



Review of the quality of  
evidence for preschool and  
school-based programs to  
support social and emotional  
skills, perseverance and  
academic self-concept

Report prepared for Department for  
Education and Child Development

March 2018

**FRASER  
MUSTARD  
CENTRE** ■

A COLLABORATION BETWEEN



### Acknowledgements:

We would like to acknowledge and thank the CASEL (Collaborative for Academic, Social and Emotional Learning) and KidsMatter teams for the invaluable support they provided us throughout the project. We would also like to thank the developers of the programs featured in this report for their assistance and responsiveness to our questions and requests for additional information. We applaud their efforts to enhance social and emotional learning in classrooms and schools.

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### Suggested citation:

Gregory, T., Herreen, D., & Brinkman, S. (2018). Review of the quality of evidence for preschool and school-based programs to support social and emotional skills, perseverance and academic self-concept. Published by the Fraser Mustard Centre. Department for Education and Child Development and the Telethon Kids Institute Adelaide.

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<b>List of Figures</b> .....	<b>4</b>
<b>List of Tables</b> .....	<b>4</b>
<b>Executive Summary</b> .....	<b>5</b>
<b>Chapter 1: Project aims</b> .....	<b>7</b>
<b>Chapter 2: Social and emotional skills, perseverance and academic self-concept</b> .....	<b>8</b>
Five core competencies of social and emotional learning .....	9
Social Competence (AEDC): Definitions, sub-domains and trends over time .....	11
Emotional Maturity (AEDC): Definitions, sub-domains and trends over time .....	13
Perseverance (WEC): Definitions, mechanisms of change and trends over time .....	14
Academic self-concept (WEC): Definitions, mechanisms of change and trends over time .....	19
<b>Chapter 3: Tools, guides and websites</b> .....	<b>22</b>
Understanding the quality of evidence from different evaluation studies.....	22
Finding preschool and school-based programs.....	24
<b>Chapter 4: Review methods</b> .....	<b>27</b>
Inclusion criteria .....	27
Search methodology .....	28
Assessment of evidence for programs.....	31
<b>Chapter 5: Recommended evidence-based programs</b> .....	<b>32</b>
Social and emotional skills programs for preschool children.....	33
Social and emotional skills programs for primary school children .....	35
Perseverance/academic self-concept programs for school children.....	37
<b>Chapter 5: Summary</b> .....	<b>39</b>
<b>References</b> .....	<b>42</b>
<b>Appendix A: Program descriptions</b> .....	<b>45</b>
Aussie Optimism .....	46
The Fun FRIENDS Program .....	48
I Can Problem Solve .....	50
The Incredible Years Classroom Dinosaur Program.....	52
MindUP .....	54
PATHS (Promoting Alternative THinking Strategies).....	56
Second Step .....	58
Social Decision Making/Problem Solving .....	60
Steps to Respect .....	62

## List of Figures

Figure 1. Five Social and Emotional Learning Core Competencies.....	9
Figure 2. Trends over time in the AEDC domains for South Australian children.....	12
Figure 3. Big Five personality traits.....	14
Figure 4. Trends over time in perseverance for South Australian children .....	18
Figure 5. Trends over time in academic self-concept for South Australian children.....	21

## List of Tables

Table 1. Program design and implementation for social-emotional programs for preschool children .....	33
Table 2. Evidence of effectiveness for social-emotional programs for preschool children .....	34
Table 3. Program design and implementation for social-emotional programs for primary school children..	35
Table 4. Evidence of effectiveness for social-emotional programs for primary school children .....	36
Table 5. Program design and implementation for programs that could increase perseverance/academic self-concept in primary school children .....	37
Table 6. Evidence of effectiveness for programs that could increase perseverance/academic self-concept in primary school children .....	38

## Executive Summary

It is well established that social and emotional skills are essential for children's capacity to learn and succeed at school. While the measurement of social and emotional skills has received less attention within education compared to the more traditional skills of literacy and numeracy, there have been some positive shifts during the past few years, particularly in South Australia. Social Competence and Emotional Maturity have been measured for all South Australian children at school entry on three occasions (2009, 2012 and 2015) through the Australian Early Development Census, providing a wealth of information about the social and emotional skills of SA children during the transition from preschool to primary school. In addition, the Department for Education and Child Development have collected information on the social and emotional wellbeing of South Australian students during the transition from primary to high school over the past four years (2013, 2014, 2015 and 2016), through the SA Wellbeing and Engagement Collection (WEC).

These two valuable datasets provide the opportunity to explore differences in social and emotional skills for boys and girls, for children at different stages of their development, for children living in different parts of South Australia, as well as to make comparisons with children from other jurisdictions and to explore changes over time in social and emotional skills for successive cohorts of children. Moreover, linking these datasets to student's NAPLAN scores has provided insights into the key social and emotional wellbeing factors that are predictive of student's academic achievement [1]. Three of the main findings from these analyses were:

- Between the 2012 and 2015 AEDC collection, there was an increase in the percentage of South Australian children who were developmentally “vulnerable” and “at risk” in *Emotional Maturity* at school entry
- In the 2015 AEDC, South Australian children had higher levels of vulnerability in *Social Competence* than most other jurisdictions
- Students with better perseverance and academic self-concept have higher educational achievement on the NAPLAN reading assessment in Year 7.

These findings led to questions about how the Department could best support the social and emotional development of children and young people in their preschools and schools. As such, the Fraser Mustad Centre was commissioned to review the quality of evidence for preschool and school-based programs that support the development of *Emotional Maturity* and *Social Competence* (aligned to the Australian Early Development Census domains) and school-based programs that focus on building *perseverance* and *academic self-concept*.

The review identified four programs for preschool children with high quality evidence of impacts on social and emotional skills, and seven programs for primary school children. For each of these programs, we provide a detailed description of the program (intended age range, number of sessions, costs) and the studies that have been conducted to establish the program's effectiveness (grades evaluated, study sample, study design, evaluation outcomes). We also explored the degree to which each of these programs addressed the AEDC Social Competence and Emotional Maturity sub-domains to help inform whether these interventions would be likely to improve the AEDC results for subsequent cohorts of children.

Seven programs were identified that focused on children's self-awareness and self-management skills, and these programs included design features that would be *expected* to improve student's perseverance and/or academic self-concept through addressing their (1) emotion regulation, (2) attention regulation, and/ or (3) academic performance. For each of these programs, we report on the mechanisms through which the program would likely impact perseverance and/or academic self-concept. However, *none* of the evaluation studies measured perseverance as an outcome, and only one measured academic self-concept. If any of these programs are trialled in South Australian schools, it will be beneficial to include perseverance as an outcome measure in the evaluation study.

In summary, our review has identified a range of school-based programs suitable for Australian preschool and school children that have a high chance of improving student's social and emotional skills if implemented with fidelity. When selecting a program from this list, or the lists provided in the various tools and online databases, it is important for preschools and schools to take their local context into account. While this review is current at the time of writing in early 2017, new programs are created frequently and new evaluation studies are often published, so schools are encouraged to utilise the tools and website described in Chapter 3 to source up-to-date information about the effectiveness of different school-based programs.

## Chapter 1: Project aims

In recent years, there has been an increased focus from teachers, schools and education systems on helping to build and nurture student's social and emotional skills, as well as their literacy, numeracy and communication skills. The *Melbourne Declaration of Educational Goals for Young Australians* suggests that all young Australians should be successful learners but also individuals with a sense of self-worth, confidence, self-awareness, optimism, resilience, empathy, respect for others and the skills to relate well to others [2].

The first challenge is to understand the current level of social and emotional skills in South Australian school children. This information will allow us to establish a baseline from which we can track our progress in helping to build these important skills in our children. Significant progress has been made towards this goal in the past five years in SA with the collection of the Australian Early Development Census (AEDC) in 2012 and 2015, and the Wellbeing and Engagement Census (WEC) in 2013, 2014, 2015 and 2016 providing information about the social and emotional skills of SA students in reception and during the middle years of schooling (Year 6-9). This data provides a wealth of information that can be used to track the population over time and to explore differences between children based on their demographic characteristics and geographical location in the state.

The second challenge is to understand the interventions and programs that schools can implement to help build children's social and emotional skills. The foundations of these skills and competencies are formed in early childhood, with a strong attachment to the primary caregiver providing the opportunity for children to explore their world and build social relationships in a safe and nurturing environment. However, significant further development of these skills occurs during the preschool and primary school years. While many schools see the importance of helping to foster student's social and emotional skills, it can be difficult for schools to determine which programs work, for which children and at what age to provide the best opportunity for these programs to achieve their intended goals.

The aim of this current project is two-fold. The first aim is to provide some tools and guidelines for schools and the Department for Education and Child Development to use to help select evidence-based programs that can be implemented within a preschool or school setting to help nurture children's social and emotional skills. We provide a broad introduction to different levels of evidence (i.e., randomised controlled trials and quasi-experimental studies) and introduce three key resources - the CASEL Guide, What Works for Kids and KidsMatter - which together provide a useful framework for selecting evidence-based programs for preschools and schools.

The second aim is to explore specific programs that have been designed to support children's *Social Competence* and *Emotional Maturity* (as measured in the AEDC) or *perseverance* and *academic self-concept* (as measured in the Wellbeing and Engagement Census). Using the CASEL Guide, the What Works for Kids website and the KidsMatter website as a starting point, we have identified the programs designed for preschool and/or primary school students with the strongest evidence of efficacy. We report on which primary outcome variables the programs address, as well as secondary outcome measures (e.g., academic achievement). Given that new programs are introduced all the time and new evaluations are published frequently, we believe that providing tools to help evaluate interventions will be a valuable addition to the review of the current evidence for specific programs.

## Chapter 2: Social and emotional skills, perseverance and academic self-concept

Preschools and schools have an important role to play in fostering student’s social and emotional development, as well as their cognitive and academic development from preschool through to high school. The term “social and emotional skills” is an umbrella term that refers to a wide range of skills and competencies such as empathy, prosocial skills, emotion regulation, reciprocity in relationships, co-operation, sharing with other children, understanding social cues and recognising emotions in one’s self and others. A related idea is that of “non-cognitive skills”, a term used to describe things like motivation, self-efficacy, self-control, perseverance, inhibitory control, sociability, self-esteem, attention and communication skills. Both social and emotional skills and non-cognitive skills more broadly are important for children’s mental health and wellbeing but are also vitally important for children’s capacity to learn and succeed within the school environment. Depending on the discipline (e.g., psychology, education or public health), different terms are used to describe the same idea or construct, making it challenging to synthesise the research evidence about what programs are effective at improving different outcomes.

To make this a little easier, we present the five core competencies of social and emotional learning that have been developed by the CASEL (Collaborative for Academic, Social and Emotional Learning) group in the United States. These five competencies cover all of the social and emotional skills described above but also cover aspects of perseverance and self-efficacy, providing a good framework to use in this report. Next, we present information about the Social Competence and Emotional Maturity domains from the Australian Early Development Census (AEDC) including a description of the sub-domains, how they link to the five core competencies and how the South Australian results have been tracking over time. Finally, we present some background information on perseverance and academic self-concept, how they link to the five core competencies and some data from the Wellbeing and Engagement Census about trends in these constructs over time for SA children.



## Five core competencies of social and emotional learning

It is worth mentioning that the term “social and emotional learning” is used in many of the guides, reports and databases to refer to the *processes* of developing social and emotional skills and competencies in children. In the CASEL Guide, they describe five interrelated core competencies of social and emotional learning [3]. These are presented below in Figure 1.



Figure 1. Five Social and Emotional Learning Core Competencies

The first two of the core competencies (**Self-Awareness** and **Self-Management**) might be described as having an internal focus. They are not so much about the child’s social skills and interactions with other people, as they are about the child’s ability to recognise their own emotions, thoughts and behaviours and manage them appropriately. Of course, these competencies develop in part through social interaction with others.

- **Self-Awareness:** The ability to accurately recognise one’s emotions and thoughts and their influence on behaviour. This includes accurately assessing one’s strengths and limitations, possessing a well-grounded sense of confidence and optimism and believing in one’s ability to succeed in accomplishing a goal or task (i.e., self-efficacy).
- **Self-Management:** The ability to regulate one’s emotions, thoughts and behaviours effectively in different situations. This includes managing stress, controlling impulses, motivating oneself, persevering in challenging situations and setting and working towards achieving personal and academic goals.

The second two of the core competencies (**Social Awareness** and **Relationships Skills**) focus on children's competency in social interactions and relationships.

- **Social Awareness:** The ability to take the perspective of and empathise with others from diverse backgrounds and cultures, to understand social and ethical norms for behaviour and to recognise family, school and community resources and supports.
- **Relationships Skills:** The ability to establish and maintain healthy and rewarding relationships with diverse individuals and groups. This includes communicating clearly, listening actively, cooperating, resisting inappropriate social pressure, negotiating conflict constructively and seeking and offering help when needed.

The last of the core competencies (**Responsible Decision Making**) involves both cognitive (evaluating the consequences of various actions) and social (behaving in a socially appropriate manner) components.

- **Responsible Decision Making:** The ability to make constructive and respectful choices about personal behaviour and social interactions based on consideration of ethical standards, safety concerns, social norms, the realistic evaluation of consequences of various actions and the wellbeing of self and others.

## Social Competence (AEDC): Definitions, sub-domains and trends over time

The Social Competence domain in the AEDC is split into four sub-domains. While we tend to report on the overall domains (rather than the sub-domains<sup>1</sup>), it is useful to understand what each of the sub-domains measure and how they link to the core competencies listed in the CASEL Guide. This will help to think about which types of interventions might be most effective at reducing the percentage of children who are vulnerable on the AEDC Social Competence domain.

- The **overall social competence** sub-domain measures whether children play and work cooperatively with other children, whether they are able to play with various children and whether they get along with their peers. This sub-domain is most closely linked to the “relationships skills” core competency from the CASEL Guide.
- The **responsibility and respect** sub-domain measures whether the child respects the property of others, follows rules and instructions, demonstrates self-control (i.e., has good self-regulation), demonstrates respect for adults, demonstrates respect for other children, accepts responsibility for actions, takes care of school materials and shows tolerance to someone who made a mistake (e.g., when a child gives a wrong answer to a question posed by the teacher). This sub-domain is most closely linked to the “responsible decision making” core competency from the CASEL Guide.
- The **approaches to learning** sub-domain measures whether the child is conscientious (i.e., listens attentively, completes work on time, works independently, neatly and carefully) and aspects of their capacity to learn (e.g., can solve day-to-day problems by themselves, can follow one step instructions, can follow class routines without reminders and can adjust to changes in routine). This sub-domain is most closely aligned with the “self-management” core competency from the CASEL Guide but also measures aspects of other non-cognitive skills, including conscientiousness.
- The **readiness to explore new things** sub-domain measures whether the child is curious about the world and whether they are eager to play with a new toy, game or to read a new book. These items seem to be tapping whether the child is engaged in the world around them and is eager to learn and have fun. A child who has trouble regulating their emotions and who is frightened, anxious or upset might be less likely to feel safe to explore new things, so improving the core component of self-management might help to reduce vulnerability on this sub-domain. However, this sub-domain does not clearly map onto any of the core competencies described in the CASEL model.

To summarise, the AEDC Social Competence domain measures aspects of social and emotional skills that mainly overlap with the CASEL core competencies of *Relationship Skills*, *Responsible Decision Making* and *Self-Management*.

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<sup>1</sup> The reliability and validity analyses on the Australian version of the Early Development Instrument (AvEDI) have focused on the domain scales rather than the sub-domain scales. As such, the AEDC sub-domain results are generally not reported in Australia.

Figure 2 presents the percentage of South Australian children who were vulnerable on each of the AEDC domains in 2009, 2012 and 2015, and the 2015 National results (in yellow).

- Over the past three collection cycles, there has been a small but significant increase in the percentage of children who were developmentally vulnerable on the Social Competence domain in SA from 10.1% in 2009 to 10.8% in 2015.
- In addition, the percentage of children who were vulnerable in Social Competence in 2015 in South Australia was higher than the national average (9.9%).
- With respect to children’s emotional maturity, there was a drop in vulnerability from 2009 to 2012 in SA, followed by a small increase in 2015. Overall, there has been a small but significant decrease in the percentage of children who were developmentally vulnerable on the Emotional Maturity domain in SA from 10.3% in 2009 to 9.7% in 2015.
- The percentage of children who were vulnerable in Emotional Maturity in 2015 in South Australia was also higher than the national average (8.4%).

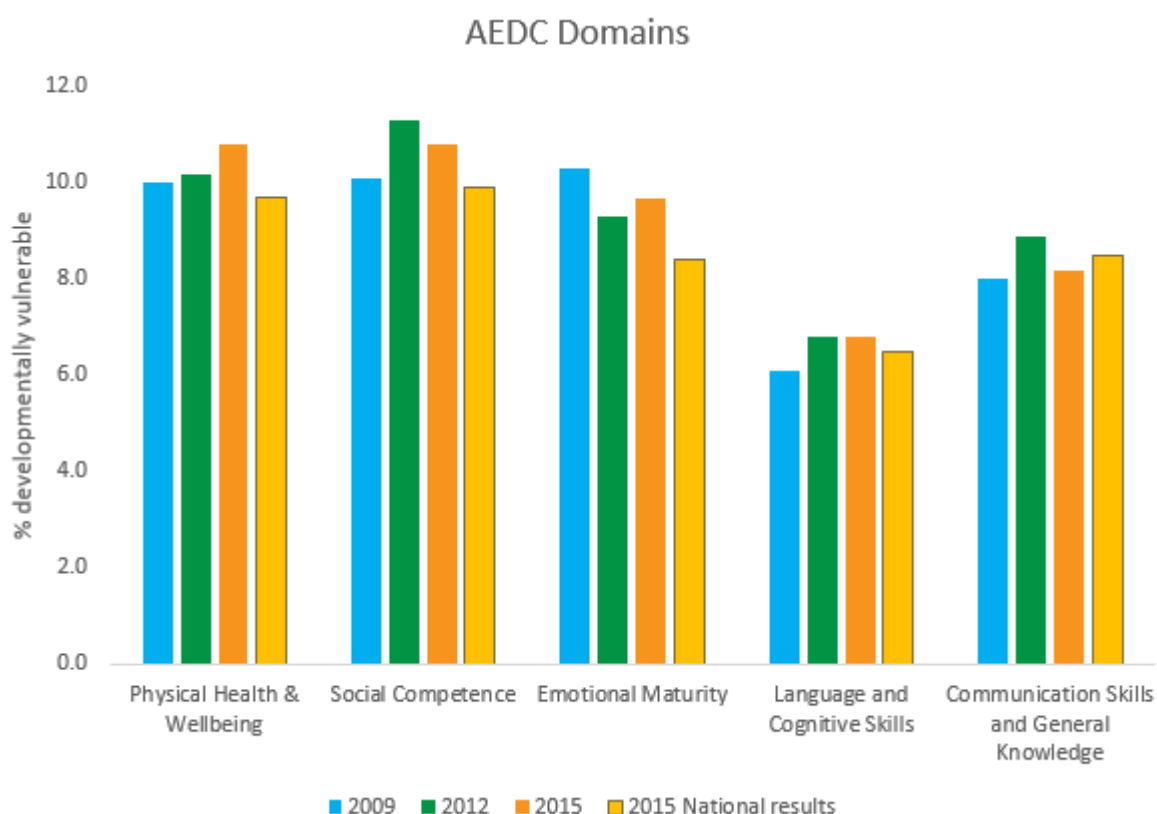


Figure 2. Trends over time in the AEDC domains for South Australian children

## Emotional Maturity (AEDC): Definitions, sub-domains and trends over time

The Emotional Maturity domain in the AEDC is split into four sub-domains:

- Prosocial and helping behaviour
  - Anxious and fearful behaviour
  - Aggressive behaviour
  - Hyperactivity and inattention
- The **prosocial and helping behaviour** sub-domain measures whether the child exhibits a range of different prosocial behaviours such as helping another child who is hurt, upset or feeling sick, helping to clean up someone else’s mess, trying to mediate disputes between children, helping a child who is having difficulty with a task and being inclusive by inviting children to join in a game. The tendency to *feel* concern for other children and people is often described as empathy, while the tendency to *behave* in a way that benefits others is described as prosocial behaviour. As such, interventions that help to build empathy as well as those that directly focus on prosocial behaviour might reduce vulnerability on this sub-domain. Of the CASEL core competencies, prosocial behaviour most closely aligns with “social awareness”.

The three other sub-domains focus on internalising and externalising behaviours. Interventions that are effective at helping children to recognise their emotions and thoughts (“self-awareness”) and regulate these emotions (“self-management”) may reduce vulnerability on these sub-domains.

- The **anxious and fearful behaviour** sub-domain measures whether the child seems unhappy, sad, worried, nervous, highly strung or tense, cries a lot or is incapable of making decisions. As such, it includes indicators of both anxious and depressive symptoms, which collectively are referred to as “internalising behaviours”. All children in reception might be expected to exhibit some of these behaviours at times (e.g., nervous when their parents drop them off), but a child would need to exhibit these behaviours often to be classified as vulnerable in this sub-domain.
- The **aggressive behaviour** sub-domain measures whether the child gets into physical fights, bullies other children, kicks, bites or hits other children or adults, takes things that do not belong to them, is disobedient or has temper tantrums. Many young children go through a period of biting, hitting, hair pulling, throwing tantrums or acting out before learning how to manage their emotions and frustrations in more socially appropriate ways.
- The **hyperactivity and inattention** sub-domain measures whether children are restless (i.e., can’t sit still), distractible (i.e., has trouble sticking to an activity), impulsive, inattentive, has difficulty waiting turns in games or has difficulty settling into anything for more than a few moments.

The AEDC Emotional Maturity domain measures aspects of social and emotional skills that mainly overlap with the CASEL core competencies of *Social Awareness*, *Self-Awareness* and *Self-Management*.

## Perseverance (WEC): Definitions, mechanisms of change and trends over time

Perseverance refers to the ability to pursue one’s goals to completion in the face of difficulty and delay. Related constructs are a core component of both temperament and personality theories, which are described briefly below.

- Within temperament research, the term **persistence** is used to describe whether a child sticks to an activity for long periods of time or tends to lose interest quickly. Differences in this trait can be observed very early in life. In toddlers, persistence is measured by items such as “this child plays continuously for more than 10 minutes with a favourite toy” and “this child goes back to the same activity after a brief interruption (e.g., getting a snack or a trip to the toilet)”<sup>2</sup>. Persistence involves an attentional component where children need to be able to attend to stimuli for a prolonged period of time to be able to successfully complete a task and several temperament theories group persistence and attention together as one trait [4]. Persistence also involves an emotional component where children need to be able to regulate their emotions to stay calm and on track when they face challenges and frustrations in completing a task. As such, the concepts of persistence, task attentiveness and emotion regulation are all strongly related to one another and these all sit within the core competency of “self-management” in the CASEL Guide.
- Within personality research, the construct of **self-discipline** is most closely aligned to perseverance. Self-discipline is defined as the capacity to begin tasks and follow through to completion despite boredom or distraction. Self-disciplined individuals are motivated to complete tasks that they begin and are not easily discouraged when they face challenges. Self-discipline is measured by items including “Once I start a project, I almost always finish it” and “I am a productive person who always gets the job done”<sup>3</sup>. Self-discipline is one of the six lower order factors (personality facets) within the Conscientiousness factor in the Big 5 personality theory (see Figure 3 below).

Trait	Description
<b>O</b> penness	Being curious, original, intellectual, creative, and open to new ideas.
<b>C</b> onscientiousness	Being organized, systematic, punctual, achievement-oriented, and dependable.
<b>E</b> xtraversion	Being outgoing, talkative, sociable, and enjoying social situations.
<b>A</b> greeableness	Being affable, tolerant, sensitive, trusting, kind, and warm.
<b>N</b> euroticism	Being anxious, irritable, temperamental, and moody.

Figure 3. Big Five personality traits

<sup>2</sup> The items are from the Short Temperament Scale for Toddlers (STST).

<sup>3</sup> These items are from the Revised NEO Personality Inventory (NEO PI-R)

Many previous studies have demonstrated that students with higher perseverance have better cognitive and academic outcomes. For example, Duckworth and Seligman [5] explored the relative importance of self-discipline and IQ for a range of educational outcomes in two samples of eighth grade students in the U.S. Self-discipline was a strong predictor of time spent on homework, standardised test scores, school attendance and student's grade point average (GPA). IQ was also significantly related to most of these outcomes but the correlations were much weaker. For instance, students' final GPA was much more strongly related to their level of self-discipline ( $r = .67$ ) than to their IQ ( $r = .32$ ).

In South Australia, a study using data from the Wellbeing and Engagement Census linked to NAPLAN reading scores found that perseverance was one of the strongest predictors of academic achievement [1]. Moreover, a simulation study suggested that if all of the students with "low" perseverance could be moved to having high perseverance using an effective intervention, then an improvement in mean NAPLAN reading results in SA of about 10 points might be gained.

### **Mechanisms to improve perseverance**

Personality traits such as persistence and perseverance are traditionally considered to be innate in nature and relatively *stable over time*. As such, there has not been a lot of research into ways to improve perseverance. While there is compelling research that personality is stable in adulthood [6], individual differences in these traits are much less consistent when measured in children over time. For example, Roberts et al. [7] explored the consistency of a range of temperament and personality traits over time in children. Task persistence in children under 12 years of age was not very stable at all, with an estimated stability coefficient of just 0.36, suggesting that children's rank order from high to low persistence within a group shifts quite a bit during childhood. So, while more recent research clearly shows that persistence and perseverance are fluid during childhood and adolescence, suggesting they would be amenable to change through intervention programs, the way they have been conceptualised in the literature has led to limited research into ways to build and improve them in children and adolescents.

Two concepts that have received some attention in the research literature in recent years, in relation to building perseverance and grit, are a **growth mindset** and engaging in **deliberate practice**. These two concepts are discussed here as possible mechanisms to increase an individual's perseverance.

#### ***Growth mindset***

Recent research on motivation and achievement suggests that there are two fundamental belief systems that determine whether people persevere through struggles, setbacks and failures, or become discouraged and give up on their goals. The distinction between these two belief systems emerged from the work of Stanford University psychology professor, Dr Carol Dweck. According to Dr Dweck, people can approach their goals with either a *fixed* or a *growth mindset* [8].

Students with a *fixed mindset* believe that their basic qualities, like their intelligence and talent, are fixed traits that are predetermined by their genes and upbringing. They believe that success is a result of talent rather than effort and are therefore less likely to attempt to grow, learn and develop. Students with this mindset view limitations as permanent and unchangeable, which prevents them from persevering to achieve their goals because they believe that the outcome is fixed and additional work will not change it.

Conversely, students with a *growth mindset* believe that their skills and intelligence are malleable and can be developed through dedication and hard work. These students understand that effort makes them stronger and are therefore willing to work and persevere to improve, leading to higher achievement.

Several studies have explored how changing a person's mindset from fixed to growth might lead to increased motivation and achievement. For example, in a small ( $N = 91$ ) randomised controlled trial conducted by Blackwell and colleagues [9], minority seventh grade students who were attending public school in New York City and were showing declining grades (particularly in maths) were randomly divided into two groups. Students in the control group received a six-session workshop about study skills, while students in the intervention group received a six-session workshop that taught students about both study skills and a growth mindset – how the brain grows with effort and how to apply this to their schoolwork. Approximately three times as many students in the growth mindset group showed an increase in effort and motivation in comparison to control group students. Additionally, following the workshops, students in the control group continued to show declining maths grades, while students in the growth mindset group showed a significant increase in maths and general academic performance.

In addition to their academic ability, students can develop a growth mindset about other personal characteristics. For example, a randomised controlled trial with a diverse sample of ninth and tenth grade students ( $N = 230$ ) attending high school in San Francisco tested the impact of teaching students about the malleability of their personality traits. Students were randomly divided into three groups, including the coping skills control group, the no intervention control group and the intervention group. Students in the coping skills control group received a six-session workshop that taught skills for thinking positively and coping productively, while students in the intervention group received a six-session growth mindset workshop. Compared to no treatment and coping skills control groups, students in the growth mindset group behaved significantly less aggressively and more pro-socially one month post-intervention and exhibited fewer conduct problems three months post-intervention [10].

Inspired by these positive findings, Dr Dweck developed a computer-based program called *Brainology*, which shows students how their brains become stronger with effort and practice. With the help of animated characters, students are taught all about the brain and the importance of caring for it, along with healthy habits, study techniques, self-regulation strategies and other essential non-cognitive skills that help them become effective learners. Students interact with the online content independently, while teachers reinforce the concepts with classroom lessons. There is one online session for every three to four classroom lessons.

The program costs approximately \$20 per person, which provides students with six months of access to the online, animated course. Students also receive access to a personal e-journal and a downloadable workbook. Educators receive an implementation guide, a downloadable classroom curriculum containing the offline activities, assistance with implementation, background information about a growth mindset, as well as access to student data through the teacher dashboard.

Despite these positive program features, there does not appear to be any publicly available peer-reviewed quasi-experimental or randomised controlled trials that provide evidence supporting the effectiveness of the program. However, a large-scale ( $N = 2,400$ ) randomised controlled trial examining the impact of the program with sixth and seventh graders over four years is currently underway. While there are no results available yet, it will be interesting to see the findings once published in peer-reviewed papers in the coming years.



### ***Deliberate practice***

A related concept pioneered by psychologist and scientific researcher K. Anders Ericsson is that of *deliberate practice*, which is based on the idea that all individuals can succeed regardless of their innate abilities if they practice in a deliberate manner. The concept of deliberate practice can motivate students to persevere through reminding them that with hard work, anyone can be successful. According to the theory, it is not necessarily the length of time you spend on developing a skill, but the quality or the way you spend your time. Deliberate practice requires specific activities that are designed to improve performance, challenge the learner and provide feedback. It involves well-designed, specific goals, rather than vague, overall improvement [11]. The concept of deliberate practice is not limited to academic contexts. It can also be applied to other areas of life, such as learning a musical instrument, improving various sport skills and even hobbies such as playing chess.

Below, we describe five useful steps that should be taken to engage in deliberate practice and provide some examples of how students might apply these to their study.

- **Start with a goal:** Before engaging in deliberate practice, it is important to have a clear, specific goal to work towards. For example, a student might aim to improve their science grade from a C to a B by the end of the school term or to have learnt all the elements in the periodic table.
- **Eliminate all distraction:** The second step is to recognise the need to be incredibly focused. It is important to eliminate all distractions, whether that be ensuring that mobile phones are turned off or on silent or going into a quiet room.
- **Slow it down:** While it is important to finish the work, it is equally as important to understand the ideas fully. Slowing down instead of rushing through various activities allows students to take the time to truly grasp new concepts and results in higher precision. For example, instead of reading a whole chapter of a text book in one go, a student might focus on understanding each individual concept discussed in the chapter. When the various concepts are understood in isolation, the ideas can then be connected.
- **Feedback:** While it may not be possible to have a teacher or personal tutor available to provide immediate responses and feedback, students can monitor their own progress in a number of ways. For example, a student could complete a few questions at a time and then subsequently check the answers or create flashcards and ask a family member to quiz them. This allows students to determine whether they are on the right track and provides feedback about particular areas that may need more attention.
- **Repeat and set more difficult goals:** Once the goal is reached, it is important to continue to practice deliberately to maintain it. It is also important to set more difficult goals along the way to continue to be challenged.

Overall, these two theories suggest that students should be reminded that they have the ability to grow and change and that persistent effort is the key to success. With the right mindset, it is thought that children can become more resilient and motivated to persevere to raise their grades and accomplish various goals. However, we were not able to find any studies with good quality evaluations of school-based programs that taught “growth mindset” or “deliberate practice” strategies to students. As such, while these are two plausible ways to improve perseverance in primary school and high school students, there is insufficient evidence of their effectiveness to recommend them at this time.

Figure 4 shows the trends in the percentage of South Australian children with low perseverance for South Australian children both over time (2013-2016) but also with maturation. Based on the 2016 data, there is a clear increase in the percentage of children with low perseverance from about 26% in Year 6 children to 34% in Year 9 children. This decline in perseverance corresponds with a time when students may need to increase their perseverance and attentional levels to succeed in early high school. The trends over time are less clear but there has been a 3-percentage point decrease in the percentage of students with low perseverance from 2014 to 2016.

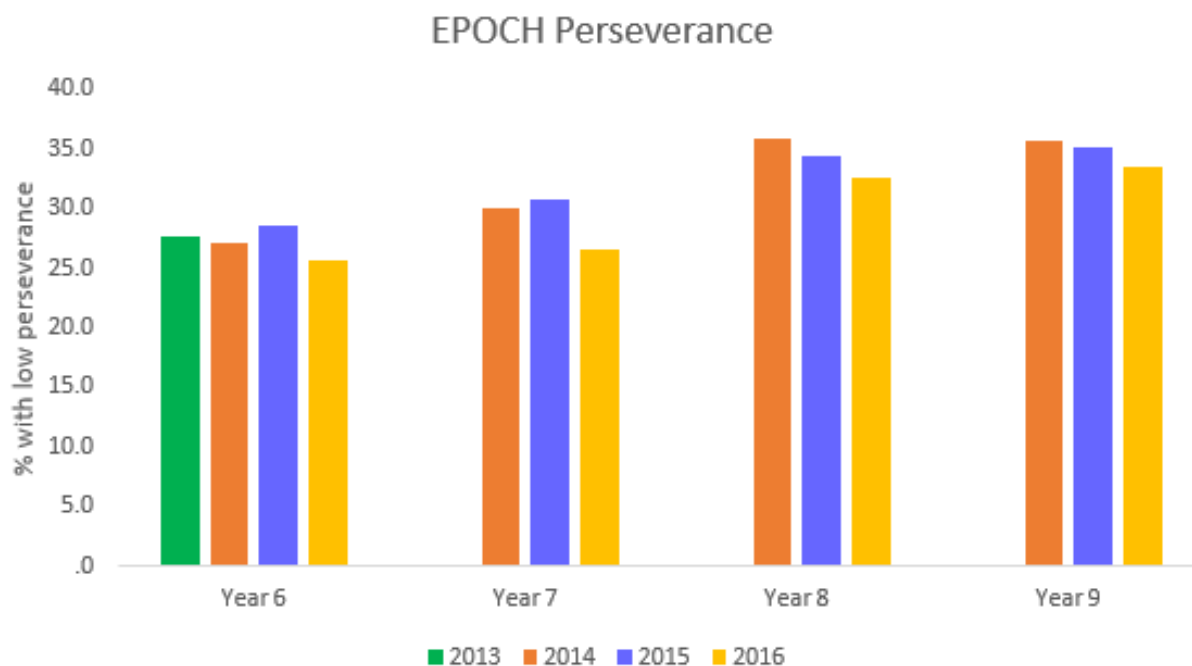


Figure 4. Trends over time in perseverance for South Australian children

## Academic self-concept (WEC): Definitions, mechanisms of change and trends over time

Academic self-concept is more commonly referred to in the literature as academic self-efficacy. *Self-efficacy* refers to an individual's beliefs about what they are capable of learning and achieving, while *academic self-efficacy* refers to a student's beliefs about their ability to learn and succeed academically in school. Within the literature on academic self-efficacy and academic self-concept is an ongoing discussion about whether it is important to differentiate what appears to be highly analogous constructs. However, as both terms encompass individuals' perceptions about themselves in academic contexts, for the purposes of this report, the terms *self-efficacy* and *self-concept* will be used synonymously.

Academic self-efficacy helps explain why student achievement is not always accurately predicted from their capabilities, as how a person believes they will perform is often an important factor. Having high academic self-efficacy is said to create feelings of calmness, whereas low academic self-efficacy may result in a student perceiving a task as more difficult than it actually is, which in turn, may lead to stress, anxiety and confusion about how best to approach the situation [12]. Throughout the literature, researchers have demonstrated that self-efficacy can have a considerable influence on individuals' learning, motivation, self-regulation and achievement at school [13]. The concept of self-efficacy derives from Bandura's Social Cognitive Theory [14], which emphasises the reciprocal relationship between personal beliefs/thoughts, behaviours and social/environmental factors.

- **Self-efficacy ⇔ Behaviour.** A student with high academic self-efficacy will have a strong belief in their ability to learn and succeed at school. Students with these beliefs are likely to be motivated to learn and study, persist when challenges present themselves, work harder and try a range of different strategies to succeed academically. This behaviour is likely to lead to more effective environments for learning and increase their chances of getting good grades at school. When these students do succeed academically, this reinforces their sense that they are capable of learning and succeeding at school. As such, academic self-efficacy and school achievement can be thought of as having a strong, reciprocal relationship.
- **Self-efficacy ⇔ Social/Environment.** A student who lacks a strong belief in their ability to learn may be hesitant to put up their hand and volunteer an answer in class, be disengaged in group activities and lack motivation to study or persist in the face of challenges with their school work. Accordingly, teachers may view these behaviours as indicators that the student has low capacity to succeed at school or a lack of interest and provide less time and support to the student. These students may be encouraged to select the "easier" subjects causing a shift in their environment to one that is less intellectually stimulating. This shift in the social interactions between students and teachers and the student's environment are likely to lead to poorer academic achievement, which reinforces the student's sense that they are incapable of learning and achieving at school.

### **Mechnisms to improve self-efficacy**

According to Bandura, information for shaping self-efficacy beliefs come from four major sources, namely previous **performance accomplishments**, **vicarious experiences**, **social persuasions** and **emotional and physiological states** [13, 15]. While some of these four sources can be more easily targeted through interventions than others (e.g., emotional and physiological states), understanding how students acquire information to develop their academic self-efficacy beliefs may help inform the ways in which interventions could be successfully applied. A brief summary of each of the four sources follows.

- **Performance accomplishments** have a strong influence on academic self-efficacy, as past successes strengthen an individual's self-efficacy beliefs, whereas repeated failures can undermine it [16]. Accordingly, students need to be taught skills and given opportunities to practice and refine them to increase their familiarity and confidence with tasks at school and to become more aware of their learning progress.
- **Vicarious experiences**, such as observing peers succeed, can raise academic self-efficacy and motivate individuals to engage in the task due to the belief that if others can succeed, they can as well [16]. In turn, students who observe similar peers fail may believe they also lack the competence to succeed, which may result in them not attempting the task.
- **Social persuasions** can also influence a student's judgement of their academic self-efficacy through helping them to overcome self-doubt. Social persuasions are most effective when coming from a person who is viewed as credible and knowledgeable and when the information is viewed as realistic [13]. However, as teachers are unable to provide every student with constant feedback, parents should be encouraged and taught to evaluate their child's learning in a positive and constructive way. Additionally, teaching students to gauge their own progress may be an effective way to increase their academic self-efficacy.
- **Emotional and physiological states**, such as anxiety and stress, provide signals about anticipated success or failure, which in turn, can influence a student's academic self-efficacy beliefs. For example, when students experience negative emotional thoughts about their capabilities, such as feeling nervous and anxious about taking a test, their self-efficacy is lowered [13]. On the other hand, a student who feels optimistic and confident about taking a test and who is more equipped to manage their feelings of nervousness is likely to have a greater sense of self-efficacy [16]. Therefore, teaching students strategies to diminish or control their emotional states – such as anxiety and stress – may have a positive impact on their academic self-efficacy.

To summarise, teachers and schools can improve student's academic self-efficacy by improving their emotional states and their ability to regulate these, addressing their doubts and negative thinking, raising their academic skills and altering classroom features and social interactions to enhance student achievement [13]. Linking this back to the CASEL Guide, programs that focus on "self-awareness" (i.e., accurately recognising one's emotions and thoughts and their influence on behaviour) and "self-management" (i.e., the ability to regulate emotions, thoughts and behaviours effectively in different situations) are probably most likely to have an impact on student's self-efficacy, through an improvement in their emotional and physiological states.

It is important to note that high academic self-concept is also associated with greater perseverance among students [17]. Given this reciprocal relationship, interventions that increase academic self-concept are also likely to have an influence on perseverance and vice versa [18].

Figure 5 shows the percentage of children in South Australia with low academic self-concept. Problems with low academic self-concept appear to increase as children progress from late primary school to early high school, from about 5% to 8%, based on the pre-2016 data. This may be associated with the increased workload and difficulty of the academic work during this period. Alternatively, it could be related to the higher levels of anxiety and depression that are often observed as student's progress from primary into high school, and have been linked to poorer academic self-efficacy beliefs.

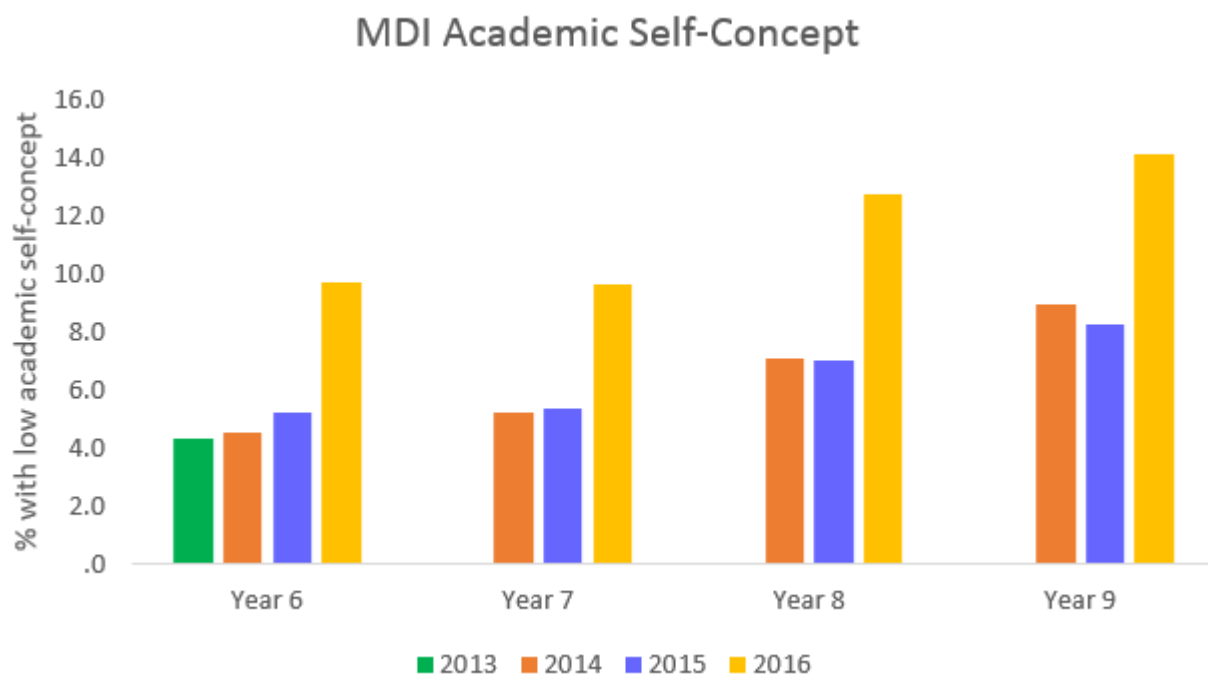


Figure 5. Trends over time in academic self-concept for South Australian children

The most striking pattern on this graph is the increase in academic self-concept for children of all year levels in 2016. There were very small changes from 2013 to 2015 within year level, before an almost two-fold increase in the percentage of children with low academic self-concept in 2016. The cause of this increase is unknown but may be related to small changes in:

- the timing on the data collection in 2016 (i.e. if academic self-concept was assessed just after the students complete their Progressive Achievement Testing (PAT) rather than just before, this might have negatively impacted their academic self-concept)
- the sample characteristics (i.e. if the sample had poorer literacy and/or numeracy skills than previous cohorts, they may also have lower academic self-concept)
- the order of items (i.e. the items were ordered slightly differently given the addition of scales to measure student engagement)

Alternatively, it could be related to a change in teaching practices in schools in 2016, or other factors, but these would need to be substantial to shift the results so significantly across year levels and school sectors.

## Chapter 3: Tools, guides and websites

In order to make an informed decision about which program to implement, a preschool or school needs to be able to access a list of possible programs and to evaluate the appropriateness and effectiveness of each one. To evaluate the effectiveness of different programs it is necessary to have a basic understanding of the different types of evaluation studies and which type of study provides the strongest evidence for the program's effectiveness. In this section, we provide an introduction to the different types of study designs and the different levels of evidence that these provide about program effectiveness. Secondly, we present three key resources that preschools and schools can access to establish a list of possible programs.

### Understanding the quality of evidence from different evaluation studies

Research studies can be broadly divided into those that utilise an experimental design and those that use a non-experimental design. To evaluate a program effectively it is essential to conduct a study using some form of experimental design and as such, we do not discuss non-experimental designs here. In an experimental study design, participants are assigned into either an intervention group or a control group. The researcher then implements an intervention, such as a program designed to improve prosocial skills to the intervention group, but not the control group and then both groups are assessed at the end of the intervention period to explore whether they differ on the key outcome measure(s). There are two main types of experimental designs – randomised controlled trials and quasi-experimental studies – that differ based on the way participants (i.e., students, classes or schools) are allocated to the intervention and control groups. These two types of studies are described in some detail below.

- **Randomised Controlled Trials (RCTs)** are a type of experimental design where participants are randomly allocated into an intervention or a control group. Random allocation ensures that each participant has an equal chance of being assigned to one group or the other, which reduces any bias in the distribution of participant characteristics. Random allocation is the best way to ensure that the two groups are as similar as possible, except that one group receives the program or intervention and the other group does not. This allows the researcher to measure whether the intervention is making a difference, as all other variables that could affect the outcome measure(s) are kept the same. For this reason, RCTs are often considered the “gold standard” of evaluations, as they offer the best opportunity to eliminate bias and examine the actual impact of an intervention. Three examples of different types of RCT designs that are particularly suitable for programs delivered in the early years are outlined below.
  - Pragmatic RCTs are delivered in a “real world setting”, rather than in a laboratory. For example, instead of the intervention being implemented by a researcher, it might be delivered by a school counsellor or a teacher as an enhancement to their normal duties.
  - Clustered RCTs involve the allocation of groups of people, rather than individuals, to a particular intervention. For example, a whole class or schools could be randomly allocated to the intervention group as opposed to individual students.
  - Staggered Start RCTs are generally used when the issue of ethical accountability is raised. For example, some organisations may be concerned about not all people benefiting from a new

program. Thus, the design would have the “control schools” implementing the program at a later date, allowing all schools to benefit from the program.

- **Quasi-experimental** studies share similarities with RCTs, but lack the element of random assignment. Instead, quasi-experimental designs typically allow the researcher to control the assignment of participants (or groups of participants) to each condition, but uses some criterion other than random allocation, which may not always be possible due to ethical reasons, costs or logistical constraints. The division is often convenient and especially in an educational setting, is designed to cause as little disruption as possible. For example, a class might be divided into two groups using alphabetical selection or by seating arrangement, or schools might be allocated into two groups based on geographical location. Following group allocation, the experiment proceeds in a very similar way to RCTs.

However, without proper randomisation, the results from quasi-experimental studies are not as strong as those from RCTs, as the intervention and control groups may not be comparable at baseline and differences between the groups may introduce bias into the findings. For this reason, an association can be established between the independent variable (e.g., a prosocial skills program) and the dependent variable (e.g., emotional problems) but causal inferences cannot be made. Accordingly, it is important to consider what other factors could have impacted on the participants that may have affected their outcomes. Nevertheless, quasi-experimental designs are a good way to evaluate programs in situations where ‘true’ experiments are not possible.

Experimental studies can be further divided into those that utilise pre-test/post-test designs and those that utilise only post-test designs. In both cases, the two groups are measured on the key outcome measure(s) at the end of the study but they differ depending on whether the groups are also assessed at the start of the study on key study measures such as emotional control, perseverance or prosocial skills.

- A **pre-test/post-test design** allows the researcher to examine whether the two groups were comparable on key measures at the start of the study, as well as at the end of the study. This can be used to see how both groups have changed over time and whether the improvement is larger for the intervention group than it is for the control group.
- A **post-test design** can be used to establish whether the two groups differ on the key outcome measure(s) at the end of the intervention, but it is impossible to establish whether the two groups were comparable on these measures at the start of the study.

To summarise, RCTs provide the strongest evidence of the effectiveness of an intervention program, followed by quasi-experimental studies. Of these study designs, those that include pre-test and post-test measures of the key variable are ideal.

## Finding preschool and school-based programs

There are a range of different websites and guides that provide lists of school-based programs and some of these also provide guidance about the level of evidence of the effectiveness for these programs. Three key resources that focus on children's social and emotional skills (the CASEL Guide, the What Works for Kids website and the KidsMatter website) provide a good place for preschools and schools to start looking for candidate programs. These resources are described in some detail below.

### CASEL Guide

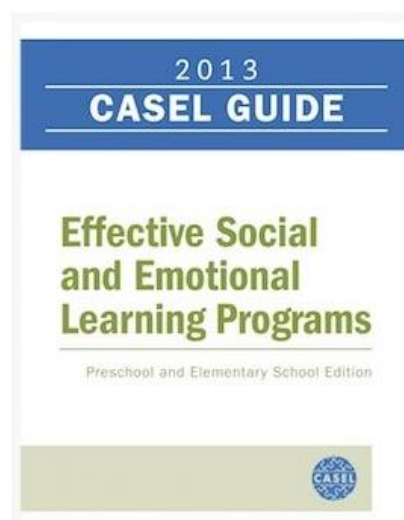
In the 2013 CASEL Guide, the CASEL group have reviewed the evidence-base for a range of different preschool and school-based SEL programs. The guide is designed to help preschools and schools select evidence-based programs to improve the social and emotional learning of their students [3]. There are two versions of the guide – a preschool and elementary school edition and a middle and high school edition – both of which are available for free download via the CASEL website ([www.casel.org/guide/](http://www.casel.org/guide/)).

The guide provides a systematic framework for evaluating the quality of SEL programs and a review of a set of specific programs, which meet the key requirements set out by the CASEL group. SEL programs that are reviewed in the CASEL Guide need to have the following program design features:

- Universal<sup>4</sup>
- Classroom-based activities
- Multi-year programs<sup>5</sup>
- Grounded in theory and strategy relevant to SEL
- Opportunities for students to practice the new behaviours
- Implementation manual and program materials available in English
- Broad coverage of the five SEL competencies

The program needs to have a strong professional development and training component with the capacity to support initial training and ongoing support for school staff. The SEL program must also have evidence of program effectiveness from one or more studies with an experimental study design (RCT or quasi-experimental) for at least one of the following outcomes:

- Increased positive social behaviour
- Reduced conduct problems
- Reduced emotional distress
- Improved academic performance



<sup>4</sup> Universal programs are designed for all students in a class, rather than targeted to specific at risk children

<sup>5</sup> With the exception of preschool programs, which by definition must be single year programs



The CASEL Guide provides a list of specific programs (seven preschool and 19 primary school) that all meet the minimum requirements to be considered evidence-based SEL programs. For each of these programs information is provided about the characteristics of the program, such as the number of sessions per year and the grade range covered, the number of evaluation studies that have been conducted, including evaluation outcomes, the study design, as well as the characteristics of the samples included in the evaluations. Contact information for the company who offer the program and references for the evaluation studies are also provided in the guide. However, a limitation of the CASEL Guide is that it cannot be used to understand which programs are ineffective, or which programs were examined but did not meet the criteria, as only the effective programs are listed and detailed in the guide.

The CASEL Guide provides additional information to consider when selecting a program from a list of evidence-based SEL programs. This includes the importance of engaging with teachers and other stakeholders early about their needs/wants, exploring opportunities for professional development of school's staff and exploring the cultural sensitivity of the program given the local context. Once the school has narrowed down the list of possible programs that they are interested in, there are a set of questions that should be asked of the program provider about program costs, staff training and implementation and planning an evaluation of the program.

### **What Works for Kids**

What Works for Kids is an Australian online database of programs, practices and tools that aim to improve the health and wellbeing of children and youth ([www.whatworksforkids.org.au](http://www.whatworksforkids.org.au)). The database is broader than the CASEL Guide because it also includes programs that can be implemented at home with parents and in communities. The database is particularly useful as it allows you to search for programs with a particular aim (e.g., improving social and emotional wellbeing), for a particular age group (e.g., preschool or primary school-aged children), as well as a particular level of evidence (e.g., supported or well-supported).

Once you have narrowed down your search, a broad overview is provided for each program, as well as information about the delivery of the program, the resources involved and a description of the evidence and outcomes. Therefore, it may be a useful addition to the CASEL Guide as it also includes information about whether the program has ever been implemented in Australia, whether training can be accessed within Australia, information on the program costs and tools to monitor whether the program is being implemented with fidelity or not.

What Works for Kids was created by the ARACY Prevention Science Network, led by Professor Sophie Havighurst and Professor John Toumbourou. It was funded by the Australian Government Department of Social Services in 2014, and is directly linked to *The Nest*, which is Australia's first evidence-based national action plan to mobilise, align and enable the efforts of those people working to improve the wellbeing of Australian children and youth. In the first phase of the development of What Works for Kids, an evaluation of 162 programs was completed. Moving forward, the goal is that authors or programs will submit their program for consideration through the website. As such, the database is designed to be continuously updated with new evidence based programs for Australian children and youth.

## **KidsMatter**

KidsMatter is an Australian-based mental health initiative for early childhood education and care (ECEC) services and primary schools that aims to improve children's mental health, wellbeing and learning outcomes. KidsMatter is not a program, but rather a framework that assists staff, parents and carers in supporting children's social and emotional wellbeing needs. KidsMatter was developed in collaboration with the Australian Government Department of Health and Ageing, beyondblue, the Australian Psychological Society, the Principals Australia Institute and Early Childhood Australia.

The online Early Childhood Programs Guide and the Primary Programs Guide are two of the resources created by KidsMatter to assist ECEC services and primary schools in making informed decisions about which programs are most appropriate and effective based on their individual needs. Both guides can be found online at the KidsMatter website ([www.kidsmatter.edu.au](http://www.kidsmatter.edu.au)).

To be included in the guides, programs need to have been specifically designed for early childhood learners (e.g., preschool students) or primary school children, their parents or teaching staff, have a manual to guide the delivery of the program and to ensure fidelity, have a theoretical foundation, be organised into sessions that are completed sequentially and be available in Australia.

In addition, programs must align with one or more of the four components of KidsMatter that support mental health and wellbeing, being:

- Component 1: Creating a sense of community
- Component 2: Developing children's social and emotional skills
- Component 3: Working with parents and carers
- Component 4: Helping children who are experiencing mental health difficulties

Of particular relevance to this report is Component 2, which involves developing the ability to recognise and manage emotions, promoting care and concern for others, making responsible decisions, establishing positive relationships and handling challenging situations effectively.

Each program that appears in both the Early Childhood and Primary Programs Guide has been reviewed and summarised by the KidsMatter team. Like the CASEL Guide and the What Works for Kids website you can find information about the aims and content of the program, information about the implementation and delivery of the program and contact details for authors, materials and training. Other useful information provided for each program includes a rating and brief description regarding the evidence of effectiveness of the program, as well as the extent to which the program addresses the five core social and emotional competencies.

In addition to the individual program summaries, like the What Works for Kids website, there is also the option to search for programs with particular features using the online search refinement tool. This tool enables you to select the age group that the programs are designed for, who they are delivered to, who they can be delivered by, whether they address specific mental health issues (e.g., internalising and/or externalising problems), among other features. Moreover, once you have narrowed down your list of programs, you are able to compare the different programs against each other in a table. Most of the criteria used in the table has been adapted from the CASEL Guide.

## Chapter 4: Review methods

In addition to providing details of the online resources that can be used to select and evaluate programs, we have also conducted a review of the evidence for school-based programs based on the brief provided by the Department for Education and Child Development. In this section, we provide some information on the inclusion criteria and search methodology used to identify the final list of recommended programs.

### Inclusion criteria

The review process began by establishing our inclusion criteria, which we adapted from the CASEL Guide. To be included in our evaluation, programs were required to have the following **design and implementation** features:

- Universal
- Delivered to children (as opposed to parents or teachers) in a classroom setting
- Broad coverage of the five social and emotional competencies from the CASEL Guide
- Designed for students in preschool (approximately age 4) and/or primary school (approximately ages 5-12)
- Pragmatic and scalable (in terms of its replicability, age-appropriateness and whether teachers can implement the program)
- Grounded in theory and strategy relevant to SEL
- Multiple opportunities to practice new skills within the program structure and beyond to real-life situations
- Implementation manual and program materials available in English and accessible in Australia
- Training and/or other implementation support available to enhance the quality of implementation and to ensure fidelity
  - If training is required to implement the program, it should be available in Australia or online

Programs also need to have the following **evidence of effectiveness** features:

- Evidence-based with at least one carefully conducted evaluation (a RCT or quasi-experimental study with a comparison group) that documented a positive impact for at least one of the following behavioural outcomes:
  - Improved academic performance
  - Increased positive social behaviour
  - Reduced conduct problems
  - Reduced emotional distress
- The program must have been implemented universally (not just to targeted groups) in a classroom setting with preschool and/or primary school-aged children

## Search methodology

### Social and emotional skills programs for preschool children

The CASEL Guide, the What Works for Kids website and the KidsMatter Early Childhood website were used to guide our evaluation of different social and emotional learning programs that could increase preschool children's Social Competence and Emotional Maturity.

Firstly, we examined the list of seven programs for preschool children presented in the CASEL Guide against our inclusion criteria. From this list, two programs - *PATHS* and *The Incredible Years* - met our criteria and were included in our review. The remaining programs (*AI's Pals*, *Highscope Educational Approach for Preschool*, *Peaceworks: Peacemaking Skills for Little Kids* and *Tools of the Mind*) were excluded as they do not appear to be available in Australia. Special considerations were made regarding the inclusion of the *I Can Problem Solve* program, which does not currently have training available in Australia. However, given that the program rated highly on all other criteria, that training is not required to implement the program and that the program developers are currently in the process of creating an online training system, we have included it in our review of social and emotional programs for preschool children.

Secondly, using the What Works for Kids online search tool, we searched the database using the following refinements.

- **Choose a Focus:** Not specified
- **Choose a Target cohort:** Infants and preschool children
- **Choose an Age:** Early childhood (3-4) - Preschool
- **Choose Priority Directions:** Improving Social and Emotional Wellbeing
- **Choose Type:** Program
- **Choose Evidence:** Well-supported or supported

These search refinements resulted in three<sup>6</sup> programs - *The Incredible Years* (already included in our list), *FIRST STEP Next* and *Strengthening Families Program*. The latter two programs did not meet our inclusion criteria, as they were targeted (i.e., designed for behaviourally at-risk children) rather than universal and were therefore excluded from our list.

Third, using the KidsMatter Early Childhood Programs Guide online search tool, we searched the database using the following refinements. All other categories were set to "not specified".

- **Age:** 4 years +
- **Components:** 2: Social and emotional learning for students
- **Delivery To:** Children/Students
- **Delivery By:** Primary teachers and staff, and Early childhood educators and staff
- **Issues:** General mental health (all 4 sub-components) and social and emotional learning skills
- **Professional Learning Compulsory:** Both

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<sup>6</sup> It is important to note that this section of the report was completed in December 2016. We are aware that since then, there may have been changes to the websites and additional programs may be available using these search refinements.

This search criteria resulted in six programs, which we then assessed against our inclusion criteria. Four programs (*GAPP Solutions – Buddy Up*, *Stop Think Do Program*, *Tribes Learning Communities* and *The You Can Do It! Program*) were excluded due to a lack of relevant research-based evidence available. Two programs - *I Can Problem Solve* (mentioned above) and *The Fun FRIENDS Program* - met our inclusion criteria and were included in our evaluation.

Therefore, four programs were included in our review of social and emotional programs for preschool children, including *The Incredible Years*, *I Can Problem Solve*, *The Fun FRIENDS Program* and *PATHS*.

### **Social and emotional skills programs for primary school children**

The same basic process as described above was replicated for primary school children.

Firstly, we looked at the list of 19 programs for elementary school children presented in the CASEL Guide. *The Incredible Years* program was excluded due to a lack of relevant evidence-based research for primary school-aged children (although there was good evidence in preschool children). An additional nine programs (*4Rs*, *Caring School Community*, *Competent Kids Caring Communities*, *Michigan Model for Health*, *Open Circle*, *Raising Healthy Children*, *Resolving Conflict Creatively Program*, *Responsive Classroom* and *RULER Approach*) were also excluded as they did not appear to be available in Australia. The remaining nine programs - *PATHS*, *I Can Problem Solve*, *MindUp*, *Positive Action*, *Second Step*, *Social Decision Making/Problem Solving Program*, *Steps to Respect*, *Too Good for Violence* and *Tribes Learning Communities* - were examined in terms of their design and implementation features, relevance to the target population and evidence of effectiveness. Three programs (*Positive Action*, *Too Good for Violence* and *Tribes Learning Communities*) were eliminated and the remaining six programs were included in our review.

Secondly, using the What Works for Kids online search tool, we searched the database using the following refinements.

- **Choose a Focus:** Not specified
- **Choose a Target cohort:** Primary school age children
- **Choose an Age:** Late childhood (5-11) - Primary
- **Choose Priority Directions:** Improving Social and Emotional Wellbeing
- **Choose Type:** Program
- **Choose Evidence:** Well-supported or supported

This search criteria resulted in three programs (the same as listed for preschool children) - *The Incredible Years*, *FIRST STEP Next* and *Strengthening Families Program*. As already mentioned, *The Incredible Years* program was excluded because of the lack of evidence for its effectiveness with primary school children. *FIRST STEP Next* and *Strengthening Families Program* were excluded as they were targeted rather than universal programs.

Third, using the KidsMatter Primary Programs Guide online search tool, we searched the database using the following refinements. All other options were not specified.

- **Age:** 5-12
- **Components:** 2: Social and emotional learning for students
- **Delivery To:** Children/Students
- **Delivery By:** Primary teachers and staff
- **Issues:** General mental health (all 4 sub-components) and social and emotional learning
- **Professional Learning Compulsory:** Both

This search criteria resulted in a list of 14 programs. From this list, 10 programs (*Highway Heroes – Smart Skills 4 Life*, *Positive Living Skills Wellbeing Program*, *Ripple Kindness Project*, *Sparky and Shady for Big Kids*, *STAND*, *Strong Minds*, *The Safe Programme*, *THIS WAY UP: Managing Stress*, *What’s the Buzz* and *Mindful Schools*) were excluded due to a lack of evidence supporting the effectiveness of the program, or a lack of evidence that met the inclusion criteria. An additional three programs (*BRITA Futures Primary School Program*, *Seasons for Growth* and *In Real Life*) were excluded as they were targeted programs for students with particular characteristics such as those from culturally and linguistically diverse backgrounds, who have experienced loss and change or are from refugee backgrounds or for girls only, respectively. Just one program (*Aussie Optimism*) from KidsMatter was included in our review.

Therefore, seven programs were included in our review of social and emotional programs for primary school children, including *Aussie Optimism*, *I Can Problem Solve*, *MindUp*, *PATHS*, *Second Step*, *Social Decision Making/Problem Solving Program* and *Steps to Respect*.

### **Perseverance and/or academic self-concept programs**

We initially completed a broad internet search using various terms to find school-based programs that aim to improve perseverance and/or academic self-concept. For perseverance programs, in addition to “perseverance”, we searched for related terms such as “self-discipline”, “conscientiousness” and “persistence”. For academic self-concept programs, in addition to “academic self-concept”, related terms including “academic self-efficacy”, “self-concept” and “self-efficacy” were used. Search terms such as “program”, “intervention” and “school-based” were also used in conjunction with the other terms. This search strategy did not result in any appropriate programs, which might be related to the way that these two constructs are conceptualised in the literature.

We then searched for programs that focus on developing a “growth mindset”, which resulted in the *Brainology for Schools* program. While this program met our criteria regarding its design and implementation features, it did not meet our criteria regarding its evidence of effectiveness. For this reason, we have not included the program in our review but have provided a brief description of the program in the perseverance section of the report in Chapter 2.

Given that the search methods described above only resulted in a single program, we changed our approach to selecting programs. Using the five core social and emotional learning competencies from the CASEL Guide (i.e., self-awareness, social awareness, self-management, responsible decision making and relationship skills), we looked for programs with a focus on “self-management” (which is related to perseverance) or “self-awareness” (which is related to self-efficacy/self-concept). To assist us in this process, we used the

KidsMatter Primary website, which rates the extent to which each program provides opportunities to enhance each of the five core competencies.

Using a similar process as described above, we searched the database using the following refinements. All other options were not specified.

- **Components:** 2: Social and emotional learning for students
- **Delivery To:** Children/Students
- **Delivery By:** Primary teachers and staff
- **Professional Learning Compulsory:** Both

This search criteria resulted in 24 programs. Using the “Compare Programs” option, we shortlisted eight programs with the highest ratings of self-awareness and self-management. From this list, six programs – *Smiling Mind*, *Everyone Everyday Disability Awareness Program*, *Mindful Schools*, *Highway Heroes*, *Positive Living Skills Wellbeing Program* and *Strong Minds* were excluded due to a lack of relevant evidence-based research that met our inclusion criteria. Therefore, two programs (which are also included in our list of social and emotional skills programs for primary school children), being *Aussie Optimism* and *MindUP* met our criteria and were included in our list of programs that could increase perseverance and academic self-concept.

We then looked at the programs listed in the CASEL Guide for elementary students that met our inclusion criteria and examined which programs sufficiently addressed self-awareness and self-management or had features that could potentially increase perseverance and academic self-concept. From the list of six programs that met our inclusion criteria (of which *MindUP* was also listed), all of them taught skills to increase self-awareness and self-management, or had features that could potentially increase perseverance and academic self-concept.

Therefore, seven programs, including *Aussie Optimism*, *I Can Problem Solve*, *MindUP*, *PATHS*, *Second Step*, *Social Decision Making/Problem Solving* and *Steps to Respect* were included in our review of programs that could increase perseverance and academic self-concept.

## Assessment of evidence for programs

After using the three resources (i.e., the CASEL Guide, What Works for Kids and KidsMatter) to guide our selection of various programs, each program was independently assessed in regards to whether it met our inclusion criteria and whether the evidence of effectiveness was relevant to our target population. Specifically, any references to studies that were listed on the various resources were examined as to whether the program was delivered universally to an entire classroom, whether the studies involved preschool and/or primary school children and whether the study produced positive outcomes in line with our inclusion criteria. Additionally, each program’s website was explored and where required, program coordinators were contacted (either via email or phone conversation) to find out more information.



## Chapter 5: Recommended evidence-based programs

This chapter presents the lists of recommended evidence-based programs that could be used to increase Social Competence, Emotional Maturity, perseverance and/or academic self-concept.

Tables 1 and 2 provide information about social and emotional programs for preschool children. Table 1 lists the programs in alphabetical order and provides information about program design and implementation features including information about the intended grade and age range, the average number of sessions per year and whether or not training is required to implement the program. We also provide information about whether the program seems to focus on the skills measured by each of the AEDC Social Competence and Emotional Maturity sub-domains.

Table 2 presents information about the evidence of effectiveness for each of the programs, including information about the grades evaluated in the study, the ages evaluated, characteristics of the sample, such as the geographic location, student race/ethnicity, special sample characteristics (e.g., low SES) and the size of the largest sample. We also indicate the type and number of studies conducted, followed by whether the studies have impacts on the four evaluation outcomes, including improved academic performance, increased positive social behaviour, reduced conduct problems and reduced emotional distress. It is important to emphasise that most program evaluations do not include outcome measures across all of these domains. Therefore, if a program does not have a tick under one of the outcomes (e.g. academic performance) then this implies that none of the studies showed a positive impact of the program on that outcome, but does not necessarily mean that any of the evaluation studies measured this outcome. In other words, the absence of a tick does not necessarily mean that the program did not have an influence on that outcome, but could also mean that particular outcome was not measured in the study.

Table 3 (program design and implementation) and Table 4 (evidence of effectiveness) present information on the social and emotional programs for primary school children. A few programs are available for both preschool and primary school students. For these programs, the information in Tables 1 and 3 (program design and implementation) will be the same, but the information in Tables 2 and 4 will vary, as only the evidence relevant to the target population (either preschool or primary school children) is included.

Tables 5 and 6 present the list of programs that could be used to increase perseverance and/or academic self-concept. In these tables, we comment on many of the same features as described above, but instead of commenting on which AEDC Social Competence and Emotional Maturity sub-domains were covered, we comment on the specific aspects of the programs that could have an influence on perseverance or academic self-concept. Given that many of the programs recommend to increase perseverance and academic self-concept are mentioned in other sections, a lot of the information in these tables will be replicated. In many ways, this is encouraging as it suggests that a single program can have positive impacts on a range of different skills and competences.

A detailed description of each program can be found Appendix A.



## Social and emotional skills programs for preschool children

Table 1. Program design and implementation for social-emotional programs for preschool children

Program Name	Intended Grade Range	Intended Age Range	Average Number of Sessions Per Year	Is Training Required?	AEDC Social Competence				AEDC Emotional Maturity			
					Overall Social Competence	Responsibility & Respect	Approaches to Learning	Readiness to Explore	Prosocial & Helping Behaviour	Anxious & Fearful Behaviour	Aggressive Behaviour	Hyperactivity & Inattention
<b>The Fun FRIENDS Program</b>	Preschool-Grade 2	4-7	5	Yes	✓		✓	✓	✓	✓	✓	
<b>I Can Problem Solve</b>	Preschool-Grade 6	4-12	59-83	No	✓	✓	✓		✓	✓	✓	
<b>The Incredible Years Classroom Dinosaur Program</b>	Preschool-Grade 3	3-8	60	No	✓	✓	✓	✓	✓	✓	✓	✓
<b>PATHS</b>	Preschool-Grade 6	4-12	30-45	No	✓	✓	✓		✓	✓	✓	✓

Table 2. Evidence of effectiveness for social-emotional programs for preschool children

Program Name	Grades Evaluated	Ages Evaluated	Characteristics of Sample				Number/Type of Studies		Evaluation Outcomes			
			Geographic Location	Student Race/Ethnicity	Special Sample Characteristics	Size of Largest Sample	QE	RCT	Improved Academic Performance	Increased Positive Social Behaviour	Reduced Conduct Problems	Reduced Emotional Distress
<b>The Fun FRIENDS Program</b>	Preschool-Grade 2	4-7	Australia (Brisbane)	Caucasian	-	488		2		✓	✓	✓
<b>I Can Problem Solve</b>	Preschool-Reception	4-5	U.S.	African-American, Caucasian	Low SES	219	3	1		✓	✓	✓
<b>The Incredible Years Classroom Dinosaur Program</b>	Preschool-Grade 1	4-6	U.S.	Diverse	Low SES	1,768		1		✓	✓	✓
<b>PATHS</b>	Preschool	3-4	U.S.	African-American, Caucasian	Low SES	246		1		✓		✓

Note. QE = quasi-experimental. RCT = Randomised Controlled Trial.

## Social and emotional skills programs for primary school children

Table 3. Program design and implementation for social-emotional programs for primary school children

Program Name	Intended Grade Range	Intended Age Range	Average Number of Sessions Per Year	Is Training Required?	AEDC Social Competence				AEDC Emotional Maturity			
					Overall Social Competence	Responsibility & Respect	Approaches to Learning	Readiness to Explore	Prosocial & Helping Behaviour	Anxious & Fearful Behaviour	Aggressive Behaviour	Hyperactivity & Inattention
<b>Aussie Optimism</b>	Grades 1-8	6-13	10	Yes	✓		✓		✓	✓	✓	
<b>I Can Problem Solve</b>	Preschool-Grade 6	4-12	59-83	No	✓	✓	✓		✓	✓	✓	
<b>MindUP</b>	Preschool-Grade 8	3-14	15	No	✓		✓	✓	✓	✓	✓	
<b>PATHS</b>	Preschool-Grade 6	4-12	30-45	No	✓	✓	✓		✓	✓	✓	✓
<b>Second Step</b>	Preschool-Grade 8	3-14	22-28	No	✓	✓	✓		✓	✓	✓	✓
<b>Social Decision Making/Problem Solving</b>	Reception-Grade 8	4-14	25-40	No	✓	✓	✓	✓	✓	✓	✓	✓
<b>Steps to Respect</b>	Grades 3-6	8-12	11	No	✓	✓	✓	✓	✓	✓	✓	

Table 4. Evidence of effectiveness for social-emotional programs for primary school children

Program Name	Grades Evaluated	Ages Evaluated	Characteristics of Sample				Number/Type of Studies		Evaluation Outcomes			
			Geographic Location	Student Race/Ethnicity	Special Characteristics	Size of Largest Sample	QE	RCT	Improved Academic Performance	Increased Positive Social Behaviour	Reduced Conduct Problems	Reduced Emotional Distress
<b>Aussie Optimism</b>	Grades 4-7	9-13	Australia (Perth)	Caucasian	Low SES	910		2		✓	✓	✓
<b>I Can Problem Solve</b>	Reception-Grade 1	5-6	U.S.	Caucasian, Hispanic	Low SES, rural	655		2		✓	✓	
<b>MindUP</b>	Grades 4-7	9-13	Canada	Diverse	-	246	1			✓	✓	✓
<b>PATHS</b>	Grades 1-3	6-10	U.S.	Caucasian, African American	Low SES, special education	2,937		2	✓	✓	✓	✓
<b>Second Step</b>	Reception-Grade 6	5-12	U.S., Germany, Norway	Caucasian, diverse	-	7,300	1	4		✓	✓	✓
<b>Social Decision Making/Problem Solving</b>	Grades 4-5	Approx. 9-11	U.S.	Diverse	-	158	2		✓	✓	✓	✓
<b>Steps to Respect</b>	Grades 3-6	7-11	U.S.	Caucasian, diverse	-	2,940		2		✓	✓	

Note. QE = quasi-experimental. RCT = Randomised Controlled Trial.

## Perseverance/academic self-concept programs for school children

Table 5. Program design and implementation for programs that could increase perseverance/academic self-concept in primary school children

Program Name	Intended Grade Range	Intended Age Range	Average Number of Sessions Per Year	Is Training Required?	Mechanisms to Increase Perseverance	Mechanisms to Increase Academic Self-Concept
<b>Aussie Optimism</b>	Grades 1-8	6-13	10	Yes	Increases resilience	Increases emotion regulation, teaches students how to challenge negative thoughts
<b>I Can Problem Solve</b>	Preschool-Grade 6	4-12	59-83	No	Teaches students how to generate solutions to problems and challenges	Increases emotion regulation, teaches students how to identify their strengths
<b>MindUP</b>	Preschool-Grade 8	3-14	15	No	Increases task attentiveness, focus and concentration	Reduces stress and anxiety, increases emotion regulation
<b>PATHS</b>	Preschool-Grade 6	4-12	30-45	No	Aims to improve problem-solving skills and self-discipline	Increases self-esteem and emotion regulation
<b>Second Step</b>	Preschool-Grade 8	3-14	22-28	No	Teaches positive learning strategies (being assertive, focusing attention, self-discipline, goal setting, etc)	Increases emotion regulation, teaches students how to identify personal strengths
<b>Social Decision Making/Problem Solving</b>	Reception-Grade 8	4-14	25-40	No	Increases self-discipline, teaches positive learning strategies (goal setting, goal monitoring, overcoming setbacks, etc)	Teaches students to identify feelings, how to challenge maladaptive feelings and the importance of self-confidence
<b>Steps to Respect</b>	Grades 3-6	8-12	11	No	Teaches students how to set and achieve positive goals, increases academic skills	Teaches students how to manage their emotions

Note. All seven programs focus on increasing self-management and self-awareness.

Table 6. Evidence of effectiveness for programs that could increase perseverance/academic self-concept in primary school children

Program Name	Grades Evaluated	Ages Evaluated	Characteristics of Sample				Number/ Type of Studies		Evaluation Outcomes				
			Geographic Location	Student Race/Ethnicity	Special Sample Characteristics	Size of Largest Sample	QE	RCT	Improved Academic Performance	Increased Positive Social Behaviour	Reduced Conduct Problems	Reduced Emotional Distress	Other Relevant Outcomes
<b>Aussie Optimism</b>	Grades 4-7	9-13	Australia (Perth)	Caucasian	Low SES	910		2		✓	✓	✓	Improved resilience
<b>I Can Problem Solve</b>	Reception-Grade 1	5-6	U.S.	Caucasian, Hispanic	Low SES, rural	655		2		✓	✓		
<b>MindUP</b>	Grades 4-7	9-13	Canada	Diverse	-	246	1			✓	✓	✓	Increased academic self-concept
<b>PATHS</b>	Grades 1-3	6-10	U.S.	Caucasian, African American	Low SES, rural	2,937		2	✓	✓	✓	✓	Increased academic engagement, self-control and focus
<b>Second Step</b>	Reception-Grade 6	5-12	U.S., Germany, Norway	Caucasian, diverse	-	7,300	1	4		✓	✓	✓	Improved skills for learning, increased emotion regulation
<b>Social Decision Making/Problem Solving</b>	Grades 4-5	Approx. 9-11	U.S.	Diverse	-	158	2		✓	✓	✓	✓	
<b>Steps to Respect</b>	Grades 3-6	7-11	U.S.	Caucasian, diverse	-	2,940		2		✓	✓		

Note. QE = quasi-experimental. RCT = Randomised Controlled Trial.

## Chapter 5: Summary

The focus of this research was to explore preschool and school-based programs designed to improve social and emotional wellbeing, perseverance and academic self-concept. The first aim was to provide some tools and guidelines for schools and the Department to use to help select evidence-based programs. Given that new programs are introduced all the time and new evaluations are published frequently, providing tools to help evaluate interventions will help to guide decision-making based on current, up-to-date information. To address the first aim, we provided detailed information about three key resources - the CASEL Guide, What Works for Kids and KidsMatter - which together provide a useful framework for selecting evidence-based programs for preschools and schools.

The second aim was to review currently available programs regarding their efficacy in improving children's social and emotional wellbeing, perseverance and academic self-concept. We identified a selection of programs that met our inclusion criteria, and then provided a detailed description of the program (intended age range, number of sessions, costs) and the studies that have been conducted to establish the program's effectiveness (grades evaluated, study sample, study design, evaluation outcomes). For the social and emotional wellbeing programs, we explored the degree to which each of these programs addressed the AEDC Social Competence and Emotional Maturity sub-domains, to help inform whether these interventions would be likely to improve the AEDC results for subsequent cohorts of children. Following this, a similar process was used to identify programs to improve perseverance and academic self-concept. Within the CASEL Guide, perseverance and academic self-concept are considered to be aspects of children's self-management skills (e.g., managing stress, controlling impulses, motivating oneself, persevering in challenging situations and setting and working towards achieving personal and academic goals) and are also associated with self-awareness skills (e.g., accurately recognising one's emotions and thoughts and their influence on behaviour). As such, we explored programs designed for primary school children that focused on self-management and self-awareness, and explored the program characteristics and evidence of their efficacy to shift perseverance, academic self-concept, academic performance and any other relevant outcomes.

### Key findings

- For preschool children, four programs were identified with high quality evidence of impacts on social and emotional skills (see Table 1). Of these four programs, the *Fun FRIENDS Program* has been evaluated with Australian preschool children and demonstrates positive impacts on social behaviours, conduct problems, emotional distress and parent-child interactions. If any of these four programs are implemented within a South Australian preschool setting with high program fidelity, they have good potential to improve the social and emotional skills of young children.
- For primary school children, seven programs were identified with good quality evidence of impacts on social and emotional skills. The *Aussie Optimism* program, which was created in Western Australia and has been shown to influence students' social skills, conduct and emotional distress in two randomised controlled trials in samples of Australian school children. Nonetheless, all seven studies have good evidence of their effectiveness and if implemented with fidelity in South Australian primary schools, have good potential to improve the social skills and emotional competence of students.

- Seven programs were identified that focused on children’s self-management and self-awareness skills, and these programs included design features that would be *expected* to improve student’s perseverance and/or academic self-concept through addressing their (1) emotion regulation, (2) attention regulation and/ or (3) academic performance. However, *none* of the evaluation studies measured perseverance as an outcome, possibly because of the way that perseverance is conceptualised in the literature as a stable trait, so there is no conclusive evidence that any of these seven programs improve student’s perseverance levels. Nonetheless, all seven programs have been shown to have positive impacts on other aspects of social and emotional skills and if any of these programs are trialled in South Australian schools moving forward, it would be beneficial to include perseverance as an outcome measure in the evaluation, if possible.
- The *PATHS program* stands out as having particular promise to improve perseverance because a randomised controlled trial found significant improvements in academic engagement and task attentiveness for children who completed the program, and these constructs are strongly related to perseverance. Nonetheless, further evidence is needed before we could be confident that this program would improve South Australian student’s levels of perseverance if implemented in schools.
- The *MindUP program* was the only program that explicitly measured academic self-concept as an outcome within the evaluation study. The program was evaluated in a small quasi experimental trial with Canadian students and showed positive impacts on social behaviour, conduct problems, emotional distress and academic self-concept. While there is no evidence that the other six programs have a positive impact on student’s academic self-concept, this is because the evaluation studies did not measure this outcome, so it is still possible that these programs may improve academic self-concept, as well as the known impacts on other aspects of social and emotional skills.

In summary, our review has identified a range of school-based programs suitable for Australian preschool and school children that have a high chance of improving student’s social and emotional skills if implemented with fidelity. When selecting a program from this list, or the lists provided in the various tools and online databases, it is important for preschools and schools to take their local context into account. For instance, the program costs, number of sessions, time requirements and training requirements for teachers will need to be considered against the available time and resources at the school. If schools are facing specific challenges with their students such as conduct problems, then they may want to select a program that specifically targets these types of behaviours. For more information on considering the local context, we would recommend Chapter 5 of the CASEL Guide, which provides valuable information about the key principles that schools should consider when selecting a program. While this review is current at the time of writing in early 2017, new programs are created frequently and new evaluation studies are often published, so schools are encouraged to utilise the tools and website described in Chapter 3 to source up-to-date information about the effectiveness of different school based programs.



It is anticipated that the Department for Education and Child Development will use the results of this review to inform decisions about what guidance to provide to sites about the strength of evidence underpinning programs and that this in turn will assist with planning at a local and State wide level.

To commit resources to implement one or more of the programs, the Department might want to explore the number of students with some particular characteristic (e.g., low perseverance) who would benefit from the program (i.e., have significantly greater perseverance as a result of a program) as part of their planning process. While all of the programs described in this review are universal programs (i.e. designed for implementation in an entire class or school), it is likely that some students will benefit more from the program than other students. As such, the Department might want convert the available evidence presented in this review into an estimate of the percentage of students in each program who would be expected to show a meaningful improvement in outcomes from the program<sup>7</sup>.

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<sup>7</sup> For example, through conversion of mean score differences into percentile shifts, then applied to the distribution of scores for South Australian students

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## Appendix A: Program descriptions

This section provides descriptions of each program to expand on and supplement the tables presented in Chapter 5. The descriptions include a brief overview of the program and an expanded summary of the information presented in the tables. In addition to this information, we provide a brief overall summary of the program, including any limitations of the program or the evidence of effectiveness, the age-appropriateness of the intervention and which primary outcome variables might be most successfully addressed.

## Aussie Optimism

### Overview, program design and implementation

Aussie Optimism is a social and emotional mental health promotion program that aims to teach children how to identify and manage their feelings, how to make and maintain friends, how to solve social problems and how to think optimistically to promote self-esteem and bounce back from difficulties. The program is designed for use with children ages six to 13 in primary and lower secondary school. The program is designed to be run for approximately one hour, once a week for 10 weeks during the school term and is mapped to the national curriculum for health, physical education and English. There are five school-based components, including Feelings and Friends (grades 1-2), Feelings and Friends (grade 3), Positive Thinking Skills (grade 4), Social Life Skills (grades 5-6) and Optimistic Thinking Skills (grades 7-8). There is also a family component. Training is required, which provides teachers with the skills and knowledge needed to implement the program. The cost of the one day training workshop varies from \$125 to \$250, depending on the particular component and are offered regularly in Western Australia. The cost of the training includes a training booklet, a teacher guide, one student booklet and information sheets for parents. Additional student and parent booklets can be purchased for \$10 each.

<b>Intended Grade Range</b>	Grades 1-8
<b>Intended Age Range</b>	6-13
<b>Average Number of Sessions Per Year</b>	10
<b>Average Length of Sessions</b>	One hour, once a week
<b>Who Can Implement the Program?</b>	Teachers who have completed the one day training
<b>Training Details</b>	One-day workshop
<b>Theoretical Foundation</b>	Learned helplessness, positive psychology, Beck's Cognitive theory of depression, Ellis' rational emotive principles, Cognitive Behavioural Therapy (CBT)
<b>Opportunities to Practice Social and Emotional Skills</b>	✓
<b>Is the Program Pragmatic/Scalable?</b>	✓
<b>Website</b>	<a href="http://healthsciences.curtin.edu.au/schools-and-departments/psychology-and-speech-pathology/aussie-optimism/programs/">http://healthsciences.curtin.edu.au/schools-and-departments/psychology-and-speech-pathology/aussie-optimism/programs/</a>

### Evidence of effectiveness

Two RCTs have examined Aussie Optimism, one focusing on the Social Life Skills and Optimistic Thinking Skills components with children in grade seven [19] and one focusing on the Positive Thinking Skills component with children in grade four [20]. The largest sample involved 910 participants [20].

<b>Grades Evaluated</b>	Grades 4-7
<b>Ages Evaluated</b>	9-13
<b>Geographic Location</b>	Australia (Perth)
<b>Student Race/Ethnicity</b>	Caucasian
<b>Special Sample Characteristics</b>	Low SES
<b>Behavioural Evaluation Outcomes</b>	Increased positive social behaviour, reduced conduct problems, reduced emotional distress
<b>Additional Outcomes</b>	Improved resilience

## Summary

The Aussie Optimism program is designed to improve student's social and emotional skills in Australian children, but also teaches skills that could potentially increase student's perseverance and academic self-concept, such as how to increase resilience and emotion regulation and how to challenge negative thoughts and doubts, which might be particularly useful in developing a positive academic self-concept.

There is strong evidence of effectiveness in Australian primary school children demonstrating positive impacts on social behaviour, as well as reductions in conduct problems and emotional distress. However, most of the studies evaluating the program have involved participants from low socio-economic backgrounds, suggesting a need for more research involving a more representative sample. While it is plausible that the Aussie Optimism program might impact on both perseverance and academic self-concept through its focus on resilience and emotion regulation, neither perseverance nor academic self-concept were included as outcome measures in any of the evaluation studies so there is no conclusive evidence that this program impacts these outcomes.

## The Fun FRIENDS Program

### Overview, program design and implementation

The Fun FRIENDS Program is a social and emotional learning program that aims to increase the resilience and happiness of young children through teaching strategies to help them approach life challenges with confidence, as well as promoting empathy towards others and assisting them to make friends. The program is designed for use with children ages four to seven years old and involves five sessions, each lasting approximately two hours. However, sessions can be completed in 10, one hour modules if preferred. Program objectives are reinforced through play-based activities such as role-play, puppets, games, storytelling, music, movement and art. Within the FRIENDS series are three additional age-appropriate components, including FRIENDS for Life (for ages eight to 11), My FRIEND's Youth (for ages 12-15) and The Adult Resilience Program (suitable for everyone over the age of 16). All FRIENDS programs can be implemented by teachers who have undergone training, which costs approximately \$380 and is available online, lasting approximately three hours. The program developers are now working towards replacing hardcopy books with interactive E-books that would substantially reduce the cost of resources from approximately \$20 per student to \$5.

<b>Intended Grade Range</b>	Preschool-Grade 2
<b>Intended Age Range</b>	4-7
<b>Average Number of Sessions Per Year</b>	5
<b>Average Length of Sessions</b>	Two hours (with a break), once a week
<b>Who Can Implement the Program?</b>	Teachers who have completed the training
<b>Training Details</b>	Three hours completed online
<b>Theoretical Foundation</b>	Cognitive Behavioural Therapy (CBT), Attachment Theory, Ecological Systems Theory
<b>Opportunities to Practice Social and Emotional Skills</b>	✓
<b>Is the Program Pragmatic/Scalable?</b>	✓
<b>Websites</b>	<a href="https://www.pathwayshrc.com.au/fun-friends-program/">https://www.pathwayshrc.com.au/fun-friends-program/</a> <a href="http://www.friendsresilience.org/">http://www.friendsresilience.org/</a>

### Evidence of effectiveness

Two RCTs examined the Fun FRIENDS Program with children in preschool through to second grade [21, 22]. The largest sample involved 488 participants [22].

<b>Grades Evaluated</b>	Preschool-Grade 2
<b>Ages Evaluated</b>	4-7
<b>Geographic Location</b>	Australia (Brisbane)
<b>Student Race/Ethnicity</b>	Caucasian
<b>Special Sample Characteristics</b>	-
<b>Behavioural Evaluation Outcomes</b>	Increased positive social behaviour, reduced conduct problems, reduced emotional distress
<b>Additional Outcomes</b>	Improved parent-child interactions, decreased parenting distress



## Summary

The FRIENDS Program series are amongst the most highly regarded social and emotional skills programs and are endorsed by the World Health Organisation as best practice for the prevention and treatment of mental health problems in children. The skills learned through the programs are intended for long term use and with occasional refreshers, can be maintained for many years following completion.

There is strong evidence of effectiveness relevant to our target population of Australian preschool children demonstrating positive impacts on social behaviour and reductions in conduct problems and emotional distress. Although training is required to implement the program, teachers can easily complete the training online. Overall, the program appears to be an effective program to increase preschool children's Social Competence and Emotional Maturity.

## I Can Problem Solve

### Overview, program design and implementation

I Can Problem Solve is a social and emotional skills program that teaches students how to generate solutions to everyday problems, as well as how to recognise and label emotions in oneself and others. The program is designed for use with children ages four to 12 years old and consists of between 59 lessons (preschool) and 83 lessons (primary grades) per year. The scripted lessons take approximately 20 minutes and are delivered two to three times per week. Lessons involve a combination of games, role-play, puppet-play and books and can be integrated into the curriculum. There are multiple opportunities to practice skills beyond the classroom, including at home, as parents are given handouts that teach skills to improve family interactions and generalise children’s learning. Teachers can implement the program without having to complete training and there is continuous implementation support available via email and phone conversations. Unfortunately, training is not currently available in Australia. However, the program developers are currently in the process of creating an online training system, as well as a train-the-trainer system to support sustainability. Each of the sets of lessons cost approximately \$80, which includes program materials.

<b>Intended Grade Range</b>	Preschool-Grade 6
<b>Intended Age Range</b>	4-12
<b>Average Number of Sessions Per Year</b>	59-83
<b>Average Length of Sessions</b>	20 minutes, two to three times per week
<b>Who Can Implement the Program?</b>	Teachers (training not required)
<b>Training Details</b>	Training not available in Australia yet but typically lasts two days – online training system currently being developed
<b>Theoretical Foundation</b>	Cognitive Behavioural Therapy (CBT), Interpersonal Cognitive Problem Solving Skills
<b>Opportunities to Practice Social and Emotional Skills</b>	✓
<b>Is the Program Pragmatic/Scalable?</b>	✓
<b>Website(s)</b>	<a href="http://www.icanproblemsolve.info/">http://www.icanproblemsolve.info/</a> <a href="http://www.thinkingchild.com/">http://www.thinkingchild.com/</a>

### Evidence of effectiveness: Preschool

Three quasi-experimental studies (using the same participants) examined the impact of the program with African-American preschool and reception children [23-25]. One RCT examined the impact of the program with American preschool children [26]. The largest sample involved 219 participants [25].

<b>Grades Evaluated</b>	Preschool-Reception
<b>Ages Evaluated</b>	4-5
<b>Geographic Location</b>	U.S.
<b>Student Race/Ethnicity</b>	African-America, Caucasian
<b>Special Sample Characteristics</b>	Low SES
<b>Behavioural Evaluation Outcomes</b>	Increased positive social behaviour, reduced conduct problems, reduced emotional distress
<b>Additional Outcomes</b>	Reduced need for outside mental health consultation, improved problem-solving skills

## Evidence of effectiveness: Primary

Two RCTs examined the impact of the program with children in reception and grade one [27, 28]. The largest sample involved 655 participants [27].

Grades Evaluated	Reception-Grade 1
Ages Evaluated	5-6
Geographic Location	U.S.
Student Race/Ethnicity	Caucasian, Hispanic
Special Sample Characteristics	Low SES, rural
Behavioural Evaluation Outcomes	Increased positive social behaviour, reduced conduct problems
Additional Outcomes	Increased feelings of connectedness to school

## Summary

The I Can Problem Solve program is designed to improve student's social and emotional skills, with a particular emphasis on reducing anti-social behaviours. The curriculum focuses heavily on problem solving skills that might be expected to positively influence student's perseverance and academic self-concept both directly, and indirectly through increasing emotion regulation. The program includes three sets of developmentally appropriate lessons for students in preschool through to the sixth grade.

Regarding preschool children, there has been a number of studies demonstrating the effectiveness of the program for this age group. Specifically, the program has been found to increase preschool children's positive social behaviour and reduce their conduct problems and emotional distress. Unfortunately, there does not appear to have been any research involving this age group conducted in Australia and most studies involve rural, low SES samples of a particular ethnicity. Therefore, the findings should be generalised to other populations with caution.

Regarding primary school children, there is evidence supporting the effectiveness of the program, but only with younger primary school grades. Accordingly, there is a need for more research examining the effectiveness of the program with older students, using a more representative sample. Additionally, program training is not currently available in Australia, however the program can be implemented without training and an online training system is in the process of being created. Overall, despite these limitations, the program appears to be an effective program that could be used to increase preschool and primary school children's Social Competence and Emotional Maturity.

Overall, the program focuses on teaching children to generate multiple solutions to problems and challenges and building emotion regulation. As such, it might be expected to improve their perseverance and academic self-concept as they should have better emotional control and fewer distractions in their academic work. Nonetheless, none of the evaluation studies directly measured perseverance or academic self-concept so there is no conclusive evidence that this program impacts these outcomes. Further research studies would be strengthened by exploring a wider range of outcomes including perseverance and academic self-concept.

## The Incredible Years Classroom Dinosaur Program

### Overview, program design and implementation

The Incredible Years Classroom Dinosaur Program aims to prevent and address young children’s behavioural problems and promote their social, emotional and academic competencies. The program is intended for use with children ages three to eight years old and consists of approximately 60, 20-30 minute lessons, delivered two to three times a week. There are three sets of lesson plans available (e.g., Level 1 for ages three to five, Level 2 for ages five to six years, and Level 3 for seven to eight year olds). Level 3 lessons build on Level 2, which must be completed prior, regardless of age. DVDs, puppets, role-play, games and books, followed by group discussions are used to teach program material, such as how to regulate their emotions and behave appropriately in the classroom. The program integrates social and emotional skills with academic competencies (i.e., maths, reading and writing) and there are activities that reinforce and promote the concepts learned throughout the school day, as well as homework activities to be completed with parents. Teachers can deliver the program without training, although training is highly recommended. Training is available in Australia and typically lasts three days (varying in price depending on whether you attend a workshop or host a workshop at your school). The cost of the program is approximately \$1,900, which includes a detailed manual, lessons and materials for all three levels, as well as tools to monitor implementation fidelity.

Intended Grade Range	Preschool-Grade 3
Intended Age Range	3-8
Average Number of Sessions Per Year	60
Average Length of Sessions	20-30 minutes, two to three times per week
Who Can Implement the Program?	Teachers (training not required)
Training Details	Three-day workshop
Theoretical Foundation	Cognitive Social Learning Theory
Opportunities to Practice Social and Emotional Skills	✓
Is the Program Pragmatic/Scalable?	✓
Website	<a href="http://incredibleyears.com/">http://incredibleyears.com/</a>

### Evidence of effectiveness

One RCT evaluated the Dinosaur Program (in combination with the teacher-training program) with 1,768 children in preschool to grade one [29].

Grades Evaluated	Preschool-Grade 1
Ages Evaluated	4-6
Geographic Location	U.S.
Student Race/Ethnicity	Diverse
Special Sample Characteristics	Low SES
Behavioural Evaluation Outcomes	Increased positive social behaviour, reduced conduct problems, reduced emotional distress
Additional Outcomes	Improved school readiness, improved school climate

## Summary

The Incredible Years Classroom Dinosaur Program is a social and emotional skills program that was originally designed for clinically referred children presenting with behavioural problems. However, the program has subsequently been developed as a universal classroom program for use in schools. Accordingly, the more rigorous RCTs tend to involve clinically diagnosed children [30, 31], as well as students from low socio-economic backgrounds who are at a higher risk of developing problems. Nevertheless, one study has demonstrated positive impacts on children in preschool to grade one, including increased positive social behaviour and reduced conduct problems and emotional distress, when delivered in a universal setting.

More research examining the Incredible Years Classroom Dinosaur Program with Australian students with and without the teacher-training program would be highly valuable. Nevertheless, based on the current evidence, the program appears to be an effective program to increase preschool children's Social Competence and Emotional Maturity. It is worth noting that the program has specifically been shown to improve school readiness in the US, measured by social competence, emotional self-regulation, and the absence of behavioural problems so it is highly likely that it would have positive impacts on the Social Competence and Emotional Maturity domains of the AEDC in reception.

## MindUP

### Overview, program design and implementation

MindUP is a mindfulness-based social and emotional skills program that helps students improve their focus, concentration and academic performance, reduce stress and anxiety, handle peer conflicts, manage emotions and reactions, develop greater empathy towards others and choose optimism. The program provides separate sets of lessons for three levels (preschool through second grade, third through fifth grade and sixth through eighth grade). The program involves 15 lessons per grade range, which offer helpful strategies to help students enhance their self-awareness, improve their self-regulation skills, build resilience to stress and develop a positive mindset in both school and life. Lessons range from 10-20 minutes for early years to 40-60 minutes for older age groups. The program can be integrated into the academic curriculum and there are suggested extension lessons to support social and emotional development, maths, physical education, health, science, literature and journal writing. Teachers can implement the program without training, however training is available and typically takes one day. There is also a train the trainer system to support sustainability, as well as an online digital portal with new content, resources, training videos, implementation support ideas and lesson plans to successfully implement the program. The cost of the different lesson sets is approximately \$25 each, which includes all 15 lesson plans, activities and posters.

<b>Intended Grade Range</b>	Preschool-Grade 8
<b>Intended Age Range</b>	3-14
<b>Average Number of Sessions Per Year</b>	15
<b>Average Length of Sessions</b>	10-20 minutes for early years or 40-60 minutes for older age groups, once a week
<b>Who Can Implement the Program?</b>	Teachers (training not required)
<b>Training Details</b>	One-day workshop
<b>Theoretical Foundation</b>	Mindfulness, Positive Psychology
<b>Opportunities to Practice Social and Emotional Skills</b>	✓
<b>Is the Program Pragmatic/Scalable?</b>	✓
<b>Websites</b>	<a href="https://mindup.org/">https://mindup.org/</a>

### Evidence of effectiveness

One small quasi-experimental study involving 246 children in grades 4-7 [32].

<b>Grades Evaluated</b>	Grade 4-7
<b>Ages Evaluated</b>	9-13
<b>Geographic Location</b>	Canada
<b>Student Race/Ethnicity</b>	Diverse
<b>Special Sample Characteristics</b>	-
<b>Behavioural Evaluation Outcomes</b>	Increased positive social behaviour, reduced conduct problems, reduced emotional distress
<b>Additional Outcomes</b>	Increased optimism, increased mindfulness, increased school self-concept (similar to academic self-concept)

## Summary

The MindUP program is designed to improve aspects of student's social and emotional skills, but also teaches skills that align very closely with the attentional components of perseverance (task attentiveness and focus) and the emotional components of perseverance and academic self-concept (emotion regulation).

There is evidence supporting the program's effectiveness with Canadian children in grades four to seven, with positive impacts on social behaviour and reductions in conduct problems and emotional distress. There is also direct evidence demonstrating that the program is effective at increasing student's academic self-concept.

Overall, the MindUP program appears to be an effective program that could be used to assist primary school children in developing their Social Competence and Emotional Maturity, and is the only program with direct evidence of improvements in academic self-concept. Unfortunately, there does not appear to have been any research involving this age group conducted in Australia and most studies involve rural, low SES samples of a particular ethnicity. Therefore, the findings should be generalised to other populations with caution.

## PATHS (Promoting Alternative THinking Strategies)

### Overview, program design and implementation

The PATHS curriculum is a comprehensive social and emotional learning program that aims to improve children’s emotional literacy, self-control, social competence, positive peer relations and interpersonal problem-solving skills. It is designed for use in preschool through to sixth grade, with separate sets of lessons for first through fourth grade and combined sets of lessons for use in preschool and kindergarten and in fifth and sixth grade. This format gives schools the option to teach the program in a progressive fashion starting with preschool/kindergarten, or within a single grade. The number of lessons vary between 30-45 per year (depending on the grade) and are taught two to three times per week, for a minimum of 20-30 minutes per day. Each lesson is scripted and there are suggestions and activities for generalising skills beyond the classroom, including at home with families. Teachers can implement the program without training, however training is available onsite and online, taking approximately two days. The curriculum is designed to be integrated with and advance key academic skills, including writing, reading and listening. The cost of the programs individually (i.e., for each grade) range from \$560 to \$1,120, however a package including lessons for preschool children through to grade six can be purchased for approximately \$4,400. Program kits include an instructor and curriculum manual, storybooks, posters, stickers, charts, puppets and family communication materials.

<b>Intended Grade Range</b>	Preschool-Grade 6
<b>Intended Age Range</b>	4-12
<b>Average Number of Sessions Per Year</b>	30-45
<b>Average Length of Sessions</b>	20-30 minutes, two-three times per week
<b>Who Can Implement the Program?</b>	Teachers (training not required)
<b>Training Details</b>	Two days completed online or onsite
<b>Theoretical Foundation</b>	Affective-Behavioural-Cognitive-Dynamic model of development
<b>Opportunities to Practice Social and Emotional Skills</b>	✓
<b>Is the Program Pragmatic/Scalable?</b>	✓
<b>Websites</b>	<a href="http://www.pathseducation.com/">http://www.pathseducation.com/</a> <a href="http://www.channing-bete.com/prevention-programs/paths/paths.html">http://www.channing-bete.com/prevention-programs/paths/paths.html</a>

### Evidence of effectiveness: Preschool

One RCT examined the impact of the program with 246 preschool children [33].

<b>Grades Evaluated</b>	Preschool
<b>Ages Evaluated</b>	3-4
<b>Geographic Location</b>	U.S.
<b>Student Race/Ethnicity</b>	African-American, Caucasian
<b>Special Sample Characteristics</b>	Low SES
<b>Behavioural Evaluation Outcomes</b>	Increased positive social behaviour, reduced emotional distress
<b>Additional Outcomes</b>	Better child adjustment



## Evidence of effectiveness: Primary

Two RCTs examined the impact of the program, including a longitudinal analysis involving children who remained in the study through grades one, two and three [34], as well as children in grades two and three and a small selection of children from a special education class [35]. The largest sample involved 2,937 participants [34].

<b>Grades Evaluated</b>	Grades 1-3
<b>Ages Evaluated</b>	6-10
<b>Geographic Location</b>	U.S.
<b>Student Race/Ethnicity</b>	Caucasian, African-American
<b>Special Sample Characteristics</b>	Low SES, special education
<b>Behavioural Evaluation Outcomes</b>	Improved academic performance, increased positive social behaviour, reduced conduct problems, reduced emotional distress
<b>Additional Outcomes</b>	More effective academic engagement, increased self-control and task attentiveness

## Summary

The PATHS program is a social and emotional learning program that aims to develop children's protective factors and decrease the risk of behavioural and social problems. The program also focuses on improving various skills that could potentially increase student's perseverance and academic self-concept, such as self-discipline, self-esteem and emotion regulation.

There is evidence supporting the effectiveness of the program in increasing positive social behaviour and reducing emotional distress in preschool children. There is also strong evidence supporting the effectiveness of the program with primary school children, with studies demonstrating positive impacts on academic performance and positive social behaviour, as well as reductions in conduct problems and emotional distress.

In primary school children, the program has also been shown to improve academic engagement and task attentiveness, which are strongly associated with perseverance and academic self-concept, although these constructs were not measured directly.

However, most of the studies conducted involved students from low socio-economic backgrounds, who were enrolled in the US Head Start program, highlighting the need for Australian research using more representative samples of children.

## Second Step

### Overview, program design and implementation

Second Step is a social and emotional learning program that aims to teach core social and emotional skills such as empathy, emotion management, problem solving and self-regulation skills. The program is designed for use with children ages three to 13, in preschool through to middle school. The programs are divided into the Early Learning Program (for preschool children), the Skills for Social and Academic Success (for kindergarten to grade five) and Student Success Through Prevention (for grades six to eight). There are 22-28 weekly lessons, which include Brain Builder games (designed to increase executive function skills), weekly theme activities, reinforcing activities and home link activities to generalise learning beyond the classroom. The length of sessions vary but generally are between 25-35 minutes. Depending on the grade level, programs can also involve video interviews with real teens, visual aids and posters, songs and puppets. Lessons are fully scripted and can be integrated into academic curriculum. The programs can be implemented by teachers without training, however training is available online (typically lasting between one and four hours) and is included in the purchase of the program, which ranges from \$385 to \$425 for individual year level programs.

<b>Intended Grade Range</b>	Preschool-Grade 8
<b>Intended Age Range</b>	3-14
<b>Average Number of Sessions Per Year</b>	22-28
<b>Average Length of Sessions</b>	Approximately 25-35 minutes, once a week
<b>Who Can Implement the Program?</b>	Teachers (training not required)
<b>Training Details</b>	1-4 hours completed online
<b>Theoretical Foundation</b>	Risk and protective factor prevention framework
<b>Opportunities to Practice Social and Emotional Skills</b>	✓
<b>Is the Program Pragmatic/Scalable?</b>	✓
<b>Website</b>	<a href="http://www.cfchildren.org/second-step">http://www.cfchildren.org/second-step</a>

### Evidence of effectiveness

Four RCTs have examined the impact of the program, one involving American children in grades two to five [36], one with American children in grades two to three [37], one with German children in grade four [38] and one with American children in kindergarten (reception) through to grade two [39]. There has also been a quasi-experimental study involving Norwegian children in grades five to six [40, 41]. The largest sample involved 7,300 children [39].

<b>Grades Evaluated</b>	Reception-Grade 6
<b>Ages Evaluated</b>	5-12
<b>Geographic Location</b>	U.S., Germany, Norway
<b>Student Race/Ethnicity</b>	Caucasian, diverse
<b>Special Sample Characteristics</b>	-
<b>Behavioural Evaluation Outcomes</b>	Increased positive social behaviour, reduced conduct problems, reduced emotional distress
<b>Additional Outcomes</b>	Increased problem-solving, increased emotion regulation, improved skills for learning

## Summary

Second Step is a social and emotional learning program that increases student's social and emotional skills, but also teaches skills that could potentially increase their perseverance and academic self-concept, such as emotion regulation, identifying strengths and various positive learning strategies.

There is strong evidence of effectiveness with studies conducted in *multiple countries*, involving *large samples* of children from diverse backgrounds demonstrating positive impacts on social behaviour, as well as reductions in conduct problems and emotional distress. While the inclusion of non-US samples (German and Norwegian children) in the evaluation studies strengthens the evidence about the effectiveness of the program, it is still important to replicate these findings with Australian children.

Nevertheless, the Second Step program appears to be an effective program that could be used to increase primary school student's Social Competence and Emotional Maturity. As with many of the other programs, the focus on emotion regulation, learning skills and problem solving skills are likely to have an impact on perseverance and academic self-concept but these outcomes were not directly assessed in any of the evaluation studies.

## Social Decision Making/Problem Solving

### Overview, program design and implementation

The Social Decision Making/Problem Solving program is a social and emotional learning program that aims to promote self-control, social awareness and effective decision-making skills for children in reception through to eighth grade. There are four different manuals available for grades K-1, 2-3, 4-5, and 6-8. There are 25-40 lessons per year (depending on the grade), which involve a variety of learning methods, such as small-group brainstorming, problem solving and role-play activities. Sessions are typically designed for a class period, which can range from 30-40 minutes. The program also includes suggestions for teachers for integrating new skills and concepts into core academic subject areas and students are encouraged to practice these skills throughout the school day. There are also frequent take home activities and supplementary books for parents to further reinforce learning. Students keep a Problem Diary to record situations they encounter in their lives and how they use problem-solving skills to address them. Teachers can implement the program without training, however, on-site workshops and other follow-up services can be arranged upon request, usually taking one to two days. The cost of training is around \$1,750, however there is also the possibility for webinars and online consultation. The cost of the implementation manual and accompanying CD is approximately \$43.00, which includes lesson plans and numerous reproducible worksheets.

<b>Intended Grade Range</b>	Reception-Grade 8
<b>Intended Age Range</b>	4-14
<b>Average Number of Sessions Per Year</b>	25-40
<b>Average Length of Sessions</b>	30-40 minutes, once a week
<b>Who Can Implement the Program?</b>	Teachers (training not required)
<b>Training Details</b>	Two-day workshop
<b>Theoretical Foundation</b>	Social Learning Theory, Cognitive Behavioural Therapy (CBT)
<b>Opportunities to Practice Social and Emotional Skills</b>	✓
<b>Is the Program Pragmatic/Scalable?</b>	✓
<b>Website</b>	<a href="http://ubhc.rutgers.edu/sdm/">http://ubhc.rutgers.edu/sdm/</a>

### Evidence of effectiveness

Two quasi-experimental studies examined the impact of the program with children who were initially in grades four to five [42, 43]. Students were followed over a period of five to six years. The largest study involved 158 participants [42].

<b>Grades Evaluated</b>	Grades 4-5
<b>Ages Evaluated</b>	Not specified but approximately 9-11
<b>Geographic Location</b>	U.S.
<b>Student Race/Ethnicity</b>	Diverse
<b>Special Sample Characteristics</b>	-
<b>Behavioural Evaluation Outcomes</b>	Improved academic performance, increased positive social behaviour, reduced conduct problems, reduced emotional distress
<b>Additional Outcomes</b>	Improved problem-solving skills, improved coping with stressors and adjusting to middle school

## Summary

The Social Decision Making/Problem Solving program is designed to increase student's social and emotional skills, but also focuses on skills such as self-discipline, which is another term for perseverance. As such, this program would be expected to lead to improvements in perseverance, but like many of the studies reported in this paper, perseverance is not measured directly. The program also focuses on identifying feelings/emotions and challenging maladaptive thoughts that could potentially increase academic self-concept. While academic self-concept was not measured directly, there was evidence that the program was associated with positive impacts on academic performance. Since academic accomplishments have a strong influence on academic self-efficacy with past successes serving to strengthening an individual's self-efficacy beliefs, it is plausible that this program would improve academic self-efficacy through this pathway as well as improvements in emotion regulation.

There is strong evidence of effectiveness demonstrating positive impacts on academic performance and positive social behaviour, as well as reductions in conduct problems and emotional distress. However, there is a need for additional research conducted in Australia.

## Steps to Respect

### Overview, program design and implementation

Steps to Respect is a social and emotional learning program with a dual focus on bullying and friendship. The program aims to promote emotional skills such as empathy and managing emotions, self-management skills such as risk assessment and decision making, as well as social skills such as assertiveness communication, conflict resolution, building and maintaining friendships and positive social values. The program is designed for use with children ages eight to 12, in third through to sixth grade. The curriculum is divided into three developmentally appropriate levels, one for students in grades 3 and 4, one for students in grades 4 and 5, and the third for students in grades 5 and 6. The program is generally implemented over a 12-14 week period and involves 11 weekly, one hour skill lessons, as well as two additional literature units that contain multiple lessons in each. The literature units are based on existing children's books, providing further opportunities to explore the themes taught. There are also extension activities at the end of each lesson as well as family handouts to reinforce and generalise learning outside of the classroom. The School-wide Kit costs approximately \$1,099 and includes materials for all three student levels, a program guide, a training manual with staff and family trainings, a training DVD, fully scripted lessons, classroom DVDs, literature units with award winning books and classroom posters. This package contains everything needed to train staff as well as information to provide to families about the program.

<b>Intended Grade Range</b>	Grades 3-6
<b>Intended Age Range</b>	8-12
<b>Average Number of Sessions Per Year</b>	11
<b>Average Length of Sessions</b>	One hour, once a week
<b>Who Can Implement the Program?</b>	Teachers (training not required)
<b>Training Details</b>	Training conducted in your own time (approximately two hours)
<b>Theoretical Foundation</b>	Problem solving strategies, assertiveness skills
<b>Opportunities to Practice Social and Emotional Skills</b>	✓
<b>Is the Program Pragmatic/Scalable?</b>	✓
<b>Website</b>	<a href="http://www.childtrends.org/programs/steps-to-respect-bullying-prevention-program/">http://www.childtrends.org/programs/steps-to-respect-bullying-prevention-program/</a>

### Evidence of effectiveness

Two RCTs examined the impact of the program with children in grades three to six [44, 45]. The largest study involved 2,940 students [45].

<b>Grades Evaluated</b>	Grades 3-6
<b>Ages Evaluated</b>	7-11
<b>Geographic Location</b>	U.S.
<b>Student Race/Ethnicity</b>	Caucasian, diverse
<b>Special Sample Characteristics</b>	-
<b>Behavioural Evaluation Outcomes</b>	Increased positive social behaviour, reduced conduct problems
<b>Additional Outcomes</b>	Improved school environment, reduced bullying, enhanced bystander responsibility

## Summary

The Steps to Respect program is designed to increase student's social and emotional skills, but also teaches skills such as how to set and achieve positive goals and how to manage emotions that could potentially increase student's perseverance and academic self-concept. Unfortunately, perseverance and academic self-concept were not measured in any of the evaluations.

There is strong evidence of effectiveness of the program demonstrating positive impacts on social behaviour and reductions in conduct problems. However, there does not appear to have been any research conducted in Australia, so the findings should be generalised with caution.



## About the Fraser Mustard Centre

Working together to improve the development, education, health and wellbeing of young Australians, the Telethon Kids Institute and the South Australian Department for Education and Child Development have joined forces in a unique approach to research translation. The Fraser Mustard Centre collaboration aims to:

- Improve and promote the health and wellbeing of all children and young people in South Australia through the unique application of multidisciplinary research
- Help shift focus from the historical delineation between health and education services to an integrated approach with a focus on child development
- Build capacity amongst public sector staff and academic researchers to design, undertake and use research to improve the environments in which children live and the service systems which support families
- Attract funding for shared priorities for research that leads to improved developmental, education, health, and wellbeing outcomes for children

The Fraser Mustard Centre brings forward-thinking policy makers and world class child health researchers. It reflects a shared view of policies and outcomes for children and young people. The Centre is a unique collaboration between two organisations passionate about making a difference.

A COLLABORATION BETWEEN

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