

A COLLABORATION BETWEEN



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Executive Summary

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 SA Wellbeing and Engagement Collection (WEC) data are predictive of academic achievement [1]. Three of the main findings from these analyses were:

- the 50% of South Australian children who were developmentally vulnerable at school entry
- x In the 2015 AEDC, South Australian children had higher levels of vulnerability in Social Competence than most other jurisdictions
- x 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 Mustard Centre was commissioned to review the quality of evidence for preschool and school-based programs.

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 their effectiveness (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 addressed self-management skills, and these programs included design features that would be expected

Five core competencies of social and emotional learning

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 Social

The second two of the core competencies (Social Awareness and Relationships Skills) (} μ • }v Z]o Œ v[) competency in social interactions and relationships.

- ¾ 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.

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-domains¹), 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.

- ¾ 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 **^œ o š] } v • Z] % competency_ } œ** from the CASEL Guide.
- ¾ 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 a

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).

- ¾ 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.
- ¾ 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%).
- ¾ With respect to Emotional Maturity, the percentage of children who were developmentally vulnerable 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.
- ¾ The percentage of children who were vulnerable in Emotional Maturity in 2015 in South Australia was also higher than the national average (8.4%).

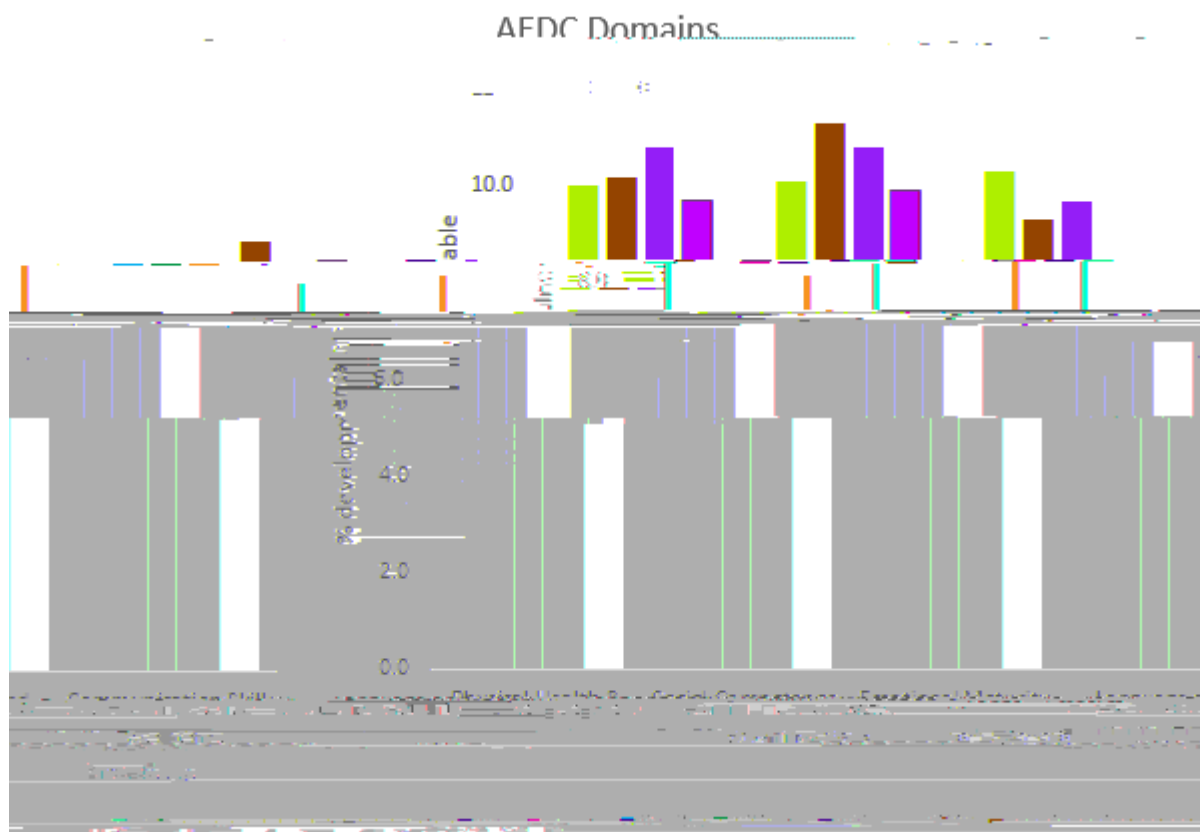


Figure 2. Trends over time in the AEDC domains for South Australian children

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

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

- x Prosocial and helping behaviour
- x Anxious and fearful behaviour
- x Aggressive behaviour
- x Hyperactivity and inattention

¾ 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, sharing, 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

The three other sub-domains focus on internalising and externalising behaviours. Interventions that are effective at helping children to regulate their emotions and manage their behaviour are important for these sub-domains.

¾ 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. A child who exhibits 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.

¾ The aggressive behaviour sub-domain measures whether

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

WEC (Willingness to Engage in Challenging Tasks) is a core component of both temperament and personality theories, which are described briefly below.

- ¾ 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 the persistence of attention scale (PAT) [1]. 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 under the umbrella of self-regulation [2].
- ¾ 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

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 v • š μ v š [• P Œ %}] v š À Œ P ~ 'W • X / Y Á • o •} •] P v] () outcomes but š Z } Œ Œ o š } v • Á Œ u μ Z Á l Œ X & } Œ] v • š v U • š μ v š • [(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 li

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

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

Mechnisms to improve self-efficacy
According to Bandura, information for shaping self-

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

program. Thus, the design would allow for a later date, allowing all schools to benefit from the program.

3/4

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

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 and emotional skills 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 (including the Incredible Years program) were excluded.

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

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

This

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.

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

programs with the highest ratings of self-awareness and self-management. From this list, six programs t
Smiling Mind, Everyone Everyday Disability Awareness Program, Mindful Schools, Highway Heroes, Positive

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
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Social and emotional skills programs for primary school children

Table 3

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

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	

- x **Seven** programs (including the **PATHS** program, **My Big Book of Feelings**, **My Big Book of Me**, **My Big Book of Friends**, **My Big Book of Emotions**, **My Big Book of Anger**, and **My Big Book of Sadness**) were evaluated in a randomised controlled trial. These programs were designed to improve children's social and emotional skills, and these programs included design features that would be expected to improve 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 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.
- x 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 will improve perseverance in South Australian schools.
- x 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 improved 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 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).

References

1. Department for Education and Child Development, **Is there a link between student wellbeing and academic achievement? MDI data linked with NAPLAN data** 2015.
2. Ministerial Council for Education Early Childhood Development and Youth Affairs, **Melbourne Declaration on Educational Goals for Young Australians** 2008.
3. Collaborative for Academic Social and Emotional Learning, **CASEL Guide: Effective Social and Emotional Learning Programs: Preschool and Elementary School Edition** 2013.
4. Zenter, M. and R.L. Shiner, **Fifty Years of Progress in Temperament Research: A synthesis of major Themes, Findings and Challenges and a Look Forward** and **Handbook of Temperament** M. Zenter and R.L. Shiner, Editors., Guilford Press: New York, NY.
5. Duckworth, A.L.S., M.E.P., **Self-Discipline Outdoes IQ in Predicting** 1m [(R.)-8(L)7(.)-8()-7(em)30(i)-8(c)

43. Elias, M.J., et al., **THE PROMOTION OF SOCIAL COMPETENCE: Longitudinal Study of a Preventive School-Based Program**American Journal of Orthopsychiatry, 1991. 61(3): p. 409-417.
44. Frey, K.S., et al., **Reducing playground bullying and supporting beliefs: An experimental trial of the Steps to Respect Program**Developmental Psychology, 2005. 41(3): p. 479-490.
45. Brown, E.C., et al., **Outcomes From a School-Randomized Controlled Trial of Steps to Respect: A Bullying Prevention Program**School Psychology Review, 2011. 40(3): p. 423-443.

Appendix A: Program descriptions

This section provides descriptions of each program to expand on and supplement the tables presented in Chapter

Summary

The Aussie Optimism program is designed to help Australian children, but also teaches skills that could potentially increase 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.

Summary

The FRIENDS Program series are amongst the most highly regarded social and emotional skills programs and

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 lesse 172.15 772.06 Tm[()] TJET EM

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	

The Incredible Years Classroom Dinosaur Program

Overview, program design and implementation

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

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 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.

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].

Grades Evaluated	Grades 1-3
Ages Evaluated	6-10
Geographic Location	U.S.
Student Race/Ethnicity	Caucasian, African-American
Special S	

Summary

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 • CE À]vP š} • šCE vP šZ v]vP efficacy]v]À] μ 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.

Summary

skills such as how to set and achieve positive goals and how to manage emotions that could potentially impact on academic performance. 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

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