. (2008), *Inequalities in Young People's Health: HBSC International Report from the 2005/2006 Survey*, Regional Office for Europe, WHO (World Health Organization) Publishing, Copenhagen. Data for 2009/10: Currie, C. et al. (2012), *Social Determinants of Health and Well-being Among Young People: HBSC International Report from the 2009/2010 Survey*, Regional Office for Europe, WHO Publishing, Copenhagen.

Civic and social engagement have declined across OECD countries. Levels of trust in national governments and institutions have dropped in most OECD countries after the global economic crisis (OECD, 2013c). Countries with high unemployment rates have experienced the greatest decrease in levels of trust (OECD, 2013c). Similarly, voting has fallen in the majority of OECD countries (Figure 1.4). On the positive side, helping strangers and doing voluntary work show an opposite trend: they have increased since the onset of the crisis. Some signs indicate people may be turning more towards family and friends for support rather than to institutions.

Figure 1.4. **Voting rates have dropped**



StatLink http://dx.doi.org/10.1787/888933163657

Note: Countries are ranked in descending order of voting rates in 2011 or latest available year. For some countries, turnout for presidential elections and regional elections may be higher than for national parliamentary elections, perhaps because those elected through these ballots are constitutionally more important for how those countries are run. Moreover, relatively frequent elections may reduce turnout (e.g. Switzerland).

Source: OECD (2013c), "Well-being and the global financial crisis", in *How's Life? 2013: Measuring Well-being*, OECD Publishing, Paris, http://dx.doi.org/10.1787/how_life-2013-7-en.

Life satisfaction has also fallen, especially in countries hardest hit by the crisis (OECD, 2013c). This may have been driven by a number of factors, but higher unemployment rates are likely to play an important role (OECD, 2013c). Unemployment leads not only to material loss and mental stress, but also to a loss of other work-related benefits such as self-esteem and social relationships. Moreover, recent surveys suggest that people's optimism about their future life satisfaction has fallen in the years following the crisis (OECD, 2013c).

Inequalities in economic and social outcomes are evident across OECD countries and partner economies. Income inequalities widened in most OECD countries between the mid-1980s and late 2000s and with the crisis, the gaps have widened (OECD, 2008; 2011b). Unequal distribution of income translates into unequal access to goods and services, including education and health. Not surprisingly, education and health outcomes follow a social gradient: the lower the socio-economic background, the worse their educational performance and health (WHO, 2008). Social mobility is therefore becoming increasingly difficult to achieve. Today young people are more dependent on their skills and motivation for future success. Children from less affluent backgrounds need additional support to develop the social and emotional skills that will help them achieve the same life chances as their more advantaged peers.

Long-term trends will set additional challenges

Population ageing combined with changes in family size, family structure, parental employment and environmental threats are putting additional pressures on governments, families and society in general. Furthermore, technological progress has had a major impact on the way people study, work and socialise, and will continue to transform our societies.

Increased life expectancy together with decreasing fertility rates is leading to ageing populations. This means there will be an increasing number of dependents for a smaller number of economically active people, which could lead to higher spending for governments and society in areas such as health, pensions and long-term care. In 2011, OECD citizens could expect to live more than 80 years, a staggering ten-year gain since 1970 (OECD, 2013b). At the same time, families in OECD countries are below or close to the replacement level of two children per woman (OECD, 2013d).

The nature of family support – both monetary and non-monetary – is changing as families grow smaller and less stable, and more women work. Today, in most OECD countries, dual-earner families are the norm. Two out of three women with children under the age of 15 are working in OECD countries (OECD, 2013d). This trend is likely to continue with more women finishing tertiary education and female career expectations on the rise (OECD, 2012a). Smaller families mean there are fewer people with whom to share the provision of care and support for children and the elderly. Additionally, the increase of non-traditional families and of female employment means families will further struggle to provide and receive the support needed. Family formation trends together with population ageing are setting substantial challenges to intra- and intergenerational solidarity. Raising socially responsible and committed citizens can help cope with the challenges of reduced family networks.

Environmental pressure is another major challenge societies need to confront and to address. The OECD has highlighted key issues that require urgent attention to stop over-exploiting and depleting the planet's natural resources. These include: disruptive climate change, continued loss of biodiversity, freshwater availability and the health impact of urban air pollution (OECD, 2012b). Environmentally responsible and actively engaged citizens are crucial to reducing the footprint society leaves on the planet.

Furthermore, globalisation and technological progress will continue to bring changes that will trigger further inequalities. These, in turn, will lead to a more unequal distribution of resources and support, with less affluent families becoming less capable of providing the goods and services needed for education. Therefore, unless additional efforts are made, less affluent children will continue to lose out in relation to their more advantaged peers, and social mobility will be harder to achieve. Our globalised world needs individuals who can understand the impact of their actions on others and that can quickly adapt and thrive amidst the unforeseen challenges of tomorrow.

Today's policy challenges are numerous and hence require better policies to buck the trend and improve future prospects. Recent economic hardship amplified the fact that in a competitive global market, educational qualifications are not enough to find and keep a good-quality job. It is clear that a broader range of skills is needed to succeed in the labour market, to maintain a family, to raise children, to lead a healthy lifestyle, to provide support to others and to be an active member of society. There is growing interest from policy makers in understanding how these types of skills can be fostered among children and young people.

The role of education and skills in addressing today's challenges

Education can positively influence economic and social outcomes …

Without doubt, education can improve individuals' socio-economic outcomes and foster social progress. Better-educated people are on average more likely to be employed, to report good health, to lead healthier lifestyles, to participate more actively in society and to exhibit higher levels of satisfaction than their less-educated peers (OECD, 2010b; 2014). This positive relationship holds even after accounting for age, gender and socio-economic background. The size of the relationship, however, varies across indicators and across education levels, and is not linear (OECD, 2010b). Moreover, the evidence on the causal effects and causal pathways of education on social outcomes is still limited (OECD, 2010b).

Previous OECD work has shown the potentially important role of education in promoting positive life outcomes. Education, for instance, can provide protection against unemployment and inactivity: employment rates are highest among people with tertiary education and lowest among those without upper secondary education (OECD, 2014). Similarly, the share of highly educated (i.e. with tertiary education) individuals neither in employment nor in education or training (NEETs) is lower than the corresponding share of low-skilled youth (i.e. without upper secondary education): around 13% compared with around 16% across OECD countries (OECD, 2014).

Likewise, positive health outcomes are strongly related to educational attainment. For instance, life expectancy differs markedly by educational level (especially among men). Highly educated 30-year-olds in a typical OECD country can expect to live longer than their less-educated counterparts: by eight years for men and four years for women (OECD, 2012c). Similarly, tertiary-educated adults are on average less likely to be obese than adults with lower levels of education (OECD, 2012c). Gains in health outcomes are also observed at the upper secondary level. Individuals who completed their upper secondary education are, on average, more likely to have positive outcomes on self-reported health and mental health. They are also less likely to engage in risky behaviour, such as smoking and drinking (OECD, 2010b; 2012c).

Civic and social engagement also shows positive links with education. Better-educated individuals are on average more likely to volunteer, to be interested in politics, to vote and to trust others than their less educated peers (OECD, 2010b). The voting gap between adults (25-64 year-olds) in OECD countries with high and low levels of education is 14.8 percentage points (OECD, 2012c). Civic and social engagement is likely to be influenced not only by individuals' own level of education, but also by the education levels of family members, peers and the community.

Recent evidence from the OECD's Survey of Adult Skills demonstrates the strong positive association between educational attainment and social outcomes, including self-reported health, volunteering, interpersonal trust and political efficacy (OECD, 2013e; 2014). For example, in terms of self-reported health, the proportion of adults who report being in "good health" is 23 percentage points higher among those with tertiary education than among those with below upper secondary education (OECD, 2014).

… by developing individuals' skills

Education can contribute to improving social outcomes by helping individuals develop skills. Previous OECD work has shown that a considerable share of the return on education is explained by the development of cognitive, social and emotional skills (Box 1.1). Results from other OECD studies, including the Programme for International Student Assessment (PISA) and the OECD's Survey of Adult Skills also show the importance of skills in achieving positive outcomes (OECD, 2013e; 2013f).

Box 1.1. **OECD's Social Outcomes of Learning (SOL) project**

The OECD has been evaluating the role of learning in improving social outcomes such as health and social cohesion since 2005. The Social Outcomes of Learning (SOL) project explored the relationships, causal links, causal mechanisms and contexts under which education is likely to promote healthy lifestyles and active civic and social engagement (CSE). The first phase (2005-07) of the project developed a conceptual framework and mapped the available evidence pertaining to diverse domains of health and CSE: *Understanding the Social Outcomes of Learning* (OECD, 2007). The second phase (2008-09) focused on particular sub-domains of health (i.e. obesity, mental health and drinking) and CSE (i.e. volunteering, political interest and trust/tolerance) to evaluate whether, to what extent, for whom, how and under what conditions education can contribute to improving these social outcome measures: *Improving Health and Social Cohesion through Education* (OECD, 2010b).

The main findings of the SOL project were:

- Education – formal, informal and non-formal – can contribute to improving social progress and well-being, mainly through increased competencies or skills.
- Skills – cognitive, social and emotional – are important pathways through which education affects social outcomes.
- Education is among the most cost-effective strategies to address social challenges such as health, civic engagement and crime.
- The power of education is limited if children's cognitive, social and emotional skills are not developed at an early stage.
- Parents, teachers, school administrators and the community play an important role in promoting healthy lifestyles and active citizenship.
- Policy coherence across sectors and levels of education is needed.

The study also signalled a number of knowledge gaps:

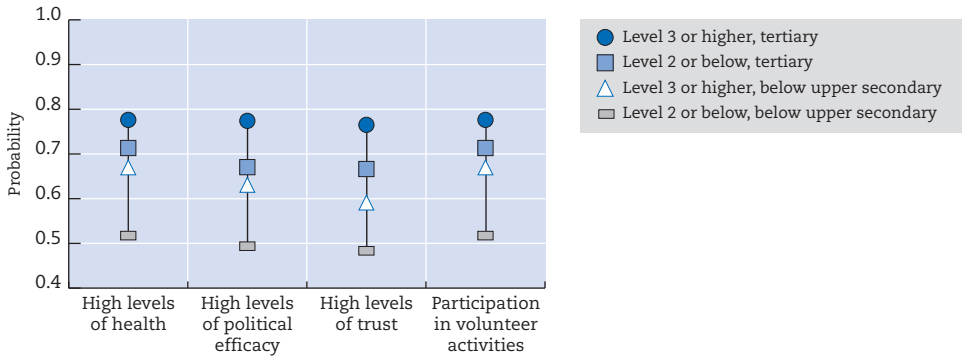
- The evidence on causal effects of education and causal pathways is limited. Most studies on causality concentrate on secondary schools, with very few studies at pre-school, primary and tertiary levels.
- Little is known about the curricular approaches that enhance the cognitive and social and emotional skills needed to promote social progress.
- There is limited availability of longitudinal micro-data, which is essential to understand the complex relationships between learning contexts, skills and outcomes.
- There is little evidence of the influence of education on social domains such as ecological behaviour.

Education can help provide a variety of skills that empower individuals to better meet the challenges of daily life. Cognitive skills such as reading, numeracy and scientific literacy allow people to better understand information, to make decisions and to solve problems. Social and emotional skills such as perseverance, emotional stability and sociability also matter in achieving positive outcomes. These skills allow people to better translate intentions into actions; establish positive relationships with family, friends and the community; and avoid engaging in unhealthy lifestyles and risky behaviours. Social and emotional skills are as important as cognitive skills in shaping outcomes (Heckman, Stixrud and Urzua, 2006; Kautz et al., 2014).

At the same time, the latest results from PISA 2012 show that higher self-belief, motivation and expectations[2] are associated with better performance in literacy (OECD, 2013g). For instance, girls' lower performance in maths literacy is associated with lower confidence in their ability to succeed in school than their male peers. In top-performing countries, the smaller gender gap in mathematics is associated with stronger beliefs in children's abilities (OECD, 2013f). East-Asian countries stood among the most successful education systems in PISA 2012, which may be partly driven by the cultural value of "effort" as a key ingredient of success. Similarly, evidence from the OECD's Survey of Adult Skills shows the importance of literacy and numeracy skills as well as qualifications in predicting labour market outcomes, health, volunteering and political participation (OECD, 2013e).

Figure 1.5 shows the probability of adults reporting positive social outcomes according to their educational level and their level of literacy proficiency[3] across participating countries[4]. Having high levels of both literacy skills and educational levels is associated with the highest probability of experiencing positive social outcomes. However, having only high levels of education is not sufficient to experience the highest probabilities of positive outcomes. The chances of adults with tertiary education and low levels of literacy skills are closer to those with low levels of education but with high levels of literacy skills. Hence, educational attainment is necessary to enhance positive outcomes in society, but skills also matter. The impact of education can be further heightened with more skills.

Figure 1.5. **High levels of literacy increase the probability of experiencing positive social outcomes**



StatLink http://dx.doi.org/10.1787/888933163669

Note: Estimates presented here represent the average of OECD participating countries. Literacy Level 2 or below means that respondents can read brief texts on familiar topics; understand basic vocabulary; determine the meaning of sentences; compare and contrast information; and make low-level inferences. Literacy Level 3 or higher means respondents can at least understand and respond appropriately to dense or lengthy texts, including continuous, non-continuous, mixed, or multiple pages (OECD, 2013e).

Source: OECD (2013e), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264204256-en.

Education and skills can also play an important role in reducing socio-economic inequalities

Education played a central role in counteracting the growth of income inequality during the past decade (OECD, 2011b). The rise in the number of tertiary education graduates helped offset the disparities generated by other factors such as changes in the labour market and technological progress. Access to, and participation in, tertiary education is, however, still strongly associated with socio-economic background.

Young people from disadvantaged backgrounds find it harder to complete their education and perform well at school. The PISA 2012 findings show all countries have gaps in performance by socio-economic status, although some countries have narrower gaps than others. For instance, in mathematics, socio-economically advantaged children scored on average 90 points more than their less-affluent peers, a gap equivalent to two years of schooling (OECD, 2013f). In most countries, these disparities have barely changed since PISA started assessing students' performance in 2000 (OECD, 2013f).

Performance gaps start early in life. The cognitive, social and emotional skills developed during the first years of life set the basis of future potential; skills are built on skill foundations developed early on. While strong foundations in the early years increase the chances of positive outcomes, weak foundations are more likely to lead to struggles. There are cumulative effects on what children learn and what they don't. Skills, however, are malleable and it is possible to change diverging trajectories over the course of a lifetime. Early investments in skill formation are more likely to be efficient in raising socio-economic outcomes and reducing inequalities (Kautz et al., 2014).

Towards a more holistic approach

Recent years have shown increasing awareness of the need to consider a more holistic approach to the factors that drive the well-being and progress of societies. Macroeconomic statistics can only paint a partial picture of living standards and their distribution across different groups within society. For example, during the years of economic growth, increased levels of GDP were not always accompanied by higher levels of satisfaction. It was clear then – and even more so now – that it is necessary to develop measures that better reflect the wide range of factors that matter for individuals and their well-being. Economic prosperity matters for life satisfaction, and for well-being more broadly, but it is not the only thing that counts. Other factors, such as relationships, health, social support, personal safety, housing and environmental conditions are also relevant (Layard, 2005; OECD 2011c; 2013c).

The OECD has been at the forefront of the international work on measuring well-being and social progress for more than ten years (Box 1.2). Its goal is to inform policies on how to achieve better living standards, more equal societies, increased levels of trust and social engagement, and higher levels of life satisfaction. As discussed above, education can play an important role in meeting these goals by enhancing individual's cognitive, social and emotional skills. There is a need to inform policy makers, teachers and parents of the type of cognitive and socio-emotional skills that need to be nurtured and how to do so.

Box 1.2. **OECD's activities on well-being and social progress**

- **OECD Better Life Initiative.** This initiative was launched in 2011 for the 50th anniversary of the OECD and aims to develop measures that better capture the wide range of outcomes that together form people's well-being. The **Better Life Index** is an interactive webtool that involves citizens in the measurement of well-being and social progress. It allows people to develop their own index to compare the well-being of their country with that of other OECD and partner countries. The index covers income and wealth, jobs and earnings, housing conditions, health status, work-life balance, education and skills, social connections, civic engagement and governance, environmental quality, personal security, and subjective well-being (www.oecdbetterlifeindex.org). **How's Life?** is a biennial report that provides an overall picture of well-being and social progress in OECD and partner countries. It examines numerous indicators in three dimensions: material conditions, quality of life and sustainability.
- **Society at a Glance.** A biennial report first published in 2001. It aims at answering whether societies are progressing and whether the actions to promote progress have been effective. It provides an overview of a wide range of social **indicators**, such as demography and family characteristics, employment and unemployment, poverty and inequality, health status, trust and tolerance. Data are presented for OECD countries and partner economies (www.oecd.org/els/societyataglance.htm).
- **Doing Better for Children.** This report launched in 2009 is the OECD's first publication with a multidimensional approach to well-being (OECD, 2009). The report looked at how children in OECD countries fared across several dimensions of child well-being: material well-being; housing and environment; education; health; risk behaviours; and quality of school life. In view of a strong demand for indicators of children, the OECD developed a **Child Well-being Module**, a dataset with age-specific child well-being information on policies; family and community contexts; and outcomes (www.oecd.org/social/family/database/CWBM).

Over the next years, the OECD will carry on its work in this area. In addition, a High Level Expert Group has been set up to continue the work of the Stiglitz-Sen-Fitoussi Commission on the Measurement of Economic Performance and Social Progress.

New Approaches to Economic Challenges (NAEC) is another prominent OECD activity that takes a holistic approach to address diverse socio-economic challenges. Building on the OECD's rich knowledge-base, this activity reflects on the roots of and lessons from the global crisis with the aim to refine the OECD's analytical framework. Launched at the 2012 OECD Ministerial Council Meeting (MCM), NAEC seeks to incorporate multidimensionality into policy design, by helping countries identify trade-offs, complementarities and unintended consequences of policy choices. It also analyses the factors that prevented authorities from identifying and addressing the accumulated tensions, regulatory failures and global imbalances that facilitated the crisis.

Conclusion

During the past 30 years, important gains have been made in some indicators of social progress, especially in access to, and participation in, education. However, many other indicators have not shown such marked improvements and gains have not been equally distributed. Moreover, the recent economic crisis has slowed, or even reversed, the progress made. Together with existing global trends, these events have imposed new challenges to individuals' future well-being and social progress.

Education can contribute to raising motivated, engaged and responsible citizens by enhancing skills that matter. Cognitive ability such as literacy and problem-solving are crucial. However, young people with a strong social and emotional foundation can better thrive in a highly dynamic and skill-driven labour market by persevering and working hard. They are more likely to avoid physical and mental illness by controlling their impulses, leading healthy lifestyles and maintaining strong interpersonal relationships. They are better able to provide social support and be actively engaged in society and in actions that protect the environment, by cultivating empathy, altruism and caring. They can also be more prepared to weather the storms of life such as job loss, family disintegration, hospitalisation or victimisation, by managing their emotions and adapting to change.

There is a need to rethink policies to better address what young people need, and to prepare them to face the challenges of the modern world. Investing in education and skills is one of the key policies for addressing today's numerous socio-economic challenges, and for ensuring prosperous, healthy, engaged, responsible and happy citizens.

Notes

1. Figure 1.3 presents bullying prevalence rates for boys only. Bullying and being bullied is more common among boys than among girls (around 6 % in the case of girls, both for bullying and being bullied).

2. PISA 2012 examines students' self-reports on perseverance; openness to problem solving; perceived control over success in mathematics and in schools; perceived self-responsibility failing in mathematics and intrinsic and instrumental motivation to learn mathematics. Most of these measures are constructed to capture students' perceptions and motivations towards success or failure in mathematics and school. They are not meant to measure more general personality traits.

3. The Programme for the International Assessment of Adult Competencies (PIAAC) defines literacy as: understanding, evaluating, using and engaging with written texts to participate in society, to achieve one's goals, and to develop one's knowledge and potential (OECD, 2013e). Literacy Level 2 or below means that respondents can read brief texts on familiar topics, understand basic vocabulary, determine the meaning of sentences, compare and contrast information and make low-level inferences. Literacy Level 3 or higher means respondents can at least understand and respond appropriately to dense or lengthy texts, including continuous, non-continuous, mixed, or multiple pages (OECD, 2013e).

4. The OECD countries that participated in the Survey of Adult Skills were: Australia, Austria, Belgium (Flanders), Canada, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Ireland, Italy, Japan, Korea, the Netherlands, Norway, Poland, the Russian Federation, the Slovak Republic, Spain, Sweden, the United Kingdom (England and Northern Ireland) and the United States.

References

Currie, C. et al. (2012), *Social Determinants of Health and Well-being Among Young People. Health Behaviour in School-Aged Children (HBSC) Study: International Report from the 2009/2010 Survey,* Regional Office for Europe, WHO (World Health Organization) Publishing, Copenhagen.

Currie, C. et al. (2008), *Inequalities in Young People's Health: HBSC International Report from the 2005/2006 Survey,* Regional Office for Europe, WHO (World Health Organization) Publishing, Copenhagen.

Heckman, J.J, J. Stixrud and S. Urzua (2006), "The effects of cognitive and non-cognitive skills abilities on labour market outcomes and social behaviour", *Journal of Labor Economics,* Vol. 24, No. 3, pp. 411-482.

Kautz, T. et al. (2014), "Fostering and Measuring Skills: Improving Cognitive and Non-cognitive Skills to Promote Lifetime Success", *OECD Education Working Papers,* No. 110, OECD Publishing, http://dx.doi.org/10.1787/5jxsr7vr78f7-en.

Livingstone, S. et al. (2011), *EU Kids Online II: Final Report,* The London School of Economics, London.

Layard, R. (2005), *Happiness: Lessons from a New Science,* Penguin, London.

OECD (2014), *Education at a Glance 2014: OECD Indicators,* OECD Publishing, Paris, http://dx.doi.org/10.1787/eag-2014-en.

OECD (2013a), *Online OECD Employment Database,* www.oecd.org/employment/database (accessed 12 February 2014).

OECD (2013b), *OECD Health at a Glance 2013: OECD Indicators,* OECD Publishing, Paris, http://dx.doi.org/10.1787/health_glance-2013-en.

OECD (2013c), "Well-being and the global financial crisis", in *How's Life? 2013: Measuring Well-being,* OECD Publishing, Paris, http://dx.doi.org/10.1787/how_life-2013-7-en.

OECD (2013d), *OECD Family Database,* www.oecd.org/social/family/database (accessed 12 February 2014).

OECD (2013e), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills,* OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264204256-en.

OECD (2013f), *PISA 2012 Results in Focus: What 15-Year-Olds Know and What They Can Do With What They Know,* OECD Publishing, Paris, www.oecd.org/pisa/keyfindings/pisa-2012-results-overview.pdf.

OECD (2013g), *PISA 2012 Results: Ready to Learn (Volume III): Students' Engagement, Drive and Self-Beliefs,* OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264201170-en.

OECD (2012a), *Closing the Gender Gap: Act Now,* OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264179370-en.

OECD (2012b), *OECD Environmental Outlook to 2050: The Consequences of Inaction,* OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264122246-en.

OECD (2012c), *Education at a Glance 2012: OECD Indicators,* OECD Publishing, Paris, http://dx.doi.org/10.1787/eag-2012-en.

OECD (2011a), *Health at a Glance 2011: OECD Indicators,* OECD Publishing, Paris, http://dx.doi.org/10.1787/health_glance-2011-en.

OECD (2011b), *Divided We Stand: Why Inequality Keeps Rising,* OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264119536-en.

OECD (2011c), *How's Life?: Measuring Well-being,* OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264121164-en.

OECD (2010a), *Obesity and the Economics of Prevention: Fit not Fat,* OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264084865-en.

OECD (2010b), *Improving Health and Social Cohesion through Education, Educational Research and Innovation,* OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264086319-en.

OECD (2009), *Doing Better for Children,* OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264059344-en.

OECD (2008), *Growing Unequal? Income Distribution and Poverty in OECD Countries,* OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264044197-en.

OECD (2007), *Understanding the Social Outcomes of Learning,* OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264034181-en.

Wolke, D. et al. (2013), "Impact of bullying in childhood on adult health, wealth, crime, and social outcomes", *Psychological Science,* Vol. 24, No. 10, pp. 1958-1970.

WHO (2008), *Closing the Gap in a Generation,* World Health Organization, Geneva.

Chapter 2

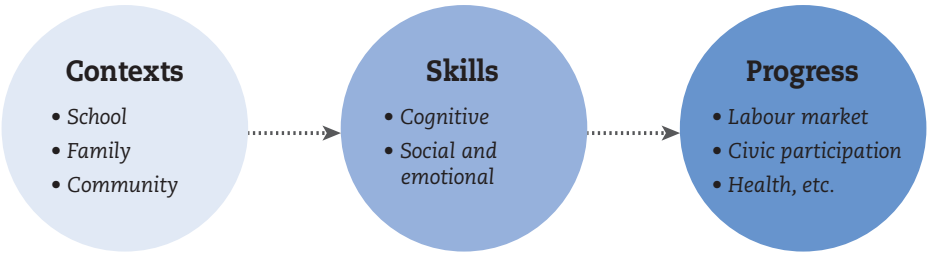
Learning contexts, skills and social progress: a conceptual framework

This chapter presents a conceptual framework that describes the relationships between learning contexts, skills and social progress. Individuals' skills are formed in diverse learning environments, including families, schools and communities. Each of these contexts is influenced by direct inputs, environmental factors and policy levers which can be used by decision makers to foster the development of the full spectrum of skills needed for achieving social progress. Social progress includes diverse aspects of individuals' lives, including education, labour market outcomes, health, family life, civic engagement and life satisfaction. Skills encompass cognitive, social and emotional capabilities needed for achieving prosperous, healthy and happy lives. Social and emotional skills play a particularly important role when individuals pursue goals, work with others and manage emotions. Skills develop progressively, building on previously acquired skills and on new learning investments. Those that start developing skills early tend to achieve more than others, although adolescence is also a key moment for social and emotional skills development.

Introduction

This chapter introduces a conceptual framework designed to capture the key mechanisms through which learning contexts, including learning investments, shape individual well-being and societal progress (Figure 2.1).[1] This framework, while acknowledging the importance of cognitive skills in driving socio-economic outcomes, sheds light on the role of social and emotional skills, such as the ability to pursue long-term goals, work with others and manage emotions. Securing a job, enjoying good health or actively participating in society require a diverse set of skills, and it is important to consider how these different types of skills contribute in order to understand how to successfully improve outcomes. The framework formally incorporates diverse outcomes representing the multifaceted nature of social and economic progress – not just education and jobs, but also health, civic engagement and life satisfaction. This chapter presents the components of the framework in detail and outlines the key relationships between them.

Figure 2.1. **The relationship between learning contexts, skills and social progress**



Social progress

Individual well-being and social progress are composed of diverse outcomes

Perhaps the ultimate goal of education policy makers, teachers and parents is to help children achieve the highest level of well-being possible. The OECD well-being initiatives illustrate the diverse economic and non-economic measures that make up the well-being of individuals and nations (see Box 1.2 and OECD, 2013). The framework for individual well-being and social progress presented here draws from OECD Framework for Measuring Well-Being and Progress which emphasises the broad spectrum of outcomes relevant in the modern world. These include education, labour market outcomes, health, life satisfaction, family life, civic engagement, safety and environmental outcomes (Figure 2.2).

Moving beyond the economic outcomes of learning, the framework also reflects the way policy thinking has evolved, with a growing shift towards understanding not only economic, but social, influences on people's success and societal progress. This is, for instance, reflected by the work of the Stiglitz-Sen-Fitoussi Commission on the Measurement of Economic Performance and Social Progress (Stiglitz, Sen and Fitoussi, 2009). As mentioned in Chapter 1, the importance of securing and maintaining social outcomes, such as good health and engaged citizenship, is ever-pressing for policy makers in the context of a world recovering from the economic crisis.

The proposed framework aims to investigate the influence cognitive, social and emotional skills have on a broad range of social progress indicators (Figure 2.2). It focuses on indicators that can be reliably measured and analysed. Many of these outcome indicators have already been developed for children based on a well-being framework (OECD, 2009).

- **Education and skills** outcomes can be analysed using measures such as educational attainment, grades on achievement tests, grade repetition and truancy.
- **Labour market** outcomes can be assessed using indicators such as work status (e.g. employment, unemployment, looking for job), type of work (e.g. full-time, permanent, self-employment) and earnings.
- **Material conditions** includes indicators such as income, assets, consumption and housing.
- **Health status** can be analysed by looking at positive behaviours (e.g. exercising, visiting the doctor regularly), risky behaviours (e.g. drug and alcohol use) and outcomes (e.g. body mass index, self-reports of health status and depression).
- **Civic engagement** can be assessed using measures of volunteering, voting and interpersonal trust.
- **Personal security** can be captured with data on bullying and violent acts, as well as criminal activity (e.g. personal theft, vandalism and assault).
- **Family and social connections** category comprises factors such as single parenthood; family breakdown; teenage pregnancy; contact with, and support from family and friends.
- **Subjective well-being** is represented by measures of life satisfaction, experiences of stress and other measures of subjective happiness.
- **Environmental** outcomes can be indirectly captured using individual's pro-environmental behaviours, such as recycling, using public transport or their understanding of human impact on the environment.

These individual outcomes are the building blocks of socio-economic outcomes at the aggregate level.

Figure 2.2. **A framework for individual well-being and social progress**

Source: Adapted from OECD (2011), *How's Life?: Measuring Well-being*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264121164-en.

Skills

The skills that drive individual success and social progress are multi-dimensional…

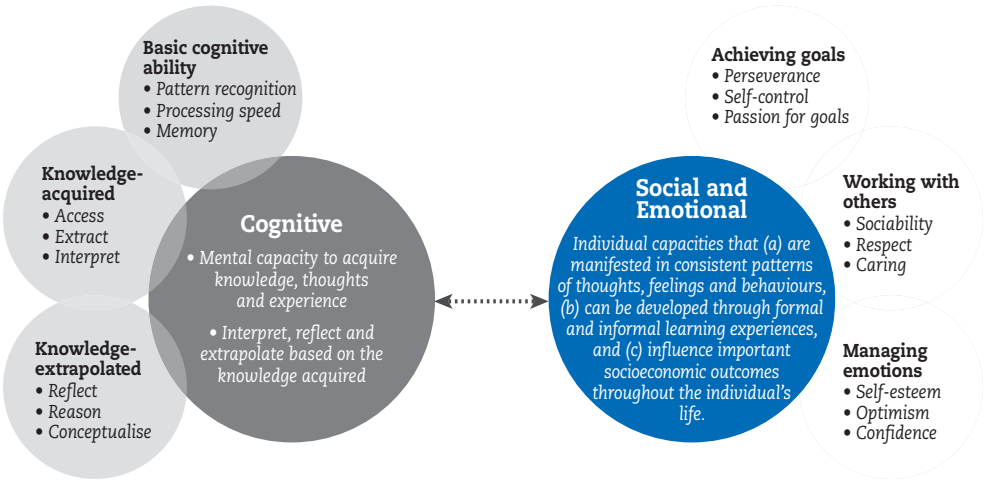
The OECD emphasises the role of skills in helping individuals face the challenges of the modern world and urges policy makers to deliver the right instruments to mobilise skill potential (OECD, 2012). In this report, skills are broadly defined as individual characteristics that drive at least one dimension of individual well-being and socio-economic progress *(productivity)*, that can be measured meaningfully *(measurability)*, and that are malleable through environmental changes and investments *(malleability)*. Individuals need multiplicity of skills to achieve diverse life goals.

Skills are also key to understanding the development of social and economic inequalities. In OECD countries and partner economies around the world, schooling gaps across ethnic and income groups have more to do with skill deficits than family financial capabilities during school-going years (Cunha and Heckman, 2007). An increase in cognitive skills increases the probability of a number of positive outcomes, such as completing tertiary education, finding a job and earning a good salary. While these skills are highly predictive of success in some aspects of life, social and emotional skills show a higher predictive power for a broader range of social outcomes (Heckman, Stixrud and Urzua, 2006; Kautz et al., 2014).

… and include social and emotional skills such as perseverance, self-esteem and respect for others…

Social and emotional skills – also known as non-cognitive skills, soft skills or character skills – are the kind of skills involved in achieving goals, working with others and managing emotions. As such, they manifest themselves in countless everyday life situations. Figure 2.3 presents a categorisation of skills based on some of their most important functions. Clearly, such skills play a role in all stages of life: while children are taught which behaviour is appropriate when playing with others, adults need to learn the rules of team play in professional settings, for instance. People pursue goals from an early age (e.g. when playing games, solving puzzles) and this becomes ever-more important in adulthood (e.g. when pursuing academic degrees and jobs, etc.). Learning appropriate ways of showing positive and negative emotions and managing stress and frustration is a lifelong pursuit, especially when dealing with life changes such as divorce, unemployment and long-term disabilities. These broad skill categories (i.e. pursuing goals, working with others and managing emotions) include a number of lower-level skill constructs, as described in Figure 2.3.

Figure 2.3. **A framework for cognitive, social and emotional skills**



The framework presented here is broadly in line with other existing frameworks, particularly the "Big Five" personality taxonomy (Box 2.1). However, it also draws upon other theoretical perspectives (e.g. positive psychology and personal strivings) and existing frameworks (e.g. Character Framework from the Center for Curriculum and Redesign; Social and Emotional Learning (SEL) Framework and; KIPP Character Framework) that look at those individual characteristics that education stakeholders can foster through adequate practices.

Box 2.1. **The Big Five factors**

The Big Five factors is a classification system of personality that distinguishes five basic dimensions: extraversion, agreeableness, conscientiousness, emotional stability (also known as neuroticism) and openness to experience. Costa and McCrae (1992) provide a list of important facets corresponding to each of these factors.

Extraversion: Gregariousness, assertiveness, activity, adventurousness, enthusiasm, warmth

Agreeableness: Trust, straightforwardness, altruism, compliance, modesty, sympathy

Conscientiousness: Efficiency, organisation, dutifulness, achievement striving, self-discipline, deliberation

Emotional stability: Anxiety, irritability, depression, self-consciousness, impulsiveness, vulnerability

Openness: Curiosity, imagination, aesthetics, actions (wide interests), excitability, unconventionality

Extraversion is probably the most widely used of the factors and the most familiar one. Typically those high in extraversion are characterised by energy, positive emotions and assertiveness. Agreeableness can be characterised by aspects such as being caring, modest and trusting. Hence, both of these factors play a central role when working with others. Conscientiousness involves dutifulness, striving to achieve, and acting in a goal-directed manner, and as such, plays an important role in achieving goals. Emotional stability refers to the ability to deal with negative emotional experiences and stressors, and is central to managing emotions. Openness to new experiences is perhaps the most elusive of the factors, as it relates to a broad range of aspects such as sensitivity to art and beauty, need for variety and intellectual curiosity (McCrae and John, 1992).

The five dimensions of the Big Five broadly capture the underlying core qualities of the individual – typical patterns of thoughts, feelings, and behaviours – and thus provide a parsimonious and highly efficient personality trait summary (John and De Fruyt, 2014). However, a model with few concepts is very broad and thus less able to predict specific outcomes. A measurement model needs further specification in order to understand growth trajectories, to identify the impact of different learning contexts, and to explain future outcomes. A model with three to five facets in each of the broad Big Five domains should help in following individuals across both broad and more specific levels of the personality trait hierarchy (John and De Fruyt, 2014).

Our framework defines social and emotional skills as: "individual capacities that can be (a) manifested in consistent patterns of thoughts, feelings and behaviours, (b) developed through formal and informal learning experiences, and (c) important drivers of socioeconomic outcomes throughout the individual's life". The definition emphasises the latent nature of the construct that is manifested in consistent patterns of individual's responses across situations and contexts. These skills can be enhanced, through environmental changes and investments, and consequently drive individual's future outcomes.

Skills that matter for future outcomes also include cognitive skills such as literacy, numeracy and problem solving

Cognitive skills are also described in various ways, such as smarts, knowledge or intelligence. These skills are involved in the process of acquiring and applying knowledge. Our framework reflects this diversity as well, distinguishing between basic cognitive ability, knowledge acquired and knowledge extrapolated (Figure 2.3). Basic cognitive ability refers to fundamental skills such as speed of processing and memory. Knowledge acquired refers to the ability to access, extract and interpret remembered knowledge. Knowledge extrapolated involves the more complex process

needed to reflect on, and reason with, the information, and, as a result, conceptualise novel ways of dealing with the problem at hand. This categorisation is in line with the difference between fluid intelligence (which relates to abstract thinking and the ability to solve problems in novel situations) and crystallised intelligence (which relates to using acquired knowledge and experience) (Cattell, 1987).

This framework is consistent with, and draws inspiration from, other cognitive skill frameworks, in particular the OECD Programme for International Student Assessment (PISA) framework. What unites them is the idea that cognitive skills do not involve just applying knowledge, but rather includes the ability to reflect and engage in more complex thinking patterns. Indeed, PISA's definition of literacy as the capacity of students to analyse, reason and communicate effectively as they pose, solve and interpret problems in a variety of subject matter areas (OECD, 2006) illustrates how multidimensional cognitive skills are. For example, reflection is a complex processes as it demands not only accessing knowledge but also relating it to other experiences, reframing a problem, making connections and thus being able to apply the acquired knowledge to new situations.

Many of the 21st century skills, such as creativity and critical thinking, have both cognitive and socio-emotional elements

Our framework also allows for the fact that cognitive and socio-emotional skills interact, and in so doing, mutually influence each other (Figure 2.3). Indeed, skills such as creativity and critical thinking may be best understood by incorporating both cognitive and socio-emotional dimensions. Creativity, also referred to as divergent thinking, involves producing content that is not only novel, original and unexpected, but also appropriate, useful and adapted to the task at hand (Lubart, 1994). It has been found to be related to measures of intelligence, as well as social and emotional skills. The Big Five framework also provides an understanding of some aspects of these complex skills. For instance, creative people tend to be more open to new experiences, imaginative, less conscientious; more impulsive; and more extraverted (Feist, 1998).

Critical thinking, on the other hand, involves the ability to use the rules of logic and cost-benefit analysis, think strategically and apply the rules to new situations to solve problems. This skill has a very strong cognitive component relying on the ability to reflect on information, interpret it in a new context and find solutions to novel problems based on existing knowledge (Halpern, 1998). However, critical thinking also incorporates aspects of openness to new experience, such as imagination and unconventionality (John and Srivastava, 1999). Many real-life situations require the emergence of more complex skills which incorporate intellectual, social and emotional components. In order to understand these skills, the current framework incorporates different aspects of skills domains and acknowledges that different skills interact in everyday situations.

Measuring social and emotional skills, while challenging, can be reliably done

Social and emotional skills may sometimes be under-rated in policy debates, since many assume these skills cannot be reliably measured. Indeed, unlike height or weight, social and emotional skills cannot be directly observed.[2] They can instead be indirectly measured using self/observer reporting, task performance and administrative records of student behaviours which may be subject to bias or noise.

There are reliable and valid self-descriptions on personality items from the age of ten onwards (Soto et al., 2011), when children have acquired a certain vocabulary and are developing their self-reflective and social comparison skills. Diverse instruments to measure personality exist for adults (Box 2.2 for

an example of subjective measures). The evidence suggests that some of these instruments provide a reliable measure of personality traits and predict individual socio-economic outcomes well, at least within a cultural and linguistic boundary in developed (Ozer and Benet-Martínez, 2006; Almlund et al., 2011) and developing countries (Pierre et al., 2014). Nevertheless, both self- and observer ratings can be biased due to the subjective views that the respondent may possess about the subject, which may have little to do with the subject's actual social and emotional skills. In particular, individual self-reporting may also be heavily affected by social desirability, faking, acquiescence and reference group effects (Kyllonen and Bertling, 2014).

Box 2.2. **Subjective measures of personality traits: The Big Five Inventory**

There are many measurement instruments available to capture an individual's personality traits using subjective reporting. One of the most influential instruments is the Big Five Inventory (John and Srivastava, 1999). There are various versions of this inventory including long (44 items) or short (10 items). The short version is based on the extent to which respondents agree or disagree with the following questions: I see myself as someone who…

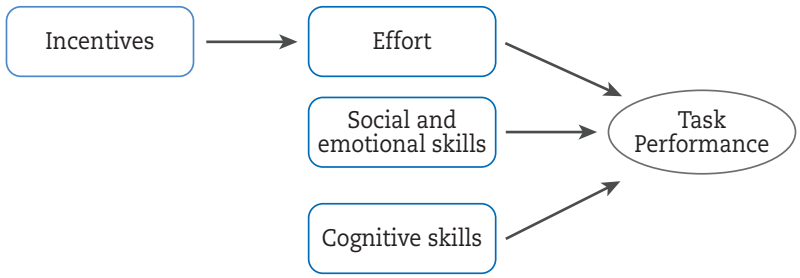
Personality factors	Item (questions)
Extraversion	Is reserved (R). Is outgoing, sociable.
Agreeableness	Is generally trusting. Tends to find fault with others (R).
Conscientiousness	Tends to be lazy (R). Does a thorough job.
Emotional stability	Is relaxed, handles stress well (R). Gets nervous easily.
Openness	Has few artistic interests (R). Has an active imagination.

Note: (R) represents items that will be reserve coded.

One way to improve subjective measurement is to collect self, teacher, parental and peer reporting. Multiple informants can provide unique perspectives on children's skills and allow for triangulations to infer latent personality (John and De Fruyt, 2014). Anchoring vignette is another potentially useful method to improve data quality in general, to reduce response biases, and to improve cross-cultural comparability of social and emotional skill assessments (Kyllonen and Bertling, 2014).

Social and emotional skills can also be reliably measured using individual task performance (Kautz et al., 2014). This can be done in the form of a laboratory test (i.e. designing behavioural tasks in a laboratory setting to measure a particular skill, e.g. the marshmallow test); psychometric observational studies (e.g. interviews with trained psychologists, assessing an individual's response to situations, or diagnostic questions); or behavioural measures (e.g. response to a question such as "How many times have you arrived late for school or work during the past month?"). These measures are, however, also subject to biases due to difference in efforts the examinee puts into the test, as well as differences in skills other than the ones measured by the test (e.g. cognitive skills) which may affect task performance. Hence, a precise measure of social and emotional skills would require conditioning the measures on efforts and other skills. Figure 2.4 illustrates this point by describing the relationship between incentives, effort and skills in explaining task performance.

Figure 2.4. **The relationship between incentives, effort and skills in task performance**



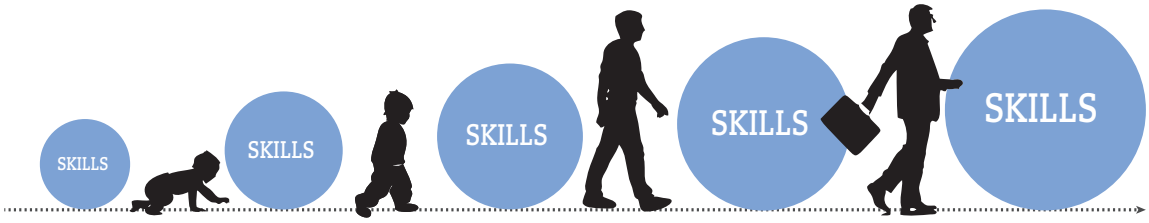
Source: Kautz, T. et al. (2014), "Fostering and Measuring Skills: Improving Cognitive and Non-cognitive Skills to Promote Lifetime Success", *OECD Education Working Papers*, No. 110, OECD Publishing, http://dx.doi.org/10.1787/5jxsr7vr78f7-en.

A promising way to assess social and emotional skills is to exploit administrative data on childhood behaviours (e.g. school attendance) as recorded by teachers and parents. This information is widely available and does not require separate assessment of social and emotional skills. Even after the cognitive component of these measures is removed (i.e. standardising for other skills), they are still highly predictive of their educational, labour market and social outcomes (Kautz et al., 2014; Heckman, Humphries and Veramendi, 2014).

Skills need to be understood in a dynamic framework

Skills develop over time, as Figure 2.5 illustrates. There is growing evidence that both cognitive and social and emotional skills can be enhanced during an individual's lifetime. Skills development is not only affected by genes and the environment, but also by inputs from families, schools and the community. Parents assume a great responsibility in their children's skill formation as they shape many of the environmental factors that will influence their development (through their choice of neighbourhood, educational programme and household characteristics). The impact culture, policies and institutions have on skill formation and across learning contexts should not be underestimated either. These diverse learning factors are crucial in understanding the process, and are presented in detail in the following section.

Figure 2.5. **Skills development over a lifetime**



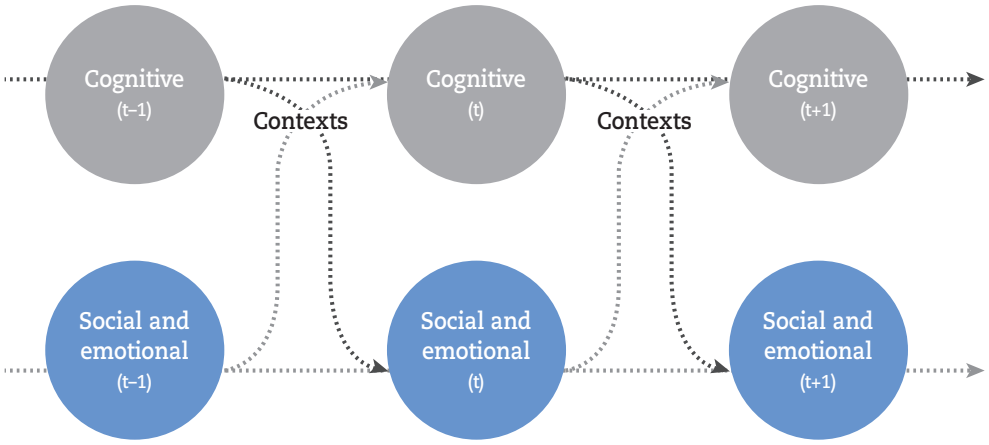
The rate of skill development largely depends on the age of individuals and their current level of skills. It is now recognised that there are sensitive periods for skill development. The first years matter tremendously for the development of skills, as they lay the foundations for future skill development. Investment in early childhood interventions brings the biggest returns in terms of securing higher levels of skills and positive adult outcomes (Kautz et al., 2014). In those years, family is of crucial importance and the patterns of interaction between parents and children have a significant impact on cognitive, social and emotional skills. However, later interventions can also be effective, especially in terms of social and emotional skills. During middle and late childhood and adolescence, schools,

peer groups and the community become increasingly important influences in shaping these skills. In addition, alternative programmes for those who drop out of school (i.e. in-work training) have also been found to be important for later skill development (Kautz et al., 2014).

Past skills are important determinants of current skills

"Skills beget skills" is an expression often heard in the literature on skill formation: in other words, the higher the levels of skills individuals have, the higher their gain in skills, as shown in Figure 2.5 (Carneiro and Heckman, 2003). This applies to levels of the same skill, for instance a child with relatively higher maths literacy than his or her peers at the point of entering school is more likely to end with even higher maths literacy at the end of the school year, compared to his or her peers. However, there is also evidence of so-called cross-productivity (Cunha and Heckman 2007; Cunha, Heckman and Schennach, 2010) whereby one type of skill can help foster other skills over time (Figure 2.6). This is particularly true for those individuals with higher levels of social and emotional skills, as these skills can aid cognitive skill development (Chapter 4). Indeed, a child who is very disciplined and persistent is likely to increase his or her maths skills more than a child with equal levels of maths skills but with lower levels of discipline and persistence. Discipline and persistence make it more likely that the child will diligently do the homework and gain more from it. Cognitive and social and emotional skills are thus tightly connected. More generally, those with higher skills are more likely to be able to elicit more from their learning contexts. A highly skilled child is more likely to select the right tools in order to advance his or her knowledge, or seek out further opportunities for growth (e.g. through extracurricular activities).

Figure 2.6. **Dynamic interactions between cognitive and social and emotional skills**



Past skills determine the extent to which individuals benefit from new investment through input from families, schools and communities

All in all, it is clear that investment in cognitive, social and emotional skills is necessary to secure success in life. Social and emotional skills should not be neglected by policy makers, given that they are instrumental in increasing cognitive skills. Importantly, the sensitive periods for social and emotional skills are not quite the same as those for cognitive skills. While early investment is beneficial to all skills, social and emotional skills are more malleable at the later stages of life than cognitive skills (Cunha and Heckman, 2007; Cunha, Heckman and Schennach, 2010). Moreover, adolescence appears to be a period of particularly turbulent changes in social and emotional skills. For instance, adolescence tends to be associated with lower discipline (conscientiousness),

lower friendliness (agreeableness) and higher emotional instability (Soto et al., 2011). The common complaint made by parents of teenagers that they "cannot recognise their children anymore" might be a reflection of these changes in skill levels. These negative changes seem to affect some children more than others and more research is needed to understand how some of the negative impacts could be buffered in order to prevent loss of human capital. Chapters 4 and 5 discuss a number of initiatives which aim to foster cognitive and socio-emotional skills.

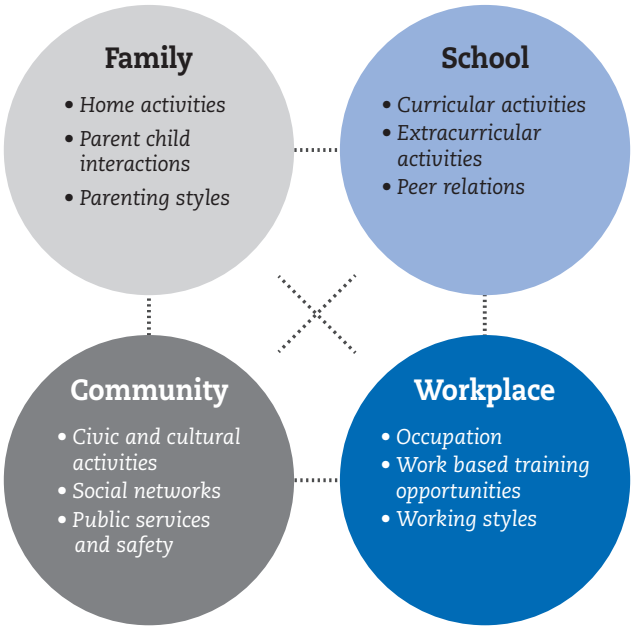
Learning contexts

Learning contexts are multidimensional

The diversity of social contexts in which learning takes place points to the value of formal, non-formal and informal learning. Formal learning involves institutionalised, curriculum-based learning and teaching, for instance, learning which occurs within the education system, or workplace learning (Werquin, 2010). Informal learning can take place within work, family or community contexts. It is not structured, and is more unintentional from the learner's perspective (Cedefop, 2008). This type of learning happens, for instance, when children play. Non-formal learning is situated between formal and informal learning. It is structured and intentional, but not regulated, nor is it accredited or formally supported. An example might be teaching oneself how to use a particular piece of software – which is intentional but is not funded or accredited.

Hence, learning takes place in a variety of social settings, summarised in the current framework as: school, family, the community and the workplace. Within each type of context we can distinguish a number of specific elements, with examples presented in Figure 2.7. Each context contributes to the development of cognitive, social and emotional skills, though their relative importance will change depending on an individual's stage in life. For instance, parents are clearly crucial during infancy and early childhood, but school and the community become increasingly important as a child enters formal education and interacts with diverse social networks. The workplace, in turn, is a key learning context, particularly during late adolescence and (early) adulthood.

Figure 2.7. **A framework of learning contexts**



Learning contexts include policy levers as well as factors that teachers and parents could influence

The impact of learning contexts on skills can be divided into direct inputs, environmental factors and policy levers (Table 2.1). These represent different ways in which schools, families, workplaces and communities can shape skills. Direct inputs intentionally and explicitly affect skill development; for example, parental involvement in child-rearing activities. Environmental factors, on the other hand, influence skill development indirectly by increasing resources or improving contexts that could shape the level and/or quality of learning resources available; for instance, workplace resources for training and neighborhood safety. Policy levers, on the other hand, are the elements of a learning context which are directly malleable by policy inputs and can be used to foster skill development; for instance, teacher training, which informs teachers' approaches to teaching cognitive and social and emotional skills.

These learning contexts do not function in isolation from each other; rather they constantly interact and mutually influence each other. In fact, the patterns of interactions between contexts can themselves be related to the development of skills. For instance, parental involvement in children's schools, like attending parent-teacher meetings, may foster children's social and cognitive development by improving both family and school learning contexts (El Nokali, Bachman and Votruba-Drzal, 2010).

Table 2.1. **Direct inputs, environmental factors and policy levers to enhance skills (examples)**

	Family	School	Workplace	Community
Direct inputs	Parental attachment with children (e.g. reading books, sharing meals, playing); parenting styles (e.g. warm, authoritarian)	Curricular and extra-curricular activities designed to improve social and emotional skills; teacher's pedagogical skills and knowledge; teaching styles (e.g. mobilising group discussions); classroom climate; apprenticeships, service learning; mentoring	Work-based training; management styles	Activities offered in the community (e.g. art classes in cultural centres, sports association, volunteering); media; social networks
Environmental factors	Family's socio-economic resources (availability of learning aids, technology in the household); family stressful and disturbing events (family violence, negligence, abuse, maltreatment, malnutrition)	School composition, resources, facilities, climate and safety	Workplace resources	Public services (transportation, parks, schools, childcare centres. out-of-school services); pollution; neighbourhood safety; unemployment rate and income levels
Policy levers	Parental leave provisions; flexible working arrangements; childcare services; family cash benefits	Teacher training, curriculum and recruitment	Work-study programmes; subsidised training programmes; income support programmes	Training programmes for social workers

Conclusion

Today's socio-economic climate poses a number of challenges that requires individuals to manage complexity and diversity in their private, work and social lives. These challenges can only be met by individuals with a comprehensive set of cognitive, social and emotional skills. Policy makers need to consider a wide range of capabilities, where social and emotional skills are just as important as cognitive skills. These skills interact and cross-fertilise and develop progressively, building on past investment in skills. This underlies the importance of early investment. The framework presented in this chapter is centred on the idea that successful learning takes place in and outside of the classroom, at schools, within families, communities and in workplaces. Thus, different types of learning can be particularly effective in fostering different skills that matter. The following chapters will look into different components of the framework in order to better understand the practices which can be incorporated into learning environments to foster skills development and, consequently, social progress.

Notes

1. While this chapter emphasises how learning contributes to skills and how skills contribute to social and economic progress, these are merely two dimensions of the relationship between learning contexts, skills and outcomes. The reality is more complex, with many bidirectional relationships between these components. Outcomes can directly affect learning contexts; for instance, bad health can affect a child's ability to learn by preventing him or her from attending school. Levels of existing skills can also affect the learning contexts: more agreeable, friendly children might elicit more positive attention and learning opportunities than those who misbehave. These bidirectional relationships and feedback loops will be addressed in the empirical analyses presented in Chapters 3 and 4. They also need to be considered in the planning of successful policy interventions aiming to raise skills.
2. This is of course the same for measuring cognitive skills. All existing measures of intelligence quotient (IQ), achievement and literacy tests provide indirect measures of the cognitive construct of interest.

References

Almlund, M. et al. (2011), "Personality psychology and economics", in E. Hanushek, S. Machin and L. Woessman (eds.), *Handbook of the Economics of Education,* Vol. 4, Elsevier, Amsterdam. pp. 1-181.

Carneiro, P. and J. Heckman (2003), Human Capital Policy, in J. Heckman and A. Krueger (eds.), *Inequality in America: What Role for Human Capital Policy?*, MIT Press, Cambridge, MA.

Cattell, R.B. (1987), *Intelligence: Its Structure, Growth, and Action,* Elsevier Science, New York, NY.

Cedefop (European Centre for the Development of Vocational Training) (2008), *Terminology of European Education and Training Policy: A Selection of 100 Key Terms,* Office for Official Publications of the European Community, Luxembourg.

Costa, Jr., P.T. and R.R. McCrae (1992), *NEO PI-R Professional Manual,* Psychological Assessment Resources, Inc., Odessa, FL.

Cunha, F. and J. Heckman (2007), "The technology of skill formation", *American Economic Review,* Vol. 97, No. 2, pp. 31-47.

Cunha, F., J. Heckman and S. Schennach (2010), "Estimating the technology of cognitive and noncognitive skill formation", *Econometrica*, Vol. 78 (3), pp. 883-931.

El Nokali, N.E., H.J. Bachman and E. Votruba-Drzal (2010), "Parent involvement and children's academic and social development in elementary school", *Child Development,* Vol. 81, No. 3, pp. 988-1005.

Feist, G.J. (1998), "A meta-analysis of personality in scientific and artistic creativity", *Personality and Social Psychology Review,* Vol. 2, No. 4, pp. 290-309.

Halpern, D.F. (1998), "Teaching critical thinking for transfer across domains: Dispositions, skills, structure training, and metacognitive monitoring", *American Psychologist,* Vol. 53, No. 4, pp. 449-455.

Heckman, J.J., J. Humphries and G. Veramendi (2014), "Education, Health and Wages", *NBER Working Paper*, No. 19971.

Heckman, J.J., J. Stixrud and S. Urzua (2006), "The effects of cognitive and non-cognitive abilities on labor market outcomes and social behavior", *Journal of Labor Economics,* Vol. 24, No. 3, pp. 411-482.

John, O.P. and F. De Fruyt (forthcoming), "Social and emotional skills constructs and measures for the OECD longitudinal study of skill dynamics", mimeo, OECD.

John, O.P. and S. Srivastava (1999), "The Big Five trait taxonomy: History, measurement, and theoretical perspectives", in L.A. Pervin and O.P. John (eds.), *Handbook of Personality: Theory and Research,* (2nd edition), Guilford Press, New York, NY, pp. 102-139.

Kautz, T. et al. (2014), "Fostering and Measuring Skills: Improving Cognitive and Non-cognitive Skills to Promote Lifetime Success", *OECD Education Working Papers,* No. 110, OECD Publishing, http://dx.doi.org/10.1787/5jxsr7vr78f7-en.

Kyllonen, P.C. and J.P. Bertling (2014), "Innovative questionnaire assessment methods to increase cross-country comparability", in L. Rutkowski, M. von Davier and D. Rutkowski (eds.), *Handbook of International Large-Scale Assessment: Background, Technical Issues, and Methods of Data Analysis,* CRC Press, Boca Raton, FL.

Lubart, T.I. (1994), "Creativity", in R.J. Sternberg (ed.), *Thinking and Problem Solving,* Academic Press, San Diego, CA.

McCrae, R.R. and O.P. John (1992), "An introduction to the five-factor model and its applications", *Journal of Personality,* Vol. 60, No. 2, pp. 175-215.

OECD (2013), *How's Life? 2013: Measuring Well-being,* OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264201392-en.

OECD (2012), *Better Skills, Better Jobs, Better Lives: A Strategic Approach to Skills Policies,* OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264177338-en.

OECD (2011), *How's Life?: Measuring Well-being,* OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264121164-en.

OECD (2009), *Doing Better for Children,* OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264059344-en.

OECD (2006), *Are Students Ready for a Technology-Rich World? What PISA Studies Tell Us,* OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264036093-en.

Ozer, D. and V. Benet-Martínez (2006), "Personality and the prediction of consequential outcomes", *Annual Review of Psychology,* Vol. 57, pp. 401-421.

Pierre, G. et al. (2014), "STEP Skills Measurement Surveys: Innovative Tools for Assessing Skills", *World Bank Social Protection and Labour Discussion Paper Series,* No.1421, World Bank Group, Washington, D.C.

Soto, C.J. et al. (2011), "Age differences in personality traits from 10 to 65: Big Five domains and facets in a large cross-sectional sample", *Journal of Personality and Social Psychology,* Vol. 100, No. 2, pp. 330-348.

Stiglitz, J.E, A.K. Sen and J.P. Fitoussi (2009), *Report by the Commission on the Measurement of Economic Performance and Social Progress,* Commission on the Measurement of Economic Performance and Social Progress, Paris, http://www.stiglitz-sen-fitoussi.fr/en/index.htm.

Werquin, P. (2010), *Recognising Non-Formal and Informal Learning: Outcomes, Policies and Practices,* OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264063853-en.

Chapter 3

Skills that foster lifetime success

This chapter details the impact of raising children's cognitive, social and emotional skills on their future outcomes in nine OECD countries. The empirical analyses show consistent patterns although they were based on longitudinal data from a variety of countries using different measures of skills and outcomes of children across different ages. Increasing deciles of cognitive skills has a strong impact on enhancing access to education and labour market outcomes, while increasing deciles of social and emotional skills has a strong impact on improving social outcomes such as health, experience of anti-social behaviour and subjective well-being. Some interventions designed to increase skills among disadvantaged children have shown impressive long-term results for social outcomes. Successful interventions tend to focus on raising skills that enable people to achieve goals, work with others and manage emotions, with conscientiousness, sociability and emotional stability appearing particularly important. Policy makers interested in better enhancing diverse measures of individual well-being and social progress may consider tapping into this area of skill development.

Introduction

This chapter details the impact of raising deciles of children's cognitive, social and emotional skills on their future outcomes in nine OECD countries, using a variety of measures.[1] The results show that while enhancing social and emotional skills shows moderate impact on education and labour market outcomes, doing so has a large impact on a variety of measures of social outcomes and enhancing socio-emotional skills generally outperforms the impact of raising cognitive skills.[2] The extraordinary power of social and emotional skills is explained in part by their role in shaping individuals' behaviours and lifestyles, which in turn shape their socio-economic outcomes. Social and emotional skills can also enhance the benefits of individuals attending tertiary education as well as raise their capacity to translate intentions into actions. While there is limited causal evidence on the types of social and emotional skills that matter, this chapter suggests that the social and emotional skills that raise children's capacities to achieve goals, work with others and manage their emotions are considered among the important drivers of their lifetime success. The particular skills involved in these processes include perseverance, sociability and self-esteem.

Wider benefits of skills

Cognitive skills have a high impact on tertiary education attendance and completion, and on labour market outcomes

The OECD's longitudinal analyses identify the socio-economic returns to investing in skills using latent factor models and counterfactual experiments (Box 3.1).

Figure 3.1 presents the simulated impact of raising skill deciles on tertiary attendance. While the effects vary in scale across countries, they generally suggest that the impact of raising cognitive skills (black/grey) on attending, enrolling or completing tertiary education outweighs the corresponding impact of raising social and emotional skills (blue). For example, in Figure 3.1 (Panel B), an increase in cognitive skills (based on measures of achievement test scores and school grades) of a 14-year-old Korean student from the lowest to the highest decile increases attendance in a four-year college by 23 percentage points, while the corresponding effects of increasing social and emotional skills (based on measures of locus of control[3]) is only 10 percentage points. The effect of cognitive skills is particularly strong for Norway (Panel C), Sweden (Panel D) and the United States (Panel E). Note that the impact of raising social and emotional skills on tertiary attendance tends to be either statistically insignificant or very close to zero. This is the case for Korea (Panel B, responsibility and locus of control), Norway (Panel C, extraversion and self-confidence), Sweden (Panel D) and United States (Panel E). For Belgium (Panel A), the impact of raising social and emotional skills on tertiary attendance rivals that of raising cognitive skills which is similar to recent evidence from the United States (Heckman, Humphries and Veramendi, 2014).

Figure 3.2 also shows the positive effect of cognitive skills on tertiary education completion observed in Canada (Panel A), Switzerland (Panel B), the United Kingdom (Panel C) and the United States (Panel D).

Box 3.1. OECD's longitudinal analyses on the effects of skills and the causal process of skill formation

In 2012, the OECD's Education and Social Progress (ESP) project conducted longitudinal analyses for 11 OECD countries, including Australia, Belgium (Flanders), Canada, Germany, Korea, New Zealand, Norway, Sweden, Switzerland, the United Kingdom and the United States. The aim was to identify: 1) the effects of skills on a variety of socioeconomic outcomes; and 2) the causal process of skill formation with past skills interacting with new learning investments. Results from nine countries, including Belgium (Flemish Community), Canada, Korea, New Zealand, Norway, Sweden, Switzerland, the United Kingdom and the United States, are presented in this report.

The study was based on the following longitudinal data sets identified by the OECD, based on the availability of appropriate measures of skills, learning contexts and outcomes (education, labour market and social):

- Australia — Longitudinal Survey of Australian Children (LSAC), Australian Temperament Project (ATP)
- Belgium — Longitudinal Research in Secondary Education (LOSO)
- Canada — Youth in Transition Study (YITS)
- Germany — Mannheim Study of Youth (MARS)
- Korea — Korean Youth Panel Studies (KYPS)
- New Zealand — Competent Children (CC)
- Norway — Young in Norway (YiN)
- Sweden — Evaluation Through Follow-up (ETF)
- Switzerland — Transition from Education to Employment (TREE)
- United Kingdom — British Cohort Study (BCS)
- United States — Early Childhood Longitudinal Study – Kindergarten (ECLS-K), National Longitudinal Study of Youth (NLSY)

The OECD adopted latent (dynamic) factor models as described in Urzua and Veramendi (2012), and Sarzosa and Urzua (2014). These models follow Heckman, Stixrud and Urzua (2006); Cunha and Heckman (2008); and Cunha, Heckman and Schennach (2012). They take into account measurement errors inherent in available measures of cognitive, social and emotional skills, as well as endogeneity of learning investment measures (i.e. that past levels of skills affect the amount of investments a child would receive). Skill measures precede outcome measures, and investment measures precede skill measures. Outputs that describe the returns to skills are generated using maximum likelihood estimation (MLE) and simulations to generate counter-factual measures of skills and outcomes. This report presents key results from selected countries (i.e. Belgium, Canada, Korea, New Zealand, Norway, Sweden, Switzerland, the United Kingdom and the United States) and data sets. Detailed country analyses, empirical models and estimation strategies will be published on the OECD's website (http://www.oecd.org/edu/ceri/educationandsocialprogress.htm) from February 2015.

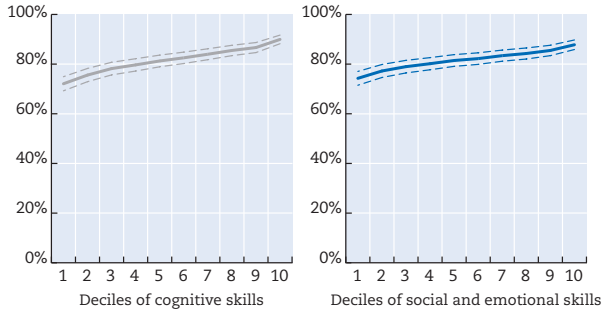
This study was designed and co-ordinated by the OECD and developed with a team of researchers around the world, including Sergio Urzua, Miguel Sarzosa and Ricardo Espinoza (University of Maryland, United States); Ben Edwards and Galina Daraganova (Australian Institute for Family Studies, Australia); Steven Groenez (University of Leuven, Belgium); Ross Finnie and Stephen Childs (University of Ottawa, Canada); Michael Kottelenberg and Steve Lehrer (Queen University, Canada); Friedhelm Pfeiffer and Karsten Reuss (Centre for European Economic Research, Germany); Lihong Huang (Oslo and Akershus University of Applied Sciences, Norway); Jan-Eric Gustafsson and Elias Johannesson (Gothenburg University, Sweden); and Robin Samuel (University of Basel, Switzerland).

Although the OECD's longitudinal analyses adopted a unified empirical strategy to estimate the drivers and outcomes of skills consistently across countries, the micro-data used are based on longitudinal studies that have different structures, measurements, control variables,[4] and age groups. Thus the figures presented in Chapters 3 and 4 are designed to generate overall patterns of the returns and outcomes of skills based on within-country analysis.

Figure 3.1. Cognitive skills have a high impact on tertiary-education attendance

Panel A. **Belgium (Flemish Community)**

Probability of self-reported tertiary education attendance by skill deciles

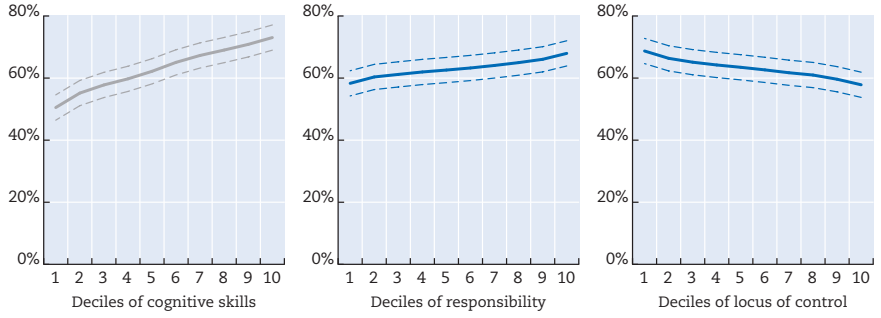


StatLink http://dx.doi.org/10.1787/888933163676

Note: Solid lines depict probability of self-reported college attendance, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of numerical, spatial and verbal intelligence quotient (IQ) tests during Grade 6. Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of extraversion, self-esteem and conscientiousness during Grade 6.

Panel B. **Korea**

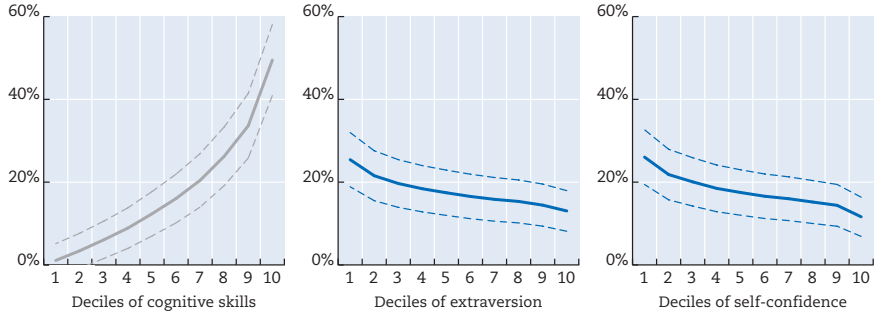
Probability of self-reported college attendance by skill deciles



Note: Solid lines depict probability of self-reported four-year college attendance at age 19-20, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Social and emotional skills are captured by a latent responsibility factor estimated using measures of impulsiveness, despondency and apprehensiveness at age 14, and a latent locus of control factor estimated using measures of "confidence in making own decisions", "belief in one's capacity to deal with problems" and "belief in the capacity to take responsibility of one's own life" at age 14. Cognitive skills are captured by a latent cognitive skill factor estimated using measures of achievement test scores and academic grades at age 14, and conditioning on latent responsibility and locus of control factors. The empirical model assumes that measures of achievement test scores and academic grades are a function of latent cognitive and social and emotional skill factors.

Panel C. **Norway**

Probability of self-reported college attendance by skill deciles

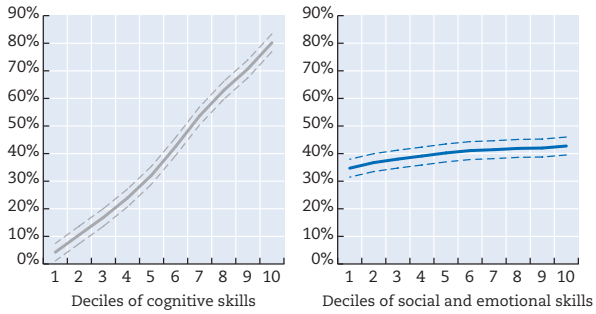


Note: Solid lines depict probability of self-reported college attendance at age 20-24, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of achievement tests, grades and self-rated academic competence at age 15-19. Social and emotional skills are captured by a latent extraversion factor estimated using measures of shyness, social acceptance and friendliness at age 15-19, and a latent self-confidence factor estimated using measures of self-satisfaction and confidence in oneself at age 15-19.

Figure 3.1. **Cognitive skills have a high impact on tertiary-education attendance** (continued)

Panel D. **Sweden**

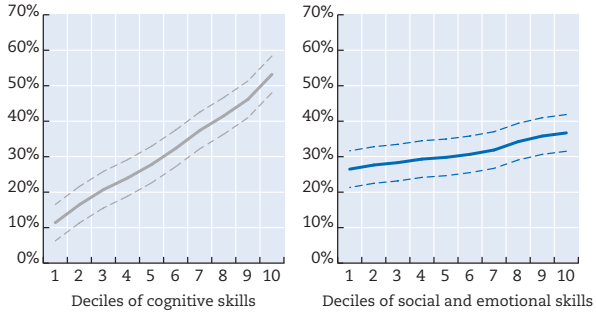
Probability of self-reported university attendance by skill deciles



Note: Solid lines depict probability of self-reported university attendance at age 20, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of maths grades, and special and verbal ability during Grade 3. Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of grit, social anxiety and social co-operation at Grade 3.

Panel E. **United States**

Probability of self-reported college attendance by skill deciles

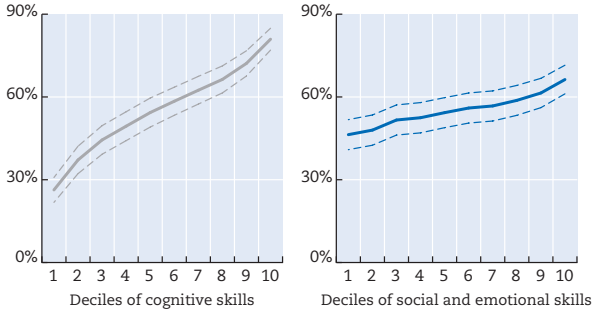


Note: Solid lines depict probability of self-reported four-year college attendance at age 20, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). The sample is limited to white males. Cognitive skills are captured by a latent cognitive skill factor estimated using measures of mathematical knowledge, numerical operations and coding speed. Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of self-esteem (Rosenberg Scale) and locus of control (Rotter Scale). These measures were collected before children left high school.

Figure 3.2. **Cognitive skills have a high impact on completion of tertiary education**

Panel A. **Canada**

Probability of self-reported university completion by skill deciles



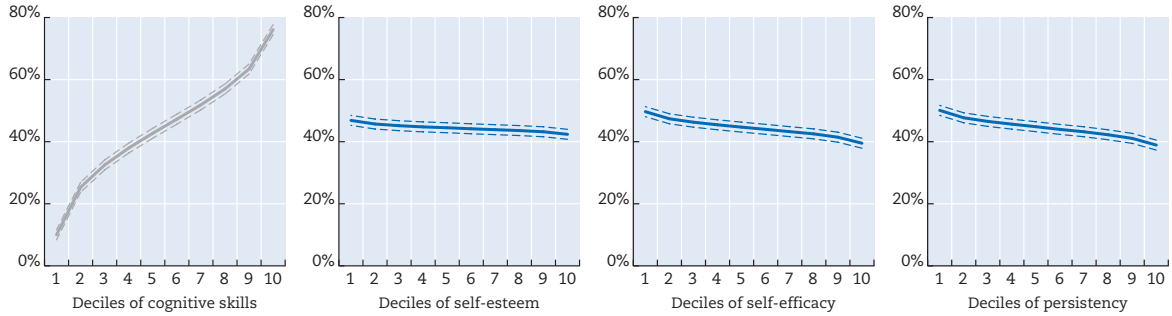
StatLink http://dx.doi.org/10.1787/888933163681

Note: Solid lines depict probability of self-reported university completion at age 25, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of PISA reading, maths and science scores at age 15. Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of self-efficacy, sense of mastery and self-esteem at age 15.

Figure 3.2. **Cognitive skills have a high impact on completion of tertiary education** (continued)

Panel B. **Switzerland**

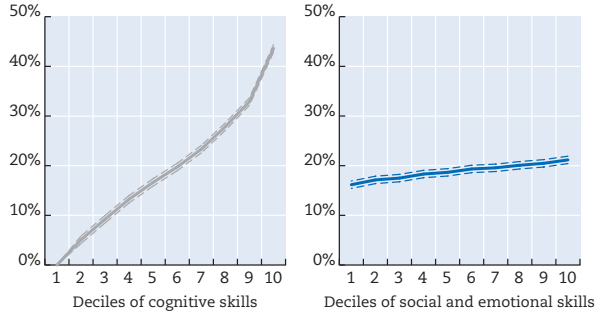
Probability of self-reported tertiary education completion by skill deciles



Note: Solid lines depict probability of self-reported tertiary education completion at age 25, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of PISA reading, maths and science scores at age 15. Social and emotional skills are captured by a latent self-esteem factor estimated using measures of self-satisfaction, "acknowledgement of own good qualities" and "confidence in doing things well" at age 16; a latent self-efficacy factor estimated using measures of "confidence in one's capacity to solve difficult problems when making efforts", "confidence in handling whatever comes in his/her way", and "confidence in dealing efficiently during unexpected events" at age 16; and a latent persistence factor estimated using measures of "orientation towards goal achievement", rigorousness and meticulousness at age 16.

Panel C. **United Kingdom**

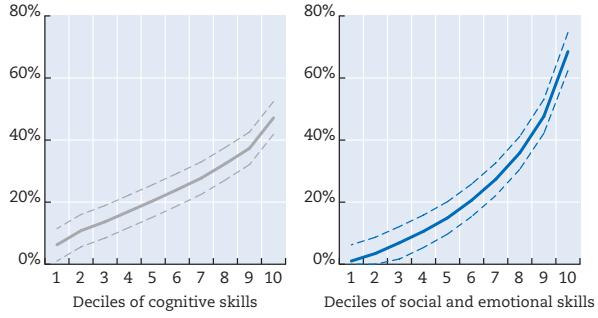
Probability of self-reporting tertiary education completion by skill deciles



Note: Solid lines depict probability of self-reporting tertiary education completion at age 26, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of general cognitive ability at age 10. Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of self-esteem, locus of control and persistence at age 10.

Panel D. **United States**

Probability of self-reported college completion by skill deciles



Note: Solid lines depict probability of self-reported four-year college completion, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). The sample is limited to white males with at least a high-school degree or a GED (high-school equivalent) diploma. Cognitive skills are captured by a latent cognitive skill factor estimated using measures of mathematical knowledge, numerical operations and coding speed. Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of self-esteem (Rosenberg Scale) and locus of control (Rotter Scale). These measures were assessed before individuals left high school.

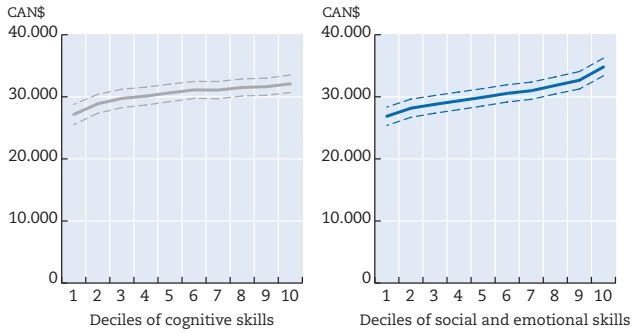
The strong impact of cognitive skills on tertiary education attendance may be a direct consequence of selection mechanisms in which access to higher education depends on high-school graduation certificates, grades and achievement tests. Once individuals gain eligibility to enrol in higher education, social and emotional skills may play a particularly important role in allowing them to persist through education. To see this, Figure 3.2 (Panel D) presents the impact of cognitive and social and emotional skills on completing four years of college in the United States among those who have already finished high school or gained a certificate of high-school equivalency. Among these students, the impact of raising student's social and emotional skills is much stronger than that of raising cognitive skills. This result is consistent with the literature (Heckman, Stixrud and Urzua, 2006; Heckman, Humphries and Veramendi, 2014).

Figure 3.3 presents the simulated impact of raising skill deciles on income and employment. They generally suggest that raising cognitive skills (grey) outweighs raising social and emotional skills (blue), with the exception of Canada (Panel A) and the United Kingdom (Panel F). For Norway (Panel B), moving a secondary school student from the lowest to the highest cognitive skill decile increases his/her likelihood of reaching the top quartile income bracket by 33 percentage points, while the effect of moving these adolescents from the lowest to the highest social and emotional skill (self-confidence) decile is limited to 8 percentage points. The effects of cognitive skills on income and unemployment are particularly strong for Norway (Panels B and E), Sweden (Panel C) and Switzerland (Panel D). The literature provides similar results (Heckman, Stixrud and Urzua, 2006; Heckman, Humphries and Veramendi, 2014). These results may be a direct consequence of selection mechanisms in which employers make hiring and initial salary decisions based on an individual's academic background which can be driven by cognitive ability.

Figure 3.3. **Cognitive skills have a high impact on income and unemployment**

Panel A. **Canada**

Self-reported income at age 25 by skill deciles



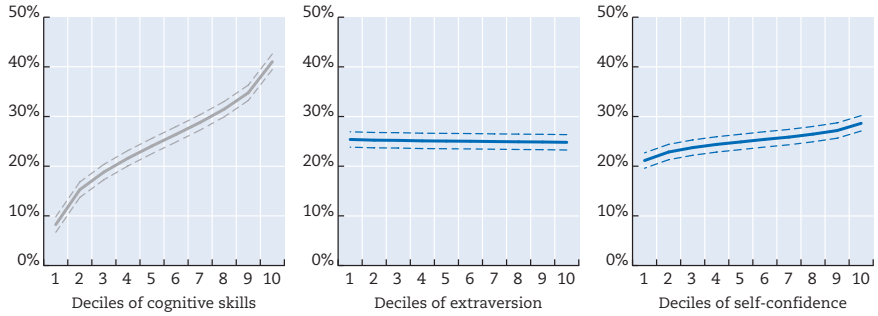
StatLink http://dx.doi.org/10.1787/888933163696

Note: Solid lines depict self-reported income at age 25, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of PISA reading, maths and science scores at age 15. Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of self-efficacy, sense of mastery and self-esteem at age 15.

Figure 3.3. **Cognitive skills have a high impact on income and unemployment** (continued)

Panel B. **Norway**

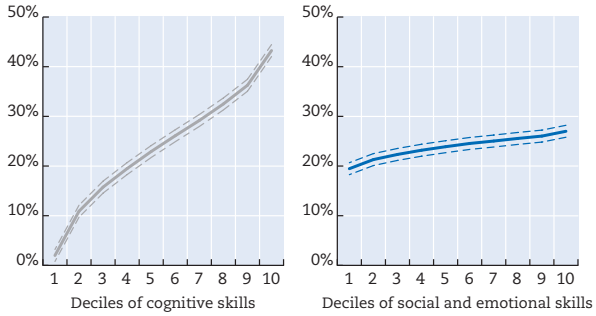
Probability of being in the top income quartile at age 26-31, based on self-reports, by skill deciles



Note: Solid lines depict the probability of being in the top income quartile based on self-reports, at age 26-31, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of achievement tests, grades and self-rated academic competence at age 15-19. Social and emotional skills are captured by a latent extraversion factor estimated using measures of shyness, social acceptance and friendliness at age 15-19, and a latent self-confidence factor estimated using measures of self-satisfaction and confidence in oneself at age 15-19. Income measures are self-reported.

Panel C. **Sweden**

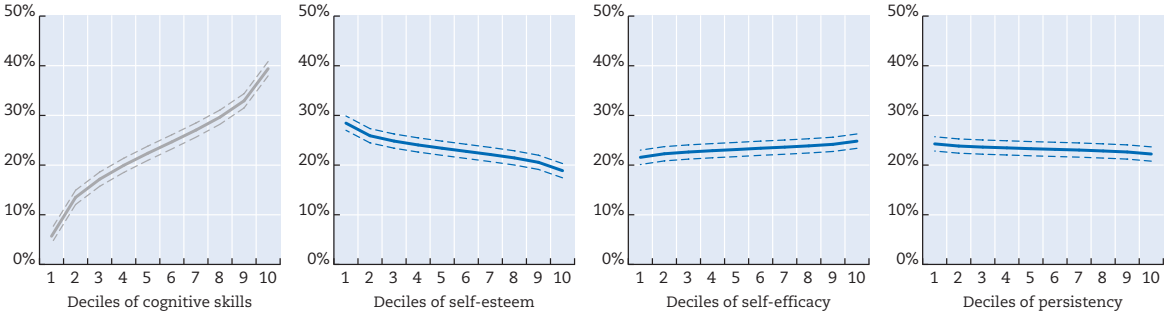
Probability of being in the top income quartile at age 30, based on self-reports, by skill deciles



Note: Solid lines depict the probability of being in the top income quartile based on self-reports at age 30, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of maths grades and special and verbal ability during Grade 3. Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of grit, social anxiety and social co-operation during Grade 3. Income measures are self-reported.

Panel D. **Switzerland**

Probability of being in the top earnings quartile at age 25, based on self-reports, by skill deciles

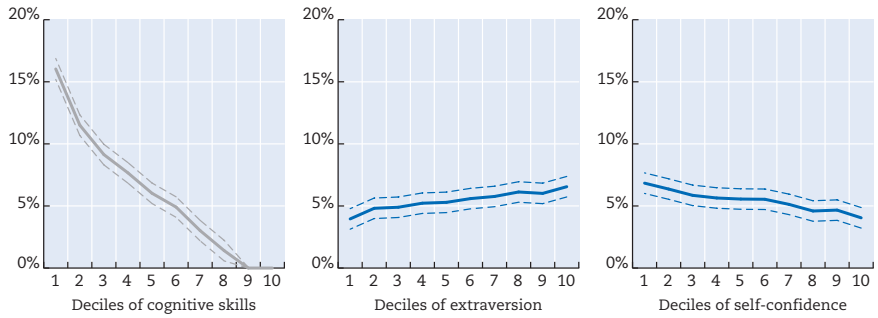


Note: Solid lines depict the probability of being in the top earnings quartile (full-time equivalent) at age 25, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of PISA reading, maths and science scores at age 15. Social and emotional skills are captured by a latent self-esteem factor estimated using measures of self-satisfaction, "acknowledgement of own good qualities" and "confidence in doing things well" at age 16; a latent self-efficacy factor estimated using measures of "confidence in one's capacity to solve difficult problems when making efforts", "confidence in handling whatever comes in his/her way", and "confidence in dealing efficiently during unexpected events" at age 16; and a latent persistence factor estimated using measures of "orientation towards goal achievement", rigorousness and meticulousness at age 16. Earning measures are self-reported.

Figure 3.3. **Cognitive skills have a high impact on income and unemployment** (continued)

Panel E. **Norway**

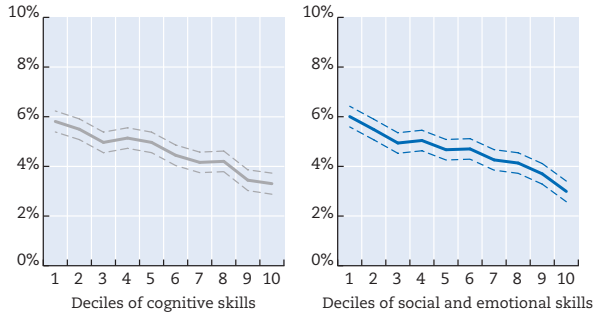
Probability of self-reported unemployment at age 26-31 by skill deciles



Note: Solid lines depict the probability of self-reported unemployment at age 26-31, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of achievement tests, grades and self-rated academic competence at age 15-19. Social and emotional skills are captured by a latent extraversion factor estimated using measures of shyness, social acceptance and friendliness at age 15-19, and a latent self-confidence factor estimated using measures of self-satisfaction and confidence in oneself at age 15-19.

Panel F. **United Kingdom**

Probability of self-reported unemployment at age 26 by skill deciles



Note: Solid lines depict the probability of self-reported unemployment at age 26, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of general cognitive ability during Grade 10. Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of self-esteem, locus of control and persistence during Grade 10.

Social and emotional skills have large effects on diverse social outcomes

Chapters 1, 2 and 5 make the case that the outcomes that matter for policy makers, teachers, parents and students are diverse, and far surpass educational attainment and labour market performance. Do social and emotional skills bring wider benefits? Figures 3.4 through 3.9 present the effects of increasing deciles of skills on a variety of social outcomes and subjective well-being. Figures 3.4, 3.5, 3.6 and 3.7 suggest that social and emotional skills play a particularly important role in improving health-related outcomes and reducing anti-social behaviour. Moreover, Figure 3.8 suggests that social and emotional skills help protect individuals from being victimised by aggressive behaviours. The figures suggest that the impact of raising social and emotional skills on improving social outcomes generally outweighs the corresponding impact of raising cognitive skills. These results are also consistent with those from similar studies (Heckman, Stixrud and Urzua, 2006; Heckman, Humphries and Veramendi, 2014).

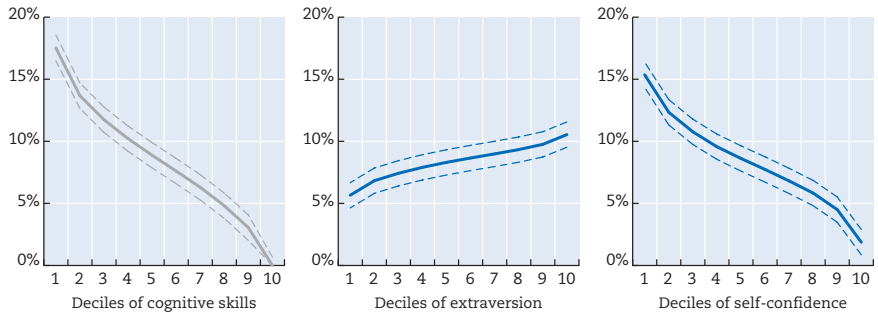
Figure 3.4 shows that the impact of raising social and emotional skills on reducing obesity rivals with the corresponding impact of raising cognitive skills. For the United Kingdom (Panel B), for example, moving a child from the lowest to the highest cognitive decile (based on measures of

general cognitive ability) reduces the likelihood of being obese at age 16 by 2 percentage points, while the effect of moving a child up the social and emotional skill deciles (based on measures of self-esteem, locus of control and persistence) reduces the likelihood of being obese by 3 percentage points. Similar effects are observed for the United States (Panel C), in which the impact on self-reported obesity of moving a child from the lowest to the highest skill deciles are 3 percentage points for both cognitive and social and emotional skills. The effect of raising social and emotional skills (self-confidence) on reducing self-reported obesity during adulthood is particularly strong for Norway (Panel A). This effect is comparable to the effect of raising cognitive skills. It is worthy to note the negative effect of raising extraversion on obesity, whereby an increase in the level of extraversion of a Norwegian child would lead to an increase in the likelihood of self-reported obesity.

Figure 3.4. **Social and emotional skills have a high impact on obesity**

Panel A. **Norway**

Probability of self-reported obesity at age 26-31 by skill deciles

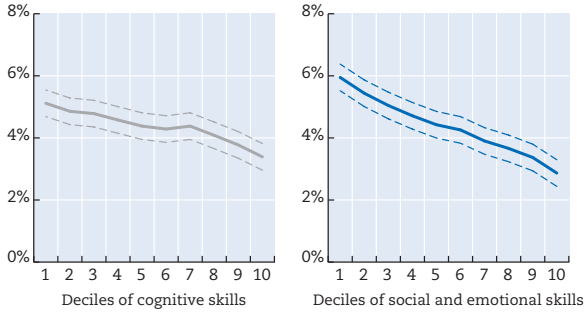


StatLink http://dx.doi.org/10.1787/888933163707

Note: Solid lines depict the probability of self-reported body mass index (BMI) greater than 30 (obese) at age 26-31, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of achievement tests, grades and self-rated academic competence at age 15-19. Social and emotional skills are captured by a latent extraversion factor estimated using measures of shyness, social acceptance and friendliness at age 15-19, and a latent self-confidence factor estimated using measures of self-satisfaction and confidence in oneself at age 15-19. Obesity is measured based on self-reported measures of weight and height and by identifying individuals with BMI>=30 during age 26-31.

Panel B. **United Kingdom**

Probability of being obese at age 16 by skill deciles

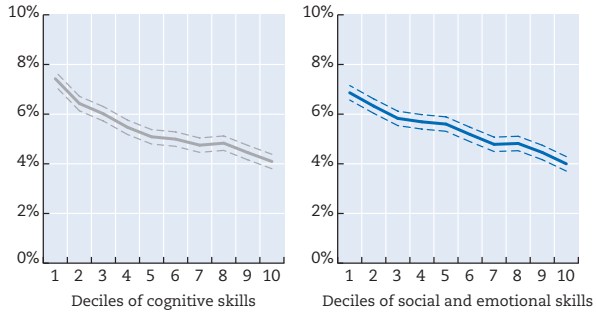


Note: Solid lines depict the probability of being diagnosed as obese at age 16, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of general cognitive ability during age 10. Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of self-esteem, locus of control and persistence during age 10. Obesity is captured using BMI calculated based on a medical examination of weight and height at age 16. A child whose BMI is equal to or exceeds 95th percentile of BMI is considered obese.

Figure 3.4. **Social and emotional skills have a high impact on obesity** (continued)

Panel C. **United States**

Probability of self-reported obesity at Grade 8 by skill deciles



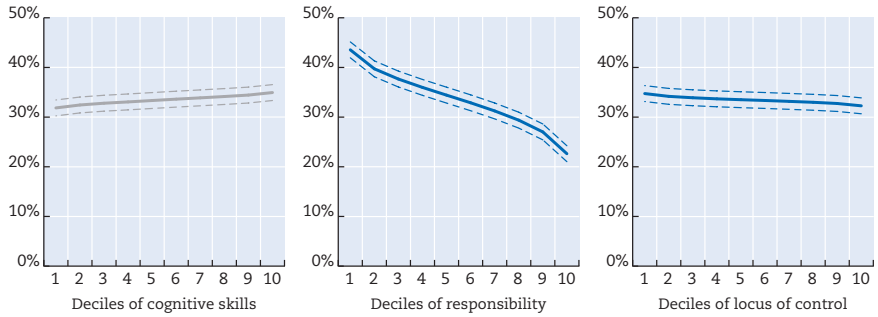
Note: Solid lines depict the probability of self-reported measures of BMI>=95 percentile during Grade 8, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of general cognitive ability during kindergarten. Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of self-control, approaches to learning and internalising behaviours during kindergarten. Obesity is captured by calculating BMI based on direct assessment of children's weight and height by trained interviewers at Grade 8.

Figure 3.5 shows that the impact of raising social and emotional skills on reducing the likelihood of individuals self-reporting experience of depression is stronger than the corresponding impact of raising cognitive skills, with the exception of Norway (Panel B). For Switzerland (Panel C), for example, the effect of moving a child from the lowest to the highest self-esteem decile reduces self-reported depression by 26 percentage points, while a similar effect of increasing cognitive skills is only 13 percentage points. The effect of social and emotional skills on self-reported depression is also particularly strong for Korea (Panel A) and the United Kingdom (Panel D). These results are also consistent with evidence from the United States (Heckman and Kautz, 2012).

Figure 3.5. **Social and emotional skills have a high impact on depression**

Panel A. **Korea**

Probability of self-reported depression at age 19 by skill deciles



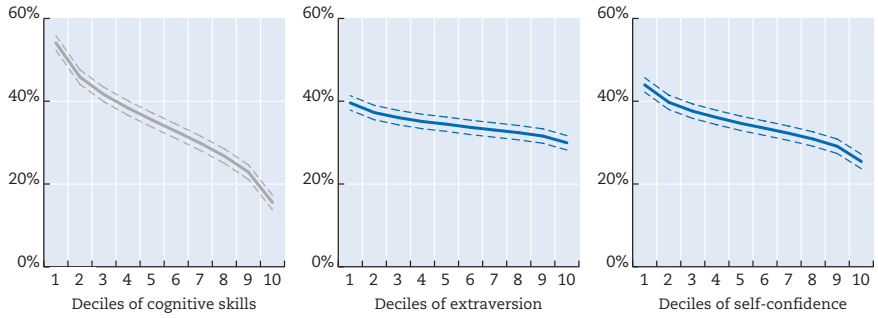
StatLink http://dx.doi.org/10.1787/888933163716

Note: Solid lines depict the probability of being in the top quartile of the Scale of Symptoms at age 19 based on self-reports, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Social and emotional skills are captured by a latent responsibility factor estimated using measures of impulsiveness, despondency and apprehensiveness at age 14; and a latent locus of control factor estimated using measures of "confidence in making own decisions", "belief in one's capacity to deal with problems" and "belief in the capacity to take responsibility of one's own life" at age 14. Cognitive skills are captured by a latent cognitive skill factor estimated using measures of achievement test scores and academic grades at age 14, and conditioning on latent responsibility and locus of control factors. The empirical model assumes that measures of achievement test scores and academic grades are a function of latent cognitive and social and emotional skill factors.

Figure 3.5. **Social and emotional skills have a high impact on depression** (continued)

Panel B. **Norway**

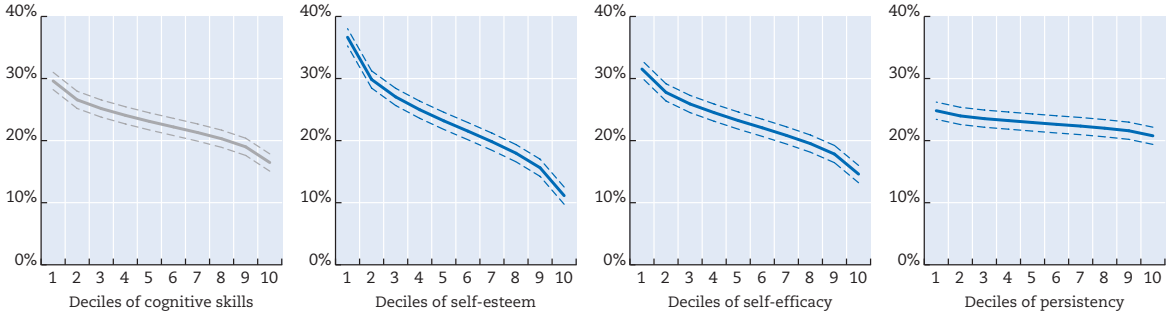
Probability of self-reported depression at age 26-31 by skill deciles



Note: Solid lines depict the probability of being in the top quartile of the Depressive Mood Inventory scale based on self-reports at age 26-31, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of achievement tests, grades and self-rated academic competence at age 15-19. Social and emotional skills are captured by a latent extraversion factor estimated using measures of shyness, social acceptance and friendliness at age 15-19, and a latent self-confidence factor estimated using measures of self-satisfaction and confidence in oneself at age 15-19.

Panel C. **Switzerland**

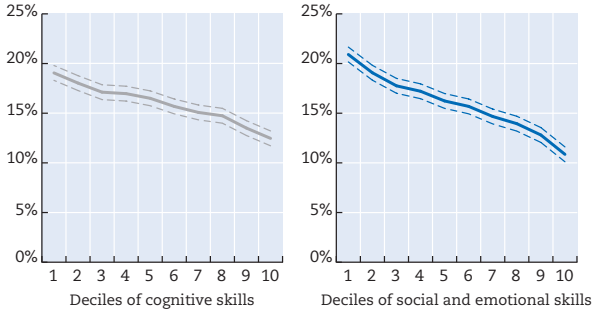
Probability of self-reported depression at age 25 by skill deciles



Note: Solid lines depict the probability of being in the top quartile of a depression scale at age 25 based on self-reports, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of PISA reading, maths and science scores at age 15. Social and emotional skills are captured by a latent self-esteem factor estimated using measures of self-satisfaction, "acknowledgement of own good qualities" and "confidence in doing things well" at age 16; a latent self-efficacy factor estimated using measures of "confidence in one's capacity to solve difficult problems when making efforts", "confidence in handling whatever comes in his/her way", and "confidence in dealing efficiently during unexpected events" at age 16; and a latent persistence factor estimated using measures of "orientation towards goal achievement", rigorousness and meticulousness at age 16. The depression scale was constructed using self-reported measures of positive and negative affectivity.

Panel D. **United Kingdom**

Probability of self-reported depression at age 16 by skill deciles

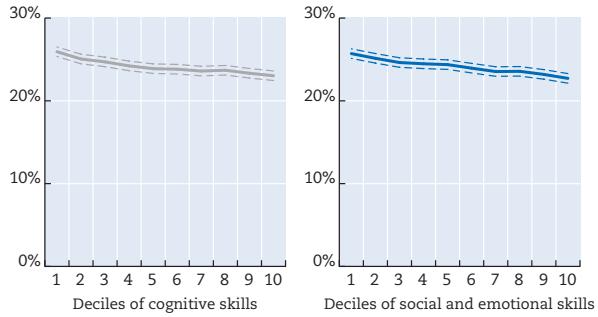


Note: Solid lines depict the probability of self-reported depression at age 16, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of general cognitive ability at age 10. Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of self-esteem, locus of control and persistence at age 10. Depression is identified using Malaise score of 15 or higher.

Figure 3.5. **Social and emotional skills have a high impact on depression** (continued)

Panel E. **United States**

Probability of self-reported depression at Grade 8 by skill deciles



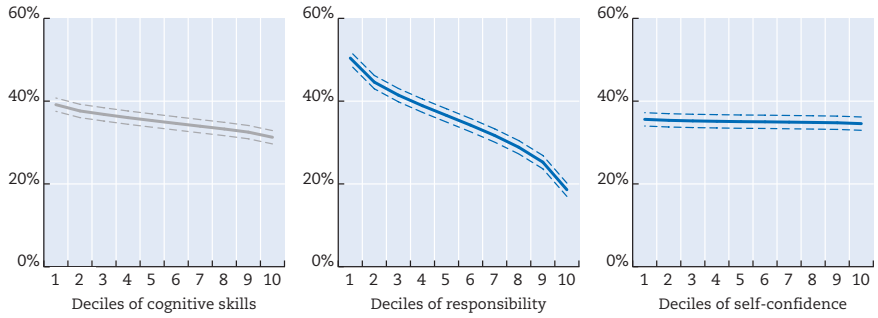
Note: Solid lines depict the probability of self-reported experience of depression at least "some of the time" during Grade 8, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of general cognitive ability during kindergarten. Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of self-control, approaches to learning and internalising behaviours during kindergarten.

Figure 3.6 shows that the impact of raising social and emotional skills on reducing the likelihood of individuals self-reporting experience of engaging in conduct problems is stronger than the corresponding impact of raising cognitive skills, with the exception of the United Kingdom (Panel D). For New Zealand (Panel B), the effect of moving an 8-year-old child from the lowest to the highest social and emotional skill deciles (based on measures of perseverance, responsibility and social skills with respect to peers in the community) reduces self-reported engagement in conduct problems (drinking, smoking, substance abuse, violence and fights) at age 16 by 15 percentage points, while a similar effect of increasing cognitive skills is statistically insignificant. The effect of social and emotional skills on conduct problems is also particularly strong for Korea (responsibility, Panel A) and Switzerland (self-esteem and self-efficacy, Panel C).

Figure 3.6. **Social and emotional skills have a high impact on conduct (behaviour) problems**

Panel A. **Korea**

Probability of self-reported conduct problems at age 15 by skill deciles



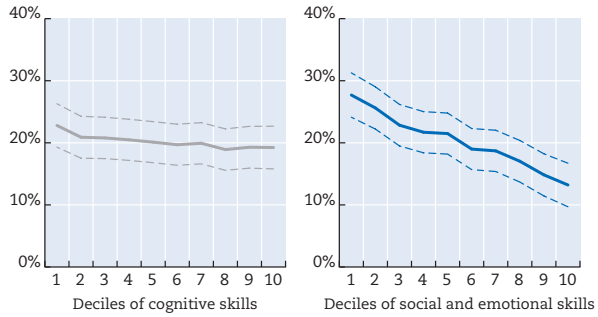
StatLink http://dx.doi.org/10.1787/888933163728

Note: Solid lines depict the probability at the age of 15 participating in severely beating up others, gang fighting, robbing, stealing, teasing or bantering, threatening or bullying during the past year, based on self-reports, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Social and emotional skills are captured by a latent responsibility factor estimated using measures of impulsiveness, despondency and apprehensiveness at age 14; and a latent locus of control factor estimated using measures of "confidence in making own decisions", "belief in one's capacity to deal with problems" and "belief in the capacity to take responsibility of one's own life" at age 14. Cognitive skills are captured by a latent cognitive skill factor estimated using measures of achievement test scores and academic grades at age 14, and conditioning on latent responsibility and locus of control factors. The empirical model assumes that measures of achievement test scores and academic grades are a function of latent cognitive and social and emotional skill factors.

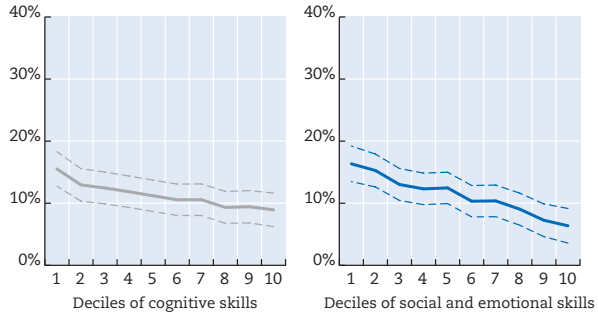
Figure 3.6. **Social and emotional skills have a high impact on conduct (behaviour) problems** (continued)

Panel B. **New Zealand**

Probability of self-reported conduct problems at age 16 by skill deciles



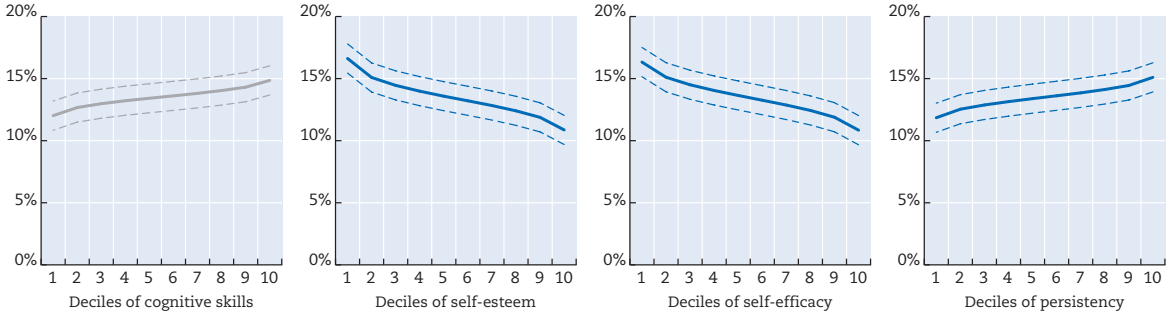
Probability of self-reported conduct problems at age 20 by skill deciles



Note: Solid lines depict the probability of self-reported engagement in drinking, smoking, substance abuse, violence and fights at age 16 (upper panel) and self-reported engagement in marijuana usage and having trouble with police at age 20 (lower panel), and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of achievement tests and problem-solving tests at age 8. Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of perseverance, responsibility and social skills at age 8.

Panel C. **Switzerland**

Probability of self-reported conduct problems at age 17 by skill deciles

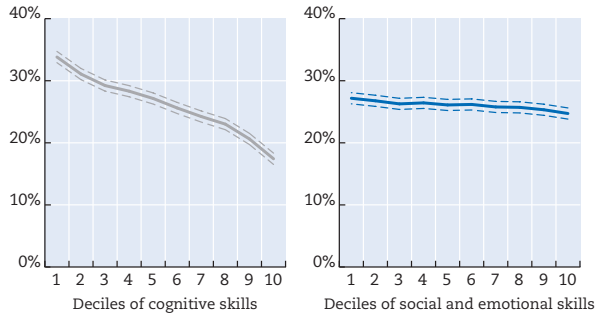


Note: Solid lines depict the probability of experiencing problems with the police and experiencing school delinquency at age 17 based on self-reports, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of PISA reading, maths and science scores at age 15. Social and emotional skills are captured by a latent self-esteem factor estimated using measures of self-satisfaction, "acknowledgement of own good qualities" and "confidence in doing things well" at age 16; a latent self-efficacy factor estimated using measures of "confidence in one's capacity to solve difficult problems when making efforts", "confidence in handling whatever comes in his/her way" at age 16, and "confidence in dealing efficiently during unexpected events"; and a latent persistence factor estimated using measures of "orientation towards goal achievement", rigorousness and meticulousness at age 16.

Figure 3.6. **Social and emotional skills have a high impact on conduct (behaviour) problems** (continued)

Panel D. **United Kingdom**

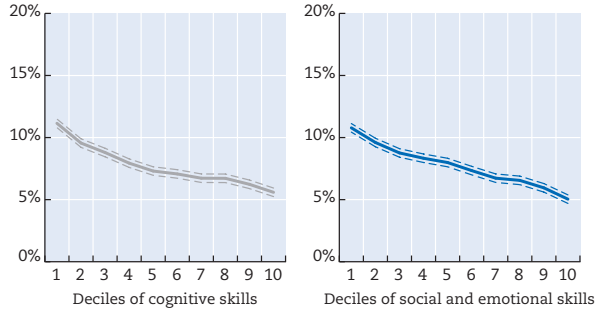
Probability of self-reported conduct problems at age 16 by skill deciles



Note: Solid lines depict the probability of self-reported engagement in high level of drinking or smoking at age 16, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of general cognitive ability at Grade 10. Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of self-esteem, locus of control and persistence.

Panel E. **United States**

Probability of self-reported conduct problems at Grade 8 by skill deciles



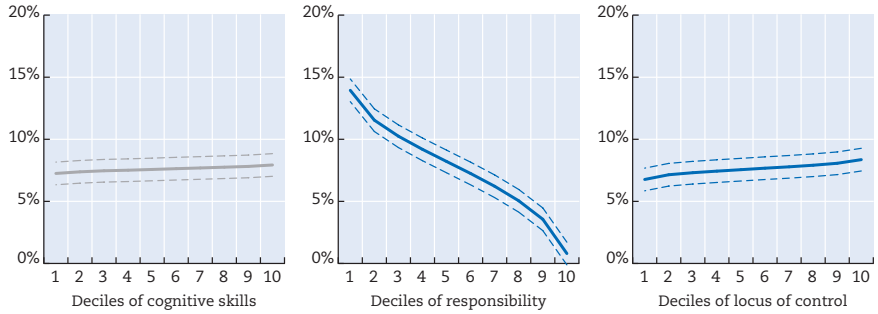
Note: Solid lines depict the probability of self-reported engagement in fighting at Grade 8, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of general cognitive ability during kindergarten. Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of self-control, approaches to learning and internalising behaviours during kindergarten.

School bullying has become a major policy concern in many OECD countries and partner economies. Figure 3.7 sheds light on how skills affect students' aggressive behaviours in Korea, a country that faces considerable challenges with respect to this issue (Sarzosa and Urzua, 2013). It suggests that self-reported engagement in bullying is strongly driven by students' lack of responsibility. The effects of moving a 14-year-old Korean child from the lowest to the highest decile of responsibility reduces self-reported engagement in bullying at age 15 by 13 percentage points. In contrast, children's cognitive skills do not show any effect on self-reported engagement in bullying.

Figure 3.7. **Social and emotional skills have a high impact on bullying**

Korea

Probability of self-reported bullying at age 15 by skill deciles



StatLink http://dx.doi.org/10.1787/888933163737

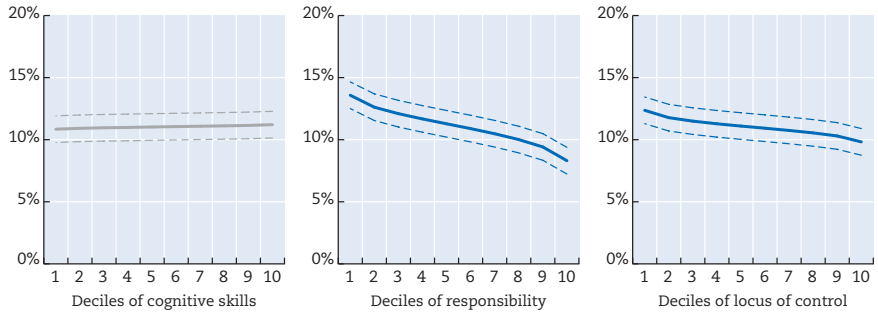
Note: Solid lines depict the probability at the age of 15 of self-reported experience of severely teasing or bantering, threatening or bullying others during the past year, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Social and emotional skills are captured by a latent responsibility factor estimated using measures of impulsiveness, despondency and apprehensiveness at age 14; and a latent locus of control factor estimated using measures of "confidence in making own decisions", "belief in one's capacity to deal with problems" and "belief in the capacity to take responsibility of one's own life" at age 14. Cognitive skills are captured by a latent cognitive skill factor estimated using measures of achievement test scores and academic grades at age 14, and conditioning on latent responsibility and locus of control factors. The empirical model assumes that measures of achievement test scores and academic grades are a function of latent cognitive and social and emotional skill factors.

Social and emotional skills may not only reduce the likelihood of children becoming the perpetrator of aggression, but also allow them to avoid being its victim. Figure 3.8 shows that the impact of raising social and emotional skills on reducing the likelihood of individuals self-reporting experience of being victimised is strong. For instance, Panel C suggests that the effects of moving a child attending kindergarten in the United States from the lowest to the highest decile of social and emotional skills (based on measures of self-control, approaches to learning and internalising behaviours) reduces the likelihood of being bullied during Grade 8 by 12 percentage points. Raising cognitive skills exhibits similar effects. For Korea (Panel A), while raising cognitive skills appears to have no effect on being bullied, increasing children's levels of responsibility from the lowest to the highest decile reduces the probability of being the victim of aggression by 5 percentage points.

Figure 3.8. **Social and emotional skills have a high impact on being victimised**

Panel A. **Korea**

Probability of self-reported victimisation at age 15 by skill deciles



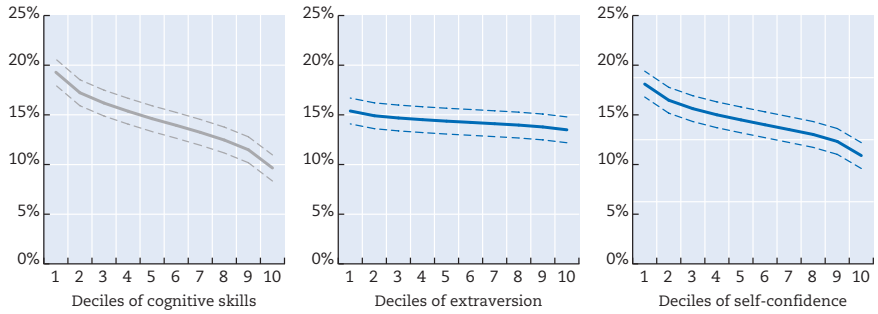
StatLink http://dx.doi.org/10.1787/888933163743

Note: Solid lines depict the probability at the age of 15 of self-reported experience of being robbed or kicked, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Results are based on the OECD's longitudinal analyses (Box 3.1). Social and emotional skills are captured by a latent responsibility factor estimated using measures of impulsiveness, despondency and apprehensiveness at age 14; and a latent locus of control factor estimated using measures of "confidence in making own decisions", "belief in one's capacity to deal with problems" and "belief in the capacity to take responsibility of one's own life" at age 14. Cognitive skills are captured by a latent cognitive skill factor estimated using measures of achievement test scores and academic grades at age 14, and conditioning on latent responsibility and locus of control factors. The empirical model assumes that measures of achievement test scores and academic grades are a function of latent cognitive and social and emotional skill factors.

Figure 3.8. **Social and emotional skills have a high impact on being victimised** (continued)

Panel B. **Norway**

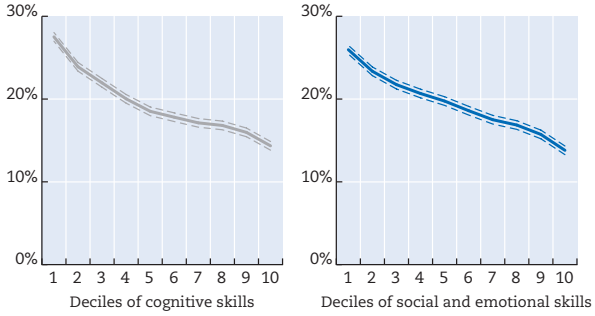
Probability of self-reported victimisation at age 15-19 by skill deciles



Note: Solid lines depict the probability at the age of 15-19 of self-reported experience of having been threatened with violence and/or received physical violence and assaults, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of achievement tests, grades and self-rated academic competence at age 15-19. Social and emotional skills are captured by a latent extraversion factor estimated using measures of shyness, social acceptance and friendliness, and a latent self-confidence factor estimated using measures of self-satisfaction and confidence in oneself at age 15-19.

Panel C. **United States**

Probability of self-reported experience of being bullied at Grade 8 by skill deciles



Note: Solid lines depict the probability of self-reported experience of having often been bullied during Grade 8, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of general cognitive ability during kindergarten. Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of self-control, approaches to learning and internalising behaviours during kindergarten.

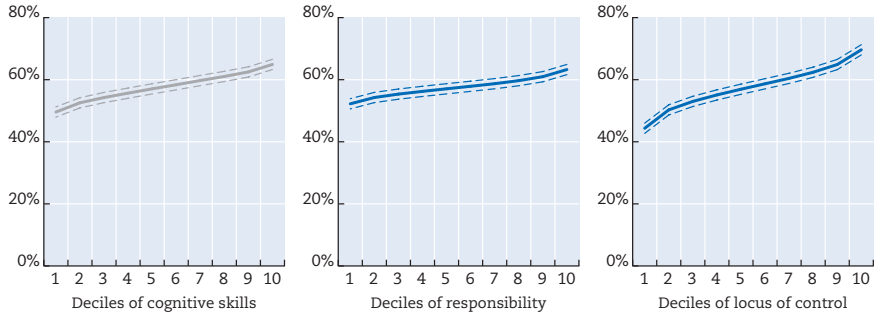
Social and emotional skills have a high impact on subjective well-being

Figure 3.9 presents the effects of raising skills from the lowest to the highest skill decile on subjective well-being measures (such as life satisfaction). The results suggest that raising social and emotional skills generally has a considerable impact on improving self-reported life-satisfaction, positive attitudes towards life and (un)happiness, and their effects on these outcomes largely outweigh the effects of raising cognitive skills. For example, the result for Switzerland (Panel C) shows raising self-efficacy at age 16 from the lowest to the highest decile has a large positive impact on positive attitudes towards life at age 25 (by 21 percentage points) while raising cognitive skills (based on PISA literacy measures) at age 15 exhibits large negative effects (by 16 percentage points). Results for Korea (Panel A), New Zealand (Panel B) and the United States (Panel E) also exhibit strong effects of raising social and emotional skills on increasing subjective measures of well-being (life satisfaction and happiness).

Figure 3.9. **Social and emotional skills have a high impact on life satisfaction**

Panel A. **Korea**

Probability of self-reported life satisfaction at age 19 by skill deciles

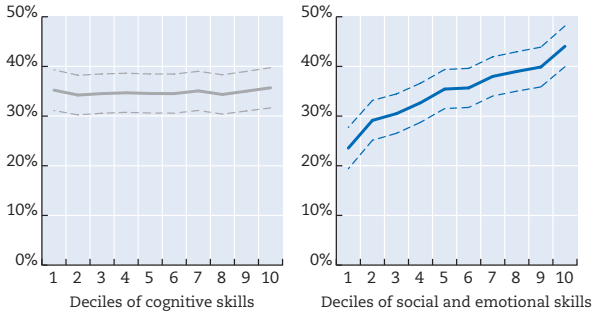


StatLink http://dx.doi.org/10.1787/888933163758

Note: Solid lines depict the probability of self-reported life satisfaction at age 19, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Social and emotional skills are captured by a latent responsibility factor estimated using measures of impulsiveness, despondency and apprehensiveness at age 14; and a latent locus of control factor estimated using measures of "confidence in making own decisions", "belief in one's capacity to deal with problems" and "belief in the capacity to take responsibility of one's own life" at age 14. Cognitive skills are captured by a latent cognitive skill factor estimated using measures of achievement test scores and academic grades at age 14, and conditioning on latent responsibility and locus of control factors. The empirical model assumes that measures of achievement test scores and academic grades are a function of latent cognitive and social and emotional skill factors.

Panel B. **New Zealand**

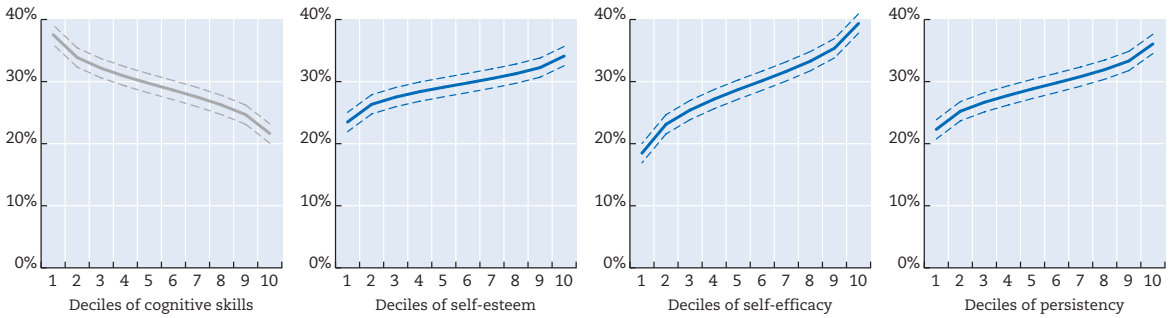
Probability of being very happy at age 20, based on self-reports, by skill deciles



Note: Solid lines depict the probability of being very happy at age 20 based on self-reports, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of achievement tests and problem-solving tests at age 8. Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of perseverance, responsibility and social skills.

Panel C. **Switzerland**

Probability of having positive attitudes towards life at age 25, based on self-reports, by skill deciles

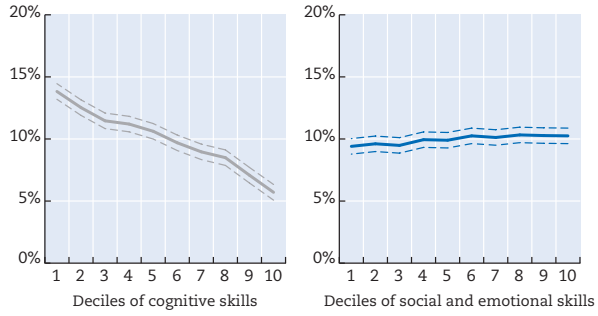


Note: Solid lines depict the probability of having positive attitudes towards life at age 25 based on self-reports, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of PISA reading, maths and science scores at age 15. Social and emotional skills are captured by a latent self-esteem factor estimated using measures of self-satisfaction, "acknowledgement of own good qualities" and "confidence in doing things well" at age 16; a latent self-efficacy factor estimated using measures of "confidence in one's capacity to solve difficult problems when making efforts", "confidence in handling whatever comes in his/her way" at age 16, and "confidence in dealing efficiently during unexpected events"; and a latent persistence factor estimated using measures of "orientation towards goal achievement", rigorousness and meticulousness at age 16.

Figure 3.9. **Social and emotional skills have a high impact on life satisfaction** (continued)

Panel D. **United Kingdom**

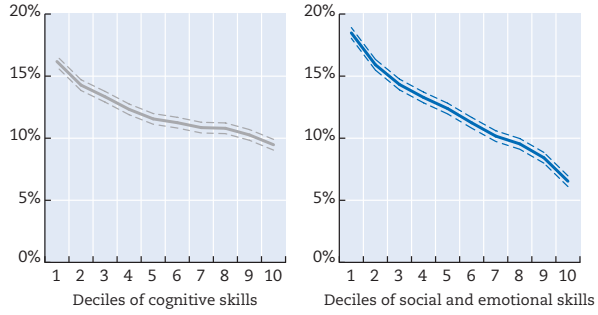
Probability of self-reported life satisfaction at age 26 by skill deciles



Note: Solid lines depict the probability of self-reported life satisfaction at age 26, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of general cognitive ability at age 10. Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of self-esteem, locus of control and persistence at age 10.

Panel E. **United States**

Probability of being unhappy at Grade 8, based on self-reports, by skill deciles



Note: Solid lines depict the probability of being unhappy at Grade 8 based on self-reports, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of general cognitive ability during kindergarten. Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of self-control, approaches to learning and internalising behaviours during kindergarten.

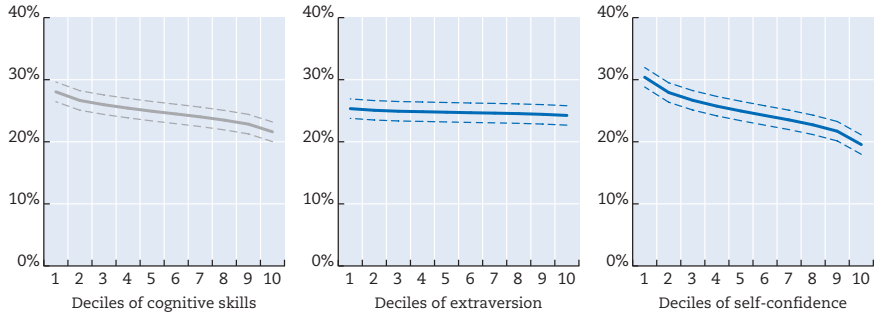
Social and emotional skills can help improve people's lives by improving their behaviours and lifestyles

There are several reasons why social and emotional skills may have a particularly strong impact on a variety of social outcomes. This may happen, for instance, if social and emotional skills enhance economic and social outcomes by shaping people's behaviours and lifestyles, such as drinking, smoking and over-eating, in the case of health outcomes. Such health-related lifestyle factors have an important effect on health outcomes, such as diabetes, obesity and mental disorders (OECD, 2010). Figure 3.10 presents evidence suggesting that social and emotional skills can directly improve some of the key measures of health-related lifestyles.

Figure 3.10. **Social and emotional skills improve health-related lifestyle factors**

Panel A. **Norway**

Probability of being in the highest alcohol disorder quartile at age 26-31, based on self-reports, by skill deciles

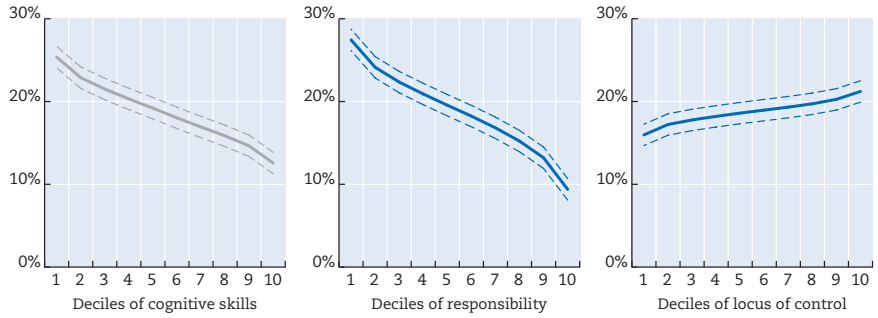


StatLink http://dx.doi.org/10.1787/888933163763

Note: Solid lines depict the probability of being in the highest quartile of the alcohol disorder distribution at age 26-31 based on the Alcohol Use Disorders Identification Test (AUDIT), and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of achievement tests, grades and self-rated academic competence at age 15-19. Social and emotional skills are captured by a latent extraversion factor estimated using measures of shyness, social acceptance and friendliness, and a latent self-confidence factor estimated using measures of self-satisfaction and confidence in oneself at age 15-19.

Panel B. **Korea**

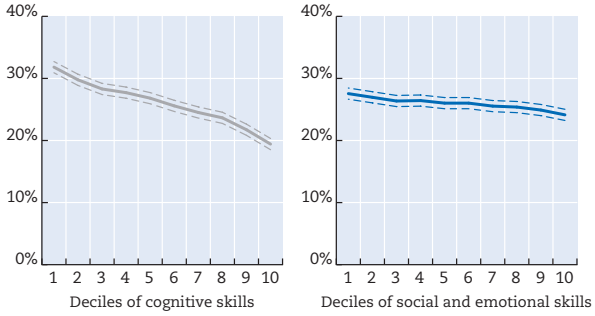
Probability of self-reported smoking at age 19 by skill deciles



Note: Solid lines depict the probability of self-reported experience of smoking at age 19, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Social and emotional skills are captured by a latent responsibility factor estimated using measures of impulsiveness, despondency and apprehensiveness at age 14; and a latent locus of control factor estimated using measures of "confidence in making own decisions", "belief in one's capacity to deal with problems" and "belief in the capacity to take responsibility of one's own life" at age 14. Cognitive skills are captured by a latent cognitive skill factor estimated using measures of achievement test scores and academic grades at age 14, and conditioning on latent responsibility and locus of control factors. The empirical model assumes that measures of achievement test scores and academic grades are a function of latent cognitive and social and emotional skill factors.

Panel C. **United Kingdom**

Probability of smoking every day at age 26, based on self-reports, by skill deciles

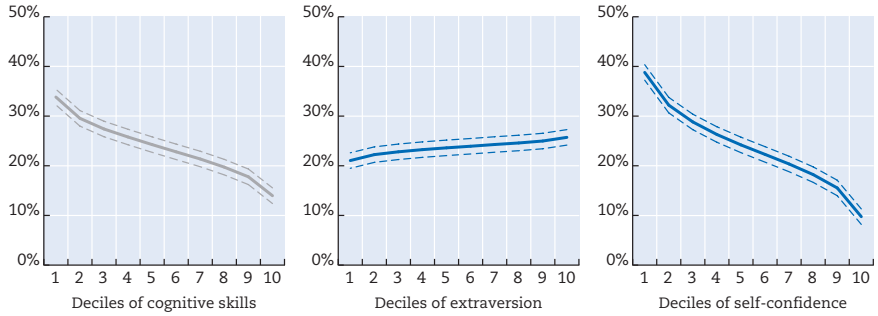


Note: Solid lines depict the probability of smoking every day at age 26 based on self-reports, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of general cognitive ability at age 10. Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of self-esteem, locus of control and persistence at age 10.

Figure 3.10. **Social and emotional skills improve health-related lifestyle factors** (continued)

Panel D. **Norway**

Probability of eating disorders at age 26-31, based on self-reports, by skill deciles



Note: Solid lines depict the probability of being in the highest quartile of eating disorder distribution at age 26-31, based on the Eating Attitudes Test (EAT), and dotted lines, 2.5-97.5% confidence intervals. Cognitive skills are captured by a latent cognitive skill factor estimated using measures of achievement tests, grades and self-rated academic competence at age 15-19. Social and emotional skills are captured by a latent extraversion factor estimated using measures of shyness, social acceptance and friendliness, and a latent self-confidence factor estimated using measures of self-satisfaction and confidence in oneself at age 15-19.

In Norway (Panel A), an increase in the level of self-confidence at age 15-19 reduces the likelihood of being in the highest quartile of drinking disorder by 11 percentage points. An increase in the level of cognitive skills also reduces the chances of drinking disorders in Norway but to a lesser extent.

A similar pattern is observed for smoking. In Korea (Panel B), an improvement in the level of responsibility among the 14-year-olds from the lowest to the highest decile reduces the likelihood of daily smoking at age 19 by 18 percentage points, which is much higher than the corresponding impact of raising cognitive skills (13 percentage points). Note, however, the high impact of cognitive skills on reducing daily smoking behaviours in the United Kingdom (Panel C), compared to the impact of social and emotional skills. Cognitive ability may play a much more important role than social and emotional skills in better understanding the health consequences of daily smoking and the complex methods to follow through the process of quitting smoking. Lastly, In Norway (Panel D), an increase in self-confidence among adolescents from the lowest to the highest decile reduces the likelihood of individuals experiencing eating disorders during early adulthood by 29 percentage points, a much higher figure than the corresponding impact of raising cognitive skills (20 percentage points).

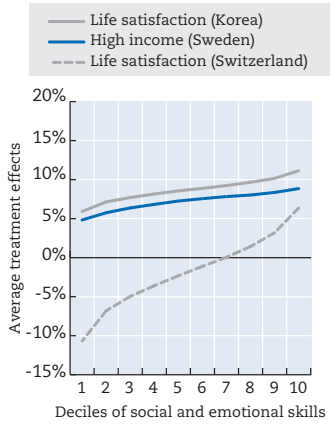
Social and emotional skills can help individuals benefit more from attending tertiary education

Social and emotional skills may also exhibit a particularly strong impact on a variety of social outcomes by helping individuals benefit more from education. Figure 3.11 presents how the impact of going to university on life satisfaction, wages, depression and heavy alcohol consumption vary by levels of social and emotional skills. Panels A and B suggest those with higher levels of social and emotional skills exhibit higher returns from tertiary education, which translates into higher overall returns on investing in social and emotional skills.

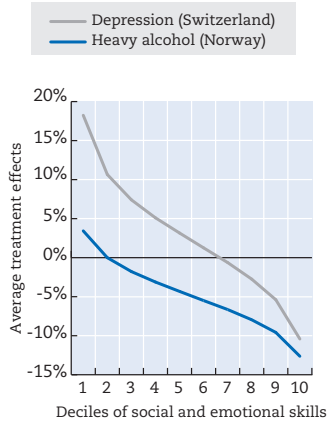
Figure 3.11. **The returns of going to university are higher among those in the higher social and emotional skill deciles**

Average treatment effects (ATE) of going to university by deciles of social and emotional skills

Panel A. **Effects of going to university on life satisfaction and wages**



Panel B. **Effects of going to university on depression and heavy alcohol consumption**



StatLink http://dx.doi.org/10.1787/888933163774

Note: Differences in the average treatment effects between the first and last deciles are statistically different from zero. ATE is calculated based on the impact of college attendance for Korea and Norway, university attendance for Sweden and tertiary education completion for Switzerland. Results are based on the OECD's longitudinal analyses (Box 3.1). Cognitive skills are captured by latent cognitive skill factors estimated using measures of achievement test scores and academic grades as well as latent responsibility and locus of control factors at age 14 (Korea); measures of achievement tests, grades and self-rated academic competence at age 15-19 (Norway); measures of grades, special and verbal ability at Grade 3 (Sweden); and measures of PISA reading, maths and science scores at age 15 (Switzerland). Social and emotional skills are captured by a latent locus of control factor estimated using measures of "confidence in making own decisions", "belief in one's capacity to deal with problems" and "belief in the capacity to take responsibility of one's own life" at age 14 (Korea); a latent self-confidence factor estimated using measures of self-satisfaction and confidence in oneself at age 15-19 (Norway); a latent social and emotional skill factor estimated using measures of grit, social anxiety and social co-operation at Grade 3 (Sweden); and a latent self-esteem factor estimated using measures of self-satisfaction, acknowledgement, and confidence in doing things as well as most other people at age 16 (Switzerland). Life satisfaction is captured by the probability of self-reported life satisfaction at age 19 (Korea) and the probability of having positive attitudes towards life at age 25 based on self-reports (Switzerland). Depression (Switzerland) is captured by the probability of being in the top quartile of a depression scale (constructed using measures of positive and negative affectivity) at age 25. Heavy alcohol (Norway) is captured by the probability of being in the highest quartile of the alcohol disorder distribution at age 26-31. High income (Sweden) is captured by the probability of being in the top income quartile based on self-reporting at age 30.

For instance, in Korea, among those who are at the highest decile of locus of control distribution, the average impact of going to college on life satisfaction is 11 percentage points, while among those who are at the lowest decile of locus of control distribution, the corresponding impact is 6 percentage points. In Switzerland, among those who are at the highest decile of self-esteem distribution, the average impact of going to college on self-reporting depression is -10 percentage points, while among those who are at the lowest decile of self-esteem distribution, the corresponding impact is 18 percentage points.

Social and emotional skills can improve individuals' capacities to translate intentions into actions

Another reason for social and emotional skills to exhibit a strong impact on a variety of social outcomes may be due to the possibility that these skills help "activate" cognitive skills, and in so doing improve individuals' socio-economic outcomes.

By way of illustration, Figure 3.12 presents the likelihood of reporting the symptoms of mild depression among those with high and low self-esteem (the top and bottom quartiles of the distribution, respectively) in Switzerland. Among those with high self-esteem, an increase in cognitive skills is likely to considerably reduce the self-reported incidence of depression (blue line). On the other hand, those with low self-esteem do not appear to benefit as much from an increase in cognitive skills (red line). High cognitive skills may help individuals identify and develop strategies to treat their own depressive symptoms and learn from doctor's medical advice. Their high level of

self-esteem may then allow individuals to translate intentions into concrete actions and engage in treatment programmes.

Figure 3.12. **The impact of cognitive skills on reducing the likelihood of depression is higher among those with higher self-esteem**

Probability of self-reported depression at age 25 in Switzerland, by deciles of cognitive skills for those in the top and bottom quartiles of the self-esteem distribution

StatLink http://dx.doi.org/10.1787/888933163788

Note: Solid lines depict the probability of being in the top quartile of a depression scale at age 25 based on self-reports, and dotted lines, 2.5-97.5% confidence intervals. Results are based on the OECD's longitudinal analyses (see Box 3.1). Cognitive skills are captured by a latent cognitive skill factor estimated using measures of PISA reading, maths and science scores at age 15. Self-esteem is captured by a latent self-esteem factor estimated using measures of self-satisfaction, "acknowledgement of own good qualities" and "confidence in doing things well" at age 16. Depression is captured by self-reported measures and identifying individuals who were at the top quartile of depression scale, constructed using measures of positive and negative affectivity at age 25.

Carneiro, Crawford and Goodman (2007) present similar evidence based on a longitudinal study in the United Kingdom. They suggest that the relationship between cognitive skills and both smoking and truancy at age 16 varies considerably with the level of children's social skills. For individuals with high levels of social skills, the probability that they smoke more than 40 cigarettes per week decreases as cognitive skills increase. However, among those with lower social skills, the probability of smoking increases as cognitive skills increase. In other words, high cognitive skills are associated with a low probability of heavy smoking for those with high social skills, but high cognitive skills among individuals with low social skills are associated with a high probability of heavy smoking. These complex interactions between cognitive, social and emotional skills mean tackling delinquency is not straightforward. Diverse skills should be simultaneously considered when analysing their impact on socio-economic outcomes.

Social and emotional skills generally improve children's life outcomes across the skills distribution

Do social and emotional skills matter only after children accumulate a certain threshold level? The results from the OECD's longitudinal analyses suggest that social and emotional skills with high average returns for socio-economic outcomes generally matter across the skills distribution. There is limited evidence of threshold effects whereby only those who are above a certain skill level benefit from further investments in social and emotional skills. Various figures presented in this chapter suggest that not only are the returns on raising social and emotional skills high on average, but the effects are continuous across the distribution.

Social and emotional skills provide opportunities for disadvantaged children to improve their life prospects

Figures presented in this chapter generally suggest that social and emotional skills also matter for those in the lower tail of the social and emotional skills distribution, which is likely to include

children from disadvantaged backgrounds. Intervention studies, albeit mostly based in the United States, provide evidence on the positive impact investments in skills have on the disadvantaged populations (see also Chapter 4). A literature review commissioned by the OECD (Kautz et al., 2014) suggests that social and emotional skills can raise the long-term life prospects of disadvantaged children and adolescents for a variety of labour market and social outcomes (see Table 3.1 for a summary of results, and Table 4.2 and Kautz et al., 2014 for a description of these interventions).[5] Even though some intervention programmes have shown disappointing results in terms of education and labour market outcomes in the short- and mid-terms, many of them have demonstrated considerable long-term returns in terms of social outcomes, such as crime and health.

Table 3.1. **Successful intervention programmes tend to raise children's capacity to achieve goals, work with others and manage emotions**

Tasks that demand social and emotional skills	Social and emotional skills fostered	Outcomes		
		Education	Labour market	Social
Achieving goals	Conscientiousness	–	• Earnings (Perry, STAR, Career academies, Year-up)	• Crime (Perry) • Family formation (Career academies)
	Openness to new experience	–	• Employment (ABC)	• Health (ABC)
	Self-efficacy	• Educational attainment (Seattle)	• Earnings (Seattle)	• Health (Seattle)
Working with others	Social, communication and team-working skills	• Educational attainment (PTE) • Grades (BAM, MLES)	• Earnings (Perry, STAR, Year-up) • Wages (Dominican) • Employment (Dominican, MLES)	• Crime (Perry, MLES)
	Agreeableness (externalising behaviours)	–	• Earnings (Perry) • Employment (ABC)	• Crime (Perry) • Health (ABC)
Managing emotions	Emotional stability (internalising behaviours), self-esteem, impulse control	• Educational attainment (PTE)	• Earnings (Jamaican, Perry) • Wages (Dominican) • Employment (ABC, Dominican)	• Crime (NFP, Perry) • Health (ABC)

Note: Results presented reflect statistically significant outcomes. ABC (*Abecedarian Project*), Dominican (*Dominican Youth Employment Program*), BAM (*Becoming a Man*), MLES (*Montreal Longitudinal Experimental Study*), NFP (*Nurse-Family Partnership*), Perry (*Perry pre-school program*), PTE (*Pathways to Education*), Seattle (*Seattle Social Development Project*), STAR (*Project Star: Steps to Achieving Resilience*).

Source: Based on Kautz, T. et al. (2014), "Fostering and Measuring Skills: Improving Cognitive and Non-cognitive Skills to Promote Lifetime Success", *OECD Education Working Papers*, No. 110, OECD Publishing, http://dx.doi.org/10.1787/5jxsr7vr78f7-en.

Conscientiousness, sociability and emotional stability are among the key socio-emotional skills that matter across selected countries and cultures

The results from intervention studies (Table 3.1) and a summary of the OECD's review of longitudinal studies (Table 3.2) point to the areas in which social and emotional skills could play a particularly important role. These are achieving goals, working with others and managing emotions. Within these domains, evidence suggests that conscientiousness (to be responsible, perseverant and reliable), sociability and emotional stability can be particularly important drivers of lifetime success. These conclusions are broadly in line with the literature reviews documented by Almlund et al. (2011) and Gutman and Schoon (2013).

Table 3.2. **Social and emotional skills that drive children's lifetime success are those that raise individuals' capacity to achieve goals, work with others and manage emotions**

Tasks that demand social and emotional skills	Social and emotional skills	BEL	CAN	CHE	GBR	KOR	NOR	NZL	SWE	USA
Achieving goals	Responsibility	○				●		○		○
	Persistence, Perseverance	○		●	○			○	○	○
	Locus of control, Self-efficacy		○	●	○	●				
Working with others	Extraversion, Sociability	○					●	○	○	
	Adaptability								○	
Managing emotions	Reactivity, Mood									○
	Self-confidence		○				●			
	Self-esteem	○	○	●	○					○

Note: This table is based on the empirical results from the OECD's longitudinal analyses (Box 3.1). It presents the social and emotional skills with statistically significant improvements of over 5 percentage points, after moving individuals from the lowest to highest skill deciles, in at least one socio-economic outcome. Cells are marked ● when the impact of the corresponding latent social and emotional skill construct on socio-economic outcomes was directly assessed using multiple skill measures. Cells are marked ○ when the impact of the corresponding latent social and emotional skill construct on socio-economic outcomes was indirectly assessed by using a higher-order latent construct of social and emotional skills. This higher-order latent construct was constructed by multiple measures of social and emotional skills, including one measure of the corresponding latent social and emotional skill construct.

Not all social and emotional skills exhibit positive effects

While the previous sections have painted a rather positive picture of the powers of social and emotional skills, it is important to note that not all social and emotional skills exhibit positive effects for all outcomes. Some of the figures presented in this chapter suggest that increasing social and emotional skills could help improve certain outcomes, but exhibit negative effects on others. For example, while persistence among children in Switzerland has a considerable positive effect in improving their attitudes towards life (Figure 3.9, Panel C), it also raises the likelihood of these children misbehaving, such as having problems with the police, and school delinquency (Figure 3.6, Panel C). This highlights the importance of taking a nuanced view of the empirical results. Having more of a particular skill does not necessarily help improve all socio-economic outcomes. This may be because individuals' behaviours and outcomes are driven not only by the particular social and emotional skills that they possess, but also by their capacity to deploy (or "not" deploy) such skills depending on the circumstances that they face. If this capacity is considered to be another type of social and emotional skills, it would be useful to measure this and assess if individuals with a combination of all these social and emotional skills can consistently perform well across diverse life situations.

Conclusion

Evidence from the OECD's longitudinal analyses and the empirical literature suggest that social and emotional skills together with cognitive skills play an important role in driving children's lifetime success. Social and emotional skills are particularly effective in improving social outcomes, while cognitive skills are particularly important drivers of tertiary education and labour market outcomes (Table 3.3). Moreover, cognitive and socio-emotional skills interact, cross-fertilise and further empower children so that they can achieve positive outcomes.

Table 3.3. **Cognitive, social and emotional skills contribute to children's lifetime success**

	Returns on skills		
	Education	**Labour market**	**Social**
Cognitive skills	High	High	Medium
Social and emotional skills	Low – Medium	Medium	High

Note: This table is generated based on results presented in this chapter, including Figures 3.1-3.10, as well as Tables 3.1 and 3.2.

It is important to reiterate the differences in skills, outcomes and control measures used and the ages at which they were measured across different longitudinal datasets used in this study. In spite of these differences, the results suggest remarkably consistent findings across countries. Nevertheless, the impact of cognitive, social and emotional skills on outcomes can vary considerably across countries. For instance, the results presented show that an increase in the level of children's cognitive skills, on one hand, helps reduce conduct problems during adolescence in the United Kingdom, while on the other hand, increases conduct problems in Switzerland. Some skills may be particularly effective in one culture but not in another.

The strengths of social and emotional skills are likely to come, in part, from their capacity to shape people's behaviour and lifestyles, to benefit more from attending tertiary education and to better leverage their cognitive capabilities. Social and emotional skills generally benefit individuals across the distribution of skills, and interventions to raise these types of skills can be particularly beneficial for disadvantaged populations. This may have an important bearing on strategies to reduce socio-economic inequalities. Among the diverse social and emotional skills that have been measured and tested, conscientiousness, sociability and emotional stability are among the most important dimensions that drive children's future labour market and social prospects.

Cognitive skill measures used in the OECD's longitudinal analyses are likely to capture skills typically used as yardsticks for educational success by students, schools or the school system (e.g. achievement tests, grades and literacy tests). Our evidence presented here suggests that they should remain as key measures, as they are particularly important for children's education and labour market outcomes. Nevertheless, there are other important dimensions of skills that may deserve more attention. The analyses presented in this chapter show that even a single dimension of social and emotional skills can predict diverse measures of children's future positive outcomes. Unlike academic grades and achievement tests, these skills are not always regularly measured and reported to teachers and parents in order to improve pedagogy and learning. While not all social and emotional skills improve outcomes, policy makers interested in better enhancing diverse measures of individual well-being and social progress may consider tapping into this area of skill development.

Notes

1. Given our interest in identifying the causal effects of skills, the evidence described in this chapter is primarily limited to those that generate counterfactuals, either via simulations (as in the Norwegian example) or by identifying appropriate control and treatment groups (as in the case of intervention programmes).

2. In order to better understand the scale of the impact of social and emotional skills on socio-economic outcomes, its effect was empirically isolated from those of cognitive skills. The aim is not necessarily to contrast the two skill constructs. They actually interact in meaningful ways (Chapters 2 and 4). As in the case of any empirical analyses, the estimate of the returns due to skills depends on the measurements used. Some of the returns may be either statistically insignificant or small due to the noisy measures used. Many of the longitudinal studies do not offer estimation of a range of important social and emotional factors that can be hypothesised to affect outcomes. Nevertheless, an important finding from these studies is that the effect of even one dimension of social and emotional skills (e.g. self-confidence) shows considerable impact on measures of children's socio-economic outcomes. If a range of measures of key social and emotional skills was available, the explanatory power of these combined measures could have a significant impact.

3. Locus of control is one dimension of core self-evaluations that refers to how much a person believes his or her actions affect his/her future (Rotter, 1966). That is, people who have higher levels of locus of control tend to believe their actions can shape their future more than luck would. Abramson, Seligman and Teasdale (1978) associate locus of control with positivism and relate it with the way people deal with negative events. Positive people attribute negative events to short-term and specific reasons that they believe are in their power to remediate or overcome (Tough, 2012). Positive people have more locus of control than negative people who attribute bad events to long-term reasons they believe are out of their control (Seligman, 1991).

4. Control variables used are: Belgium (Flemish Community): gender, parental education, household income, nationality, existence of younger or older siblings, birth year and months, living in nuclear family; Canada: gender, parental education, family income, wealth, number of siblings, residential region, visible minority, immigrant status; New Zealand: gender, parental education; Norway: age, gender, parental education, parental occupation, number of siblings, lives with parents; Korea: age, gender, parental education, parental income, number of siblings, lives with parents, urban residence; Sweden: age, gender, parental education, lives with parents, type of dwelling; Switzerland: gender, parental education, lives with parents, lives in German region, urban residence; the United Kingdom: age, gender, income; and the United States: gender, race, parental education, mother's employment, socio-economic status (poverty, reduced lunch), disability, number of parents, biological parents, religion.

5. Returns to education, labour market and social outcomes may be due to other features of the interventions which in general have multiple objectives, e.g. reducing family poverty, improving family health, raising children's IQs. Moreover, some of the intervention programmes described in Table 3.1 have not necessarily tested the social and emotional skills that the programme was designed to raise, since the ultimate benchmark of success was other indicators, such as poverty reduction. It was assumed that the intervention programmes increased the social and emotional skills in question and that this in turn had some impact on outcomes for the programme participants.

References

Abramson, L.Y., M.E.P. Seligman and J.D. Teasdale (1978), "Learned helplessness in humans: Critique and reformulation", *Journal of Abnormal Psychology,* Vol. 87, No. 1, pp. 49-74.

Almlund, M. et al. (2011), "Personality psychology and economics", *Handbook of the Economics of Education,* Vol. 4, pp. 1-181.

Carneiro, P., C. Crawford and A. Goodman (2007), *The Impact of Early Cognitive and Non-Cognitive Skills on Later Outcomes,* Centre for the Economics of Education, London School of Economics, London.

Cunha, F. and J.J. Heckman (2008), "Formulating, identifying and estimating the technology of cognitive and noncognitive skill formation", *Journal of Human Resources,* Vol. 43, No. 4, pp. 738-782.

Cunha, F., J.J. Heckman and S. Schennach (2012), "Estimating the technology of cognitive and noncognitive skill formation", *Econometrica,* Vol. 78 (3), pp. 883-931.

Gutman, L.M. and I. Schoon (2013), *The Impact of Non-Cognitive Skills on Outcomes for Young People. Literature Review,* Institute of Education, University of London, London.

Heckman, J.J., J.E. Humphries and G. Veramendi (2014), "Education, health and wages", *NBER Working Paper,* No. 19971.

Heckman, J.J. and T. Kautz (2012), "Hard evidence on soft skills", *Labour Economics,* Vol. 19 (4), pp. 451-464.

Heckman, J.J., J Stixrud and S. Urzua (2006), "The effects of cognitive and noncognitive abilities on labor market outcomes and social behavior", *Journal of Labor Economics,* Vol. 24 (3), pp. 411-482.

Kautz, T. et al. (2014), "Fostering and Measuring Skills: Improving Cognitive and Non-cognitive Skills to Promote Lifetime Success", *OECD Education Working Papers*, No. 110, OECD Publishing, http://dx.doi.org/10.1787/5jxsr7vr78f7-en.

OECD (2010), *Obesity and the Economics of Intervention: Fit Not Fat,* OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264084865-en.

Rotter, J.B. (1966), "Generalized expectancies for internal versus external control of reinforcement", *Psychological Monographs: General & Applied,* 80(1) 1966, pp. 1-28.

Sarzosa, M. and S. Urzua (2014), "Implementing factor models for unobserved heterogeneity in stata: The heterofactor command", mimeo, University of Maryland, pp. 1–26.

Sarzosa, M. and S. Urzua (2013), "Bullying and cyberbullying in teenagers: The role of cognitive and non-cognitive skills", mimeo, University of Maryland.

Sarzosa, M. and S. Urzua (2013), "Bullying and cyberbullying in teenagers: The role of cognitive and non-cognitive skills", mimeo, University of Maryland.

Seligman, M. (1991), *Learned Optimism: How to Change Your Mind and Your Life,* Alfred A. Knopf, New York, NY.

Tough, P. (2012), *How Children Succeed: Grit, Curiosity, and the Hidden Power of Character,* Houghton Mifflin Harcourt, New York, NY.

Urzua, S. and G. Veramendi (2012), "Empirical strategies to identify the determinants and consequences of skills", mimeo, University of Maryland.

Chapter 4

Learning contexts that drive skills formation

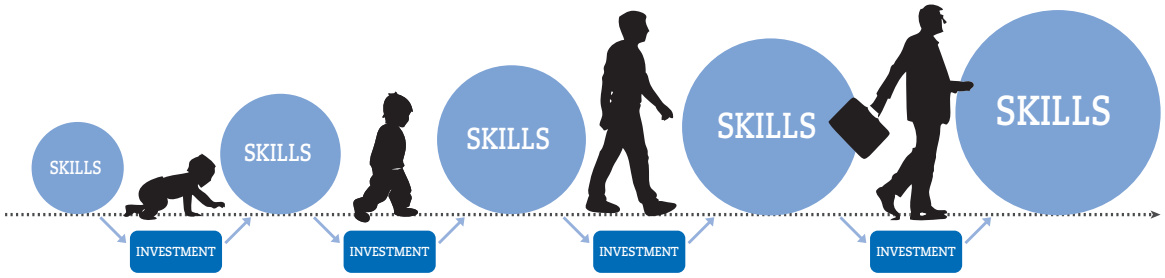
This chapter describes how the process of skill development unfolds, and highlights the elements involved in successful developmental pathways in which "skills beget skills". Social and emotional skills play a particularly important role in skills formation since they not only drive future development of social and emotional skills but also cognitive skills. Parental engagement and attachment have considerable impact on children's early social and emotional skill development. School-based programmes can also play a role by promoting intensive interactions between teachers and children through mentoring. Programmes specifically designed to raise social and emotional skills in schools have shown positive results in the short term but there are rarely long-term rigorous evaluations. The few available ones, mainly aimed at disadvantaged children, have shown long-lasting effects on social and emotional skills development. Successful early childhood intervention programmes directly involve children and parents, and tend to include parental training, counselling sessions and mentoring. Successful programmes aimed at older children train teachers, while those aimed at older adolescents emphasise mentoring and hands-on workplace learning.

The process of social and emotional development

One of the most salient features of skill development is that skills beget skills

Developing skills is like making a snowball. Children gather a handful of snow and start rolling it on the ground. It gets progressively bigger; the bigger the snowball, the faster it grows. Children need to start early with a small and solid snowball, if they are to develop a sizeable snowball before the end of adolescence. Snow begets snow, and skills beget skills. Figure 4.1 illustrates this point.

Figure 4.1. **Skills beget skills**



Having more skills today helps develop more skills tomorrow

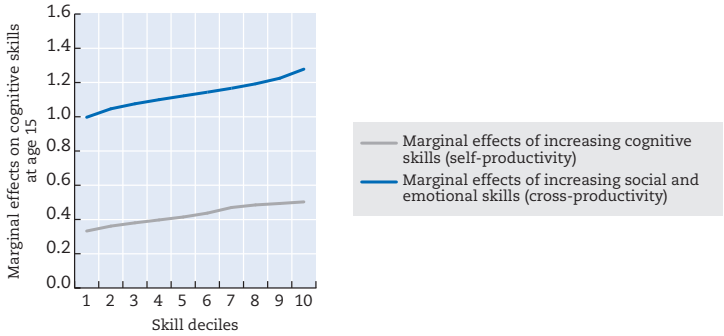
This chapter extends the analysis presented in the previous chapter by mobilising evidence based on dynamic factor models to explain how skills progressively develop over time. Figure 4.2 presents simulated gains in skills at age 15 as induced by an increase in skills at age 14, by level of skills at age 14 for Korea. It shows that children who start out in different levels of skill deciles gained different amounts of skills in the next period. The effects of increasing social and emotional skills (in this case, children's sense of responsibility, locus of control and self-esteem) at age 14 on social and emotional skills at age 15 increased with the level of social and emotional skills at age 14 (blue line in Panel B). Moreover, the effects of increasing social and emotional skills at age 14 on cognitive skills at age 15 (as reflected in achievement tests and grades) also increased with the level of social and emotional skills at age 14 (blue line in Panel A). Figure 4.2 also shows that the effects of increasing cognitive skills at age 14 on cognitive skills at age 15 increased with levels of cognitive skills at age 14, but at a slower rate (grey line in Panel A). This suggests that the current level of social and emotional skills matter more than the current level of cognitive skills in developing future cognitive skills. Children who are confident, responsible and believe in their capacity to affect the future are more likely to achieve high academic standards than those who are already smart.

Studies from the United States show similar findings. There is a strong impact of levels of cognitive, social and emotional skills in childhood on future development of these skills (Cunha and Heckman, 2008; Cunha, Heckman and Schennach, 2012). Moreover, these studies document that past levels of social and emotional skills play an important role in developing cognitive skills, although past cognitive skills have limited impact on future social and emotional skills. A child with a higher level of social and emotional skills (i.e. calm, respectful and emotionally stable, in the case of the above mentioned findings) is more likely to develop a capacity to perform well in achievement

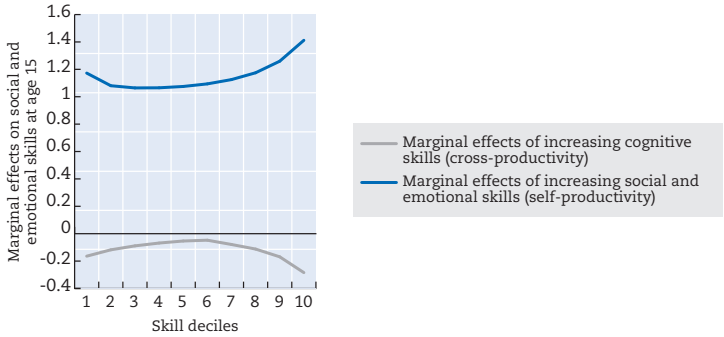
tests. Recent evidence from the Programme for International Student Assessment (PISA) 2012 is also consistent with these finding. Students' engagement with school, the belief that they can achieve at high levels and their ability and willingness to do what it takes to reach their goals play a central role in shaping students' ability to master academic subjects and raise cognitive proficiency (OECD, 2013a).

Figure 4.2. **Having more skills today helps develop more skills tomorrow (Korea)**

Panel A. **The marginal effects of increasing cognitive and social and emotional skills at age 14 on changes in cognitive skills between ages 14-15, by skill deciles**



Panel B. **The marginal effects of increasing cognitive and social and emotional skills at age 14 on changes in social and emotional skills between ages 14-15, by skill deciles**



StatLink http://dx.doi.org/10.1787/888933163793

Note: Results are based on the OECD's longitudinal analyses (Box 3.1). Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of responsibility and locus of control at age 14. Cognitive skills are captured by a latent cognitive skill factor estimated using measures of achievement test scores and academic grades at age 14, and conditioning on the latent social and emotional skill factor. The empirical model assumes that measures of achievement test scores and academic grades are a function of latent cognitive and social and emotional skills. Investments are captured by a latent investment factor estimated using measures of financial resources and time invested in private education (for cognitive skills) and measures of parental engagement and harmony (for social and emotional skills).

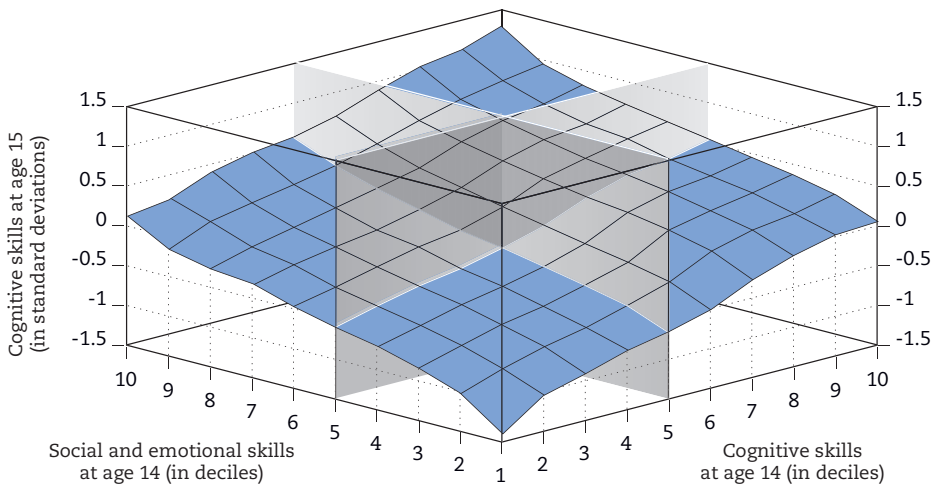
In sum, having more skills today allows individuals to gain more skills in the future. It also suggests that skills inequality can progressively grow over time and that addressing skill deficits early in children's lives is important. The evidence from Korea and the United States suggests that early investment in social and emotional skills among disadvantaged children (i.e. those who tend to have lower levels of skills when young) is important for them to accumulate sufficient levels of cognitive, social and emotional skills. Otherwise, society will need to remediate skill inequalities once they have become substantial.

Skills beget skills can be explained by the cumulative nature of skills and the tendency that those with a higher level of skills receive more learning investments

There are several ways to explain why "skills beget skills". First, skills are key components of human capital. They are cumulative and do not necessarily disappear over time. Those with higher levels of skills accumulated in the past tend to have higher levels of future skills. Figure 4.3 demonstrates this point by projecting current (age 14) levels of cognitive, social and emotional skills on future (age 15) levels of skills for Korea. Panel A shows that the higher the deciles of current cognitive skills, the higher the levels of future cognitive skills. Moreover, those with more social and emotional skills today tend to have more cognitive skills tomorrow. Among those at the 5th decile of cognitive skills, an increase in social and emotional skills from the lowest to the highest decile would lead to an increase in the future cognitive skills by one standard deviation. Panel B shows that the higher the deciles of social and emotional skills, the higher the deciles of future social and emotional skills. However, current deciles of cognitive skills do not seem to affect the deciles of future social and emotional skills.

Figure 4.3. **Social and emotional skills drive the accumulation of cognitive as well as social and emotional skills (Korea)**

Panel A. **Cognitive skills at age 15 as a function of cognitive and social and emotional skills at age 14**

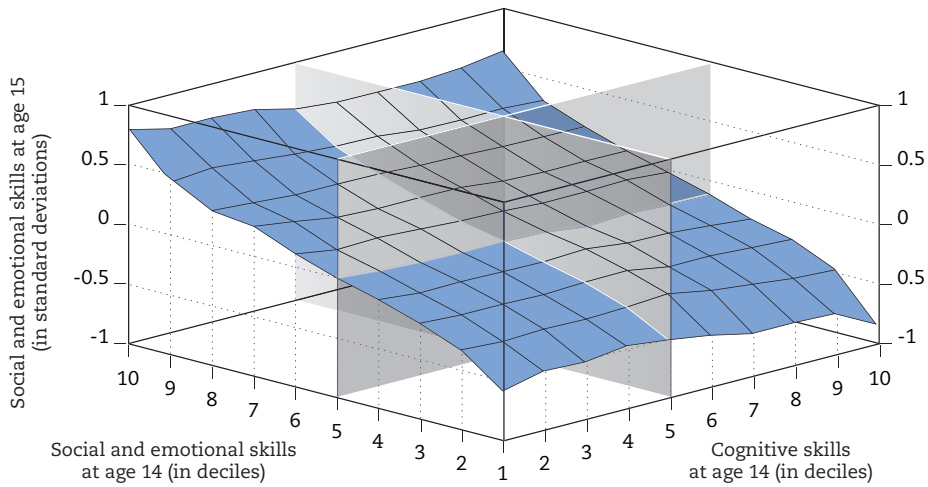


StatLink http://dx.doi.org/10.1787/888933163804

Note: Results are based on the OECD's longitudinal analysis of Korea (Box 3.1). Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of responsibility, locus of control and self-esteem at age 14. Cognitive skills are captured by a latent cognitive skill factor estimated using measures of achievement test scores and academic grades at age 14, and conditioning on the latent social and emotional skill factor. The empirical model assumes that measures of achievement test scores and academic grades are a function of latent cognitive and social and emotional skills. Investments are captured by a latent investment factor estimated using measures of financial resources and time invested in private education (for cognitive skills) and measures of parental engagement and harmony (for social and emotional skills).

Figure 4.3. **Social and emotional skills drive the accumulation of cognitive as well as social and emotional skills (Korea)** (continued)

Panel B. **Social and emotional skills at age 15 as a function of cognitive and social and emotional skills at age 14**



Note: Results are based on the OECD's longitudinal analysis of Korea (Box 3.1). Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of responsibility, locus of control and self-esteem at age 14. Cognitive skills are captured by a latent cognitive skill factor estimated using measures of achievement test scores and academic grades at age 14, and conditioning on the latent social and emotional skill factor. The empirical model assumes that measures of achievement test scores and academic grades are a function of latent cognitive and social and emotional skills. Investments are captured by a latent investment factor estimated using measures of financial resources and time invested in private education (for cognitive skills) and measures of parental engagement and harmony (for social and emotional skills).

Another possible reason for "skills beget skills" is that those with a higher level of skills are likely to receive more learning investments. Parents may invest more in their children's skills if they show promising progress in skill development. Teachers may spend more time and effort helping students who are more motivated to learn. Alternatively, children who are more motivated and smart are more likely to seek out new learning opportunities than those who are less motivated and smart. Table 4.1 shows the impact of raising levels of children's skills on the changes in investment they receive to further develop these skills. It suggests that those with higher levels of social and emotional skills tend to receive more investment to further develop both cognitive and social and emotional skills. Korean children who have demonstrated a stronger sense of responsibility, locus of control and self-esteem tend to experience better learning conditions for enhancing their cognitive and socio-emotional skills. This, however, is not the case for cognitive skills: Korean parents may try to compensate for the lack of their children's cognitive skills by investing more in cognitive as well as social and emotional skills.

Table 4.1. **Children with higher levels of social and emotional skills receive higher levels of new investment in cognitive and social and emotional skills (Korea)**

	New investment in social and emotional skills	New investment in cognitive skills
Increase in social and emotional skills	Increase	Increase
Increase in cognitive skills	Decrease	Decrease

Note: Results are based on the OECD's longitudinal analysis of Korea (Box 3.1). The impacts of past skills on investment are all statistically significant at $\alpha = 0.05$. Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of responsibility, locus of control and self-esteem at age 14. Cognitive skills are captured by a latent cognitive skill factor estimated using measures of achievement test scores and academic grades at age 14, and conditioning on the latent social and emotional factor. Investments are captured by latent investments estimated using measures of financial resources and time invested in private education (cognitive skills) and measures of parental engagement and harmony (social and emotional skills).

The literature also suggests that higher social and emotional skills induce more learning investments. For instance, Skinner and Belmont (1993) show that students who demonstrate stronger motivation and engagement tend to receive more involvement and support from teachers. There is also evidence suggesting that children from families of higher socio-economic background tend to have higher levels of social and emotional skills (see OECD, 2013a for evidence of the positive relationship between household socio-economic status and students engagement, drive and motivation). To the extent that these families can afford to provide higher quality learning environments and quality investments for their children, those with higher levels of social and emotional skills are likely to receive higher levels of learning investments. For instance, Hart and Risley (1995) provide evidence suggesting that families of higher socio-economic status tend to talk more with their children than less affluent families.

Skills beget skills can also be explained by the fact that those with a higher level of skills benefit more from new investments in skills

Another important driving force behind "skills beget skills" may be that those with more skills have a greater capacity to benefit from a given learning environment or investments, such as intervention programmes. Smart children are likely to be better at learning from curricular activities in further developing their math or languages skills. Motivated children are also likely to become even more motivated after experiencing stimulating learning activities.

The OECD's longitudinal analysis for Korea also sheds light on this issue. Figure 4.4 describes how the productivity of developing cognitive and social and emotional skills through investment varies by levels of skills. Investment in cognitive skills is captured by measures of parental investments in private education, while investment in social and emotional skills is captured by measures of parental engagement and harmony. Using simulated skill factors and productivity of investment at age 14 in terms of an increase in skills between ages 14 and 15, they show that the higher the levels of social and emotional skills, the higher the productivity of investment in developing *both* cognitive and social and emotional skills.

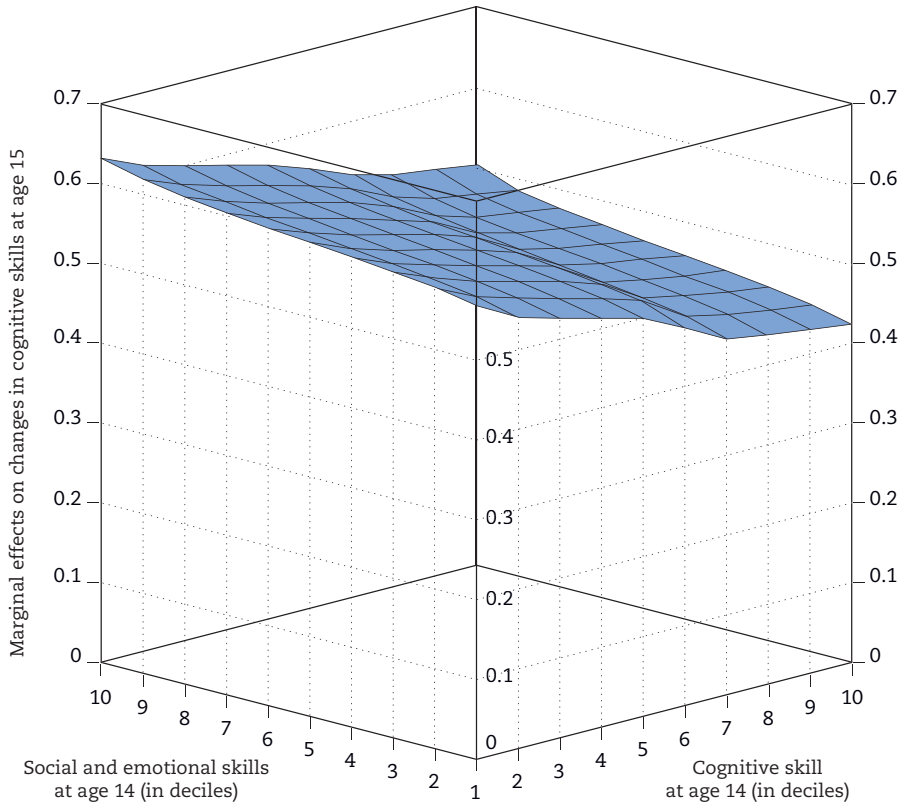
Figure 4.4 (Panel A) suggests that in Korea, a child with the highest level of social and emotional skills (i.e. 10th decile) is 7-8 percentage points more productive in producing future cognitive skills than a child with the lowest level of social and emotional skills (i.e. 1st decile). Moreover, Figure 4.4 (Panel B) suggests that a child with the highest level of social and emotional skills is 7-50 percentage points more productive in producing social and emotional skills than a child with the lowest level of social and emotional skills. The impact of raising learning investments in social and emotional skills on children's future social and emotional skills is generally much higher among those in the lower cognitive skill deciles. This implies that social and emotional skills can be a particularly important

policy-lever for disadvantaged children who lack cognitive ability. These changes can bring long-lasting and progressively increasing returns (see arguments to follow and Figure 4.5). This result is also consistent with the evidence from the United States where they show a strong positive impact of skills on the productivity of developing skills through investment (Cunha and Heckman, 2008; Cunha, Heckman and Schennach, 2012).

In short, having more social and emotional skills today can help children benefit more from learning environments and intervention programmes in the future. They can leverage these investments to enhance not only their social and emotional skills, but also their cognitive skills.

Figure 4.4. **Those with higher levels of social and emotional skills benefit more from new learning investments to further develop cognitive as well as social and emotional skills (Korea)**

Panel A. **Marginal effects of increasing learning investments made at age 14 on changes in cognitive skills between ages 14-15, by skill deciles**

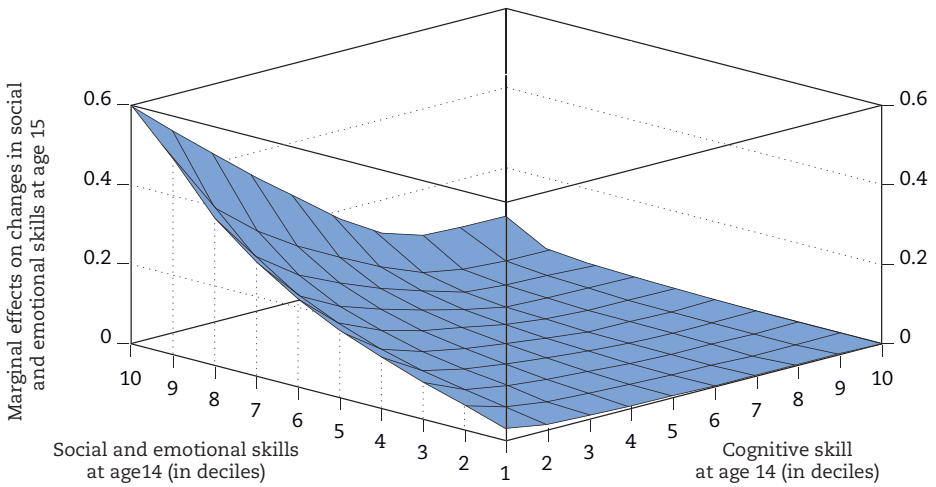


StatLink http://dx.doi.org/10.1787/888933163819

Note: Results are based on the OECD's longitudinal analysis of Korea (Box 3.1). Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of responsibility, locus of control and self-esteem at age 14. Cognitive skills are captured by a latent cognitive skill factor estimated using measures of achievement test scores and academic grades at age 14, and conditioning on the latent social and emotional skill factor. The empirical model assumes that measures of achievement test scores and academic grades are a function of latent cognitive and social and emotional skills. Investments are captured by a latent investment factor estimated using measures of financial resources and time invested in private education (for cognitive skills) and measures of parental engagement and harmony (for social and emotional skills).

Figure 4.4. **Those with higher levels of social and emotional skills benefit more from new learning investments to further develop cognitive as well as social and emotional skills (Korea)** (continued)

Panel B. **Marginal effects of increasing learning investments made at age 14 on changes in social and emotional skills between ages 14-15, by skill deciles**



Note: Results are based on the OECD's longitudinal analysis of Korea (Box 3.1). Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of responsibility, locus of control and self-esteem at age 14. Cognitive skills are captured by a latent cognitive skill factor estimated using measures of achievement test scores and academic grades at age 14, and conditioning on the latent social and emotional skill factor. The empirical model assumes that measures of achievement test scores and academic grades are a function of latent cognitive and social and emotional skills. Investments are captured by a latent investment factor estimated using measures of financial resources and time invested in private education (for cognitive skills) and measures of parental engagement and harmony (for social and emotional skills).

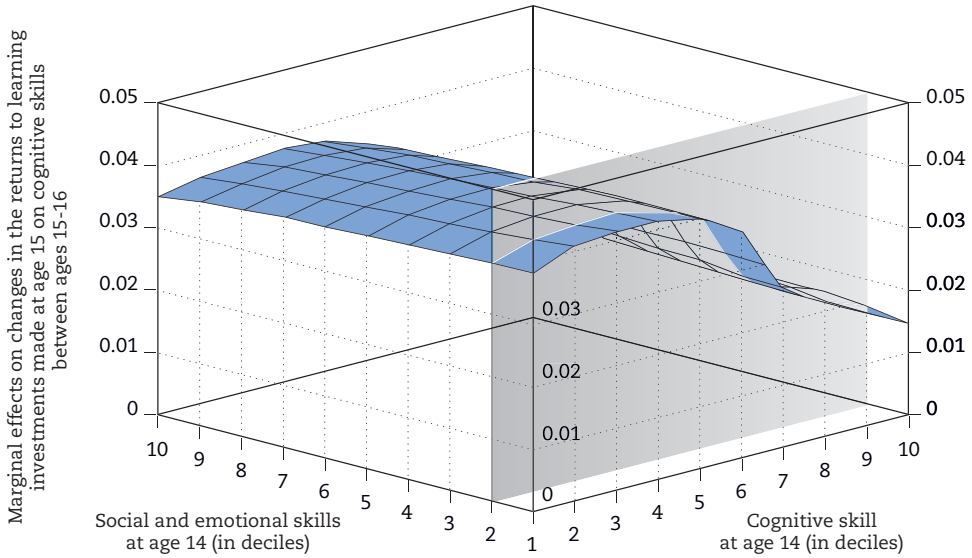
Investing in children's skills sufficiently early is important for their lifetime success

If the level of children's social and emotional skills affects the productivity of future investments in cognitive as well as social and emotional skills, investments in social and emotional skills made at any point in time must have an impact on the productivity of all future investments in skills. Early investments should therefore allow children to reap higher returns over a longer period of time.

Figure 4.5 illustrates this point by showing the impact of investments made at age 14 on the returns to investments made later: between ages 15 and 16, based on the OECD's longitudinal analysis for Korea. Panel A suggests that investments in cognitive skills at age 14 raise the impact of future investments in cognitive skills, no matter the level of skills at age 14. The positive relationship can be seen from the positive projected values ranging from 0.01-0.04. Note that, the returns are diminishing by cognitive skills, which suggests that those with lower levels of cognitive skills benefit more from investing in cognitive skills in terms of further enhancing these skills. However, Panel B suggests that an additional investment in social and emotional skills at age 14 will only enhance future investment productivity in social and emotional skills for those who have a higher level of social and emotional skills in the first place. Hence, the Korean example points to the importance of sufficiently investing in social and emotional skills (as well as cognitive skills) before early adolescence in order to allow children to reap the benefits of future investments. The economics literature calls this phenomenon "dynamic complementarities". Cunha and Heckman (2008) and Cunha, Heckman and Schennach (2012) suggest that dynamic complementarities also hold for the United States. The evidence from the early intervention literature also suggests that investments in early childhood provided by programmes such as the Abecedarian and Perry Pre-school raised the efficiency of learning in school and reduced behavioural problems many years after the initial investment (Heckman, 2008).

Figure 4.5. Investment in skills today raises the returns on future investment in skills (Korea)

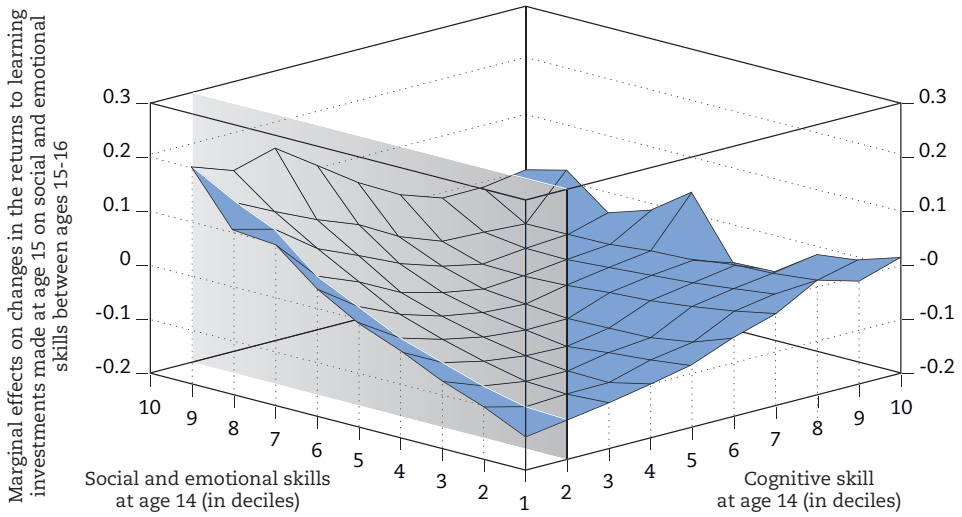
Panel A. **Marginal effects of increasing learning investments (on cognitive skills) made at age 14 on changes in the returns to learning investments (on cognitive skills) made at age 15 on cognitive skills between ages 15-16, by skill deciles**



StatLink http://dx.doi.org/10.1787/888933163821

Note: Results are based on the OECD's longitudinal analysis of Korea (Box 3.1). Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of responsibility, locus of control and self-esteem at age 14. Cognitive skills are captured by a latent cognitive skill factor estimated using measures of achievement test scores and academic grades at age 14, and conditioning on the latent social and emotional skill factor. The empirical model assumes that measures of achievement test scores and academic grades are a function of latent cognitive and social and emotional skills. Investments are captured by a latent investment factor estimated using measures of financial resources and time invested in private education (for cognitive skills) and measures of parental engagement and harmony (for social and emotional skills).

Panel B. **Marginal effects of increasing learning investments (on social and emotional skills) made at age 14 on changes in the returns to learning investments (on social and emotional skills) made at age 15 on social and emotional skills between ages 15-16, by skill deciles**



Note: Results are based on the OECD's longitudinal analysis of Korea (Box 3.1). Social and emotional skills are captured by a latent social and emotional skill factor estimated using measures of responsibility, locus of control and self-esteem at age 14. Cognitive skills are captured by a latent cognitive skill factor estimated using measures of achievement test scores and academic grades at age 14, and conditioning on the latent social and emotional skill factor. The empirical model assumes that measures of achievement test scores and academic grades are a function of latent cognitive and social and emotional skills. Investments are captured by a latent investment factor estimated using measures of financial resources and time invested in private education (for cognitive skills) and measures of parental engagement and harmony (for social and emotional skills).

While early investment is particularly important for cognitive skills, social and emotional skills can also be effectively raised between early childhood and early adolescence

Even though early investments generally bring higher and longer lasting returns, one needs to carefully consider the relative productivity of investing in skills early versus later, and its associated costs, before coming to a conclusion on the optimal timing of policy interventions (Shonkoff and Phillips, 2000). For cognitive skills, evidence, including findings from neuroscience, suggests the importance of early investment in raising general cognitive skills. However, the evidence for the optimal timing for investing in social and emotional skills is limited. The work of Cunha, Heckman and Schennach (2012) is among the few studies that sheds light on this. They compare a measure of how easy it is to compensate for low levels of skills inherited from the previous period with current levels of investment. They suggest, using longitudinal data from the United States, that while it is difficult for new investments to compensate for lack of early investments in cognitive skills (ages 0-6), it is still possible for later investments in social and emotional skills (ages 7-14) to compensate for early deficits.

This chapter primarily relied on results from the OECD's longitudinal analysis for Korea as well as very few existing evidence on this issue. The paucity of empirical studies to evaluate the dynamics of skills formation is due to the limited number of micro longitudinal data available that can be useful for such an analysis. This calls for a new development of longitudinal data on skills, learning contexts and outcomes across countries. Chapter 6 presents the OECD's proposal to collect such data in the future.

Learning contexts that drive social and emotional development

Learning takes place in a variety of contexts, including in families, schools and communities. Each context plays a critical role at different stages of children's lives. There are common elements and approaches across contexts that have proven successful in developing children's social and emotional skills. The coherence in learning contexts will likely affect how productive each of them is in shaping children's social and emotional development.

Families can play an important role in raising children's social and emotional development from birth

Families[1] can shape children's social and emotional development by providing guidance, developing habits, imparting values and sharing expectations. The OECD's longitudinal analyses for Korea suggest that parental engagement in their children's studies and efforts to maintain harmony in the family play an important role in driving children's social and emotional development during early adolescence (ages 14-16). The empirical literature also suggests that supportive and warm families that provide stimulating activities enhance children's cognitive, social and emotional skills (Baxter and Smart, 2011; Cabrera, Shannon and Tamis-LeMonda, 2007; Cunha, Heckman and Schennach, 2012). Analysis of PISA data shows that children whose parents engage in reading, writing words, telling stories and singing songs not only tend to score better in reading literacy but are also more motivated to learn (OECD, 2012). Equally, parental attitudes and disciplinary practices play an important role on influencing children's social and emotional conditions (Kiernan and Huerta, 2008). Supportive relationships that generate healthy attachments positively affect children's understanding and regulation of emotions as well as their feelings of security and tastes for exploration and learning (Noelke, forthcoming).

Numerous factors affect the extent to which parents engage in their children's social and emotional development, including children's ages, parents' socio-economic characteristics, attitudes

towards work and social expectations. An important barrier to parental involvement is the time parents devote to other activities, including employment. Having parents who work may impede parent-child bonding as it decreases the quantity and quality of time children spend with parents (Belsky et al., 1988; Belsky and Eggebeen, 1991; Noelke, forthcoming). However, parental employment also means more family income, which may positively influence children's development as it allows for the purchase of learning materials, services and experiences that potentially benefit skills formation (Conger and Elder, 1994).

Most studies have looked at the influence of maternal employment on children's outcomes, as women have traditionally been the primary carers of young children. The overall evidence suggests that maternal employment during a child's first year may have small negative effects on a child's cognitive, social and emotional development, especially if the mother is employed full time (Noelke, forthcoming). However, other factors, such as parental education, participation in formal childcare and the quality of interaction between parents and children, seem to have a greater influence on infant development than maternal employment alone (Brooks-Gunn, Han and Waldfogel, 2010; Huerta et al., 2011). The small negative effects of maternal employment are most often observed among children in two-parent families, with highly educated parents (Gregg et al., 2005; Huerta et al., 2011; Noelke, forthcoming). Children growing up in affluent families may have more to lose when parents are in paid work, because the alternative care they receive may be inferior to that of their parents. Conversely, maternal employment may be less harmful for disadvantaged children, as the reduction in time spent with the child is counter-balanced by additional income, reduced stress and access to formal childcare (OECD, 2011; Noelke, forthcoming).

Schools can further enhance children's social and emotional skills by introducing innovations in teaching and learning through curricular and extracurricular activities

As children grow older, schools become more important to the process of skills formation. Schools can provide innovative curricular and extracurricular activities conducive to social and emotional development (Chapter 5). Teachers can play a particularly important role in raising children's self-esteem, motivation and emotional stability by being effective mentors and learning facilitators. Peers can also play a role, as children can learn a variety of social and emotional skills such as collaboration, negotiation and sociability from friends and classmates.

While there are a large number of independent programmes designed, in part, to raise social and emotional skills, none of these programmes have been subject to rigorous or long-term evaluations. Kautz et al. (2014) provide three examples of US-based programmes, albeit with only short-term evaluations, in Box 4.1.

Evidence from a large-scale meta-analysis of school-based interventions on social and emotional learning (SEL) in the United States also documents numerous lessons. First, SEL programmes have significant positive effects on social and emotional skills such as goal setting, conflict resolution and decision making. Second, classroom teachers and other school staff can drive successful SEL programmes. Third, SEL interventions can be incorporated into routine educational practices. Fourth, these interventions may be successful at all educational levels (elementary, lower secondary and upper secondary). Fifth, effective SEL programmes need to incorporate learning practices with sequenced training, active forms of learning, focus time and attention to any skill development tasks, and explicit learning objectives (the SAFE [sequenced, active, focused and explicit] principle) (Durlak et al., 2011). The most effective programmes are those that incorporate all four SAFE practices (Durlak, 2003; Durlak, Weissberg and Pachan, 2010; Durlak et al., 2011). The value of SAFE practices is also observed in a review of after-school programmes (Durlak, Weissberg and Pachan, 2010).

Box 4.1. **Programmes designed to raise social and emotional skills in the United States**

Kautz et al. (2014) present three examples of US-based programmes designed, in part, to raise social and emotional skills. To date, only short-term evaluations have been carried out and are showing positive results.

The first is "Tools of the Mind", which attempts to teach preschool and early-primary schoolchildren to regulate their social and cognitive behaviour. The programme employs a curriculum that encourages children to role-play and learn in groups with other children. Short-term evaluations suggest positive outcomes, including improvements in classroom behaviour and executive functioning which includes inhibitory control.

The second is a low-cost programme designed to enhance the "Mindset" of children in such a way that children believe capabilities are malleable and that learning can change the structure of the brain (Dweck, 2007). This programme aims to instil the idea that achievement is the result of hard work rather than inborn intelligence.[1] Indeed, PISA 2012 (OECD, 2013b) shows that children who think that hard work is key to success, rather than stable intelligence, perform better in the PISA mathematics test. While the main goal of the Mindset experiment is to promote educational achievement, the process involves enhancing social and emotional skills such as perseverance and willpower. As with the previous example, short-term results were favourable.

The third is the OneGoal programme, which selects and trains high-school teachers to help students apply to colleges, improve grades and test scores, and persist through college by cultivating social and emotional skills. This programme serves low-income schools in Chicago, most of which have college enrolment rates of less than 50%. Short-term evaluations have again proved successful and improved academic indicators in high school and boost high-school graduation and college enrolment.

Note: 1. In addition, students whose teachers use cognitive-activation techniques, such as asking students questions that help them reflect on the problem, presenting problems that can be solved in several different ways, or helping children learn from their mistakes, is associated with higher student perseverance and openness to problem solving in mathematics. Thus, the ways in which the pedagogical content is framed and presented has a great impact on how students develop and employ their cognitive and socio-emotional skills.

Source: Kautz, T. et al. (2014), "Fostering and Measuring Skills: Improving Cognitive and Non-cognitive Skills to Promote Lifetime Success", *OECD Education Working Papers*, No. 110, OECD Publishing, http://dx.doi.org/10.1787/5jxsr7vr78f7-en.

Extracurricular activities also offer ample opportunities for children to develop social and emotional skills by engaging in sports, music, arts and even academic activities in an informal context involving interactions with peers and facilitators. They are expected to have a positive influence on students' social and emotional skills, while also meeting other purposes including students' academic, cultural and physical development. Participation in sports activities, art clubs or drama clubs can increase a number of social and emotional skills among children, including discipline, ability to work as a team and curiosity (Covay and Carbonaro, 2010).

The effect of athletic participation on social and emotional skills has been studied widely. Evidence suggests positive effects of athletic participation, although the effects are relatively small. Lewis' (2004) meta-analysis suggests that sports activities have a weak but significant association with a decrease in risk behaviours: those students who participate in sport activities are less likely to exhibit substance abuse and aggressive behaviour. The analysis also indicates that sports activities are related to higher levels of self-esteem and self-efficacy. Bailey (2006) suggests that the extent to which physical education benefits skill development depends on three aspects, namely whether the programme: 1) promotes enjoyment, diversity and the engagement of all; 2) is taught by committed and trained teachers and coaches; and 3) is supported by informed parents.

There are also studies suggesting that performing arts activities such as theatre and dance activities can enhance social and emotional skills, such as self-esteem, self-control, perseverance, social skills, emotion regulation and sympathy (for a review of the studies see Winner, Goldstein and Vincent-Lancrin, 2013).

Across OECD countries, students commonly participate in school governance and classroom management, which are alternative forms of extracurricular activities. Students can become classroom representatives or participate in student councils, which can develop the skills necessary for exercising democracy, such as negotiating, teamwork and taking responsibility (Taylor and

Johnson, 2002). Studies have found that students' involvement in student council is a good predictor of their future political engagement (Davies et al., 2006). Students can also take on classroom tasks, which can raise their self-efficacy and sense of responsibility.

Pro-social activities are also expected to promote children's abilities to take initiative, self-regulate, believe in oneself and work with others. In particular, service learning that combines classroom instruction and community services has been increasingly adopted as a teaching method, as studies also demonstrate positive effects of such instruction. For example, a meta-analysis of studies on service learning suggests significant gains from service learning programmes in academic performance, social skills, civic engagement, and attitudes towards self, school and learning (Celio, Durlak and Dymnicki, 2011).

Most schools may not have the capacity to introduce major innovations in curricular and extracurricular activities, due to resource constraints. They may, however, be able to adapt existing practices at the margin and introduce innovative practices to foster social and emotional skills without major changes. Evidence suggests that social and emotional skills can be effectively taught within standard subjects like maths and language if the curriculum explicitly integrates these skills in the learning process (Trilling, forthcoming). For instance, this can be done by introducing project-based work that involves dynamic and interactive problem solving based on real-life problems. Project-based (or problem-based) approaches require clear goals and guidance, as well as resources (such as access to libraries, museums, etc.) and multidimensional assessments that would target the diverse skills children should acquire (Barron and Darling-Hammond, 2008). While these innovations can be introduced at the margin, they will still require system-wide support from school principals, teachers and parents.

Teachers are likely to drive children's success in developing social and emotional as well as cognitive skills. While this may seem obvious, no evaluation study has identified the characteristics of teachers that drive success in character development. One study implies the potentially important role teachers may play in enhancing social and emotional skills. Jackson (2013), using data from North Carolina, United States, showed that 9th grade maths and English teachers causally influence their students' cognitive as well as social and emotional skills, as measured by student absences, suspensions, grades and on-time grade progression. Jackson estimates teachers have a bigger effect on social and emotional skills than on cognitive skills. Moreover, this study shows that teachers' abilities to influence cognitive skills and social and emotional skills are largely independent, implying that some teachers may be particularly good at shaping children's social and emotional skills, but not necessarily as good at shaping their cognitive skills, and vice versa. This suggests the existence of certain teacher characteristics that may be particularly conducive to enhancing social and emotional skills.

Communities can further enhance social and emotional skills by providing valuable contexts for informal learning

The most important component of community learning contexts is informal learning. Informal learning, involving a range of extracurricular, civic and cultural activities outside of schools, is associated with positive changes in students' academic, social and citizenship outcomes (Conway, 2009). Children who participate in performing arts and pro-social activities are more likely to have positive identities and higher self-esteem (Lewis, 2004). Informal learning relies on the availability of out-of-school community activities. It is therefore linked to the level of community resources and characteristics such as socio-economic status and peer values. Moreover, parents' social networks can affect the quality and intensity of children's informal learning opportunities. Sampson, Morenoff and Earls (1999) argue that networks of parents' friends can be an effective neighbourhood resource for skills formation. Other parents may not only provide direct social support and parenting information, but also help reinforce desired norms and behaviours (Noelke, forthcoming).

Intervention programmes provide valuable means for disadvantaged children to develop social and emotional skills

There is considerable evidence suggesting children's cognitive, social and emotional skills can be negatively affected when they grow up in disadvantaged learning contexts (Shonkoff and Phillips, 2000; Feinstein, 2003; Schady et al., 2014). Low incomes are associated not only with a lack of resources to buy goods and services that benefit skills formation, but also with parental stress and parenting behaviours that are less responsive to children's needs (Elder and Caspi, 1988). Moreover, recent evidence suggests that the stress associated with growing up in poverty negatively affects children's brain development and brain functioning in adulthood (Angstadt et al., 2013). Intervention programmes, therefore, have significant scope to enhance social and emotional skills among disadvantaged children so that they can better navigate through their challenging environments and eventually achieve social mobility.

Table 4.2 provides a list of promising intervention programmes described in Kautz et al. (2014), complemented by additional programmes outside the United States, as identified by the OECD. The list contains programmes that have been rigorously evaluated and proven to have directly or indirectly raised social and emotional skills. The table is designed to highlight the main characteristics of the programmes, including target groups, location, contexts and targeted skills.

Successful early childhood and childhood interventions tend to emphasise positive parent-child attachment, and directly involve parents in training programmes

Table 4.2 presents a number of early childhood and childhood intervention programmes that have successfully enhanced children's social and emotional skills (particularly social skills and emotional regulation) and subsequent adult outcomes. The table suggests that most of the successful programmes launched to tackle family poverty have been designed to involve both children and parents. Hence, these programmes have mostly taken place in both schools/centres and at home.

Strong family involvement, parent-child interactions and parental training are common features of all the promising programmes highlighted in Table 4.2. Parental training that provides guidance on parenting styles and practices designed to enhance secure attachment may be an effective strategy to improve children's outcomes. Indeed, the evidence shows that children whose parents are warm, firm and fair tend to be more psychologically mature and less prone to internalising or externalising their problems than their peers whose parents use other parenting styles (Steinberg, Blatt-Eisengart and Cauffman, 2006; Steinberg, 2004). Parental training is often complemented by professional counselling sessions for mothers and other family members.

Outside the United States, there are a number of early childhood interventions, but few of them have undergone rigorous evaluations. A good example of an early childhood intervention is the Sure Start Programme in the United Kingdom. This targeted intervention is associated with improvements in 7 out of 14 desirable outcomes, including children's social and emotional development (NESS, 2008). For instance, children participating in the Sure Start programme showed more positive social behaviour, and greater independence and self-regulation than their peers who did not participate in the programme. This programme also emphasised family involvement and offered parental training courses. In spite of these findings, the Sure Start Programme is not amenable to rigorous evaluations, as the subjects were not randomly assigned.

Promising childhood programmes such as Project STAR and the Seattle Social Development Project (SSDP) share many features of successful early childhood programmes. Family involvement is the most frequently recurring element of these interventions. Moreover, there is a strong emphasis on teacher training. For example, teachers involved in SSDP receive intensive training in classroom management, co-operative learning and interactive teaching. Other courses such as behavioural management are provided in order to teach teachers how to help children resolve conflicts with their peers and, as a result, develop problem-solving skills.

Table 4.2. **Enhancing social and emotional skills: Promising intervention programmes in selected countries**

Programme	Purpose	Target		Location			Contents									Skills targeted
		Child	Parents	School/ centre	Home	Work	Family involvement	Parent-child attachment	Mentor[1]	Guidance [2], counsellor	Parental training	Trained teachers	Social services	Work training	Health services[3]	
Early childhood																
Nurse-Family Partnership (United States)	Poverty reduction	Prenatal to Age 1	●		●		●			●	●		●		●	Vocabulary skills, internalising behaviour reduction, anti-social behaviour prevention
Abecedarian Project (United States)	Poverty reduction	Age 0	●	●	●		●	●		●					●	Externalising behaviour reduction, anti-social behaviour prevention, academic skills
Supplementation Study (Jamaican)	Health	Age 1-2	●		●			●			●				●	Self-esteem, emotional regulation, anti-social behaviour and oppositional behaviour reduction
Head Start Program (United States)	Poverty reduction	Age 3-5	●	●	●		●				●		●		●	Social relationships, self-concept, self-efficacy, self-regulation, emotional regulation, academic skills
Perry Preschool Program (United States)	Poverty reduction, IQ	Age 3-4	●	●	●		●	●								Externalising behaviour reduction, academic motivation, IQ
Chicago Child Parent Center (United States)	Poverty reduction	Age 3-4	●	●			●	●			●	●			●	Anti-social behaviour prevention, emotional regulation, academic skills, IQ
Sure Start Programme (United Kingdom)	Poverty reduction	Age 3-4	●	●			●				●				●	Social behaviour (co-operation, sharing, empathy), child independence/self-regulation

Table 4.2. **Enhancing social and emotional skills: Promising intervention programmes in selected countries** (continued)

Programme	Purpose	Target		Location			Contents									Skills targeted
		Child	Parents	School/ centre	Home	Work	Family involvement	Parent-child attachment	Mentor[1]	Guidance [2], counsellor	Parental training	Trained teachers	Social services	Work training	Health services[3]	
Childhood																
Project STAR (United States)	Education quality enhancement	Age 5-6	●	●			●	●				●				Anti-social behaviour prevention, student effort, initiative, non-participatory behaviour, self-"value" in the classroom, IQ
Seattle Social Development Project (United States)	Crime prevention	Age 6-7	●	●			●				●	●			●	Communication, decision-making, negotiation and conflict-resolution skills
Montreal Longitudinal Experimental Study (Canada)	Crime prevention	Age 7-9	●	●			●				●					Social and behavioural skills: positive interactions with teachers, parents and peers; problem-solving and self-regulation
Adolescence																
Big Brothers Big Sisters (United States)	Poverty reduction	Age 10-16					●		●							Self-worth, self-confidence, motivation, social acceptance and behaviour, anti-social behaviour prevention, academic skills
Entrepreneurs for Social Inclusion (Portugal)	Dropout rates reduction	Age 13-15		●						●		●				Motivation, self-control, problem-solving skills, social skills
Becoming a Man (United States)	Dropout rates reduction and violence prevention	Age 15-16		●					●	●						Social-cognitive skills: impulse control, emotional self-regulation, conflict resolution, raising aspirations for the future and sense of personal responsibility

Table 4.2. **Enhancing social and emotional skills: Promising intervention programmes in selected countries** (continued)

Programme	Purpose	Target		Location			Contents									Skills targeted
		Child	Parents	School/ centre	Home	Work	Family involvement	Parent-child attachment	Mentor[1]	Guidance [2], counsellor	Parental training	Trained teachers	Social services	Work training	Health services[3]	
Pathways to Education (Canada)	Dropout rates reduction	Age 15-18		●			●		●	●						Academic and social skills: problem-solving, team building, communication and negotiation
National Guard Challenge (United States)	Dropout rates reduction	Age 16-18		●											●	Confidence and responsibility, feeling of self-control, sense of leadership and potential, academic skills
Job Corps (United States)	Poverty reduction	Age 16-24		●					●						●	Interpersonal communication, problem solving, social and management skills, technical, academic skills
Youth Employment Program (Dominica)	Employability	Age 16-28		●		●			●					●		Self-esteem, problem solving, decision making, conflict resolution, empathy, co-operation, responsibility, emotions control, risk behaviour reduction, communication, creative thinking
Year-up (United States)	Employability	Age 18-24		●		●				●				●		Time management, teamwork, problem solving, conflict resolution and technical skills
Joven/Young Program (Chile)	Employability	Age 18-25		●		●				●				●		Social skills, technical skills, academic skills

Note: 1. Mentoring focuses on career and personal development. Mentoring is about sharing information, experience and giving and receiving advice and guidance. It is an ongoing relationship that can last for a rather long period of time. 2. Counselling is about an employee's behaviour. It is used to address psycho-social issues, but also performance-related issues when an individual's behaviour appears to affect his/her performance. It is often a short-term intervention. 3. Health services refers to medical (e.g. immunisation treatment), mental health services and/or nutrition training, depending on the interventions. Kautz et al. (2014) provides source data and documentations for this table.

Successful adolescent intervention programmes emphasise mentoring through hands-on work experience

Adolescence is a period of turbulent biological, physiological and social changes. As a result, it is also the period in which many choose to pursue negative, anti-social behaviours. Adolescents tend to take more risks than adults, which can pose difficulties for carrying out successful interventions (Steinberg, 2004). In this context, mobilising programmes to help improve adolescents' social and emotional skills, such as self-discipline or resilience, can be one way to help them make the right choices.

However, the limited numbers of interventions targeting adolescents are all US-based, and often lack rigorous evaluations to establish their long-term effects. Among the few existing programmes, there is some evidence of the importance of mentoring, specifically for structuring the learning experience, teaching discipline by example, and providing scaffolding against which young people can acquire the skills they need through imitation and observation (Kautz et al., 2014). In addition, the workplace also offers good opportunities to learn the right skills, particularly for young people not in school. Workplace training can teach adolescents the importance of such skills as teamwork, efficacy and motivation. It can also instil them with a sense of occupational identity (Rauner, 2007).

A salient characteristic of successful adolescent programmes targeting youth employability is the value they place on the combination of hands-on work experience and life skills development. The Dominican Youth Employment Program, for instance, provides both classroom training and the opportunity to learn on the job. Classroom training is composed of vocational and life skills training, including the promotion of self-esteem, motivation and communication skills. Successful programmes ensure that the content of the vocational training is agreed with local employers to make sure the skills acquired are relevant. These skills are further enhanced during participants' apprenticeships and through on-the-job guidance. Mentoring is commonly practised in a variety of successful interventions aimed at adolescents, including those focused on drop-out rate reduction (e.g. the Big Brothers Big Sisters programme), and getting young people into work.

Conclusion

Social and emotional skills develop progressively, building on skills formed during early childhood and mobilising new investments through innovative learning environments and interventions. The evidence suggests that investments in social and emotional skills should start early for everybody. Investing in these skills sufficiently early for disadvantaged children is an important way to reduce socio-economic inequalities. Social and emotional skills are particularly malleable between early childhood and adolescence. Early development of social and emotional skills helps develop future cognitive as well as social and emotional skills.

Skills development must be holistic and coherent, meaning there are important roles for families, schools and communities to play in skills development, and they need to be consistent to ensure the efforts made in each context are efficient. School-based practices can be improved incrementally by introducing real-life projects into existing curricular activities. Successful school programmes tend to be sequenced, active, focused and employ explicit learning practice. Existing programmes can be improved by promoting positive relationships between parents and children as well as between mentors and children. The evidence from intervention programmes targeted at disadvantaged groups provides similar conclusions. Interventions should start early, be targeted to all stakeholders including families and schools, and involve a strong training component for parents as well. Successful interventions also emphasise the importance of reliable and supportive relationships between mentors (parents and teachers) and children.

Note

1. In this section, the discussion centres around parents; however, other family members, including siblings and grandparents play an important role in child development. The role of grandparents is becoming increasingly important as many of them act as a complement (or sometimes as a substitute) to parental and formal childcare. It is clear that the relationship with grandparents and siblings can contribute to shaping children's social and emotional skills. However, there is less research in this area.

References

Angstadt, M. et al. (2013), "Effects of childhood poverty and chronic stress on emotion regulatory brain function in adulthood", *Proceedings of the National Academy of Sciences of the United States of America,* Vol. 110, No. 46, pp. 18442-18447.

Bailey, R. (2006), "Physical education and sports in school: A review of benefits and outcomes", *Journal of School Health,* Vol. 76, No. 8, pp. 397-401.

Barron, B. and L. Darling-Hammond (2008), "Teaching for meaningful learning: A review of research on inquiry-based and cooperative learning", The George Lucas Educational Foundation, www.edutopia.org/pdfs/edutopia-teaching-for-meaningful-learning.pdf.

Baxter, J. and D. Smart (2011), "Fathering in Australia among couple families with young children", *Occasional Paper,* No. 37, Department of Families, Housing, Community Services and Indigenous Affairs, Australian Government, Canberra.

Belsky, J. and D. Eggebeen (1991), "Early and Extensive Maternal Employment and Young Children's Socioemotional Development: Children of the National Longitudinal Survey of Youth", *Journal of Marriage and the Family,* Vol. 53, pp. 1083-1099.

Belsky, J. et al. (1988), "The 'effects' of infant day care reconsidered", *Early Childhood Research Quarterly,* Vol. 3, No. 2, pp. 235-272.

Brooks-Gunn, J., W. Han and J. Waldfogel (2010), "First-year maternal employment and child development in the first 7 years", *Monographs of the Society for Research in Child Development,* Vol. 75, No. 2, pp. 144-45.

Cabrera, N.J., J.D. Shannon and C. Tamis-LeMonda (2007), "Fathers' influence on their children's cognitive and emotional development: From toddlers to pre-k", *Applied Developmental Science,* Vol. 11, No. 4, pp. 208-13.

Celio, C.I., J. Durlak and A. Dymnicki (2011), "A meta-analysis of the impact of service-learning on students", *Journal of Experiential Education,* Vol. 34, No. 2, pp. 164-181.

Conger, R. and G.H. Elder (1994), *Families in Troubled Times: Adapting to Change in Rural America,* Aldine de Gruyter Publishing, New York, NY.

Conway, A. (2009), *An Investigation into the Benefits of Extracurricular Activities Like Clubs and Societies to Students and Colleges: Are These Benefits Evident in the Opinions and Perceptions of Staff and Students in DIT?,* Dublin Institute of Technology.

Covay, E. and W. Carbonaro (2010), "After the bell: participation in extracurricular activities, classroom behavior, and academic achievement", *Sociology of Education,* Vol. 83, No. 1, pp. 20-45.

Cunha, F. and J.J. Heckman (2008), "Formulating, identifying and estimating the technology of cognitive and noncognitive skill formation", *Journal of Human Resources,* Vol. 43, No. 4, pp. 738-782.

Cunha, F., J.J. Heckman and S. Schennach (2012), "Estimating the technology of cognitive and noncognitive skill formation", *Econometrica,* Vol. 78 (3), pp. 883-931.

Davies, L. et al. (2006), *Inspiring Schools: A Literature Review: Taking up the Challenge of Pupil Participation,* Carnegie Young People Initiative, Esmee Fairbairn Foundation, London.

Durlak, J.A. (2003), "The long-term impact of preschool prevention programs: A commentary", *Prevention & Treatment,* Vol. 6, No. 1.

Durlak, J. et al. (2011), "The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions", *Child Development,* Vol. 82, No. 1, pp. 405-432.

Durlak, J.A., R.P. Weissberg and M. Pachan (2010), "A meta-analysis of after-school programs that seek to promote personal and social skills in children and adolescents", *American Journal of Community Psychology,* Vol. 45, pp. 294-309.

Dweck, C. (2007), *Mindset,* Ballantine Books, New York, NY.

Elder, G.H. and A. Caspi (1988), "Economic stress in lives: Developmental perspectives", *Journal of Social Issues,* Vol. 44, No. 4, pp. 25-45.

Feinstein, L. (2003), "Inequality in the early cognitive development of British children in the 1970 cohort", *Economica,* Vol. 70, No. 277, pp. 73-97.

Gregg, P. et al. (2005), "The effects of a mother's return to work decision on child development in the United Kingdom", *The Economic Journal,* Vol. 115, pp. F48-F80.

Hart, B. and T. R. Risley (1995), *Meaningful Differences in the Everyday Experience of Young American Children,* Brookes Publishing, University of Michigan, Ann Arbor, MI.

Heckman, J.J. (2008), "Schools, skills and synapses", *Economic Inquiry,* Vol. 46, No. 3, pp. 289-324.

Huerta, M. et al. (2011), "Early maternal employment and child development in five OECD countries", *OECD Social, Employment and Migration Working Papers,* No. 118, OECD Publishing, Paris, http://dx.doi.org/10.1787/5kg5dlmtxhvh-en.

Jackson, C. K. (2013), "Non-cognitive ability, test scores, and teacher quality: Evidence from 9th grade teachers in North Carolina", *NBER Working Paper,* No. 18624.

Kautz, T. et al. (2014), "Fostering and Measuring Skills: Improving Cognitive and Non-cognitive Skills to Promote Lifetime Success", *OECD Education Working Papers*, No. 110, OECD Publishing, http://dx.doi.org/10.1787/5jxsr7vr78f7-en.

Kiernan, K. and M. Huerta (2008), "Economic deprivation, maternal depression, parenting and child's cognitive and emotional development in early childhood", *The British Journal of Sociology,* Vol. 59, No. 4, pp. 783-806.

Lewis, C.P. (2004), *The Relation Between Extracurricular Activities with Academic and Social Competencies in School Age Children: A Meta-Analysis,* Texas A&M University, TX.

NESS (2008), "The Impact of Sure Start Local Programmes on Three Year Olds and Their Families", Report 27, National Evaluation of Sure Start Research Team, Department for Education and Skills, London.

Noelke, C. (forthcoming), *The Effects of Learning Contexts on Skills,* OECD, Paris.

OECD (2013a), *PISA 2012 Results: Ready to Learn (Volume III): Students' Engagement, Drive and Self-Beliefs,* PISA, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264201170-en.

OECD (2013b), PISA 2012 Results in Focus: What 15-Year-Olds Know and What they can Do With What they Know: Key Results from PISA 2012, OECD Publishing, Paris, http://www.oecd.org/pisa/keyfindings/pisa-2012-results-overview.pdf.

OECD (2012), *Let's Read Them a Story! The Parent Factor in Education,* PISA, OECD Publishing, http://dx.doi.org/10.1787/9789264176232-en.

OECD (2011), *Doing Better for Families,* OECD Publishing, http://dx.doi.org/10.1787/9789264098732-en.

Rauner, F. (2007), "Vocational education and training: A European perspective", in A. Brown, S. Kirpal and F. Rauner (eds.), *Identities at Work,* Springer, Dordrecht.

Sampson, R.J., J.D. Morenoff and F. Earls (1999), "Beyond social capital: Spatial dynamics of collective efficacy for children", *American Sociological Review,* Vol. 64, No. 5, pp. 633-660.

Schady, N. et al. (2014), "Wealth gradients in early childhood cognitive development in five Latin American countries", *Policy Research Working Paper,* No. 6779, The World Bank, Washington.

Shonkoff, J.P. and D.A. Phillips (2000), *From Neurons to Neighborhoods: The Science of Early Childhood Development,* Committee on Integrating the Science of Early Childhood Development, National Academies Press, Washington, D.C.

Skinner, E.A. and M.J. Belmont (1993), "Motivation in the classroom: Reciprocal effects of teacher behavior and student engagement across the school year", *Journal of Educational Psychology,* Vol. 85, No. 4, pp. 571-581.

Steinberg, L. (2004), "Risk-taking in adolescence: What changes, and why?", *Annals of the New York Academy of Sciences,* Vol. 1021, pp. 51-58.

Steinberg, L., I. Blatt-Eisengart and E. Cauffman (2006), "Patterns of competence and adjustment among adolescents from authoritative, authoritarian, indulgent, and neglectful homes: A replication in a sample of serious juvenile offenders", *Journal of Research on Adolescence,* Vol. 16, No. 1, pp. 47-58.

Taylor, M. and R. Johnson (2002), *School Councils: Their Role in Citizenship and Personal and Social Education,* National Foundation for Educational Research, Slough.

Trilling, B. (forthcoming), "Roadmaps to deeper learning", in *Pathways to Deeper Learning,* Solution Tree Press, Bloomington, IN.

Winner, E., T. Goldstein and S. Vincent-Lancrin (2013), *Art for Art's Sake?: The Impact of Arts Education,* Educational Research and Innovation, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264180789-en.

Chapter 5

Policies, practices and assessments that enhance social and emotional skills

Governments recognise social and emotional skills to be important skills to be developed through schooling. The skills most often targeted in national curricula include autonomy, responsibility, tolerance, critical thinking and intercultural understanding. Countries mobilise a variety of curricular and extracurricular activities to promote these skills. Most national curricula include subjects that target students' social and emotional skills, either in traditional ways, such as through physical and health education, civic and citizenship education, and moral and/or religious education, or via dedicated subjects. Some countries also incorporate the development of social and emotional skills throughout the core curriculum. Extracurricular activities that are likely to positively affect social and emotional development are also widely available. They include sports, arts clubs, student councils and voluntary work. While countries do not require schools to employ standardised assessments of social and emotional skills, they usually provide guidelines to help schools assess students. Nevertheless, not many education systems provide detailed guidance on how to enhance social and emotional development. While this provides schools and teachers flexibility in designing their own lessons, this may not help teachers who are not sure how to best teach these skills.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Introduction

Practice makes perfect, as the saying goes, and the same applies to building social and emotional skills. Policy makers, teachers and parents have always been mindful of the importance of teaching children how to pursue challenging goals, interact with others and manage stress. As such, social and emotional learning is an important component of curricular and extracurricular activities. This chapter describes the extent to which education policies, school activities and assessments in OECD countries and partner economies have emphasised the development of social and emotional skills. The information and analysis presented are based on country questionnaires[1] as well as literature reviews.

National education objectives

Fostering social and emotional skills is a key objective of every education system

Education systems in OECD countries and partner economies recognise that social and emotional skills are indispensable for preparing students for their future. In all the surveyed countries, general objectives of education, usually stated in education acts and policy documents, include fostering social and emotional skills (Table 5.1 and Annex 5.A). These objectives generally emphasise the holistic development of individuals, and stress the importance of nurturing individuals' personality, attitudes and values along with knowledge and intellectual abilities. They also mention that a balanced development of these skills contributes to democracy, equality, freedom and peace.

Some of these objectives include specific dimensions of social and emotional skills that are related to those presented in Chapter 2 (Figure 2.3), namely achieving goals, working with others and managing emotions. Table 5.1 summarises the types of constructs that appear in the identified policy statements. For example, in relation to the category "achieving goals", the skills mentioned include a sense of responsibility, autonomy and diligence. The skills related to the category "working with others" include respect for others, co-operation and a sense of solidarity. Finally, those related to the category "managing emotions" include self-confidence, self-esteem and independence. While not all the objectives specifically state these skills, they all contain terms for general social and emotional skills, such as attitudes, social competencies and emotional development.

A focus on social and emotional skills in policy statements is not necessarily new. Some of the education laws date more than half a century ago, such as Japan's fundamental law of education from 1947 (revised in 2006), and Austria's law on the organisation of schooling in 1962. These policy statements clearly set out the objectives of education as the development of well-rounded personalities and citizenship with transversal skills. Thus, social and emotional development has been central to education across countries and over time.

National curricula

There are various ways in which policy statements are translated into school practices. Curricular standards and guidelines offer direct means for governments to promote social and emotional skills systematically and coherently. This section reviews countries' approaches to raising social and emotional skills, focusing on practices observed in national and subnational curricula in primary and lower secondary schools.

Social and emotional skills are targeted in national curriculum frameworks

National curriculum is often based on a national framework of skills that a given country's educational system aims to develop. Such a framework is typically linked to the national objectives of education, and includes more detailed descriptions of skills to be targeted. The framework defines an overall picture of cross-curricular priorities across all levels of education, whereas the curriculum specifies detailed content of instruction for each grade. Table 5.2 provides an overview of these frameworks available in each country, covering primary and lower secondary education (Annex 5.A for more details).

Table 5.1. **Types of social and emotional skills covered in national education system objectives**

	General social and emotional skills	Social and emotional skills related to specific categories		
		Achieving goals	Working with others	Managing emotions
Australia	●	○	○	●
Austria	●	●	●	○
Belgium (Flemish Community)	●	●	●	●
Belgium (French Community)	●	●	●	●
Canada (Ontario)[1]	○	○	●	●
Chile	●	●	●	●
Czech Republic	●	○	○	○
Denmark	●	●	●	●
Estonia	●	●	●	●
Finland	●	○	○	○
France	●	○	○	○
Germany (North Rhine-Westphalia)[1]	●	●	●	●
Greece	●	○	○	○
Hungary	●	●	●	○
Iceland	●	●	●	●
Ireland	●	●	●	●
Israel	●	○	○	○
Italy	●	○	○	○
Japan	●	●	●	●
Korea	●	○	○	○
Luxembourg	●	○	○	●
Mexico	●	○	○	○
Netherlands	●	○	○	○
New Zealand	●	○	○	○
Norway	●	○	○	○
Poland	●	○	○	○
Portugal	○	○	○	○
Slovak Republic	●	●	●	●
Slovenia	●	○	●	●
Spain	●	●	○	●
Sweden	●	○	○	○
Switzerland (Canton of Zurich)[1]	●	●	●	○
Turkey	●	●	●	○
United Kingdom (England)[1]	●	○	○	○
United States (California)[1]	○	○	○	○
Brazil	●	○	○	○
Russian Federation	●	○	○	○

StatLink http://dx.doi.org/10.1787/888933163849

Note: ● : Specifically stated; ○ : Implicitly stated.

1. For Canada, Germany, Switzerland, the United Kingdom and the United States, education laws and policies are either completely or largely under the responsibility of subnational governments. Thus, the information presented in this table reflects the status of the most populous subnational entity in each of these countries.

Source: This table was prepared based on the policy statements listed in Annex 5.A, identified through country questionnaires and desk research by the OECD. The listed policy statements are primarily legislations related to general education. Legislations on primary education are referred to for the Netherlands and the Russian Federation.

Table 5.2. **Types of social and emotional skills covered in national curriculum frameworks**

	General social and emotional skills	Social and emotional skills related to specific categories		
		Achieving goals	Working with others	Managing emotions
Australia	●	○	●	●
Austria	●	●	●	●
Belgium (Flemish Community)	●	●	●	●
Belgium (French Community)	●	●	●	●
Canada (Ontario)[1]	..	..	..	..
Chile	●	●	●	●
Czech Republic	●	●	●	●
Denmark	..	..	..	..
Estonia	●	●	●	●
Finland	●	●	●	●
France	●	●	●	●
Germany (North Rhine-Westphalia)[1]	..	..	..	..
Greece	●	●	●	○
Hungary	●	●	●	●
Iceland	●	●	●	●
Ireland	●	●	●	●
Israel	..	..	..	..
Italy	●	●	●	●
Japan	●	●	●	●
Korea	●	○	●	○
Luxembourg	●	●	●	●
Mexico	●	●	●	●
Netherlands	●	●	●	●
New Zealand	○	●	●	●
Norway	●	●	●	●
Poland	●	●	●	●
Portugal	○	○	○	○
Slovak Republic	●	●	●	●
Slovenia	●	●	●	●
Spain	●	●	○	○
Sweden	●	●	●	○
Switzerland (Canton of Zurich)[1]	..	..	..	..
Turkey	..	..	..	..
United Kingdom (England)[1]	..	..	..	..
United States (California)[1]	..	..	..	..
Brazil	●	○	○	○
Russian Federation	●	●	●	●

StatLink http://dx.doi.org/10.1787/888933163853

Note: ● : Specifically stated; ○ : Implicitly stated; .. : Curriculum framework not available or not identified by the OECD Secretariat.
1. For Canada, Germany, Switzerland, the United Kingdom and the United States, in which curricula are set by subnational governments, the information presented in this table reflects the status of the most populous subnational entity in each of these countries.

Source: Based on the curriculum frameworks listed in Annex 5.A only.

All the surveyed frameworks address social and emotional skills, although the exact definition of these skills differs between countries. Many of the existing survey frameworks describe social and emotional skills that fall into the three categories of social emotional skills, as set out in Table 5.2. For example, skills targeted in the framework include autonomy and responsibility, which are related to "achieving goals"; tolerance for diversity, which is related to "working with others"; and self-esteem and a sense of self-discipline, which are related to "managing emotions."

A good example of curriculum frameworks with a strong social and emotional element is the Australian Curriculum for Foundation to Year 10. This framework identifies seven "general capabilities" which include "personal and social capability", "ethical understanding" and "intercultural understanding." These capabilities are not added as subjects in the curriculum, but are addressed across subjects. For example, the mathematics curriculum can enhance "personal and social capability" by providing opportunities for initiative taking, decision making, communicating processes and findings, and working independently and collaboratively in the mathematics classroom. Similarly, the study of English can help students to understand how language can be used to influence judgments about behaviour, speculate about consequences and influence opinions.

Schools in most surveyed countries have a number of dedicated subjects designed to foster social and emotional skills

In most of the surveyed countries, national or subnational curricula include subjects that are specifically aimed at developing students' social and emotional skills (see Table 5.3 for an overview). They include subjects such as physical and health education, civic and citizenship education, and moral or religious education.

Physical education is a mandatory subject in all the countries surveyed and, in general, its objectives include developing social and emotional skills besides promoting physical development and healthy lifestyles. It is expected to provide students with a chance to learn how to set goals and work towards improvement, work with others and control their emotions. Health education, which is often combined with physical education, generally aims at developing students' self-esteem and emotional stability.

Civic and citizenship education is another component of the curriculum that aims at developing social and emotional skills. Objectives of civic and citizenship education often include developing students' skills in conflict resolution as well as their capacity to think independently. In some countries, civic and citizenship education is taught as a part of social studies.

Moral and religious education also exists in many OECD countries. Such a curricular discipline is expected to enhance character formation by teaching students the moral challenges of today's lives and the value of fairness and respect for others. It may also encourage the skills needed to transform moral ideals into action, by recognising the importance of skills such as self-control or willpower (Lapsley and Yaeger, 2012).

Moreover, some countries have recently introduced unique subjects dedicated to the development of social and emotional skills. Box 5.1 provides some examples. They are, however, often optional, and tend to remain peripheral compared with other core subjects in the curriculum.

Table 5.3. **School subjects that address the development of social and emotional skills at the primary and lower secondary levels**

	Physical and health education	Civic and citizenship education	Moral/ religious education	Other subjects
Australia	●	● (8-)	..	
Austria	●	● (12-14)	●	
Belgium (Flemish Community)	●	○	●	
Belgium (French Community)	●	○	●	
Canada (Ontario)[1]	●	○	●	
Chile	●	●	●	
Czech Republic	●	○	●	Man and the world (6-11), Man and society (11-), Man and the world of work
Denmark	●	○	●	
Estonia	●	○	●	
Finland	●	○	●	
France	●	●	..	Hours of classroom life (11-)
Germany (North Rhine-Westphalia)[1]	●	○	●	
Greece	●	●	●	
Hungary	●	○	..	Man and society including civic education
Iceland	●	●	●	Social sciences including social studies, religious studies, life skills, equal rights affairs, ethics
Ireland	●	●	●	School guidance programme (12-)
Israel	●	●	●	Life skill studies
Italy	●	○	▲	
Japan	●	○	●	Period for integrated studies (9-), special activities
Korea	●	●	●	Creative experiential activities
Luxembourg	●	○	●	
Mexico	●	●	●	
Netherlands	●	○	▲	
New Zealand	●	○	▲	Social sciences including civic education
Norway	●	○ ▲	●	Social studies, Norwegian
Poland	●	●	▲	
Portugal	●	●	▲	Personal development (not mandatory)
Slovak Republic	●	● (10-)	●	
Slovenia	●	● (12-)	● (12-15)	
Spain	●	● (15-)	▲	
Sweden	●	○	●	
Switzerland (Canton of Zurich)[1]	●	●	●	
Turkey	●	●	● (9-)	Emotional and social improvement lesson (7-14), Art activities, Game and physical activities, Drama
United Kingdom (England)[1]	●	● (11-)	●	Personal, social, health and economic education (11-)
United States (California)[1]	●	○	..	
Brazil	●	○	▲	
Russian Federation	●	● (14)	● (10-12)	The world around us (6-10)

StatLink http://dx.doi.org/10.1787/888933163865

Note: ● : Available; ○ : Available but included in other subjects; ▲ : Available but not mandatory; .. : Not available. The numbers in brackets indicate typical ages at which students take the subject if the subject is not for all grades at the primary and lower secondary levels.
1. For Canada, Germany, Switzerland, the United Kingdom and the United States, in which curricula are set by subnational governments, the information presented in this table reflects the status of the most populous subnational entity in each of these countries.

Source: This information is based on country's responses to questionnaires as well as the OECD Secretariat's desk research.

Box 5.1. **School subjects dedicated to the development of social and emotional skills: Country examples**

Israel's curriculum for primary and secondary schools introduced the subject "Life Skill Studies" in 1997. This subject aims to develop students' social and emotional skills and strengthen their ability to cope with various life situations. It teaches skills around five clusters: 1) self-identity; 2) self-regulation; 3) interpersonal relations; 4) leisure, career choice and learning; and 5) coping with stress. The programme is not only implemented during dedicated lesson hours, but is encouraged across different disciplines in the curriculum.

In England, personal, social, health and economic education (PSHE) is offered as a non-statutory subject in lower secondary schools. The subject is expected to contribute to personal development by helping students build their personal identities, confidence and self-esteem, make career choices and understand what influences their decisions, including financial ones. As there are no standardised frameworks or programmes of study, teachers are given flexibility to deliver the subject based on their students' needs. The Department for Education provides grant funding to the PSHE Association to work closely with schools to advise them in developing their own PSHE curricula and to improve the quality of teaching. It also funds the Alcohol and Drug Education and Prevention Information Service that provides resources for drug and alcohol education. Schools are free to use whichever organisations and resources they choose.

Source: Israel Ministry of Education (2008), "Life skills in primary schools" (in Hebrew), Ministry of Education website, http://cms.education.gov.il/EducationCMS/Units/Shefi/KishureiChaim/meytaviyut/KishureiHaimLeYesody.htm; UK Department for Education (2013), "Personal, Social, Health and Economic (PSHE) Education", Department for Education website, www.gov.uk/government/publications/personal-social-health-and-economic-education-pshe/personal-social-health-and-economic-pshe-education.

Countries also increasingly adopt curricula that integrate social and emotional skills across subjects

An increasing number of countries encourage schools to adapt their curricula to better address students' social and emotional skills in all subjects, including core subjects such as language and mathematics. For example, in Korea, "character education" is incorporated in the curricula as a general theme across all educational activities. Korea introduced the concept of character education into its education policies in 1995. While character education is primarily covered in the moral education curriculum, it is also incorporated into other parts of the curriculum as a cross-curricular theme. The 2009 amendment of the national curriculum focused on creativity and character education, and introduced "creative experiential learning activities" that comprise strengthening creativity and character education in the elementary and secondary curricula (National Youth Policy Institution, 2009). Box 5.2 describes other examples from Australia, the Czech Republic and the United States.

A few countries are currently preparing new curricula to strengthen the importance of social and emotional learning in all subjects. For example, Ireland has adopted a new curriculum for lower secondary school students (the "Junior Cycle Framework") since September 2014, which places a greater emphasis on social and emotional development of students across all subjects. This new curriculum features six "key skills" alongside literacy and numeracy: 1) managing myself; 2) staying well; 3) communicating; 4) being creative; 5) working with others; and 6) managing information and thinking. These skills will feature in the learning outcomes of all curriculum specifications, and teachers will be encouraged to build them into their class planning, pedagogy and assessment (Department of Education and Skills, 2012).

Extracurricular activities at school

Extracurricular activities refer to those activities that complement core academic content, such as sports, clubs, student government associations, volunteer work and school chores. They are another arena where schools can facilitate enhancement of students' social and emotional skills. These activities provide students with real-life situations outside the classroom with the help of adult facilitators who can act as mentors. Through these activities, students can effectively learn

relevant skills, such as responsibility, perseverance, capacity to work in a team and self-confidence. This section focuses primarily on the activities offered by schools, although these activities may also take place in community facilities, such as sports clubs or cultural centres.

Box 5.2. **Curriculum-wide approaches to social and emotional skills: Country examples**

In Australia, the National Safe Schools Framework, originated in 2003, revised and endorsed by all Australian Education Ministers in 2010, guides school communities to plan and implement effective whole-of-school safety and well-being measures. The Framework acknowledges the strong interconnections between student safety, resilience, well-being and learning outcomes, and encourages the active participation of all school community members in developing and maintaining a safe school community. To assist school communities to implement the Framework, an extensive suite of free online resources are available on the Safe Schools Hub website. These resources include the School Audit Tool that assists schools to assess the extent to which they have created and maintained a safe and supportive learning environment, as well as online professional learning modules for school leaders, teachers, specialist professionals and pre-service teachers.

The Czech Republic's curriculum for basic education has six cross-cutting themes that are relevant to modern society. These themes are: 1) personal and social education; 2) education for democratic citizenship; 3) thinking in European and global contexts; 4) multicultural education; 5) environmental education; and 6) media education. They cut across education areas, which allow students to obtain an integrated view on issues and apply a wider range of skills. For example, the thematic area "personal and social education" has three aspects: personal, social and moral development. It is addressed in curricular subjects such as language and communication, man and the world, man and society, and arts and culture.

The United States has been promoting the practice of character education since the 1990s. The US Congress authorised the Partnerships in Character Education Program in 1994, which was to provide grants to state and local education agencies to support the development of character education. Between 1995 and 2008, the Department of Education awarded 97 grants to assist in designing, implementing and sustaining opportunities for students to learn and understand the importance of strong character in their lives. A majority of states have passed legislation to mandate or encourage character education. These states incorporate social and emotional education into the general curriculum to promote social and personal development starting as early as kindergarten. Illinois became the first state in the United States to require every school district to develop a plan for the implementation of social and emotional learning programmes in schools. Moreover, social and emotional skills have become part of the Illinois State Board of Education's Learning standards, for students in kindergarten to Grade12 (K-12). The social and emotional learning (SEL) goals are to teach students how to: 1) develop self-awareness and self-management skills to achieve school and life success; 2) use social awareness and interpersonal skills to establish and maintain positive relationships; and 3) demonstrate decision-making skills and responsible behaviors in personal, school, and community contexts.

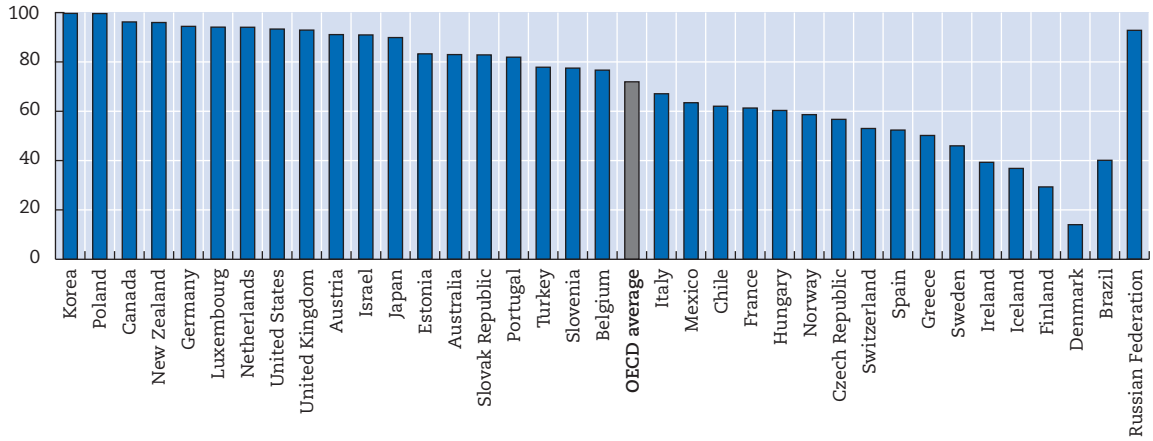
Source: Standing Council on School Education and Early Childhood (2013), "National Safe Schools Framework", http://www.safeschoolshub.edu.au/documents/nationalsafeschoolsframework.pdf; Rámcový vzdělávací program pro základní vzdělávací (2007), www.vuppraha.cz/wp-content/uploads/2009/12/RVPZV_2007-07.pdf; US Department of Education (2005), "Character education ... Our shared responsibility", US Department of Education website, http://www2.ed.gov/admins/lead/character/brochure.html; Illinois Board of Education (n.d.), "Illinois Learning Standards: Social/Emotional Learning (SEL)", http://isbe.net/ils/social_emotional/standards.htm (accessed 10 September 2014).

Schools mobilise extracurricular activities in all OECD countries and partner economies surveyed

Extracurricular activities were found in schools in all OECD countries and partner economies surveyed. According to the student background questionnaire of the OECD Programme for International Student Assessment (PISA) 2012, 73% of 15-year-olds across OECD countries attended schools that organised volunteering or service activities (Figure 5.1) (OECD, 2013a). Similarly, 90% of them reported attending schools that supported extracurricular sports activities and more than 60% were in schools that supported mathematics competitions, art and theatre clubs. Availability of these activities, however, varies greatly across countries. This may reflect cross-country differences in the amount of resources that can be allocated to support extracurricular activities including teacher's time. It may also reflect differences in demand for organising such activities from parents. In some countries, certain extracurricular activities are organised by external associations.

Figure 5.1. **Availability of volunteering or service activities at school**

Percentage of 15-year-old students who were in schools that offer volunteering or service activities



StatLink http://dx.doi.org/10.1787/888933163837

Note: Countries are ranked in descending order of percentage of students who were in schools that offer volunteering or service activities.

Source: OECD (2013a), *PISA 2012 Results: What Makes Schools Successful (Volume IV): Resources, Policies and Practices*, PISA, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264201156-en.

Most countries leave the organisation of extracurricular activities to the discretion of schools and local school districts

Countries approach the organisation of extracurricular activities in schools in different ways. In a majority of OECD countries, the organisation of extracurricular activities is not formally regulated. The implementation of these activities is often left to the discretion of local authorities or individual schools. The scope and nature of these activities therefore vary across, and within, countries.

For example, local school administrations in Luxembourg define their own objectives for extracurricular activities without being bounded by national guidelines. While all schools in Luxembourg offer extracurricular activities, the range and content of extracurricular activities are only subject to the goals defined by the local school administrations. In France, an initiative launched in 2013 called "projet éducatif territorial" (PEDT) requires municipalities to organise extracurricular (sport, cultural and artistic) activities with financial support from the state government. This initiative aims at promoting existing and new extra-curricular activities and allowing equal access to culture and sport for all students. The PEDT is driven by the local authority while involving other stakeholders in the field of education, including national government institutions, associations, as well as cultural and sporting institutions.

In some countries, there are formal national guidelines for extracurricular activities that specify the hours and types of activities. For example, extracurricular activities are organised as an integral part of school education in Japan. The Japanese curriculum standards (the "Courses of Study") for primary school students specifies minimum hours that schools should secure for four types of special activities: homeroom activities, student government, club activities and school events. For school events, the curriculum suggests organising specific activities such as school trips through which students can experience intensive group interactions and learn to be respectful of others. Besides these activities specified in the curriculum, most schools organise cleaning of school facilities by students. This provides an opportunity for students to learn ways to collaborate with others and discipline themselves, while helping to maintain a clean learning environment. Korea also has similar guidelines on extracurricular activities, specifying time allocation for "creative experiential activities", including self-regulated activities, club activities, voluntary activities and career education.

Whether there are formal regulations or not, schools and local education offices have greater autonomy to plan extracurricular activities than curricular ones. This makes extracurricular activities

an area where schools can test experimental initiatives to enhance social and emotional skills (Box 5.3). Since schools are less constrained by the physical boundaries of classrooms (and, in some cases, schools), facilitators or mentors of extracurricular activities can flexibly mobilise real-life activities and scenarios to teach life skills that typically require strong social and emotional capability. Extracurricular activities often stimulate students to actively contribute to designing their own learning experience. They can also provide opportunities for schools to strengthen linkages with the community.

Box 5.3. **School-based extracurricular programmes that address social and emotional skills: Country examples**

The State of Bavaria in Germany has been conducting the project "Mentor Sport nach 1" (Mentor sport after one) in secondary schools since 2007. This project enables selected students to become mentors of their classmates in self-organised sport activities during breaks, such as basketball, football, handball, volleyball, badminton, tennis, table tennis, juggling and dance. The school is responsible for supervising and supporting these activities and teachers provide advice if needed. The focus of the project is not only on health, but also on character-building aspects of ownership. The project thus makes an important contribution to values education in the school.

In Luxembourg, 17 out of 36 secondary schools offer a "Peer Mediation" programme. In this programme, students volunteer to engage in external training to learn how to mediate in-school conflicts among students. The training is provided by the National Youth Service, in collaboration with the Ministry of Education. The programme teaches students basic techniques and attitudes to improve communication, to better understand the nature of conflicts and violence, and to simulate mediation process with peers. The training comprises 42 hours and takes place during the weekends or as "activité parascolaire". After the training, they regularly work together in a group at school, accompanied by adult coaches. In addition to mediating skills, students learn how to deal with conflicts and violence in everyday life. The programme therefore not only teaches conflict management, but also develops students' interpersonal skills and self-esteem, and empowers them to actively engage in the community.

Source: Bayerisches Staatsministerium für Unterricht und Kultus (2007), *Leitfaden für Schulleiter und Mentorenbetreuer,* Druckhaus Schmid, Jesenwang; Peermediation (2014), Peermediation website, www.peermediation.lu/ (accessed 10 September 2014).

Assessment

Understanding students' levels of social and emotional skills is key to identifying the need for their further development and improving teaching practices. Through feedback to students, teachers reward certain behaviours and attitudes with the aim of helping social and emotional learning. Yet, assessment of social and emotional skills tends to be less transparent than academic achievement assessment. Teachers' feedback can also negatively influence students' self-esteem without adequate follow-up.

Many OECD countries and partner economies have guidelines for schools to assess student social and emotional skills

Although countries do not formally require assessment of students' social and emotional skills using standardised measures, many countries and local jurisdictions provide guidelines for their assessment (Table 5.4). Assessment of students' social and emotional skills is generally not designed for student promotion or certification, or for teacher evaluation. Rather, assessments tend to be administered in a formative manner to help teachers and students identify their strengths and weaknesses in social and emotional skills.

In many countries, typical end-of-term student assessments include evaluation of social and emotional skills. For example, Ontario, Canada, provides templates for report cards in which "learning skills and work habits" are evaluated separately from marks for subjects. The learning skills and work habits have six categories – responsibility, organisation, independent work, collaboration, initiative, self-regulation – for each of which the teacher gives one of four evaluations, "excellent", "good", "satisfactory" and "needs improvement". In the report cards for Grade 1-8, the section for reporting on students' development of the learning skills and work habits is placed ahead of the section for reporting on students' achievement of the curriculum expectations. In the cards for Grades 9-12, there is a space for recording an evaluation for each of the learning skills and work habits for every subject.

Table 5.4. National approaches to the assessment of social and emotional skills

Primary and lower secondary level education

	National (or subnational) guidelines for social and emotional skills assessment	Social and emotional skills included in typical report cards
Australia	●	●
Austria	●	..
Belgium (Flemish Community)	..	●
Belgium (French Community)[2]	●	x
Canada (Ontario)[1]	●	●
Chile	●	●
Czech Republic	●	●
Denmark	●	..
Estonia	..	●
Finland	●	●
France	●	●
Germany (North Rhine-Westphalia)[1]	●	●
Greece	●	●
Hungary	●	●
Iceland[2]	●	x
Ireland	●	●
Israel	●	●
Italy	●	●
Japan	●	●
Korea	●	●
Luxembourg	..	..
Mexico	..	..
Netherlands	..	..
New Zealand	..	●
Norway	●	●
Poland	●	●
Portugal	..	●
Slovak Republic	●	●
Slovenia	●	..
Spain	..	..
Sweden[3]	..	x
Switzerland (Canton of Zurich)[1]	●	●
Turkey	●	●
United Kingdom (England)[1]	..	●
United States (California)[1]	●	●
Brazil	●	●
Russian Federation	..	..

StatLink http://dx.doi.org/10.1787/888933163879

Note: ● : Available; .. : Not available; x : Not applicable; m : The OECD Secretariat was unable to identify relevant information.

1. For Canada, Germany, Switzerland, the United Kingdom and the United States, education policies are under the responsibility of subnational governments. Thus, the information presented in this table reflects the status of the most populous subnational entity in each of these countries.
2. In Belgium (French Community) and Iceland, inclusion of assessment of social and emotional skills in report cards is optional.
3. In Sweden, report cards are not used.

Source: This table has been prepared based on the country questionnaires and desk research by the OECD.

Assessments of social and emotional skills are likely to be based on teachers' observations and judgement of students' day-to-day behaviour in different situations. In some cases, specific tools are available for teachers to design their assessment (see examples in Box 5.4). Some countries advocate self-assessment as a means to enhance pupils' self-awareness of their social and emotional skills. Self-assessment is practiced in Ireland and used within the curriculum subject of Social, Personal and Health Education. At the secondary school level, self-assessment is complemented with peer assessments based on fixed criteria.

Box 5.4. **Tools for assessing social and emotional skills in schools: Country examples**

In British Columbia, Canada, "social responsibility" performance standards have been developed by the Ministry of Education for voluntary use in schools. The standards involve four assessment criteria: 1) contributing to the classroom and school community; 2) solving problems in peaceful ways; 3) valuing diversity and defending human rights; and 4) exercising democratic rights and responsibilities. There are four scales for different grade groups (kindergarten to 3rd grade, 4th to 5th grade, 6th to 8th grade and 8th to 10th grade). The assessment is based on accumulated observations over time, both in the classroom and in the playground.

In Flemish Belgium, tools are available to measure primary school students' involvement and well-being in the classroom. The most commonly known and used tool is the instrument developed by the Centre for Experience-based Education (CEGO). Schools can use this scale to assess the behaviour of primary school students, such as acting spontaneously, having an open mind to whatever comes their way and feeling self-confident.

The State of Illinois provides detailed benchmarks and performance descriptions for each of the pre-defined standards for the social and emotional learning goals (Box 5.2). The performance descriptions help teachers design their curriculum and assessment for students' social and emotional skills. Since the standards for grades K-12 are consistent with the Illinois Early Learning Standards, the system ensures continuity in social and emotional learning from early childhood to adolescence.

Source: British Columbia Ministry of Education (n.d.), "BC Performance Standards – Social Responsibility: A Framework", Ministry of Education website, www.bced.gov.bc.ca/perf_stands/social_resp.htm (accessed 10 September 2014); CEGO (n.d.), Centre for Experience-based Education website, www.cego.be (accessed 10 September 2014).

Some countries survey student social and emotional skills to improve the education systems

Some countries assess student social and emotional skills in their national-level surveys to evaluate their education systems. These surveys are not necessarily for individual feedback to students or teachers, but rather for understanding of the current state of education system at school-, region- or national-level. Collected data are analysed to identify the systems' strength and weakness, and to make suggestions for further improvement. Such surveys include longitudinal studies analysed in Chapters 3 and 4 (Box 3.1). Box 5.5 describes other examples in New Zealand and Norway.

Local- and school-level initiatives

Local initiatives can play an important role in promoting social and emotional skills through curricular activities

Besides national and subnational policies, there are a number of local initiatives that benefit from the strong involvement of local policy players, school leaders and non-governmental organisations. These programmes tend to feature direct involvement from different education stakeholders to deliver locally relevant and efficient ways to improve the quality of curricular activities. Box 5.6 describes examples of such programmes in Rio de Janeiro (Brazil), Ottawa (Ontario, Canada) and Versailles (France).

Box 5.5. National surveys including assessment of social and emotional skills

In New Zealand, school climate surveys have been conducted as part of the national survey of health and well-being survey on secondary school students. In 2012, 91 randomly selected schools throughout the country participated in the survey. The school climate survey aimed to describe the school social environment in terms of support for students and staff, relationships between staff and students and safety of students and staff. For example, the questionnaire for teachers included such scales as "student sensitivity" (e.g. "Students in my classes generally respect viewpoints different from their own"), "student disruptiveness" (e.g. "Students in my classes generally disrupt what others are doing"), student helpfulness (e.g. "Most students are friendly to staff"). The student questionnaire also included several school climate questions including "How much do you agree or disagree with the following statements about your school? - Students in this school have trouble getting along with each other, etc."

Norwegian students at different grades in primary and secondary education participate in the Pupil Survey that includes assessment of students' social and emotional well-being at school. The Norwegian Directorate for Education and Training conducts user surveys including the Pupil Survey, Teacher Survey and Parent Survey to allow students, teachers and parents to express their opinions about learning and enjoyment on school. The results from the user surveys may be used to analyse and improve the learning environment at schools. The questionnaire for students include items such as "Do you enjoy schools?", "Do you have any classmates to be with during recess?", and "Are you interested in learning at school?".

Source: The University of Auckland (n.d.), "Youth'12 – survey conducted in 2012", The University of Auckland website, https://www.fmhs.auckland.ac.nz/en/faculty/adolescent-health-research-group/youth2000-national-youth-health-survey-series/youth2012-survey.html (accessed 10 September 2014); Norwegian Directorate for Education and Training (n.d.), "Information for pupils, teachers and parents", http://www.udir.no/Upload/Brukerundersokelser/Informasjonsbrev/Informasjon-Elevundersokelsen-engelsk.pdf (accessed 10 September 2014).

Box 5.6. Local and regional initiatives to promote social and emotional skills through curricular activities: Country examples

The Dual School model, created in 2008 by the State of Rio de Janeiro, Brazil, supports comprehensive models of upper secondary education. This approach emphasises the development of cognitive, social and emotional skills including attitudes and values that are essential for children to improve their labour market prospects and civic engagement. The Chico Anysio State School in Rio de Janeiro city was one of the first schools to incorporate this programme. The schools' programme is led by the Ayrton Senna Institute together with the Rio de Janeiro's State Department of Education. This full-time programme adopts a curriculum designed to help students develop technical and social skills for the labour market, life in society and higher education. Teachers benefit from training courses focused on integrative methodologies, and technical and pedagogical support. The school explicitly focuses on the development of youth leadership and student autonomy through interdisciplinary projects, a balanced approach to foster both academic and social-emotional skills, and the use of digital technologies. The curriculum also includes seminars in marketing and business, and strongly promotes sports.

The Ottawa-Carleton District School Board in Canada has defined a set of skills and characteristics, called "Exit Outcomes", that all secondary students need to acquire before leaving school. These skills are considered indispensable to enhance student well-being and build a sense of active citizenship. The "Exit Outcomes" cover a range of cognitive, social and emotional skills, broadly in line with the framework set out in Chapter 2. The programme encourages students to be resilient, globally aware, collaborative, innovative/creative and goal-oriented. Other Exit Outcomes include critical thinking, effective communication, academic diversity, digital fluency and ethical decision making. In order to achieve this objective, the board explicitly addresses these skills in the curriculum, informs teacher training and provides relevant learning contexts. The initiative was developed in partnership with the student community and receives strong support from the local teaching and business communities.

Since 2005, French schools have been authorised to set up their own experimental programmes, in accordance with the educational authorities. For example, the programme *"Raconte en corps : Le Boléro de Ravel"* (Narrate with your body: Ravel's Bolero) is a local programme implemented in 2012 by the network of schools "Marcel Pagnol" in Versailles. It involves primary and lower secondary school pupils, as well as their parents and teachers. The activities develop a set of different competencies: language proficiency and motion control (through language-based choreographic creation), as well as musical culture, physical education (through physical activities) and technology. The aims are to enhance exchanges of views between pupils and across generations; develop attentive listening; encourage commitment to work collectively; develop critical thinking; and also address the self-fulfilment and self-esteem of disadvantaged pupils. The programme is evaluated daily by the co-ordinator of the school network, who takes part in work sessions, studies pupils' written analyses and maintains close relationships with teachers and partners.

Source: Académie de Versailles (2012), *"Raconte en corps : le Boléro de Ravel"*, http://www.ac-versailles.fr/public/jcms/p1_147748/raconte-en-corps-le-bolero-de-ravel (accessed 10 September 2014); OCDSB (2013), "Exit outcomes", Ottawa-Carleton District School Board, Ottawa, Canada; Educação para o Século 2 (2013), "Chico Anysio High School", Instituto Ayrton Senna, http://educacaosec21.org.br/colegio-chico-anysio/.

Many OECD and partner countries also have independent programmes that promote the development of social and emotional skills form an early age. They function as an alternative to the standard curricula. Most of them differentiate themselves by their explicit emphasis on social and emotional development to promote cognitive skills and well-being. Montessori schools and Steiner-Waldorf schools have taken the lead in this respect. Montessori education, for example, usually covers early childhood and primary education and features a strong focus on assuring children's autonomy, self-confidence, self-esteem and creativity. This is done by incorporating play into learning, learning by doing rather than by direct instruction, and learning to care for oneself and for the environment, among other practices. Although rigorous long-term evaluations of Montessori schools and similar programmes are lacking, research suggests this pedagogy enhances children's positive emotions, energy and motivation while developing their cognitive abilities (for a review, see Dohrmann et al., 2007).

Local initiatives can also play an important role in promoting social and emotional skills through extracurricular activities

School-community partnerships can also provide additional opportunities for social and emotional learning by improving children's access to extracurricular activities, and enhance their engagement in the community. Recently there has been a movement where schools are encouraged to actively reach out to stakeholders outside schools, including higher education, businesses, and community groups, to enhance their educational programmes. Box 5.7 describes examples for Denmark and the United Kingdom.

Box 5.7. **Initiatives to promote school-community partnerships to promote social and emotional skills through extracurricular activities: Country examples**

In Denmark, a public school reform will be implemented from 2014 to enhance a school-community link that may improve extracurricular activities. With this reform, schools will be required to collaborate with the surrounding community, by involving local sports clubs, cultural centres, art and musical schools and various associations. The municipalities will also be required to commit to ensuring school-community co-operation.

In the United Kingdom, the Outward-facing Schools programme at the Sinnott Foundation promotes schools' links with communities and parents by providing fellowships to education practitioners in secondary schools. Their initiatives include schools' active collaboration with local groups and businesses to create community work opportunities for students, such as volunteering at care homes and teaching at local primary schools (Bubb, 2011).

Source: Danish Ministry of Education (2014), "Improving the public school", http://eng.uvm.dk/~/media/UVM/Filer/English/PDF/140708%20Improving%20the%20Public%20School.ashx; Bubb, S. (2011), Outward-facing Schools: The Impact of the Sinnott Fellowship, DFE-RR139, London.

Additionally, across OECD countries, a number of individual schools design innovative approaches to address the social and emotional development of students (OECD, 2013b). These initiatives include raising the ability to control one's own attentiveness through mental training, martial arts and mountain climbing, and building communicative and social skills through seminars, role plays and relaxation activities, rendering assessment of social learning more systematic and visible.

Conclusion

Most OECD countries and partner economies recognise the need to equip students with social and emotional skills. This point is generally addressed in their national or subnational policy statements, which highlight the importance of raising children's autonomy, responsibility and the ability to co-operate with others. Such an emphasis is also reflected in national or subnational curricula where social and emotional skills are addressed within and across subjects. Moreover, schools in most countries mobilise a range of extracurricular activities to enhance social and emotional skills.

Countries generally provide guidelines for schools to assess student's social and emotional skills, and schools tend to measure and report these skills in end-of-term school report cards. Nevertheless, not many education systems provide detailed guidance on how to enhance social and emotional development. A national school curriculum does not necessarily provide explicit and practical instructions on how social and emotional skills should be taught in schools. While this provides schools and teachers flexibility in designing their own lessons, this may not help teachers who are not sure how to best teach these skills. This may be particularly challenging among teachers who feel overwhelmed by the need to prepare students to perform well on core academic curricular subjects such as mathematics and languages.

Although legislation and curricula are not the only instruments shaping school environments, education systems may consider enhancing existing guidelines – building on successful practices and evidence available in the literature. Initiatives available in selected school districts and individual schools provide promising examples of ways to systematically collect useful information on social and emotional skills to identify those in need of better pedagogy and guidance.

There are already a number of promising pedagogical approaches and learning contexts that can be explored (Chapter 4). Systematic exchange of such information among educational stakeholders and researchers may help provide opportunities for others to experiment with such practices and enrich the evidence base. Although there may be no one-size-fits-all solution, given children's diverse social and cultural backgrounds, identifying and expanding promising strategies on a larger and wider scale could improve the effectiveness and efficiency of educational systems in raising social and emotional skills.

Note

1. A questionnaire on "Policies and Practices related to Social and Emotional Skills" was sent to the Governing Board members of the OECD Centre for Educational Research and Innovation (CERI) as well as representatives of Brazil, Greece and the Russian Federation in November 2013. Responses were received from Australia, Austria, Belgium (Flemish Community), Belgium (French community), Canada, Chile, the Czech Republic, Denmark, Estonia, Finland, France, Greece, Ireland, Israel, Japan, Korea, Luxembourg, the Netherlands, New Zealand, Norway, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom (England), the United States, Brazil, and the Russian Federation. The tables in Chapter 5 were validated by the countries' contact persons in September 2014.

References

Académie de Versailles (2012), "*Raconte en corps : le Boléro de Ravel*", http://www.ac-versailles.fr/public/jcms/p1_147748/raconte-en-corps-le-bolero-de-ravel (accessed 10 September 2014).

Bayerisches Staatsministerium für Unterricht und Kultus (2007), *Leitfaden für Schulleiter und Mentorenbetreuer,* Druckhaus Schmid, Jesenwang.

British Columbia Ministry of Education (n.d.), "BC Performance Standards – Social Responsibility: A Framework", Ministry of Education website, www.bced.gov.bc.ca/perf_stands/social_resp.htm (accessed 10 September 2014).

Bubb, S. (2011), *Outward-facing Schools: The Impact of the Sinnott Fellowship,* DFE-RR139, London.

CEGO (n.d.), Centre for Experienced-based Education website, www.cego.be (accessed 10 September 2014).

Danish Ministry of Education (2014), "Improving the public school", http://eng.uvm.dk/~/media/UVM/Filer/English/PDF/140708%20Improving%20the%20Public%20School.ashx.

Department of Education and Skills (2012), "A Framework for Junior Cycle", Department of Education and Skills, Dublin.

Dohrmann, K. R. et al. (2007). "High school outcomes for students in a public Montessori program". *Journal of research in childhood education,* Vol. 22.(2), pp. 205-217.

Educação para o Século 2 (2013), "Chico Anysio High School", Instituto Ayrton Senna, http://educacaosec21.org.br/colegio-chico-anysio/.

Illinois Board of Education (n.d.), "Illinois Learning Standards: Social/Emotional Learning (SEL)", http://isbe.net/ils/social_emotional/standards.htm (accessed 10 September 2014).

Israel Ministry of Education (2008), "Life skills in primary schools" [in Hebrew], Ministry of Education, http://cms.education.gov.il/EducationCMS/Units/Shefi/KishureiChaim/meytaviyut/KishureiHaimLeYesody.htm.

Lapsley, D. and D.S. Yeager (2012), "Moral character education", in W.M. Reynolds, G.E. Miller and I.B. Weiner (eds.), *Handbook of Psychology: Vol. 7. Educational Psychology,* 2nd ed., John Wiley and Sons, Inc., New Jersey.

National Youth Policy Institution (2009), "Introduction to creative activities", Ministry of Education, Science and Technology Notice 41, National Youth Policy Institutions, Seoul, Korea, www.nypi.re.kr/eng/data/2010/creative_activities.pdf.

Norwegian Directorate for Education and Training (n.d.), "Information for pupils, teachers and parents", http://www.udir.no/Upload/Brukerundersokelser/Informasjonsbrev/Informasjon-Elevundersokelsen-engelsk.pdf (accessed 10 September 2014).

OCDSB (2013), "Exit outcomes", Ottawa-Carleton District School Board, Ottawa.

OECD (2013a), *PISA 2012 Results: What Makes Schools Successful (Volume IV): Resources, Policies and Practices,* PISA, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264201156-en.

OECD (2013b), *Innovative Learning Environments, Educational Research and Innovation,* OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264203488-en.

Peermediation (2014), Peermediation website, www.peermediation.lu/ (accessed 10 September 2014).

Rámcový vzdělávací program pro základní vzdělávací (2007), *Rámcový vzdělávací program pro základní vzdělávání*, www.vuppraha.cz/wp-content/uploads/2009/12/RVPZV_2007-07.pdf.

Standing Council on School Education and Early Childhood (2013), "National Safe Schools Framework", http://www.safeschoolshub.edu.au/documents/nationalsafeschoolsframework.pdf.

The University of Auckland (n.d.), "Youth'12 – survey conducted in 2012", The University of Auckland website, https://www.fmhs.auckland.ac.nz/en/faculty/adolescent-health-research-group/youth2000-national-youth-health-survey-series/youth2012-survey.html (accessed 10 September 2014).

UK Department for Education (2013), "Personal, Social, Health and Economic (PSHE) Education, Department for Education", www.gov.uk/government/publications/personal-social-health-and-economic-education-pshe/personal-social-health-and-economic-pshe-education.

US Department of Education (2005), "Character education … Our shared responsibility", US Department of Education, www.ed.gov/admins/lead/character/brochure.html.

Annex 5.A. National and subnational education system objectives and skill frameworks that address the development of social and emotional skills

The column "Education system objectives" contains extracts from national and subnational education system objectives that appear in country education laws or other policy statements on basic education. The column "National curriculum frameworks" contains extracts from national curriculum frameworks. The terms identified as relevant to social and emotional skills are indicated in bold.

Education system objectives	Skill frameworks for national curricula
Australia	
It is essential that the Australian schooling system be of a high quality and be highly equitable in order for young Australians to become successful learners, **confident and creative individuals, and active and informed citizens.** – Australian Education Act 2013	The F-10 curriculum includes seven general capabilities that are incorporated in all learning areas. These general capabilities are: • Literacy • Numeracy • Information and communication technology (ICT) capability • Critical and creative thinking • **Personal and social capability** • **Ethical understanding** • **Intercultural understanding**. – Australian Curriculum www.australiancurriculum.edu.au/GeneralCapabilities/Overview/general-capabilities-in-the-australian-curriculum
Austria	
Young people shall be trained to become healthy, capable, **conscientious and responsible** member of society and citizens of the democratic and federal Republic of Austria. They shall be encouraged to **develop an independent judgement and social understanding,** to **be open-minded to the philosophy and political thinking of others,** they shall be enabled to participate in the economic and cultural life of Austria, of Europe, and of the World, and to make their contribution, in love of freedom and peace, to the common tasks of mankind. – School Organisation Act 1962, translation taken from Brock and Tulasiewicz (2002) "Education in a single Europe"	According to the primary school curriculum, children should receive a basic and well-balanced education in the **social, emotional,** intellectual and physical spheres. On the basis of pupils' individual backgrounds, primary school has to accomplish the following: • arousing and nurturing eagerness to learn, skills, interest and talents • strengthening and developing **pupils' faith in their own abilities** • strengthening or building **social competence (responsible behaviour, team spirit, adjustment, development and acceptance of rules and norms, critical thinking)** • improvement of language skills (communication, expression) • development and imparting of basic knowledge, skills, insights and attitudes with a view to the acquisition of the three Rs (including the use of modern communication and information technologies in a manner suitable for children), of a sound attitude towards and understanding of the environment, as well as a general development of artistic, musical and technical skills, motor skills and physical skills • gradual formation of appropriate attitudes towards learning and working **(perseverance, care, accuracy, helpfulness, considerateness)** • transition to purposeful, independent and focussed learning (from the play-oriented forms of learning in pre-school education) – Lehrplan der Volksschule, Erster Teil, Allgemeines Bildungsziel, Stand: BGBl. II Nr. 368/2005, November 2005, Erster Teil: Allgemeines Bildungsziel https://www.bmbf.gv.at/schulen/unterricht/lp/lp_vs_erster_teil_14043.pdf?4dzgm2 (translation taken from the EURYDICE website https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Austria:Teaching_and_Learning_in_Primary_Education)

Annex 5.A. National and subnational education system objectives and skill frameworks that address the development of social and emotional skills (continued)

Education system objectives	Skill frameworks for national curricula
Belgium (Flemish Community)	
Education should provide open, versatile and strong personalities. A broad basic education will ensure that children and young people can shape their own future. Therefore, education properties as **social skills,** creativity, curiosity, health, critical meaning, **respect, diligence, self-sufficiency, a positive self-image and sense of initiative.** – Education Policy Letter 2013-14	The Government of Flanders ratified in 1997 a set of minimum goals (*ontwikkelingsdoelen*) that are considered desirable and attainable for children in pre-school. The *ontwikkelingsdoelen* emphasise a broad and harmonious approach to education and identify three linked areas of educational competence: • **Personal characteristics: having a positive self-image, being motivated and taking initiatives;** • General development: **being able to communicate and co-operate, being autonomous,** dealing with the surrounding world in a creative and problem solving way, determining one's own direction when studying; • and Specific skills: physical education, expressive arts, language, environmental studies and mathematics. – *Ontwikkelingsdoelen voor het gewoon basisonderwijs* 2010, translation taken from OECD (2000) "Early Childhood Education and Care Policy in the Flemish Community of Belgium"
Belgium (French Community)	
The general objectives for all basic and secondary education are: • **To promote self-confidence and personal development of all pupils;** • To enable all pupils to acquire knowledge and the abilities that they need to learn throughout their lives and to play an active part in economic, social and cultural life; • **To prepare all pupils to become responsible citizens, contributing to a democratic, mutually supportive, pluralist and open to all other cultures, society;** • To provide all pupils with equal opportunities for social advancement. – Missions Decree of 24 July 1997	Social skills are important across the skill standards and different programmes (pre-primary, primary and secondary). – *Les Socles de compétences*
Canada (Ontario)	
The purpose of education is to provide students with the opportunity to realize their potential and develop into highly skilled, knowledgeable, **caring** citizens who contribute to their society. – Education Act of Ontario 1990 0.1(2) Our renewed goals for education are: • Achieving Excellence: Children and students of all ages will achieve high levels of academic performance, acquire valuable skills and demonstrate good citizenship. Educators will be supported in learning continuously and will be recognized as among the best in the world. • Ensuring Equity: All children and students will be inspired to reach their full potential, with access to rich learning experiences that begin at birth and continue into adulthood. • Promoting Well-Being: All children and students will develop enhanced mental and physical health, **a positive sense of self and belonging,** and the skills to make positive choices. • Enhancing Public Confidence: Ontarians will continue to have confidence in a publicly funded education system that helps develop new generations of confident, capable and caring citizens. – Achieving Excellence: A Renewed Vision for Education in Ontario, 2014	The OECD Secretariat was unable to identify relevant information.

Annex 5.A. National and subnational education system objectives and skill frameworks that address the development of social and emotional skills (continued)

Education system objectives	Skill frameworks for national curricula
Chile	
Article 2. Education is a lifelong learning process that encompasses different life stages and aims at achieving spiritual, **ethical, moral, emotional,** intellectual, artistic and physical development, through the transmission and cultivation of values, knowledge and skills. It is framed in respect and appreciation of human rights and fundamental freedoms, multicultural and peace, and diversity of our national identity by training the people to lead their lives to the full extent, to live and participate in a **responsible, tolerant, compassionate, democratic and active** manner in the community, and to work and contribute to national development. Article 19. Basic education is the education level that is geared towards the integral formation of the students, in their physical, **emotional,** cognitive, **social,** cultural, **moral** and spiritual **dimensions**, developing capabilities according to knowledge, skills and attitudes defined in the curricular bases to be determined in accordance with this law, and allow them to continue the formal education process. Article 29. Basic education will have global objectives, without implying that each target is necessarily a subject that learners develop the knowledge, skills and attitudes to: IN PERSONAL AND SOCIAL SPHERE: a) Evolve in moral, spiritual, intellectual, **emotional** and physical areas according to their age. b) **Develop a positive self-esteem and self-confidence.** c) Act according to values and norms of civic and peaceful coexistence, know their rights and responsibilities, and assume commitments with oneself and others. d) Recognise and respect cultural, religious and ethnic diversity and differences between people, and equal rights for men and women, and **develop capabilities of empathy with others.** e) **Work individually and in teams, with effort, perseverance, responsibility and tolerance to frustration.** f) Practice physical activity appropriate to their interests and aptitudes. g) Acquire habits of hygiene, body care and health itself. – General Education Law of 2009, Law No. 20370 (unofficial translation)	The national curriculum for basic education sets out transversal learning objectives (OAT) that include: physical dimension, **affective dimension,** cognitive dimension, **sociocultural dimension,** moral dimension, spiritual dimension, **productivity and work,** and information technologies. • The affective dimension aims for growth and personal development students through the creation of personal identity and strengthening **self-esteem and self-worth,** developing **friendship** and valuation of the role of family and peer groups, and reflection on the meaning of their actions and life. • The socio-cultural dimension places the person as a citizen in a democratic scenario, **committed to the environment and a sense of social responsibility.** Along with this, the ability to develop he social coexistence based on **respect for other** and the peaceful resolution of conflicts and the knowledge and appreciation of their environment . • The proactivity and work dimension fosters interest and commitment to knowledge, **with effort and perseverance, and the ability to work both ways individually and collaboratively, stating commitment to the quality of achievements and giving at the same time, place to exercise and develop their own initiatives** d originality. – *Bases Curriculares* 2013 (unofficial translation)

Annex 5.A. National and subnational education system objectives and skill frameworks that address the development of social and emotional skills (continued)

Education system objectives	Skill frameworks for national curricula
Czech Republic	
General goals of education shall be, in particular, as follows: a) the personal development of a human being who shall possess knowledge and **social competencies,** ethical and spiritual values for their personal and civil life, for the execution of a profession or working activities, and for acquiring information and learning in the course of life; b) acquiring general education or general and vocational education; c) understanding of and application of principles of democracy and a legal state, fundamental human rights and freedoms along with **responsibility and a sense of social coherence;** d) understanding and application of the principle of equality of women and men in society; e) the formation of national and state citizenship awareness and **respect for the ethnic, national, cultural, language and religious identity of every person;** f) knowledge of global and European cultural values and traditions, understanding and acquiring principles and rules arising from European integration as a basis for coexistence at national and international levels; g) acquisition and application of knowledge of the environment and its protection arising from the principles of sustainable growth and of safety and the protection of health. – ACT No. 561 of 24th September 2004 on Pre-school, Basic, Secondary, Tertiary Professional and Other Education	Elementary education aims at fulfilling the following objectives: • to guide pupils towards engaging in effective and open communication on all possible issues; • to develop the pupils' **ability to cooperate and to respect their own** as well as others' work and achievements; • to prepare the pupils to manifest themselves as independent, free and **responsible** individuals who exercise their rights and meet their obligations; • to create in pupils the need to **express positive feelings in their behaviour and conduct when undergoing various situations in life; to develop in them perceptiveness and sensitive relations towards other people,** the environment and nature; • to teach the pupils to develop their physical, **mental and social health** actively, protect it and be responsible for it; • to guide the pupils towards **tolerance of and consideration for other people,** their cultures and spiritual values, to teach them to **live together with others.** – Framework Education Programme for Elementary Education (2007) Part C, Section 3 http://rvp.cz/informace/wp-content/uploads/2009/09/RVP_ZV_EN_final.pdf
Denmark	
The Aims of the *"Folkeskole"* (1) The *Folkeskole* is, in cooperation with the parents, to provide students with the knowledge and skills that will prepare them for further education and training and instil in them the desire to learn more; familiarise them with Danish culture and history; give them an understanding of other countries and cultures; contribute to their understanding of the interrelationship between human beings and the environment; and promote the **well-rounded development** of the individual student. (2) The *Folkeskole* is to endeavour to develop the working methods and create a framework that provides opportunities for experience, in-depth study and allows for initiative so that students develop **awareness and imagination and a confidence in their own possibilities and backgrounds** such that they are able to commit themselves and are willing to take action. The Folkeskole is to prepare the students to be able to **participate, demonstrate mutual responsibility and understand their rights and duties in a free and democratic society.** The daily activities of the school must, therefore, be conducted in a spirit of intellectual freedom, equality and democracy. – Danish Ministry of Education website, http://eng.uvm.dk/Education/Primary-and-Lower-Secondary-Education/The-Folkeskole/The-Aims-of-the-Folkeskole (accessed 10 September 2014) Students shall be able to use various ways of study work and to function in a school environment where the demands for personal independence and cooperation is important. The programme must have a general learning perspective emphasising development of **personal authority.** Students should therefore learn to be **reflective and responsible in relation to their environment: fellow human beings, nature and society, and to their own personal development.** The training shall also develop the students' creative and innovative skills and critical thinking. The education and school culture as a whole must prepare students for **active participation, joint responsibility,** rights and duties in a society based on freedom and democracy. Teaching and daily life at school must therefore build on intellectual freedom, equality and democracy. Students will thereby acquire the prerequisites for active participation in a democratic society and an understanding of the opportunities for individual and jointly to contribute to the understanding, development and change of society, both in a local, European and global perspective. – Upper Secondary Schools Act	The OECD Secretariat was unable to identify relevant information.

Annex 5.A. National and subnational education system objectives and skill frameworks that address the development of social and emotional skills (continued)

Education system objectives	Skill frameworks for national curricula
Estonia	
General education is a system of knowledge, skills, experience, **values and behavioural norms** which enables a person to evolve into a continuously developing personality who is **capable of living with dignity, respecting himself or herself, his or her family, other people and nature,** choosing and acquiring a suitable profession, acting creatively and being a responsible citizen. – Education Act	The national curriculum sets the following general competences: 1) **value competence** – ability to evaluate human relations and activities from the standpoint of generally accepted moral norms; to sense and value one's ties with other people, nature, the cultural heritage of one's own country and nation and those of others, and events in contemporary culture; to value art and to shape the sense of aesthetics; 2) **social competence** – the ability to become self-actualized, to function as an aware and conscientious citizen and to support the democratic development of society; to know and follow values and standards in society and the rules of various environments; to engage in cooperation with other people; to accept interpersonal differences and take them into account in interacting with people; 3) **self-management competence** – the ability to understand and evaluate oneself, one's weaknesses and strengths; to adhere to healthful lifestyles; to find solutions to problems related to oneself, one's mental and physical health as well as to problems arising in human relations; 4) **learning to learn competence** – ability to organize the learning environment and procure the information they need for learning; to plan studies and follow the plan; to use the outcome of the learning, including learning skills and strategies, in different contexts and for solving problems; to analyze one's knowledge and skills, strengths and weaknesses and on that basis, the need for further learning; 5) communication competence – ability to clearly and relevantly express oneself, taking into account situations and partners in communication; to present and justify their positions; to read and understand information and literature; to write different types of texts, using appropriate linguistic devices and a suitable style; to prioritize correct use of language and rich expressive language; 6) mathematics competence – the ability to use the language, symbols and methods characteristic of mathematical applications, to solve various situations in all walks of life and spheres of activity; 7) **entrepreneurship competence** – ability to create ideas and implement them, using the acquired knowledge and skills in different walks of life; to see problems and the opportunities that lie within them; to set goals and carry them out; to organize joint activities, show initiative and take responsibility for results; to react flexibly to changes and to take judicious risks. – National curriculum for basic schools, www.ibe.unesco.org/curricula/estonia/er_befw_2011_eng.pdf
Finland	
The purpose of education referred to in this Act is to support pupils' growth into **humanity** and into **ethically responsible membership of society** and to provide them with knowledge and skills needed in life. – Basic Education Act 628/1998; http://www.finlex.fi/en/laki/kaannokset/1998/en19980628.pdf	Cross-curricular themes represent central emphases of the educational and teaching work. Their objectives and contents are incorporated into numerous subjects; they integrate the education and instruction. Through them, the educational challenges of the time are also met. 1. **Growth as a person** 2. **Cultural identity and internationalism** 3. Media skills and communication 4. **Participatory citizenship and entrepreneurship** 5. **Responsibility for the environment, well-being, and a sustainable future** 6. Safety and traffic 7. Technology and the individual – National core curriculum for basic education 2004, http://www.oph.fi/english/curricula_and_qualifications/basic_education

Annex 5.A. National and subnational education system objectives and skill frameworks that address the development of social and emotional skills (continued)

Education system objectives	Skill frameworks for national curricula
France	
The right to education is guaranteed in each student to allow them to develop their **personality,** to raise the level of education and training, to fit into the social and professional life, to exercise citizenship. – Loi n°89-486 du 10 juillet 1989 d'orientation sur l'éducation	The Common Base of Knowledge and Skills framework defines seven key competencies for children to develop: 1. Command of the French language 2. Use of a modern foreign language 3. Key elements of mathematics and scientific and technological culture 4. Command of common techniques of information and communication 5. Humanistic culture 6. **Social and civic skills** 7. **Autonomy and initiative** Key attitudes for social and civic skills include **self-respect** and **respect for others. Motivation, self-confidence, desire to succeed and progress** are fundamental attitudes for "autonomy and initiative." – *Le socle commun des connaissances et des compétences* 2006, http://media.education.gouv.fr/file/51/3/3513.pdf
Germany (North Rhine-Westphalia)	
Reverence for God, respect for the dignity of people and providing community to awaken to social action, are the highest goal to achieve relationship. Young people should be educated in the **spirit of humanity, democracy and freedom, for tolerance and respect for the conviction of the other**, to account for animals and conservation the natural foundations of life, in love for the people and the homeland and for the international community and peace to mind. The students should learn in particular: 1. to **act independently and responsibly** 2. to learn for themselves and together with others and to provide services 3. to **represent their own opinion and to respect others' opinions** 4. to **meet in religious and philosophical questions and personal decisions in relation to the decisions to develop an understanding of and tolerance for others** 5. to meet people of different origins without prejudice, to learn and think about the values of different cultures, and to promote a peaceful living together free from discrimination 6. to understand the basic norms of the constitution and the state constitution and to advocate democracy 7. to develop their own perception, sensation and expression as well as musical and artistic skills 8. to develop joy for movement and for team sport, to eat healthily and to live healthy 9. to deal responsibly and safely with media – Articles 2, 4 and 5 of *Schulgesetz für das Land Nordrhein-Westfalen* (unofficial translation)	The OECD Secretariat was unable to identify relevant information.

Annex 5.A. National and subnational education system objectives and skill frameworks that address the development of social and emotional skills (continued)

Education system objectives	Skill frameworks for national curricula
Greece	
The basic target of primary and secondary education is to contribute to the complete, harmonious and balanced development of the intellectual, **psychological** and physical potential of the pupils, so that, regardless of their gender or origin, they may become integer personalities and live in harmony. – Law 1566/1985	According to the Ministerial Decision that describes the common interdisciplinary curriculum framework, general education should also: • ensure the harmonious physical, **mental, moral,** aesthetic and **emotional development** of students; • contribute to the promotion and cultivation of special interests and skills of each student; • ensure access to diverse sources of information; • cultivate the ability to review and interpret individual choices according to their personal values and needs; • cultivate the ability to express thoughts and views in the development of intellectual, social and communication skills and make students able to **cooperate with others to achieve common goals and to act responsibly.** – Ministerial Decision 21072a/G2
Hungary	
The purpose of the Act is to create a public education system which contributes to the harmonic **mental,** physical and intellectual development of children and young people through the conscious development of their skills, abilities, knowledge, proficiencies, **emotional and volitional characteristics** and cultural education corresponding to their age characteristics, thus educating people and **responsible citizens who are virtuous and capable of independent life as well as achieving their objectives, while harmonising private interests with the interests of the public.** Its prioritised objective is to prevent the widening of the social gap and promote talent through the tools of education. – National Education Act 1993	The key competences specified in Hungary's national curriculum includes **"social and civic competences"** and **"sense of initiative and entrepreneurship"**. The core skills of social and civic competence include **the ability to communicate efficiently in different spheres of life, to consider and to understand various viewpoints, to invoke trust in negotiating partners and to show empathy. Coping with stress and frustration and responsiveness to changes** also belong here. As regards attitudes, **cooperation, assertiveness and integrity** are the most important and so is interest in social and economic development, intercultural communication and the recognition of diversity. An ambition to overcome personal prejudices and to reach compromise is a further relevant element of this attitude. The sense of initiative and entrepreneurship includes skills and abilities such as planning, **organising,** leading, managing, delegating, analysing, communicating, evaluating experiences, as well as risk assessment and risk-taking, individual and team work. – Hungarian national core curriculum, www.nefmi.gov.hu/english/hungarian-national-core

Annex 5.A. National and subnational education system objectives and skill frameworks that address the development of social and emotional skills (continued)

Education system objectives	Skill frameworks for national curricula
Iceland	
The role of compulsory schools is to cooperate with homes in promoting **the all-round development of all pupils** and **their participation in a democratic society** in constant development. The manner of operation of compulsory schools shall be characterised by **tolerance and charity,** guided by the Christian heritage of Icelandic culture and marked by **equality, democratic cooperation, responsibility, consideration, forgiveness and respect for human worth.** Compulsory schools shall also seek to organise their work in a way that corresponds as fully as possible with the circumstances and needs of pupils, and to **promote the all-round development,** well-being and education of each individual. Compulsory schools shall **promote open-mindedness** among pupils and strengthen their proficiency in the Icelandic language and their understanding of Icelandic society, its history and specificities, people's living conditions, and the individual's duties to the community, the environment and the world. Pupils shall be given the opportunity to show creativity and to acquire knowledge and skills in the constant pursuit of education and maturity. Schooling shall provide the foundations necessary for pupils to show **initiative and independent thinking,** and enhance their **cooperation skills.** Compulsory schools shall promote close cooperation between the home and the school with a view to ensuring successful schooling and the general welfare and safety of pupils. – Compulsory School Act No. 91/2008, Article 2 http://eng.menntamalaraduneyti.is/media/law-and-regulations/Compulsory-School-Act-No.-91-2008.pdf	The educational policy that appears in the national curriculum guidelines is based on six fundamental pillars on which the curriculum guidelines are based. These fundamental pillars are: • Literacy • Sustainability • Democracy and human rights • Equality • Health and welfare • Creativity Each of the fundamental pillars derives from laws on preschool, compulsory school and upper secondary school. There is also reference to other laws which include legal provisions for education and teaching in the school system. The fundamental pillars refer to social, cultural, environmental and ecological literacy so that children and youth may develop mentally and physically, thrive in society and **cooperate with others.** The fundamental pillars also refer to a vision of the future, **ability and will to influence and be active in maintaining society, change it and develop.** The fundamental pillars are based on the view appearing in school legislation that both social objectives and the educational objectives of the individual are to be achieved. – The Icelandic National Curriculum Guide for Compulsory Schools http://brunnur.stjr.is/mm/utgafuskra/utgafa.nsf/xsp/.ibmmodres/domino/OpenAttachment/mm/utgafuskra/utgafa.nsf/C590D16CBC8439C500257A240030AE7F/Attachment/adskr_grsk_ens_2012.pdf
Ireland	
A recognised school shall use its available resources to **promote the moral, spiritual, social and personal development of students** and provide health education for them, in consultation with their parents, having regard to the characteristic spirit of the school. – Section 9(e) of the Education Act 1998 The Primary School Curriculum states explicitly that it aims to nurture the child in all dimensions of his or her life – spiritual, moral, cognitive, **emotional,** imaginative, aesthetic, **social** and physical. This vision of education can be expressed in the form of three general aims: • to enable the child to live a full life as a child and to realise his or her • potential as a unique individual • to enable the child to develop as a **social being** through living and co-operating with others and so contribute to the good of society • to prepare the child for further education and lifelong learning. – Primary School Curriculum (Department of Education and Science, 1999) Eight principles underpin the Framework for Junior Cycle. • Quality • Creativity and innovation • **Engagement and participation** • Continuity and development • **Wellbeing** • Choice and flexibility • Inclusive education • Learning to learn – Junior Cycle Framework (Department of Education and Skills, 2012)	The 1971 curriculum was based on a philosophy of education that incorporated the following five principles: • the **full and harmonious development** of the child • the importance of making due allowance for individual difference • the importance of activity and discovery methods • the integrated nature of the curriculum • the importance of environment-based learning. – Primary School Curriculum (Department of Education and Science, 1999) The learning at the core of junior cycle is described in twenty-four statements of learning. The student: 5. has **an awareness of personal values and an understanding of the process of moral decision making** 6. **appreciates and respects how diverse values, beliefs and traditions have contributed to the communities and culture in which she/he lives** 7. **values what it means to be an active citizen,** with rights and responsibilities in local and wider contexts 11. takes action to **safeguard and promote her/his wellbeing and that of others** 22. **takes initiative,** is innovative and develops entrepreneurial skills 24. uses technology and digital media tools to learn, communicate, work and think **collaboratively** and creatively **in a responsible and ethical manner** – Junior Cycle Framework (Department of Education and Skills, 2012)

Annex 5.A. National and subnational education system objectives and skill frameworks that address the development of social and emotional skills (continued)

Education system objectives	Skill frameworks for national curricula
Israel	
One of the aims of the educational system is to **develop the child's personality,** his creativity and talents, and to ensure his well being and his ability to live a meaningful life. – State Education Act, 1953	The curriculum of Life Skills Programme was first issued in 1997. In 2008 The Ministry of Education issued a revised version of the programme for elementary schools and for middle school students. A revised version of the programme for secondary school was issued in 2013 and the curriculum for pre-school students was issued as of 2014. The skills taught are arranged arround five mail clusters: • Self identity (for example: self awarness, identify feelings, body image, self concept etc.) • Self regulation (for example: coping with anger, time management, decision making etc.) • Interpersonal relation (establishing freinship and partnership, showing empathy, taking a stand againt agression and bulling, etc) • Leasure. Career choice and learning (for example: making choices for spending leasure time, time planning and management, etc.) • Coping with stress (for example: seeking help, exercising relieving strategies, identifing at risk situations etc.) The curriculum is adapted to cultural characteresrics (religuos, arabic etc). – Department of Psychological Counseling website, http://cms.education.gov.il/EducationCMS/Units/Shefi/KishureiChaim/meytaviyut/KishureiHaimLeYesody.htm
Italy	
The elementary school as part of compulsory education, contributes to the formation of man and citizen according to the principles enshrined in the Constitution and in the respect and appreciation of diversity of individual, social and cultural rights. It proposes the development of the **personality** of the child, promoting the first cultural literacy. – Law of 5 June 1990 148 on reform of elementary school (unofficial translation), www.edscuola.it/archivio/norme/leggi/l148_90.html The aims of the school are to be defined from the learner, with the originality of his personal journey and the openings offered by the network of relations that bind the family and social environments. The definition and implementation of educational strategies and teaching must always take into account the complexity and singularity of each person, his varied identity, his aspirations, and his ability and weakness, in various stages of development and training. The student is placed in the centre of the educational in all its aspects: cognitive, affective, interpersonal, bodily, aesthetic, ethical, spiritual, religious. In this perspective, the teachers will have to think and realise their educational and didactic projects not for abstract individuals, but for people who live here and now, that raise specific questions of life, who go in search of horizons of meaning. – *Indicazioni nazionali per il curricolo della scuola dell'infanzia e del primo ciclo d'istruzione* (unofficial translation) http://www.indicazioninazionali.it/documenti_Indicazioni_nazionali/indicazioni_nazionali_infanzia_primo_ciclo.pdf	The 2012 curriculum guidelines for pre-primary, primary and lower secondary education specifies as reference points the key competences for lifelong learning defined by the European Parliament and the Council of the European Union, i.e. communication in the mother tongue, communication in foreign languages, mathematical competence and basic competences in science and technology, digital competence, learning to learn, **social and civic competences, sense of initiative and entrepreneurship,** and cultural awareness and expression. – *Indicazioni nazionali per il curricolo della scuola dell'infanzia e del primo ciclo d'istruzione* http://www.indicazioninazionali.it/documenti_Indicazioni_nazionali/indicazioni_nazionali_infanzia_primo_ciclo.pdf

Annex 5.A. National and subnational education system objectives and skill frameworks that address the development of social and emotional skills (continued)

Education system objectives	Skill frameworks for national curricula
Japan	
(Aims of Education) Article 1. Education shall aim for the **full development of personality** and strive to nurture the citizens, sound in mind and body, who are imbued with the qualities necessary for those who form a peaceful and democratic state and society. (Objectives of Education) Article 2. To realize the aforementioned aims, education shall be carried out in such a way as to achieve the following objectives, while respecting academic freedom: 1. to foster an attitude to acquire wide-ranging knowledge and culture, and to seek the truth, cultivate a rich sensibility and sense of morality, while developing a healthy body, 2. to develop the abilities of individuals while respecting their value; cultivate their creativity; **foster a spirit of autonomy and independence;** and foster an attitude to value labor while emphasizing the connections with career and practical life, 3. **to foster an attitude to value justice, responsibility, equality between men and women, mutual respect and cooperation, and actively contribute, in the public spirit, to the building and development of society,** 4. to foster an attitude to respect life, care for nature, and contribute to the protection of the environment, 5. to foster an attitude to respect our traditions and culture, love the country and region that nurtured them, together with respect for other countries and a desire to contribute to world peace and the development of the international community. – Basic Act on Education, revised in 2006 (unofficial translation by the Ministry of Education, Culture, Sports, Science and Technology)	The curriculum standards revised in 2008 focuses on "zest for life" that emphasises a balanced combination of the following three components: • Solid academic abilities: to acquire the basics & fundamentals; to cultivate introspection, the desire to learn & think, independent decision-making & action, as well as the talent and ability for problem-solving • **Rich humanity: to cultivate self-discipline in balance with consideration for others and a sense for inspiration, in harmony with the spirit of cooperation** • Health and physical strength: health & fitness for living a vigorous life – Ministry of Education, Culture, Sports, Science and Technology (2008) "The Revisions of the Courses of Study for Elementary and Secondary Schools", www.mext.go.jp/english/elsec/__icsFiles/afieldfile/2011/03/28/1303755_001.pdf
Korea	
Education in Korea aims to assist every citizen in building up one's **character** based on humanitarianism, to manage a humane life by developing autonomous life skills and the qualifications needed as a democratic citizen, and to contribute to the development of a democratic country and realize the public idealism of humankind. Based on this purpose on education, this curriculum pursues the vision for the educated to be as the following: a. One who pioneers the development of individuality and career on top of **a holistic development** b. One who shows creativity with new thinking and challenges based on basic capabilities c. One who leads a dignified life based on understanding cultural knowledge and pluralistic values d. One who **participates in community development possessing the spirit of consideration and sharing,** as a citizen communicating with the world. – The framework of the curriculum design, the elementary and secondary school curriculum 2009 http://ncic.kice.re.kr/english.kri.org.inventoryList.do	Education in Korea aims to assist every citizen in developing the **character** and skills necessary for being an independent citizen under the humanitarian ideal, taking responsibility for the welfare of the country, and for all mankind. This curriculum seeks to develop a well-educated person that: 1. seeks to **develop his/her own individuality on the basis of a well-rounded personality.** 2. is able to cultivate creativity as well as seek and apply knowledge and skills. 3. explores a career path with liberal knowledge and understanding. 4. creates new values based on Korean cultural heritage. 5. **is committed to improving the community as a citizen.** – The School Curriculum of the Republic of Korea, 2008

Annex 5.A. National and subnational education system objectives and skill frameworks that address the development of social and emotional skills (continued)

Education system objectives	Skill frameworks for national curricula
Luxembourg	
Schooling promotes child development, creativity and **confidence in his abilities.** It allows him/her to acquire general knowledge, prepares professional life and the exercise of his/her responsibilities of citizen in a democratic society. It teaches the ethical values based on the Universal Declaration of human rights and leads to respect the equality between girls and boys. It is the basis of permanent education. – Compulsory Education Act, 6 February 2009	Transferable skills are developed in basic education in the various fields of development and learning: 1. Mental approaches (e.g. capturing information, processing information, memorising information, using information, producing new information, communicating information) 2. Ways of learning (e.g. learning to learn, learning consciously and autonomously, managing one's own learning, combining learning and well-being) 3. **Relational attitudes** (e.g. knowing others and accept differences, adapting one's own behaviours, living democratic values) 4. **Emotional attitudes** (e.g. motivating oneself, knowing and gaining confidence, identifying oneself in student life) – Plan d'études de l'enseignement fondamental, 2011, unofficial translation, http://www.legilux.public.lu/leg/a/archives/2011/0178/a178.pdf#page=49
Mexico	
The general objective of basic education is to ensure that all children and young people acquire fundamental knowledge; develop **life skills, values and behaviours needed to achieve a fulfilling personal life,** pursue a **responsible and committed citizenship,** engage in productive work and continue learning throughout life. – *Ley General de Educación*	The Syllabus of Basic Education defines a set of life skills that should be developed in the three levels of basic education: • skills for lifelong learning • skills for managing information • **skills for managing situations** • **skills for coexistence** • skills for living in society. Development of skills for managing situations requires: face risk and uncertainty, plan and complete successfully procedures; manage time, facilitate and address changes that occur; take decisions and assume consequences; handle failure, frustration and disillusion; act autonomously in the design and development of life projects. Development of skills for coexistence requires: empathy, relate harmoniously with others and nature; be assertive; work collaboratively with others; make agreements and negotiate with others; grow with others; recognise and value social, cultural and linguistic diversity. – *Plan de estudios 2011, Educacion Basica*
Netherlands	
Education: a. is also of that of students growing up in a pluralistic society, b. is partly aimed at promoting **active citizenship and social inclusion,** and c. is also aimed at ensuring that students have knowledge of and experience different cultures and backgrounds of their peers. – Primary Education Act, 1981 Article 17 Education in a pluralistic society; citizenship; social inclusion Education: a. assumes that students are growing up in a pluralistic society, b. partly aims at promoting active citizenship and social integration, and c. also aims at ensuring that students have knowledge of and acquainted with different backgrounds and cultures of their peers. – Secondary Education Act, 1963	The Dutch Qualification Framework (NLQF) specifies standards for **responsibility and autonomy** to be obtained at the end of each level of education. These standards progress with the more advanced levels of education. For example, the standards for those who complete general secondary education are as follows: • Collaborates with peers, supervisors and clients. • Responsibility for the results of their activities, work and study. • Bears shared responsibility for the result of the work of others. – Dutch Qualification Framework (NLQF), www.nlqf.nl/nlqf-niveaus

Annex 5.A. National and subnational education system objectives and skill frameworks that address the development of social and emotional skills (continued)

Education system objectives	Skill frameworks for national curricula
New Zealand	
1. The highest standards of achievement, through programmes which enable all students to realise their full potential as individuals, and to develop **the values needed to become full members of New Zealand's society.** 2. Equality of educational opportunity for all New Zealanders, by identifying and removing barriers to achievement. 3. Development of the knowledge, understanding and skills needed by New Zealanders to compete successfully in the modern, ever-changing world. 4. A sound foundation in the early years for future learning and achievement through programmes which include support for parents in their vital role as their children's first teachers. 5. A broad education through a balanced curriculum covering essential learning areas. Priority should be given to the development of high levels of competence (knowledge and skills) in literacy and numeracy, science and technology and physical activity. 6. Excellence achieved through the establishment of clear learning objectives, monitoring student performance against those objectives, and programmes to meet individual need. 7. Success in their learning for those with special needs by ensuring that they are identified and receive appropriate support. 8. Access for students to a nationally and internationally recognised qualifications system to encourage a high level of participation in post-school education in New Zealand. 9. Increased participation and success by Māori through the advancement of Māori education initiatives, including education in Te Reo Māori, consistent with the principles of the Treaty of Waitangi. 10. **Respect for the diverse ethnic and cultural heritage of New Zealand people,** with acknowledgment of the unique place of Māori, and New Zealand's role in the Pacific and as a member of the international community of nations. – The National Education Goals, 2004	The New Zealand Curriculum identifies five key competencies: • thinking • using language, symbols, and texts • **managing self** • **relating to others** • **participating and contributing** – The New Zealand curriculum online, http://nzcurriculum.tki.org.nz/The-New-Zealand-Curriculum/Key-competencies
Norway	
Education and training shall provide insight into cultural diversity and show respect for the individual's convictions. They are to promote democracy, equality and scientific thinking. The pupils and apprentices shall develop knowledge, skills and **attitudes** so that they can master their lives and take part in working life and society. They shall have the opportunity to be creative, **committed** and inquisitive. The pupils and apprentices shall learn to think critically and **act ethically** and with environmental awareness. – Chapter 1 of the Education Act	Key formulations from the Acts governing education in Norway are grouped in the following themes: **moral outlook,** creative abilities, **work,** general education, **cooperation,** and natural environment. – Core curriculum for primary, secondary and adult education in Norway, www.udir.no/upload/larerplaner/generell_del/Core_Curriculum_English.pdf
Poland	
The objective of basic education is to build the foundation of children's "intellectual, ethical, **emotional, social** and physical knowledge." Among the most important abilities to be taught in this period, there are: team work and ability to learn to discover one's interests; among others. Similarly, one of the goals of secondary and higher educations is to further develop these non-cognitive skills. – *Rozporządzenie o podstawie programowej - Dziennik Ustaw 15. 01. 2009, nr 4, poz 7*	Polish Qualification Framework specifies the qualifications needed to be obtained in terms of cognitive and social competences across all the levels of basic and higher education. Some of the competencies which should be fostered in basic education include: **understanding societal roles, team work, performing the responsibilities associated with one's place in the society, cooperation, communication skills.** Higher levels of education are meant to prepare the children to: **work independently, think ethically, behave responsibly,** etc. www.kwalifikacje.edu.pl/pl/

Annex 5.A. National and subnational education system objectives and skill frameworks that address the development of social and emotional skills (continued)

Education system objectives	Skill frameworks for national curricula
Portugal	
Section II. Organisation of the primary education curriculum Article 15. **Personal and social development** of students Schools, within their autonomy, should develop projects and activities that contribute to **personal and social development** of students, including civic education, health education, financial education, media education, road safety education, consumer education, entrepreneurship education and religious and moral education, with optional frequency. Section IV. Management of the primary and secondary curriculum Article 21. Promoting academic success e) Develop actions to support growth and **personal and social development** of students including health promotion and prevention of risk behaviours with; – *Decreto-Lei n.º* 139/2012 (unofficial translation)	Section II. Organisation of the primary education curriculum Article 15. **Personal and social development** of students Schools, within their autonomy, should develop projects and activities that contribute to **personal and social development** of students, including civic education, health education, financial education, media education, road safety education, consumer education, entrepreneurship education and religious and moral education, with optional frequency. Section IV. Management of the primary and secondary curriculum Article 21. Promoting academic success e) Develop actions to support growth and **personal and social development** of students including health promotion and prevention of risk behaviours with; – *Decreto-Lei n.º* 139/2012 (unofficial translation)
Slovak Republic	
According to Article 4 of the new Education Act of 2008, the aim of education is to enable students to: • acquire competencies, especially communication skills, oral and written skills, the ability to use information and communication technologies in the national language, mother tongue and foreign languages, mathematical literacy and competencies in the field of science and technology, lifelong learning, **social skills and civic competencies, entrepreneurial skills and cultural competencies;** • learn and use at least two foreign languages; • learn how to identify and analyze problems, propose solutions and their know how to solve them; • develop manual skills, creative, and artistic psychomotor skills; • strengthen **respect for parents and other persons,** to cultural and national values and traditions of the state and the mother language; • strengthen respect for human rights and fundamental freedoms and principles in the Convention for the Protection of Human Rights and Fundamental Freedoms; • **be prepared for responsible life in a free society, in the spirit of understanding and tolerance, equality of men and women, friendship among nations, national and ethnic and religious tolerance;** • **learn how to develop and cultivate their personality and lifelong learning, to work in a team and assumes responsibilities;** • **learn to control and regulate their behaviour, take care and protect their health and the environment and to respect the universal human ethical values.** – Education Act 245/2008, translation taken from UNESCO (2012) "World Data on Education 7th eduction 2010/11"	Primary education provides the initial basis for the students' (pupils') gradual key skills' (competencies) development as a foundation of the general education through the following objectives: • Providing high opportunities for students (pupils) to examine their closest cultural and natural environment in order to develop their imagination, creativity and interest to explore their environment, • Enabling students (pupils) to explore their own skills and their development opportunities and to acquire the basic capability to learn how to learn and know themselves, • Supporting the cognitive processes and capabilities of students (pupils) in order to think critically and creatively through the acquisition of their own cognitive skills and through active problem-solving, • **Balanced development of the students' (pupils') competences to communicate and self-understand, to evaluate (select and decide) and to act proactively on the self-management and self-reflection basis,** • **Promoting intrapersonal and interpersonal capabilities' development, especially to enter openly into the social relations, to cooperate effectively, to develop their social responsiveness and sensitivity towards their classmates, teachers, parents, towards other people around and towards their own cultural and natural surroundings,** • **Leading students (pupils) in order to tolerate and accept the other people, their spiritual and cultural values,** • **Teaching students (pupils) to use their rights and at the same time to fulfill their duties, take responsibility for their health with its active protection and strength.** – National curriculum for primary education (unofficial translation), http://www.statpedu.sk/files/documents/svp/1stzs/isced1/isced1_spu_uprava.pdf

Annex 5.A. National and subnational education system objectives and skill frameworks that address the development of social and emotional skills (continued)

Education system objectives	Skill frameworks for national curricula
Slovenia	
One of the main goals of basic education is: • promote harmonious physical, cognitive, **emotional, moral, spiritual and social** development of an individual respecting the mechanisms of development – Basic School Act The education goals of the Republic of Slovenia include: • educate for **mutual tolerance,** promote gender equality awareness, **respect for human diversity and mutual cooperation,** respect for children's and human rights and fundamental freedoms, foster equal opportunities for women and men, and thereby develop competences to live in a democratic society, • promote awareness of the **individual's integrity;** • raise **awareness of citizenship** and national identity and broaden knowledge of Slovenia's history and its culture; • educate for sustainable development and active participation in the democratic society, including in-depth knowledge of and a **responsible attitude towards oneself, one's health, other people, one's own and other cultures, natural and social environments, and towards future generations** – Law on the Organisation and Financing of Education	The national education goals relating to ESP are specified within curricula, specifically within three main subjects: Society; Patriotic and Citizenship Culture and Ethics (including guidelines for a cross-curricular teaching and the didactic recommendations for teachers); and in an optional subject Ethics and Religions and Ethics. The ESP related goals are pursued also through obligatory school education (in the sense of positive behaviour) plans defined by the School Basic Act and aiming at supporting the development of these competencies by different types of activities, including regular lessons in classes. Finally, these goals are important part of the mission pursued by the schools' social work services. – Questionnaire response from the Slovenian official on the curricula on compulsory subjects in primary school
Spain	
Cognitive skills, being essential, are not sufficient. It is necessary to acquire transferable skills from an early age, such as critical thinking, **management of diversity,** creativity and the ability to communicate, and attitudes as key **individual confidence, enthusiasm, constancy and acceptance of change.** – *Ley Orgánica para la Mejora de la Calidad Educativa*	A number of core competencies were identified and introduced into the curriculum of basic and secondary education. These include: • Communication skills • Mathematical skills • Knowledge and interaction with the physical world • Data processing and digital skills • **Social and civic skills** • Cultural and artistic skills • Learning to learn • **Autonomy and personal initiative** – Ministry of Education, Culture and Sports website, http://www.mecd.gob.es/educacion-mecd/areas-educacion/sistema-educativo/ensenanzas/educacion-secundaria-obligatoria/contenidos.html (accessed 10 September 2014)
Sweden	
The education within the school system is aimed at children and young people to acquire and develop knowledge and values. It shall promote all children's and students' development and learning and a lifelong desire to learn. The education also aims at, in cooperation with children's and students' families, **promote their balanced personal development of active, creative, competent and responsible individuals and citizens.** – Chapter 1 of the School Act	The goals of the school are that each pupil: • can consciously determine and express ethical standpoints based on knowledge of human rights and basic democratic values, as well as personal experiences, • **respects the intrinsic value of other people,** • rejects the subjection of people to oppression and degrading treatment, and also assist in helping other people, • **can empathise with and understand the situation other people are in and also develop the will to act with their best interests at heart,** and • shows respect and care for both the immediate environment, as well as the environment from a broader perspective. – Curriculum for the compulsory school, preschool class and the recreation centre 2011

Annex 5.A. National and subnational education system objectives and skill frameworks that address the development of social and emotional skills (continued)

Education system objectives	Skill frameworks for national curricula
Switzerland (Canton of Zurich)	
The education system equips the individual with knowledge in accordance with his/her predispositions, aptitudes and interests. It promotes the development of a **mature, tolerant and responsible personality** and lays the foundation for the profession and for living together in society and democracy. – Education Act 2002 (unofficial translation) The elementary school provides basic knowledge and skills; it leads to the recognition of connections. It promotes **respect for fellow human beings** and the environment and seeks the integral development of children into **independent and socially competent** people. The school strives to awaken the joy in learning and in other sorts of performances and to maintain them. In particular, it promotes **responsibility, commitment,** judgment, ability to judge and to be critical, and **openness to dialogue.** The teaching takes into account the individual talents and inclinations of the children and lays the foundation for lifelong learning. – Act on Compulsory Education 2005 (unofficial translation)	The OECD Secretariat was unable to identify relevant information.
Turkey	
[T]he general aim of the national education system is to raise all Turkish citizens: • as individuals who are committed to Atatürk's principles, the revolution and the Atatürk nationalism defined in the Constitution; protect, develop the national, human, moral and cultural values of the who love and continuously try to raise their family, and who are aware of their duties and responsibilities towards the Turkish Republic, a democratic, secular and social state of law based on human rights and the basic principles defined in the Constitution; • as individuals who have a **balanced and healthy personality and character,** who are developed in terms of body, mind, moral, spirit and **emotions,** free and with scientific thinking abilities and a broad world view; human rights, value personality and enterprise, are responsible towards society, and are constructive, creative and productive; • in line with their own interests and abilities, to prepare them for life by helping them to acquire the required knowledge, skills, **behavior and cooperative working habits,** and to ensure they have a profession which will make them happy and contribute to the happiness of society. – Basic Law of National Education of 1973	Pre-primary, primary and secondary school level curricula aim students being equipped with the following skills: • Correct and effective usage of Turkish • Critical thinking, • Creative thinking, • Analytical thinking, • Decision making, • Entrepreneurship, • Perceiving change and continuity, • Managing emotions, • Communication and empathy, • Problem solving, • Research, • Using information technology, • Social inclusion and citizenship, • Awareness of democracy – Questionnaire response from the Turkish official on the national curricula
United Kingdom (England)	
General requirements in relation to curriculum 1. The curriculum for a maintained school or maintained nursery school satisfies the requirements of this section if it is a balanced and broadly based curriculum which— a. promotes the **spiritual, moral, cultural, mental** and physical development of pupils at the school and of society, and b. prepares pupils at the school for the opportunities, responsibilities and experiences of later life. – Education Act 2002	The OECD Secretariat was unable to identify relevant information.

Annex 5.A. National and subnational education system objectives and skill frameworks that address the development of social and emotional skills (continued)

Education system objectives	Skill frameworks for national curricula
United States (California)	
Each child is a unique person, with unique needs, and the purpose of the educational system of this state is to enable each child to develop **all of his or her own potential**. – Strategic Plan 2002-07	The OECD Secretariat was unable to identify relevant information.
Brazil	
Mandatory fundamental education lasts 9 (nine) years, is free in public schools, and starts at the age of 6 (six). It will aim at basic education of the citizen, through: I. developing the ability to learn, having as basic means full mastery of reading, writing and numeracy; II. understanding of the natural and social environment, political system, economy, technology, arts, culture and values on which society rests; III. developing the ability to learn in order to acquire knowledge and skills and **build attitudes and values**; IV. strengthening family bonding, human solidarity and mutual respect in which social life is founded – National Education Guidelines and Framework Law 9.394/1996, Article 32 (unofficial translation provided by the Ministry of Education)	According to these principles, and in accordance with Articles 22 and 32 of the Law No. 9.394/96 (LDB), the curriculum proposals for fundamental education will aim to develop the learner, ensuring the indispensable common instruction for citizenship and providing the means to progress at work and in later studies through the objectives set for this stage of schooling, namely: I. developing the ability to learn, having as basic means full mastery of reading, writing and numeracy; II. the understanding of the natural and social environment, the political system, technology, arts and the values on which the society is based; understanding of the natural and social environment, political system, economy, technology, arts, culture and values on which society rests; III. acquiring knowledge and skills and **building attitudes and values** as instruments for a critical view of the world; IV. strengthening family bonding, human solidarity and mutual respect in which social life is founded. – Resolution No. 7 of 14 December 2010, National Curricular Guidelines for the 9-year Primary Education Cycle, Article 7 (unofficial translation provided by the Ministry of Education)
Russian Federation	
Mission of education in the Russian Federation is the implementation of every Russian citizen his or her positive, **social,** cultural and economic potential and the socio-economic development of the Russian Federation. – Federal educational standard for primary education, 2010	Federal educational standards for each schooling level includes several capabilities related to the personality and social development. These capabilities are: 1. Patriotic education: citizenship and ethnic identity, human, democratic and traditional values, knowledge of Russian language, history and culture; 2. **Self-development and self-education, comprehensive approach to study and occupational choice, self-dependence and self-support;** 3. Forming of mind-set which corresponds to the modern level of science and social practice and considers ethnic, cultural, language, social and religious diversity; 4. **Communicative competence which includes the respect to others, readiness to cooperate with others in all areas, goodwill;** 5. **Moral development, which includes moral behaviour and responsibility for own behaviour;** 6. Values of healthy and safe behaviour; 7. Aesthetic education; 8. Family values – Federal state educational standards for general education" before this http://xn--80abucjiibhv9a.xn--p1ai/%D0%B4%D0%BE%D0%BA%D1%83%D0%BC%D0%B5%D0%BD%D1%82%D1%8B/543

Chapter 6

How to foster social and emotional skills?

Policy makers, teachers and parents can play an important role in improving children's social and emotional skills. These skills, together with cognitive skills, are key ingredients of individual well-being and societal progress. Social and emotional skills can be reliably measured within a cultural and linguistic boundary. Policy makers can use this information to improve their understanding of the skill gaps and to better design policies to address them, while teachers and parents can widen the notion of children's skill needs and create positive learning environments. Social and emotional skills can be raised and mobilised for improving the life chances of children and society. This report identified the types of skills that matter and the ongoing policies, practices and interventions aimed at fostering them. This concluding chapter evaluates the gap between "what works" and "what happens in practice" in order to develop better strategies to enhance the skills that matter for children's lifetime success and for the well-being and progress of societies.

"But you were always a good man of business, Jacob," faltered Scrooge.

"Business!" cried the Ghost, wringing its hands again. "Mankind was my business. The common welfare was my business; charity, mercy, forbearance, and benevolence, were, all, my business. The dealings of my trade were but a drop of water in the comprehensive ocean of my business!"

A Christmas Carol, by Charles Dickens

Policy messages

There are a number of policy implications that emerge from the synthesis of evidence presented in this report.

Children need a well-balanced set of cognitive, social and emotional skills to achieve lifetime success and to contribute to social progress.

A wide set of cognitive, social and emotional skills have always mattered throughout human history, across a wide range of geographical and cultural regions. This report has shown that children from our generation are no different. They will require a comprehensive set of cognitive, social and emotional capabilities to better face the socio-economic challenges of the 21st century. Different types of skills are particularly important for different outcomes. Cognitive skills are particularly important for raising education and labour market outcomes. Social and emotional skills play a key role in promoting healthier lifestyles, active citizenship, improved life satisfaction and safer societies. However, cognitive and social and emotional skills do not necessarily act in isolation in driving positive behaviours and outcomes. These skills interact, cross-fertilise and further leverage their contribution to individual and societal progress.

Children's capacities to achieve goals, work effectively with others and manage emotions help improve their lifetime outcomes. Social and emotional skills such as perseverance, sociability and self-esteem play a key role.

Evidence from the OECD's empirical study, as well as the review of intervention studies, points to the social and emotional skills that drive children's lifetime outcomes. These are the kind of skills that can be usefully deployed across different life situations: in achieving goals, collaborating with others and managing stressful situations. The evidence suggests that perseverance, sociability and self-esteem are among the social and emotional skills that children and society would benefit from developing. It is important, however, to take a nuanced perspective on skill needs since not all the social and emotional skills exhibit positive socio-economic outcomes. For example, in Norway, evidence showed an increase in the level of social and emotional skills such as extraversion reduced self-reported depression but at the same time increased self-reported obesity.

Social and emotional skills can be raised by improving learning environments and mobilising intervention programmes.

Social and emotional skills are **capacities that can be learned** and that enable individuals to successfully and consistently perform an activity or task and can be built upon and extended through learning. The evidence available from a few OECD countries suggests that there is scope to raise children's skills through policy reforms, teachers' innovations and parental efforts. A number of successful intervention programmes share common features: 1) emphasising attachment through warm and supportive relationships between parents, teachers, instructors and the child, and mentoring; 2) ensuring consistency in the quality of the learning environment across families, schools, workplaces and the community; 3) providing skills training for children and teachers based on learning practices that are sequenced, active, focused and explicit; and 4) introducing programmes between early childhood and adolescence, and following up and complementing on the prior investments made.

Interventions may be particularly helpful for disadvantaged groups as they generally lack access to stimulating home learning environments and tend to be exposed to more stressful situations, both of which hamper skills development. Since learning of social and emotional skills takes place in different contexts within and outside formal education, stakeholders acting in isolation cannot be as effective as concerted efforts. Schools need to join forces with families and local communities to improve the formation and development of skills.

The evidence suggests that "skills beget skills", and early investment in social and emotional skills is key to improving the life prospects of the disadvantaged population and reducing socio-economic inequalities.

Children build on foundation skills developed early in their lives. Skills beget skills: children's current levels of skills determine the extent to which they gain more skills in the future. This is due, in part, to the fact that those with higher skills benefit more from new learning investments and contexts. Therefore, early investments bring the biggest returns, securing higher level of skills and positive adult outcomes. Evidence suggests that while the sensitive period for developing cognitive skills takes place earlier in children's lifecycle, the window for developing social and emotional skills continues during late childhood and adolescence. An efficient way to reduce inequalities in educational, labour market and social outcomes is to invest sufficiently early and throughout the school years in social and emotional skills among the most disadvantaged populations.

Regular assessments of social and emotional skills can provide valuable information to improve learning contexts and ensure they are conducive to skill development.

Social and emotional skills can be meaningfully measured at least within a cultural and linguistic boundary. Some existing measures have shown to be predictive of a variety of children's life outcomes. Appropriate measures of relevant social and emotional skills, if regularly collected, can provide policy makers, teachers and parents with valuable information about deficits and trends in social and emotional skills. Good measures of such skills together with information on learning environments will help identify the learning contexts and inputs that are associated with children's social and emotional development. This information is valuable for policy makers who need to identify education policy priorities, schools that need to reform curricular and extracurricular practices, and parents who need to adjust their home learning environments and parenting practices. Measuring social and emotional skills would also help raise awareness of the importance of these types of skills in promoting children's lifetime success and societal progress.

While policy makers across OECD countries and partner economies acknowledge the importance of social and emotional skills, there are differences in the level of policies and programmes available to help schools and families develop these skills.

Most of the educational systems in OECD countries acknowledge the need to develop students' social and emotional skills, such as autonomy, responsibility and the ability to co-operate with others. There are some local and experimental initiatives that provide useful teaching practices and materials to develop social and emotional skills. However, there are differences in the amount of policies and programmes available to help schools and families develop these skills. Moreover, policies and programmes specifically designed to enhance social and emotional skills rarely exists at the system level. It may be useful to make the information on local initiatives widely available, and also to experiment successful practices at the system level to identify robust approaches and to critically examine the strengths and limitations of experimental programmes. This will help countries better understand "what works" to raise social and emotional skills, under what conditions and for whom.

Many OECD countries and partner economies provide guidelines for schools to assess students' social and emotional skills, and schools tend to report these skills in school report cards. However, teachers and parents have limited access to detailed guidance on how to enhance these skills.

School report cards represent one of the most common ways for schools in the OECD countries and partner economics to measure and report students' social and emotional skills. Many countries provide guidelines for schools to assess this type of skills. In this way, parents have an opportunity to see how their children stand in terms of social and emotional development. Nevertheless, not many education systems provide detailed guidance for schools and teachers on how to help students develop social and emotional skills. While this provides schools and teachers flexibility in designing their own teaching strategies, this may not help those who have less knowledge and experience in teaching these skills.

Main findings from this report

	What we know	What we don't know
Social and emotional skills	• They have a strong impact on social outcomes and subjective well-being. • Their impact can be partly explained by their influence in directly shaping individual's behaviour and lifestyle, which in turn shapes socio-economic outcomes. Their impact also lies in allowing people to benefit more from education. • Cognitive and social and emotional skills cross-fertilise. Those with higher levels of social and emotional skills show higher health returns to increasing cognitive skills. Those with higher levels of social and emotional skills demonstrate faster development of cognitive skills. • Among the most important drivers of lifetime outcomes include skills that increase children's capacity to achieve goals (e.g. perseverance), work with others (e.g. sociability) and manage emotions (e.g. self-esteem). • They are malleable during childhood and adolescence. • Validated measurement instruments are available within a cultural and linguistic boundary. There are methodologies to help reduce biases due to response-style and cross-cultural differences. These methodologies need to be further enhanced, building on the efforts made in PISA. OECD's ESP project will further explore this issue in the future. • Social and emotional skills can also exhibit negative effects on socio-economic outcomes. Some of these skills (e.g. extraversion) show positive effect on one outcome (e.g. reducing depression) but negative effect on another (e.g. reducing obesity) in Norway.	• There is only sparse evidence on the causal pathways between learning contexts, skills and outcomes. • Only a few studies have assessed the long-term impact (at least for 10 years) of these skills on socio-economic outcomes. • Instruments that would reliably measure the levels and development of social and emotional skills across cultural and linguistic boundaries do not exist. • There is limited evidence to explain why some social and emotional skills have positive effects on one outcome but negative effects on another.
Cognitive skills	• They have a strong impact on education and labour market outcomes. • They are malleable. Their sensitive period appears to be relatively early in life compared to social and emotional skills. • Several international cross-culturally validated instruments are available, including those employed in PISA.	• International and cross-culturally validated instruments to assess growth of cognitive skills do not exist.
Learning contexts	• Families, schools and communities matter for the development of social and emotional skills. • Parental engagement and attachment have considerable impact on children's early social and emotional development. These are important features that recur most often among successful interventions. • Schools can foster social and emotional skills by strengthening interactions between teachers/mentors and students, mobilising real-life examples in curricular and extracurricular activities. • Family, school and community learning contexts can cross-fertilise. • Different learning contexts matter more at different stages of individuals' lives. • The current level of individual's skills determines the extent to which individuals can benefit from new learning investments.	• There are only a few studies (including those evaluating the effectiveness of intervention programmes) allowing causal claims on the impact of learning contexts and practices on skills. • There is limited evidence on the community learning contexts that drive social and emotional development. • There are few studies that have assessed the long-term impact (at least for 10 years) of learning contexts and interventions on social and emotional development.

Gaps between "what works" and "what happens in practice"

Different education stakeholders face gaps in knowledge, expectations and capacities with regard to how to best enhance children's social and emotional skills. These gaps create inefficiencies: they delay investments in skills; create discontinuities in investments across different stages of education; and create inequalities in the quality of learning environments. Narrowing these gaps is essential, as a wide range of education stakeholders need to be involved to effectively run programmes for skills development.

While the research community has started to generate information on which social and emotional skills matter and how to develop them, this knowledge doesn't appear to be widely shared among the policy and practitioner communities. While individual teachers' experience and parents' know-how provide important guidance to determine the way in which children's social and emotional skills can be improved, objective evidence based on large-scale longitudinal studies and intervention programmes can also offer useful insights. The research community may, in turn, learn from the practitioners' community about the types of social and emotional skills and learning contexts that have not yet been considered by researchers. Researchers can only shed light on skills that can be measured and are already known to have some potential importance. Hence, there are potential exchanges between the two communities that would help bridge the gaps in educational practice and research.

While evidence suggests the importance of ensuring coherence in learning contexts across schools, families and communities, there seems to be limited information exchanged across these boundaries in policy or practice. Although there are often regular information exchanges between schools and parents, they are likely to be more concentrated on children's academic capabilities. Information about children's social and emotional skills is exchanged less intensively. Moreover, only limited information is transferred across different levels of schools systems. The extent to which children's cognitive, social and emotional skills are communicated as children move up the school system (e.g. from kindergarten to primary, and primary to secondary schools) is not clear. Because "skills beget skills", as emphasised in this report, it should be imperative for schools to share the details of children's skills and their trajectory as they make progress through the school system.

One area where the gap between the evidence and ongoing practices is narrowing is on early investments. Currently, a large number of OECD member countries are taking early childhood education and care into serious consideration, and have started making adjustments to their education systems (OECD, 2012). It is crucial for these efforts to ensure fostering a multiplicity of skills, including socio-emotional skills, so that the outcomes and life chances of children are maximised and social progress is further supported.

One of the reasons behind the gap between the research and practitioner communities is the impression among teachers and school administrators that investing in social and emotional skills will involve significant additional efforts and resources. As described in Chapters 4 and 5, the experience in some countries suggests that this need not be the case. Enhancing social and emotional skills can be done hand in hand with ongoing efforts to enhance cognitive skills. Nurturing children's social and emotional development can be done by adapting current teaching and learning practices at the margin. Most effective skill training programmes are those that incorporate learning practices with sequenced training, active forms of learning, focus time and attention to skill development tasks, and explicit learning objectives (SAFE principle). A holistic approach to skill formation can, and should, be incorporated into the classroom.

The way forward

This chapter concludes by presenting suggestions for stakeholders who wish to improve policies, practices and research with regard to the formation and development of social and emotional skills in children.

For policy makers

- Reflect on the key objectives of the education system to assess whether current policies and practices are conducive to achieving the goal of enhancing a comprehensive set of skills – including social and emotional skills – in children, or whether a new portfolio of policies is needed that would strengthen these skills.
- Take concrete measures to adopt and provide enough support for practices that foster a broader set of skills – including social and emotional skills – that ensure a more productive, inclusive, greener and cohesive society.
- Promote system-wide endorsement in supporting and incorporating social and emotional learning in curricula. This will help encourage teachers who believe in the importance of social and emotional development, yet face pressure to prepare students to perform well on core-curriculum subjects, such as mathematics and language.
- Consider measuring cognitive, social and emotional skills from early childhood until adulthood to build more evidence that informs policy and practices.

For school administrators

- Assess whether the school system is investing enough in enhancing and measuring social and emotional skills.
- Assess whether the measurements and methodologies used to enhance social and emotional skills are appropriate.
- Encourage the involvement of parents and the broader community, and ensure that they complement school-based efforts to foster social and emotional skills.
- Promote system-wide endorsement in incorporating social and emotional learning in the curriculum. This will help encourage teachers who believe in the importance of social and emotional development, yet face pressure to prepare students to perform well on core-curriculum subjects, such as mathematics and language.

For researchers

- Identify learning contexts as well as social and emotional skills that drive children's future prospects. The goal here is not only to identify the conditions under which learning contexts (that are known to work) function, but also to identify the potentially important learning contexts and skills that are lesser known. It would be important to develop a comprehensive framework to better understand the multiplicity of interventions, learning contexts and policy levers that may matter. Qualitative studies could help on this front.
- Identify social and emotional skills relevant for children in early childhood to early adolescence that can be reliably measured and are cross-culturally and cross-linguistically robust.
- Better clarify the causal pathways that explain the relationships between learning contexts, skills and outcomes. In particular, it is important to identify how different learning contexts play together in driving skill development. It is equally important to identify how different

skills – cognitive, social and emotional – play together in driving positive educational, labour market and social outcomes.

- Expand evidence from intervention studies, including those outside the United States, where evidence is relatively abundant.

For the OECD

- Continue synthesising information on policies, practices and research related to social and emotional skills. This can be done by working with countries and other OECD activities (e.g. those that shed light on early childhood education and care and teachers) to identify parenting and teaching practices that would foster these skills.
- Continue conducting empirical work on longitudinal data from OECD countries and partner economies to improve the evidence base.
- Continue disseminating the findings widely among stakeholders.
- Continue making efforts to develop and validate measures of social and emotional skills that are robust across cultural and linguistic boundaries, building on prior investments made in the Programme for International Student Assessment (PISA).
- Develop strategies to launch an international longitudinal data collection on the dynamics of social and emotional skills.

On the last point, the OECD is currently preparing an international longitudinal study of skill development in cities. This is motived by the lack of internationally comparable longitudinal data on skills that track children over time. The empirical analyses shown in Chapter 3 and 4 had to rely on existing longitudinal studies that included limited measures of skills that were not comparable across countries. The aim of the OECD's new data collection is to follow the lives of two child cohorts (Grades 1 and 7 – approximately 6 and 12 years old, respectively), by collecting data on a host of social and emotional skill measures, learning contexts and socio-economic outcomes over time. In the short term, the micro-data will be used to assess the distribution of social and emotional skills and to identify the learning contexts associated with their development. In the medium term, the data will be used to evaluate social and emotional skills formation as children move up the educational system. In the long term, the data will be used to shed light on the relevant policy inputs that could help to improve social and emotional skills and identify the skills that drive individuals' lifetime success, such as tertiary attainment, smooth transition from school to work, following healthy lifestyles and active citizenship. Box 6.1 summarises the main characteristics of the proposed study.

Box 6.1. **OECD's International Longitudinal Study of Skill Development in Cities**

• **Objectives**	To identify the process of social and emotional skills formation and its socio-economic outcomes.
• **Respondents**	Students, teachers and parents.
• **Target cohorts**	Children in Grades 1 and 7 (approximately 6 and 12 years old, respectively).
• **Geographical coverage**	Major cities, states or provinces (with an option of nation-wide coverage).
• **Sampling method**	Random selection of schools. Full sampling of Grade 1 and 7 cohorts within schools.
• **Duration**	Minimum of three years. Ideally until early adulthood.
• **Measures of skills**	Focus on diverse measures of social and emotional skills.
• **Measures of contexts**	School, family and community learning contexts.
• **Measures of outcomes**	Education, labour market, health, bullying, civic engagement, subjective well-being, etc.

Conclusion

The importance of enhancing children's social and emotional skills is ever more pressing given today's socio-economic climate. In order to help individuals meet the challenges of the modern world, policy makers need to think more broadly and consider a wide range of capabilities, where social and emotional skills are just as important as cognitive skills. The existing evidence base shows that learning takes place in different contexts within and outside of formal educational structures, and that different types of learning are needed to foster the diverse skills that matter. Policy makers, researchers, school administrators, teachers and parents need to work together, and to share their experiences on what works in enhancing social and emotional skills. Making every effort to better invest in children's skills development can lead to achieving more prosperous, healthy and satisfying lives.

Reference

OECD (2012), *Starting Strong III: A Quality Toolbox for Early Childhood Education and Care,* OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264123564-en.

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OECD Skills Studies

Skills for Social Progress

THE POWER OF SOCIAL AND EMOTIONAL SKILLS

Today's children will need a balanced set of cognitive, social and emotional skills in order to succeed in modern life. Their capacity to achieve goals, work effectively with others and manage emotions will be essential to meet the challenges of the 21st century. While everyone acknowledges the importance of socio-emotional skills such as perseverance, sociability and self-esteem, there is often insufficient awareness of "what works" to enhance these skills. Teachers and parents don't really know whether their efforts at developing these skills are paying off, and what they could do better. Policies and programmes designed to measure and enhance socio-emotional skills vary considerably within and across countries.

This report presents a synthesis of the OECD's analytical work on the role of socio-emotional skills and proposes strategies to raise them. It analyses the effects of skills on a variety of measures of individual well-being and social progress, which covers aspects of our lives that are as diverse as education, labour market outcomes, health, family life, civic engagement and life satisfaction. The report discusses how policy makers, schools and families facilitate the development of socio-emotional skills through intervention programmes, teaching and parenting practices. Not only does it identify promising avenues to foster socio-emotional skills, it also shows that these skills can be measured meaningfully within cultural and linguistic boundaries.

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