

Assessing and understanding social and emotional skills: The OECD Study on Social and Emotional Skills



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Dr Sue Thomson is the Deputy CEO (Research) at ACER. A classroom mathematics teacher prior to joining ACER in 1998, Sue is an experienced researcher who specialises in quantitative analysis methods. She has led analysis and reporting on large-scale and longitudinal data sets such as the Longitudinal Surveys of Australian Youth, Project Good Start, and the Australian components of Schools around the World, Programme in International Student Assessment, Trends in International Mathematics and Science Study, and Progress in International Reading Literacy Study. Sue has published widely on the findings from these large-scale international studies, including translational pieces on the outcomes of education and equity issues in the provision of education in Australia. She was a co-investigator on the Australian Child Wellbeing Project, a project funded by the Australian Research Council (ARC), and a Chief Investigator for the Science of Learning Research Centre, a Special Research Initiative of the ARC. Most recently, Sue has also been managing the OECD's Study on Social and Emotional Skills, a new study which was implemented in 2018 in 10 cities and countries internationally.

Abstract

In an increasingly fast-changing and diverse world, the importance of developing social and emotional skills is becoming more evident. The large body of accumulated evidence shows that these skills have strong relationships with life outcomes and they have been referred to as a key component of 21st century skills. The Organisation for Economic Co-operation and development (OECD) Study on Social and Emotional Skills is a new international assessment of these skills in students at primary and secondary schools. This study also gathers information on students' families, schools and community learning contexts, aiming to provide information about the conditions or practices that foster or hinder the development of these critical skills.

This paper will examine the development of the study – based on the 'Big Five' model of personality characteristics – and describe developments so far.

Introduction

A growing number of countries and economies participate in large-scale assessments such as PISA, TIMSS and PIRLS.¹ The performance of students in mathematics, science and reading on these tests has an influence on education policy with the countries involved – and sometimes it's just the published rankings in the form of league tables that have the influence. However, there is a body of evidence to show that achievement tests such as these do not adequately capture the underlying traits that they are intended to measure. Even the OECD, the designers of PISA, argue that 'children need a balanced set of cognitive, social and emotional skills to adapt to today's demanding, changing and unpredictable world' (2015). During an interview at the World Economic Forum in January 2019, the Prime Minister of New Zealand, Jacinda Ardern, spoke about the need for governments to address societal wellbeing as well as the economic wellbeing of countries (Parker, 2019). There seems to be an increasing recognition by policymakers that social and emotional skills are important, providing an opportunity for the OECD to commission work that would provide policymakers with valid, reliable, and comparable information on social and emotional skills.

What are social and emotional skills?

The focus of policymakers on social and emotional skills reflects arguments presented by academic researchers such as James Heckman for many years. Heckman and Kautz (2012) argue that:

soft skills – personality trait, goals, motivations ... are valued in the labor market, in school, and in many other domains ... Soft skills predict success in life ... they produce that success, and programs that enhance soft skills have an important place in an effective portfolio of public policies.

So while research has shown that education is an important predictor for success in life – leading to higher levels of tertiary education completion, better job outcomes, and higher salaries, it has also shown the importance of social and emotional skills such as the ability to pursue long-term goals, work with others and manage emotions. The development of cognitive, social and emotional skills interacts and, in this interaction, are mutually influenced. For example, children who have strongly developed skills in self-control or perseverance are more likely to finish reading a book, or finish their homework, which in turn contributes to further enhanced cognitive skills. As more education systems identify social and emotional skills as being of primary importance in the development of 21st century skills, there is a need to develop a set of metrics that can be

used to enhance policies to improve the development and wellbeing of children and young people.

The OECD (as well as the International Association for the Evaluation of Educational Achievement for TIMSS and PIRLS) have made efforts to incorporate measures of social and emotional wellbeing in their studies, most notably in PISA. Measures of self-belief, motivation, expectations, and perseverance have been included in all of the major large-scale international assessments since their inception, and students' scores on these indices are used to help explain differences in achievement between students and between countries. However the OECD's view is that cognitive skills do not just involve applying knowledge, but also include the ability to reflect and engage in more complex thinking patterns. The very definitions of literacy in PISA 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) illustrate the multidimensionality of cognitive skills. However, these are precisely the skills that Heckman and Kautz (2012), among others, argued are poorly captured by achievement tests.

The OECD Study on Social and Emotional Skills

In order to capture information about social and emotional skills, the OECD launched the Study on Social and Emotional Skills (SSES). The purposes of the Study are to:

- provide participating cities and countries with information on the social and emotional skills of their students
- provide insights on how to support students to develop social and emotional skills
- demonstrate that valid, reliable, and comparable information on social and emotional skills can be produced across diverse populations and settings.

Social and emotional skills, unlike cognitive skills, or height and weight, cannot be directly measured. Personality psychologists primarily measure these skills through self-reported surveys, and research over many years has resulted in a taxonomy of personality factors called the Big Five inventory. This inventory underpins the OECD's Study. Figure 1 summarises the five domains that were decided to be included in the study, and lists the 19 specific social and emotional skills that were to be included in the Field Test, plus a category for 'Compound skills' – a combination of two or more of the individual skills.

The study is aimed at two populations of students: 10-year-olds and 15-year-olds. Students report on their social and emotional skills in both their home and school environment. In addition to this direct assessment, parents of the selected students will provide a report

¹ Programme for International Student Assessment; Trends in Mathematics and Science Study; Progress in International Reading Literacy Study

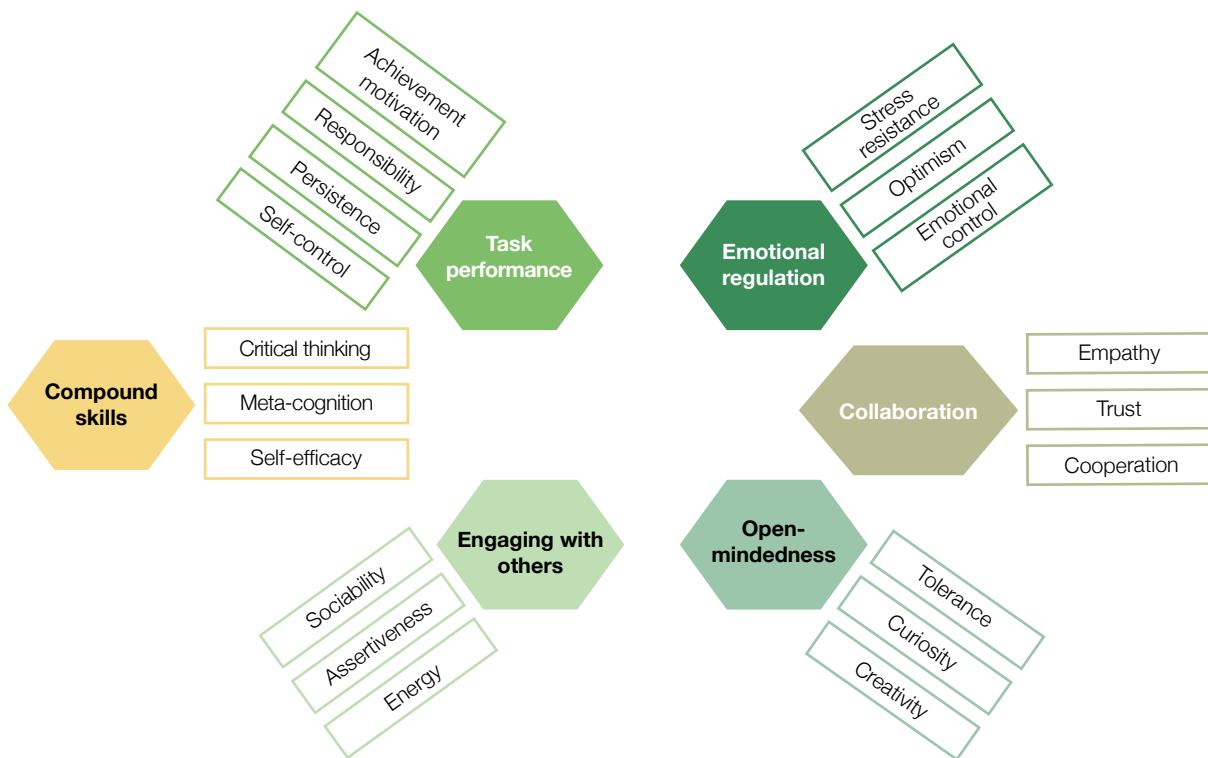


Figure 1 Skills to be included in the field trial for the OECD Study on Social and Emotional Skills

on their child's social and emotional skills in the home environment, while a teacher who knows the student well will provide information about their social and emotional skills within the school environment. This combined direct and indirect assessment of a student's social and emotional skills is an important triangulation. Asking both student age cohorts, teachers and parents to respond to the same items allows the domains to be compared in school and home contexts, as well as providing an insight into how social and emotional skills develop across childhood and adolescence.

As with many other large-scale studies, a range of contextual information is also sought. This includes family, school and community learning contexts and the background characteristics of students, teachers and parents.

The SSES field trial

The field trial was carried out between October and November 2018 across the 11 participating sites. Usually, an organiser of an international assessment only allows countries to participate; however, the OECD believes that there is an increasing role for cities to take responsibility for the education of its citizens; a number of cities now have relative autonomy over their education system. Figure 2 shows the participating cities – note the wide spread over different countries, languages and systems.

Some sites (Houston, Ottawa and Helsinki) collected data from students in two languages. Across all sites, approximately 7000 students at each age level participated in the field test.

What sort of questions were asked?

In the first part of the assessment, students were asked to respond on a five-point Likert scale (strongly disagree through to strongly agree), the extent to which they agreed or disagreed that each of the behaviours representing the 19 social and emotional skills accurately described themselves.

For example, the social and emotional skill of *cooperation* was measured using the following items:

- I argue a lot.
- I like to help others.
- I get along well with others.
- I work well with other people.
- I start arguments with others.
- I treat others with respect.
- I am always willing to help my classmates.
- I am ready to help anybody.
- I am polite, courteous to others.
- I am unwilling to help others.



Figure 2 Cities who participated in the SSES Field Trial

Another of the skills, *empathy*, was measured with these items:

- I do not care what happens to other people.
- I am helpful and unselfish with others.
- It is important to me that my friends are okay.
- I can sense how others feel.
- I know how to comfort others.
- I predict the needs of others.
- I understand what others want.
- I am warm toward others.
- I rarely ask others how they are feeling.
- I am compassionate, have a soft heart.

In addition to this direct assessment of the student's social and emotional skills, teachers and parents were asked to respond in the same way to the same questions (for example *this student* does not care what happens to other people, *my child* is helpful and unselfish with others) to provide indirect assessments of the student's social and emotional skills.

In the second part of the assessment, students were presented with items in a contextual questionnaire. Scales were then derived on factors such as:

- wellbeing, attitudes and aspirations (e.g. WHO-5 Wellbeing index)
- family and peer relations (e.g. perceived treatment by mother/father, peer affiliation and social acceptance)
- school life (e.g. sense of belonging at school, bullying at school, cyberbullying).

Altogether, 17 different scales were field-trialed. This paper focuses on just two of these: *perceived treatment by mother* and *bullying*.

Perceived treatment by mother

For the *perceived treatment by mother* scale, students were asked to 'Describe how true each of the following statements is', and asked to respond on a four-point Likert scale ranging from *almost never* or *never true* through to *almost always* or *always true*.

- My mother understands me.
- My mother listens to me.
- My mother accepts me as I am.
- My mother is proud of me.
- My mother helps me with my problems.
- My mother cares about me.
- My mother pays attention to me.
- My mother is easy to talk to.
- My mother respects my feelings.
- My mother encourages me to be confident.
- My mother is interested in my school activities.

Bullying

For the *bullying* scale, students were asked how often they had had each of the following experiences over the previous 12 months, with responses ranging from *never* or *almost never*, through to *once a week* or *more*:

- Other students left me out of things on purpose.
- Other students made fun of me.
- I was threatened by other students.

- Other students took away or destroyed things that belonged to me.
- I got hit or pushed around by other students.
- Other students spread nasty rumours about me.

What do we hope to find out from the main study?

The data gathered for the field trial are not as robust as those data that will be collected in the main study. In the field trial, sampling is not done as rigorously as in the main study, and so data are not necessarily representative of the population. The main purpose of a field trial is to test procedures and instruments. There were many more items in the field trial than will be necessary for the main study, and all of the instruments have been cut down for the main study in order to minimise fatigue.

For the main study, a random sample of schools will be drawn from each of the target populations, and from those schools, a random sample of 3000 students for each of the two age cohorts will be drawn in each participating city or country.

Given these caveats, each of the scales presented in the previous section of this paper shows different relationships with the set of social and emotional skills under examination.

Perceived treatment by mother illustrates the differing relationships between skills and beliefs (Figure 3). The largest correlation was with optimism (*I believe good things will happen to me, I tend to feel depressed and blue*), and this was the same for both age cohorts. Other moderate correlations were with self-efficacy,

self-control and cooperation, although notably more for the younger cohort. Interestingly, perceived positive treatment by the student's mother has a negligible relationship with *assertiveness* and *critical thinking*, in particular, and, interestingly, small correlations for the older cohort for *empathy* and *trust*.

As would be expected, positive responses by students on the bullying scale were associated with negative scores on skills, although none of the correlations was particularly large (Figure 4). The largest correlation for the younger cohort was for responsibility (I sometimes behave irresponsibly, I am less dependable than others), for the older cohort, optimism.

Given the number of variables available for analysis, the two presented here are just the very tip of the iceberg. However, the primary emphasis of the field test is to ensure that processes work and that instruments work. Many more items were field tested than will be used in the main study, and rigorous analysis over the past six months has identified items that don't work, scales that are not psychometrically sound, and tightened the assessment by removing superfluous items.

Conclusion

The assessments for the main study have now been finalised and processes for moving forward have been put into motion. Sites are in the process of preparing their sampling frames to submit to ACER to draw the sample of schools, and testing will happen in October–November this year. The final reporting on this project will provide a huge amount of evidence to establish a baseline for social and emotional wellbeing for the participating sites and will certainly add a great deal to the literature.

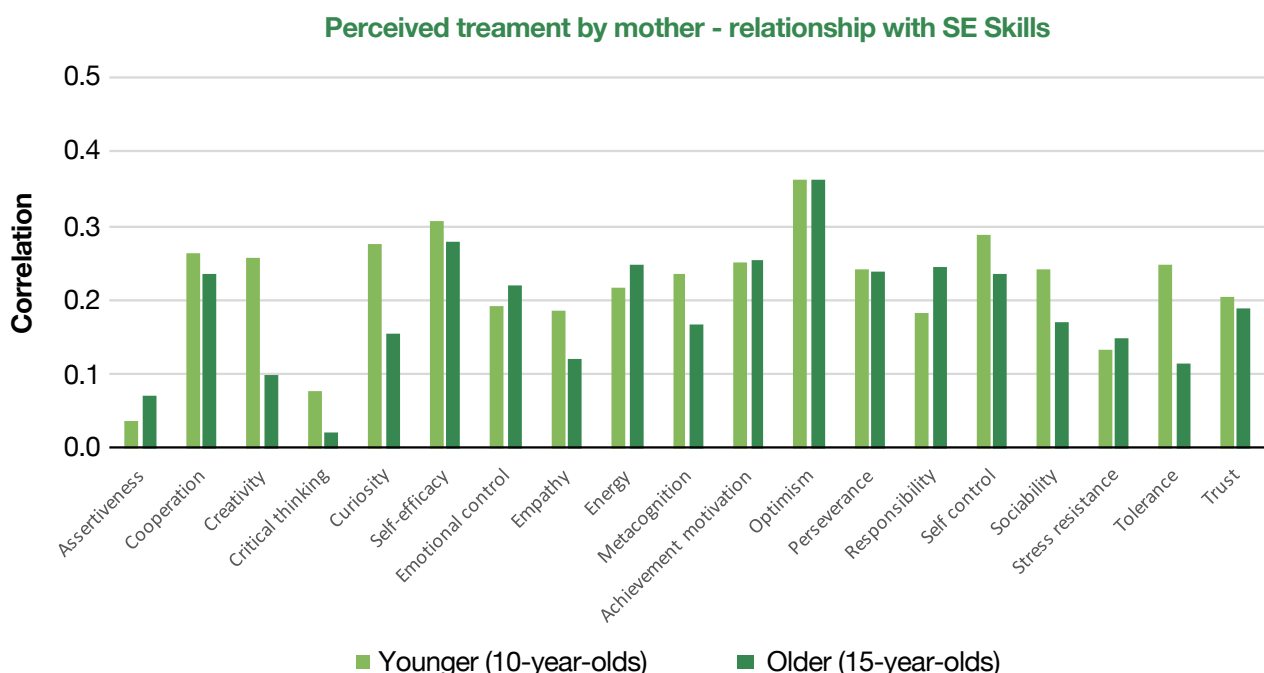


Figure 3 Relationship between perceived treatment by mother scale and social and emotional skills

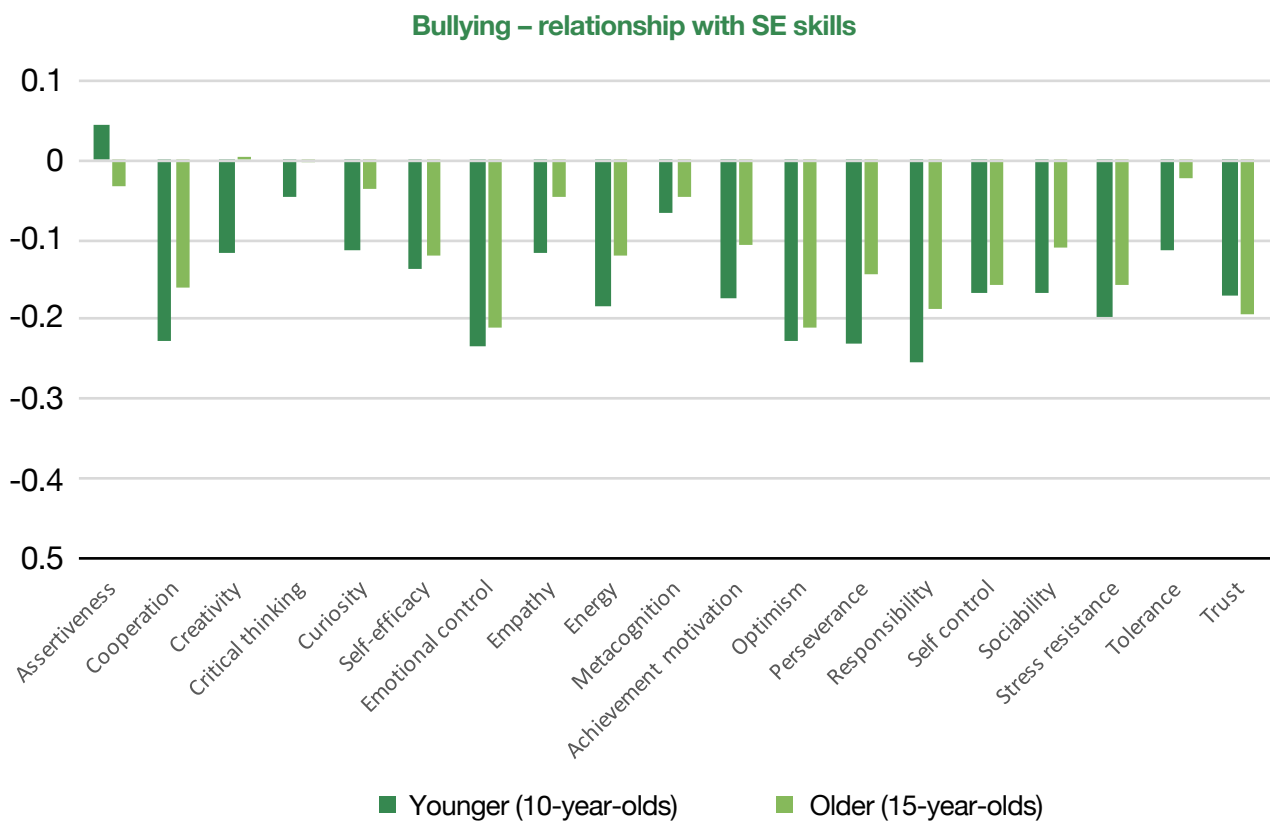


Figure 4 Relationship between bullying scale and social and emotional skills

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