Social Emotional Learning and Cognition

What do we mean by SEL?
Why is it important?
How is your school doing? How do you measure progress?
What can we do to improve Wellbeing and Learning?
Are the skills teachable?
What programs are available to help?
What does the research say?

Definitions of Social Emotional Learning

Social Emotional Learning (SEL) has been defined as the process of acquiring core competencies to
• recognize & manage emotions,
• set and achieve positive goals,
• appreciate the perspectives of others,
• establish and maintain positive relationships,
• make responsible decisions, and
• handle interpersonal situations constructively
(Elias et al., 1997).

SEL covers “cognitive, affective, and behavioral competencies” that include “self-awareness, self-management, social awareness, relationship skills, and responsible decision-making”

Introduction

SEL is the process through which children and adults acquire the knowledge, attitudes, and skills they need to recognise and manage their emotions, demonstrate caring and concern for others, establish positive relationships, make responsible decisions, and handle challenging situations constructively.

Who watched Revolution School?

The barriers to progress in learning were things like teacher instructional skills, regulation of student behaviour, student anxiety arising from issues at home and school, bullying and self esteem issues, students’ ability to focus and engage with the content....
Building Capacity to Learn

Dr Judy Willis, Neurologist and Teacher, speaks about changes to the school curriculum around the world in the last few decades.

- Information explosion = more content
- Students showing a stress reaction to focus on content
- Inattention, learning difficulties, anxiety on the rise

Solution:
Shifting from a content led based approach to education, to one that is more focused on improving the student's capacity to learn.

Interventions Shown to Aid Executive Function Development
Diamond and Lee (2013)

“The best approaches to improving EFs and school outcomes will probably be those that:
- engage students’ passionate interests, bringing them joy and pride
- address stresses in students’ lives, attempting to resolve external causes and to strengthen calmer, healthier responses
- have students vigorously exercise
- give students a sense of belonging and social acceptance”
Education Report 2016

"Managing student welfare initiatives is rated by schools as the most significant challenge they face right now.

This is followed by the need to stay at the evolving pedagogical frontier, and do it all while responsibly managing the bottom line."

Why the focus on SEL?

PISA 2012 Results
Ready to Learn: Students’ Engagement, Drive and Self-Beliefs

“Students’ engagement with school, the belief that they can achieve at high levels, and their ability and willingness to do what it takes to reach their goals not only play a central role in shaping students’ ability to master academic subjects, they are also valuable attributes that will enable students to lead full lives, meeting challenges and making the most of available opportunities along the way.”

Q: When OECD uses PISA to measure certain skills, it is sending a clear message of what’s important and of what kids should be learning. How do you decide which skills are important?

We look very carefully at the evolution of skills demanded in our society. Many of the skills that schools have traditionally emphasized—memorizing things and then recalling them—are becoming less and less important for the success of people. In contrast, creative thinking, collaborative problem solving, and social skills are becoming more important. We look very carefully at how the world and the skills that people need are changing and then we try to reflect that in our measure.
Why are Social & Emotional Learning skills important?

A recent meta-analysis revealed adoption of SEL programs lead to:

- 22% increase in social and emotional skills
- 11% increase in academic achievement
- 9% increase in pro-social behaviour
- 9% decrease in conduct problems
- 10% decrease in emotional distress
- 9% increase in positive attitudes.

(Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011).

Australian Curriculum

Learning Areas
- English
- Maths
- Science
- Languages
- Arts
- HPE

General capabilities
- literacy,
- numeracy,
- information and communication technology capability,
- critical and creative thinking,
- personal and social capability,
- ethical understanding,
- intercultural understanding.

Cross-curriculum priorities
- Aboriginal culture,
- sustainability,
- engagement with Asia

What has the greatest influence on student learning? Hattie 2009 Meta-analysis

- Self-assessment – thinking about your thinking and learning
- Learning behaviours
- Teacher-student relationships
- Problem-solving teaching

- Personality
- Composite classes
- Homework
- Teacher subject matter knowledge

Why is SEL needed? AEDC – Facts on SEL & C Vulnerabilities

Percentage of children developmentally vulnerable by domain

- Physical health and well-being
- Social competence
- Language and cognitive skills (school-based)
- Emotional maturity
- Communication skills and general knowledge

2009 2012 2015
Interconnected Systems Supporting Learning

Who were your best teachers? Why?

- Mrs Guest, year 2
- Miss Bensley, year 4
- Ms Thomas, year 10

What are the social, emotional and cognitive skills that underlie good learning?

[CASEL diagram]

http://www.casel.org/social-and-emotional-learning
Personal & Social Capability in the Australian Curriculum

- The Australian Curriculum for Personal and Social Capabilities (ACPSC) provides a learning continuum (Years 2-10) based on CASEL’s SEL framework that includes a minimum foundation of four interrelated and non-sequential organising elements – Self-awareness, Self-management, Social awareness, and Social management (EQ components).
- Expects students to develop self-awareness, self-management, social awareness, and social management capabilities by Year 10.
- Assessment tools aligned with intervention materials can help practitioners to build meaningful tools to directly teach and measure key Personal and Social Capabilities for students in Years 6 and 10.

ACARA – Personal and Social Capability

The capability involves students in a range of practices including:
- recognising and regulating emotions,
- developing empathy for and understanding of others,
- establishing positive relationships,
- making responsible decisions,
- working effectively in teams and
- handling challenging situations constructively.

See: http://v7-5.australiancurriculum.edu.au/GeneralCapabilities/Pdf/Personal-and-social-capability

ACARA – Creative and Critical Thinking

- Inquiring – identifying, exploring and organising information and ideas
- Generating ideas, possibilities and actions
- Reflecting on thinking and processes
- Analysing, synthesising and evaluating reasoning and procedures

Learning Behaviours and skills – Can be taught, Can be improved with training

**Behaviour**
- Self awareness
- Self management
- Social Awareness
- Social management
- Responsible decision making

**Cognition**
- Attention
- Memory, especially working memory
- Information processing
- Executive function – self-regulation skills
- Language skills
What does an effective SEL program look like?

What can you start to do today?

CASEL guidelines

What does a good SEL program need to look like?

CASEL best practice standards:
- linking social–emotional instruction to standard curricula without taking time and focus away from other academic areas;
- providing differentiated instructional procedures;
- involving parents;
- training and supporting teachers and staff;
- demonstrating program quality through empirical evidence

Implementation Best Practice

“The most successful implementation of SEL is through a whole school approach with a structured program/curriculum. This ensures that:
- Students learn skills in a systematic way
- Students practise skills
- Teachers model skills during their interactions with students
- The teacher reinforces the skills everyday
- Teachers create specific opportunities for skill practice
- Teachers use natural opportunities for practice of skills
- All adults in the school use the skills
- The skills become part of school culture.”

Motivation and Mindset are critical

Carol Dweck – Study on Praise and Mindset
Rewarding EFFORT (dynamic) vs rewarding SMARTS (fixed)
Belief that the ability to learn is not fixed

Great job…You tried so hard!
Great job…You are so clever!
Brain Function and Neuroplasticity

- **Use it or lose it** – You have to train (or simulate). You are the product of what you DO and THINK.
- **Use it and improve it** – It has to be challenging.
- **Specificity** – Neurons that fire together, wire together.
- **Repetition matters** – Lots of practice is needed.
- **Intensity matters** – It must be effortful, dose matters.
- **Time matters** – It takes time – related to effort.
- **Saliency matters** – It must be meaningful, authentic.
- **Age matters** – We are more malleable at an early age, but change/learning is possible at any age.
- **Transference and Interference** – Your brain is highly interconnected, changes in one area will affect others.


Dr Angela Duckworth and “Grit”

- Personality trait of Self discipline predicts achievement more than IQ – Marshmallow experiment with 4 year olds. The length of time they waited predicted academic outcomes many years later (Duckworth & Seligman 2005).
  - “what doesn’t kill you makes you stronger”
  - Not the same as intensity but constancy of effort over time.
  - Notice and celebrate self-discipline to strengthen environmental component.

Interventions Shown to Aid Executive Function Development in Children 4 to 12 years old

- Adele Diamond and Kathleen Lee, Science 333, 959 (2011);
  - Diverse activities have been shown to improve children’s executive functions: computerized training, games, aerobics, martial arts, yoga, mindfulness, and school curricula.
  - All successful programs involve repeated practice and progressive increase of the challenge to executive functions.
  - Children with worse executive functions benefit most from these activities – importance of early intervention.
  - To improve executive functions, focusing narrowly on them may not be as effective as also addressing emotional, social and physical development (shown by positive effects of aerobics, martial arts and yoga).

Managing Emotions - Know your Limbic system

As information from our environment enters through our sensory systems it is first processed through an emotion filter, routed through the amygdala, deep in the core of our brains, before it is available to the outer, thinking layers of our brain.

Overstimulation of the amygdala blocks access to learning.

But moderate arousal via engagement of emotions through stories, priming, novelty, surprise, curiosity… promotes working memory, sociability, patience.

Need that balance between challenge and reward.
**Notice and Reward Active Learning**

1. Explaining things
2. Asking good questions
3. Learning something new
4. Practising hard till you get it right
5. Thinking carefully
6. Listening carefully
7. Trying different ways of doing things
8. Being a learning friend who helps others learn
9. Making someone else happy
10. Becoming better at sharing
11. Reading every day

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**Mindfulness Training**

Mindfulness Training Improves Working Memory Capacity and GRE Performance While Reducing Mind Wandering

1. Michael D. Mrazek
2. Michael S. Franklin
3. Dawa Tarchin Phillips
4. Benjamin Baird
5. Jonathan W. Schooler
Are the skills teachable? What tools are available to help?

**Instructional methods**
- Modelling
- Coaching
- Role-play
- Group decision making
- Cross-age mentoring
- Flipped learning

How can you minimise the effect of stress on the brain?

1. Recognise when it happens and don’t just dismiss it as bad behaviour. Look for the reasons behind bad behaviour.
2. Strategies you can use to relieve the stress:
   a. Keep a personal best scoreboard to reward individual (and team) achievements not the amount of content [what behaviours would you reward?]
   b. Teach prioritisation strategies – teachers can mentor this strategy
   c. Take 3 minute breaks every 90 minutes
   d. Build routines – increase what is familiar
   e. Stay positive – it’s ok not to know an answer – teachers can model this too. The important thing is to ask the right questions...
   f. Create warm relationships – ask about their lives, say hello
   g. Authentic conversations bring people and groups close together. When teacher and student connect at a personal level it can make a huge difference to feeling safe and belonging

How is your school doing?

<table>
<thead>
<tr>
<th>Area</th>
<th>Very low/ Very low Awareness Attitude</th>
<th>Low/ Knowledge</th>
<th>Medium/ Medium Action</th>
<th>High/ High behaviour Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole school</td>
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<td>Leadership</td>
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<td>Classroom and curriculum</td>
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<td>Families &amp; the school community</td>
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<tr>
<td>Policies, protocols and procedures</td>
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<td>Professional learning</td>
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<tr>
<td>Strategic directions</td>
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</tbody>
</table>
"There's a standard line that we have here, that the 3047 postcode does not determine your destiny. Where you start doesn't matter – it's where you end up that counts."

Whole Child School – Broadmeadows Primary School

- It’s all about Learning
- It’s all about making progress in learning no matter where your starting point is

Already using Fountas & Pinnell BUT...Why weren’t they making progress?

- Poor thinking skills – especially metacognition
- Poor leadership, Young inexperienced staff
- Need to build a safe learning environment first
- Low SES, a lot missing from home experience, Parents needed support themselves
- Poor self-regulation – behaviour problems

Getting Started - Learning and Student Wellbeing Suite

The Learning and Student Wellbeing – Building Your Awareness session
A 5.5 hours of face-to-face instruction and practical activities in the following sections:
- What is Student Wellbeing?
- Why is Student Wellbeing important?
- Social and Emotional Learning and Academic Achievement.

The Learning and Student Wellbeing – Attitude and Confidence session
This is 6 hours of face-to-face instruction and practical activities in the following sections:
- Student Wellbeing around Australia
- Building, Maintaining and Enhancing Wellbeing
- Putting it all together in the school and classroom.
Bounce Back - Resilience

It is not just the content that is taught but HOW it is taught

Resilience

- .......is the ability to weather adversity or to bounce back from a negative experience.
- .........can help explain why some children overcome overwhelming obstacles while other become victims of their early experiences and environments
- .........is an aspect of normal development – not just applicable in adverse circumstances only

Emerging evidence suggests that some youth possess resilience processes innately
- .........but for others they may need to be taught

Why formalise the assessment of resiliency?

Purpose of RSCA:

1. To move away from solely focusing on the evaluation of symptoms and impairment.
2. To provide a theoretically and empirically sound assessment of core characteristics of personal resiliency for the purpose of
   - Education
   - Screening
   - Prevention
   - Counselling
1. Sense of Mastery Scale

A core characteristic of resiliency, driven by an innate curiosity to learn about the world and our place in it.

3 Subscales (mean = 10, SD = 3)

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Optimism</th>
<th>Self-Efficacy</th>
<th>Adaptability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimism</td>
<td>A positive attitude about our world and about our life currently and in the future</td>
<td>Our approach to obstacles or problems, and a sense that we can master our environment</td>
<td>Flexibility in problem solving, being receptive to criticism, and learning from our mistakes</td>
</tr>
</tbody>
</table>

2. Sense of Relatedness Scale

One of the basic human needs, feeling connected, the capacity to be in a relationship.

4 Subscales (mean = 10, SD = 3)

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Sense of Trust</th>
<th>Perceived Access to Support</th>
<th>Comfort with others</th>
<th>Tolerance of differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sense of Trust</td>
<td>Perceiving others as reliable and accepting. The degree of being able to be authentic in a relationship.</td>
<td>The belief that there are others to whom we can turn to when dealing with adversity</td>
<td>Ability to be in the presence of others without discomfort or anxiety. Seeing others as a buffer to stressors in life</td>
<td>The belief that we can safely express difference within a relationship</td>
</tr>
</tbody>
</table>

3. Emotional Reactivity Scale

Emotional self-regulation, a set of tools that allow children and adolescents to regulate their own attention, emotions, and behaviour.

3 Subscales (mean = 10, SD = 3)

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Sensitivity</th>
<th>Recovery</th>
<th>Impairment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity</td>
<td>The threshold for reaction and the intensity of the reaction: &quot;how easy it is to get upset&quot;</td>
<td>The ability to bounce back from emotional arousal or disturbance: &quot;how long it takes to recover when angry or upset&quot;</td>
<td>The degree to which one can maintain an emotional equilibrium when aroused</td>
</tr>
</tbody>
</table>

Lower Scores on this scale indicate resiliency, high score indicate vulnerability.

Quiz Question

From the list below, which indicator of Year 3 performance is the best predictor of Year 8 end of year achievement?

a. Attendance  
b. Teacher’s ratings of social skills  
c. 3rd grade end of year achievement scores  
d. Teacher’s ratings of aggressive behavior

Social Skills: The Foundation for Academic Success & Wellness!

- Caprara, Barbaranelli, Pastorelli, Bandura, & Zimbardo (2000) found prosocial skills (cooperating, helping, sharing, & consoling) in 3rd grade was a better predictor than 3rd gr. achievement was of 8th gr. Achievement.
- Malecki & Elliott (2002) reported similar findings for social skills and problem behaviors for an elementary sample, with social skills significantly predicting end-of-year achievement test performance on a high stakes test.
- Kettler, Elliott, Davies, & Griffin, (2011) found that social skill levels in elementary students predicted NAPLAN scores in Australia.
- Jones, Greenberg, & Crowley (2015) found a kindergarten measure of social-emotional skills was highly predictive of young adult outcomes across domains of education, employment, criminal activity, substance use, and mental health.

Social Skills Improvement System

Designed by experienced scientist-practitioners Stephen Elliott, PhD and Frank Gresham, PhD, this family of tools can be used early in the school year to facilitate the universal screening of students at risk for academic or social behavior difficulties, help plan interventions for improving these behaviors, and evaluate progress on targeted skills after intervention.

Curriculum covers the Top 10 Social Skills All Students Need to be Successful!

1. Listens to Others  
2. Follows Directions  
3. Follows Classroom Rules  
4. Ignores Peer Distractions  
5. Asks for Help  
6. Takes Turns in Conversations  
7. Cooperates with Others  
8. Controls Temper in Conflict Situations  
9. Acts Responsibly With Others  
10. Shows Kindness to Others

- 10 units with 3 lessons per week. A lesson is typically 25-30 minutes.
- Units and lesson plans are structured using a 6-phase instructional approach: (Tell->Show->Do->Practice->Monitor Progress->Generalize)
- Units are supported with Student Booklets, video vignettes, and a number of other resources to support student and parent involvement.
SSiS Rating Scales Overview

- **The SSiS Rating Scales**
  - Teacher
  - Parent
  - Student

- **Measures:**
  - Social skills
  - Problem behaviors
  - Academic competence

- **Norms:**
  - Age
  - Gender

SSiS Rating Scales

**Overview**

- The SSiS Rating Scales
  - Teacher
  - Parent
  - Student

- Measures:
  - Social skills
  - Problem behaviors
  - Academic competence

- Norms:
  - Age
  - Gender

Reynolds Bully Victimization Scales

The RBVS helps school staff investigate the problem of school violence and the impact it has on students, so that they can better address the problem.
Reynolds Bully Victimization Scales

3 stand along assessments, which can be used alone or together:

- Bully Victimization Scale (BVS)
- Bully-Victimization Distress Scale (BVDS)
- School Violence Anxiety Scale (SVAS)

Administer in small groups, school wide, or individually
- BVS and BVDS for age 8-19, and 7 year olds if good readers
- SVAS for ages 10-19
- Admin time: 5-10 minutes per scale
- Pg 17 manual: school wide screening models
- Normed on 3000 students in years 3-12

What is working memory? Why is it important?

A system for temporary storage and manipulation of information, necessary for wide range of cognitive tasks

The ability to keep information active in your mind for a short period of time (seconds) and be able to use the information in your thinking

Key feature: It has a limited capacity that varies greatly between individuals

Cogmed Working Memory Training
An evidence-based intervention for working memory

- Research-based - Cogmed emerged out of research on the plasticity of working memory and backed up by peer reviewed, published, and fully independent studies
- Specific - working memory exercises, 3000 tasks, lots of practice
- Adaptively Challenging - the program automatically keeps the task within the zone of proximal development

What can we do to manage working memory constraints?

Holmes et al: 3 strategies

1. Change the environment
2. Teach strategies for coping
3. Intensive training on WM tasks to strengthen working memory capacity

Highly structured, highly supported program

- **Intensive** – choose from flexible protocols 15, 25 or 35 minutes, 3, 4, 5 times a week for 5-10 weeks

- **Meaningful and supported** – always provided through a coach, personalised goals and rewards.

- **Feedback** - supervised by training aide, progress monitored by Coach. Weekly one-to-one review. Strategies are noticed and practiced.

Professional Development opportunities for Teachers

- LTCon
- MBECOn
- Learning and Wellbeing workshops
- Working Memory workshops
- Linked Learning

How does Cogmed ANY program meet SEL needs?

- Contributes to building capacity to learn
- Professional development for staff
- Class-wide, highly structured activity
- Involve parents/community
- Evidence-based

- Self-management, self awareness, thinking about thinking
- Lots of practice
- Adaptively challenging
- Recognising and regulating emotions
- Sustained effort grit
- Noticing progress, noticing strengths, rewards for effort

EARLY BIRD REGISTRATIONS NOW OPEN

To find out more go to www.pearsonacademy.com.au
**Final messages**

- Make progress in learning the goal
- Focus on both building knowledge AND capacity to learn
- SEL skills make a difference to academic achievement
- Student and teacher wellbeing is vital to learning
- These skills can be taught
- We know what a good learning and wellbeing program needs to look like
- Follow the links, check your own school’s progress, see how Pearson can help, share your stories

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**Learn more about SEL and Cognition**

**Contact:** Mimma.Mason@pearson.com


**Ask for our school Wellbeing and Learning checklist.**