

# Social and emotional learning: what works and beyond

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# MIE Building Evidence into Education (BEE) blog

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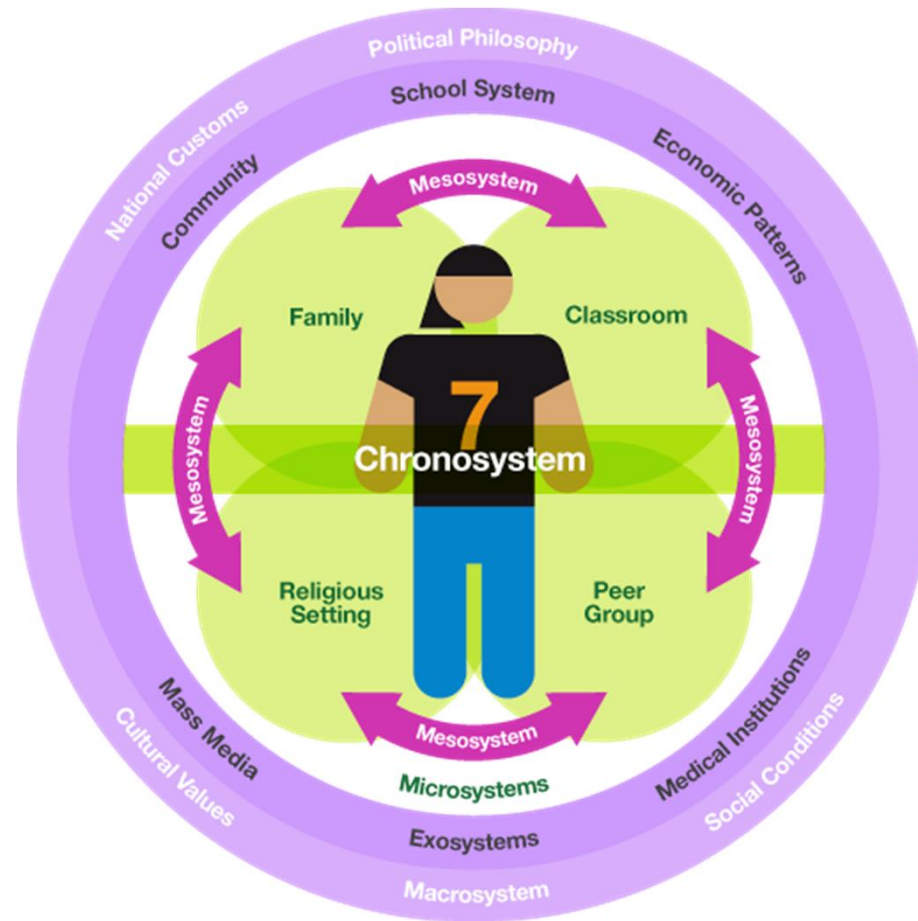
[www.manchester.ac.uk/miebee](http://www.manchester.ac.uk/miebee)

# Overview

- What is mental health and why does it matter?
- What matters for mental health? The role of schools
- Social and emotional learning
- Beyond ‘what works?’
  - Promoting Alternative Thinking Strategies
  - Good Behaviour Game
- From programmes to practices



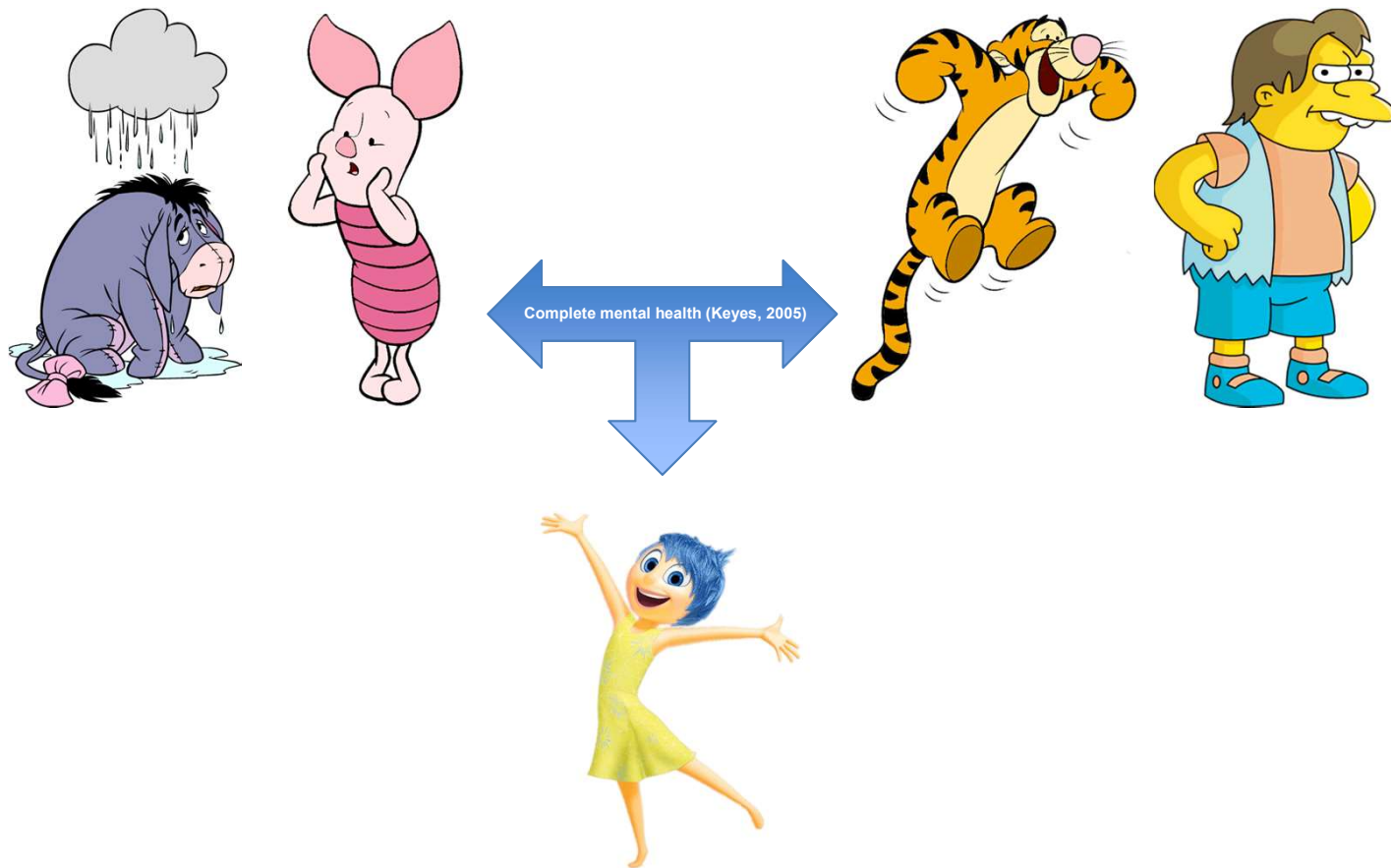
# Making human beings human



Bronfenbrenner (2005)



# What is 'mental health'?



# Mental health by the numbers

**7.8%**

of total expenditure on mental health for CAMHS in Northern Ireland<sup>6</sup>

**50%**

of lifetime cases of mental health difficulties in Northern Ireland begin by age 18<sup>2</sup>

**17.3%**

of people experience enduring mental health throughout the lifespan<sup>7</sup>

**13%**

of CYP aged 5-19 experience clinically significant mental health difficulties<sup>1</sup>

Children living in the most deprived areas are up to

**4.5x**

more likely to experience mental health difficulties than those living in least deprived areas<sup>4</sup>

**£3.5**

billion per year  
Wider economic costs of mental health difficulties in Northern Ireland<sup>5</sup>

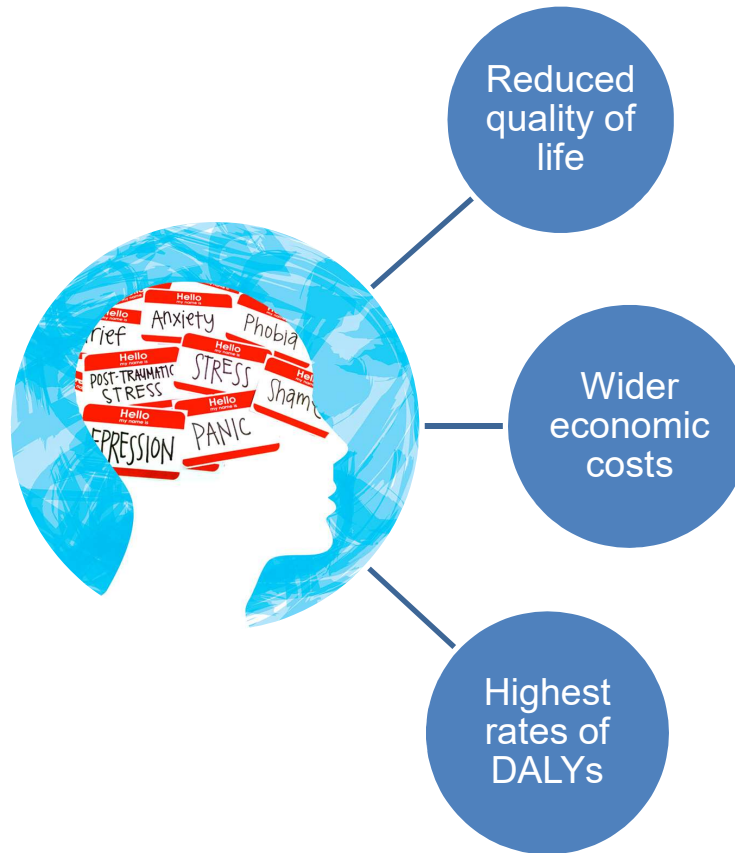
Teenage girls are nearly

**3x**

more likely to experience emotional problems than teenage boys<sup>3</sup>



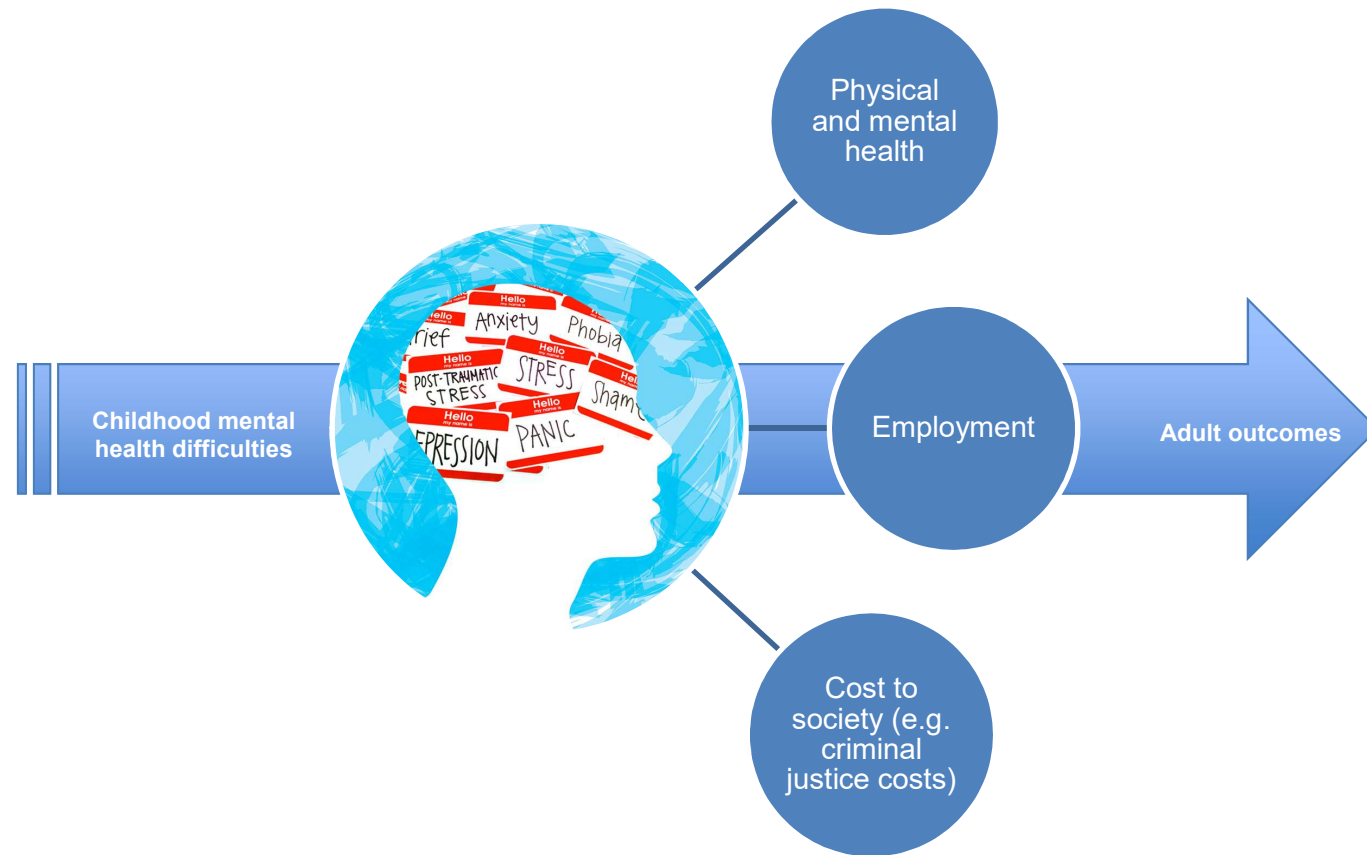
# Why does mental health matter?



Belfer (2008); Centre for Mental Health (2010); Mathers & Loncar (2008)



# Why does mental health matter *in childhood?*

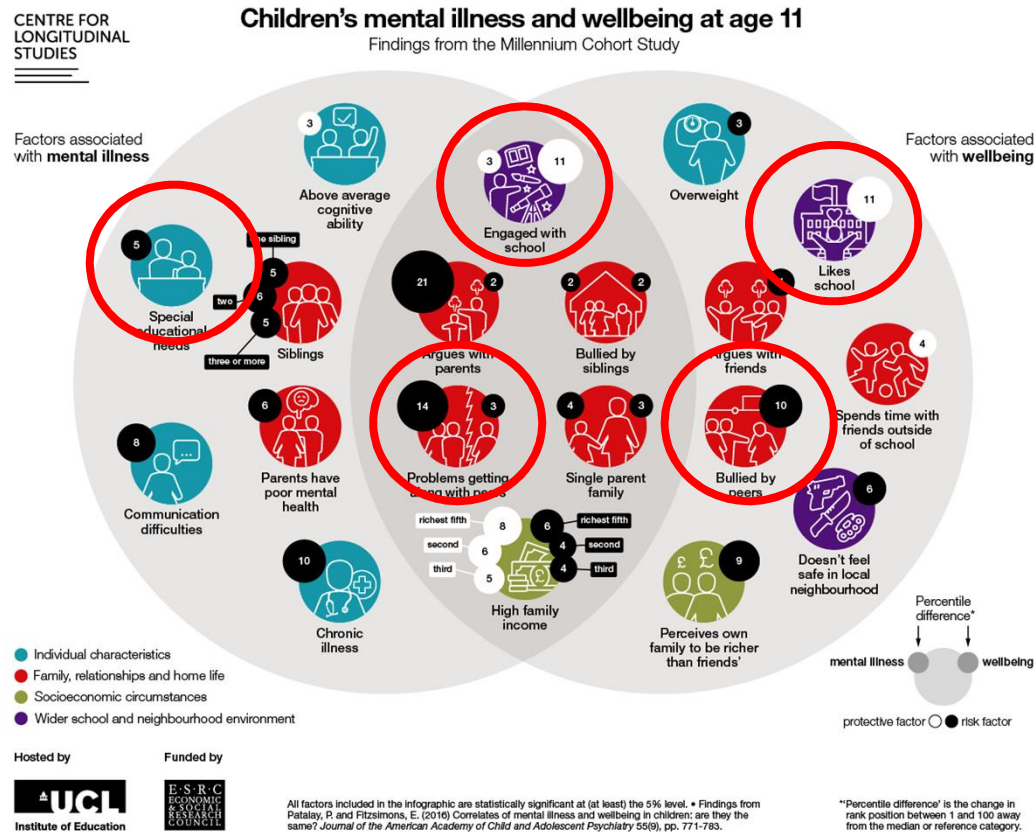


Goodman et al (2015); Knapp et al (2011); D'Amico et al (2014)





# What matters for mental health? The role of schools



# What matters for mental health? The role of schools

- Why could/should schools play a central role in preventing the onset, maintenance or progression of mental health difficulties? (Greenberg, 2010)
  - Broad reach
  - Prolonged engagement (“15,000 hours” – Rutter et al, 1979)
  - Central hub in most communities
- School is the primary developmental context after the family (Bronfenbrenner, 2005)
- Teachers are the most commonly contacted mental health ‘service’ (Ford et al, 2007)
- Children’s learning and their mental health are inter-related (Panayiotou & Humphrey, 2018)



# What matters for mental health? The role of schools



NatCen & NCB (2017)



# Social and emotional learning

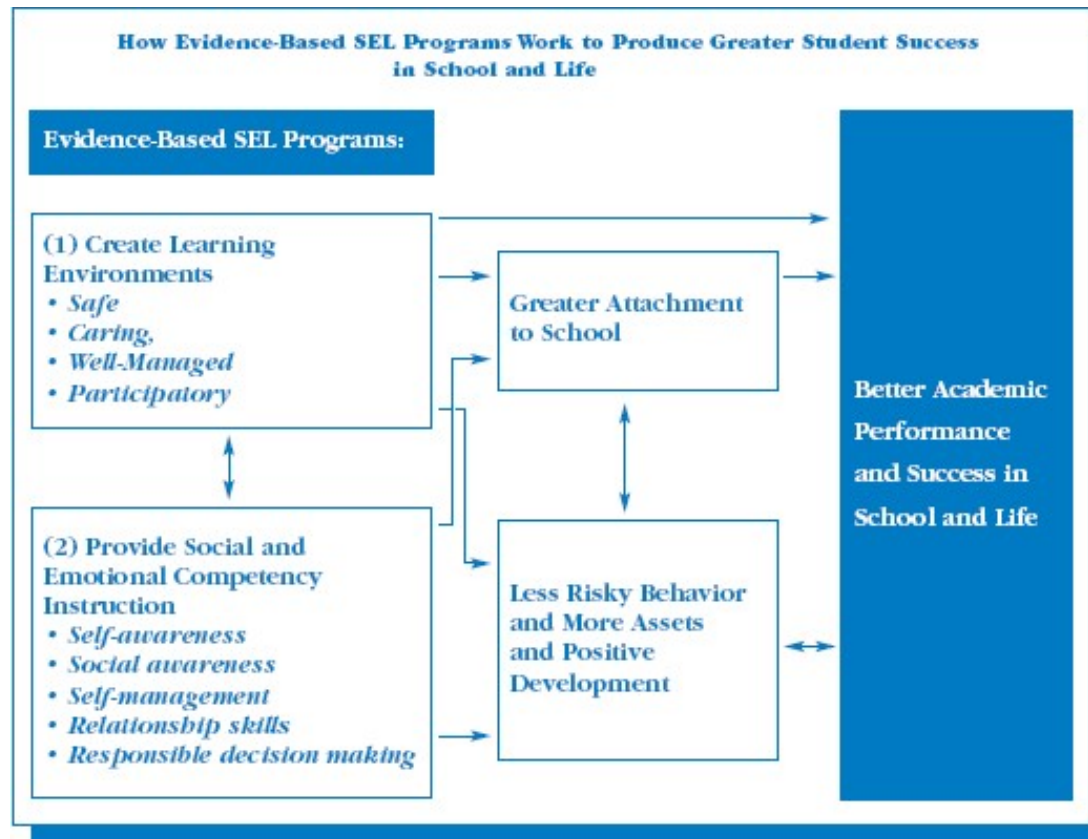
Social & Emotional Learning Core Competencies



- “An ounce of prevention is worth a pound of cure” (Benjamin Franklin)
- Social and emotional learning (SEL) is one approach to universal school-based prevention that has become a dominant orthodoxy in education
- SEL is, “a process for helping children and even adults develop the skills for life effectiveness. SEL teaches the skills we all need to handles ourselves, our relationships and our work effectively and ethically. These skills include recognising and managing our emotions, developing caring and concern for others, establishing positive relationships, making responsible decisions, and handling challenging situations constructively and ethically. They are the skills that allow children to calm themselves when angry, make friends, resolve conflicts respectfully, and make ethical and safe choices” ([www.casel.org](http://www.casel.org))

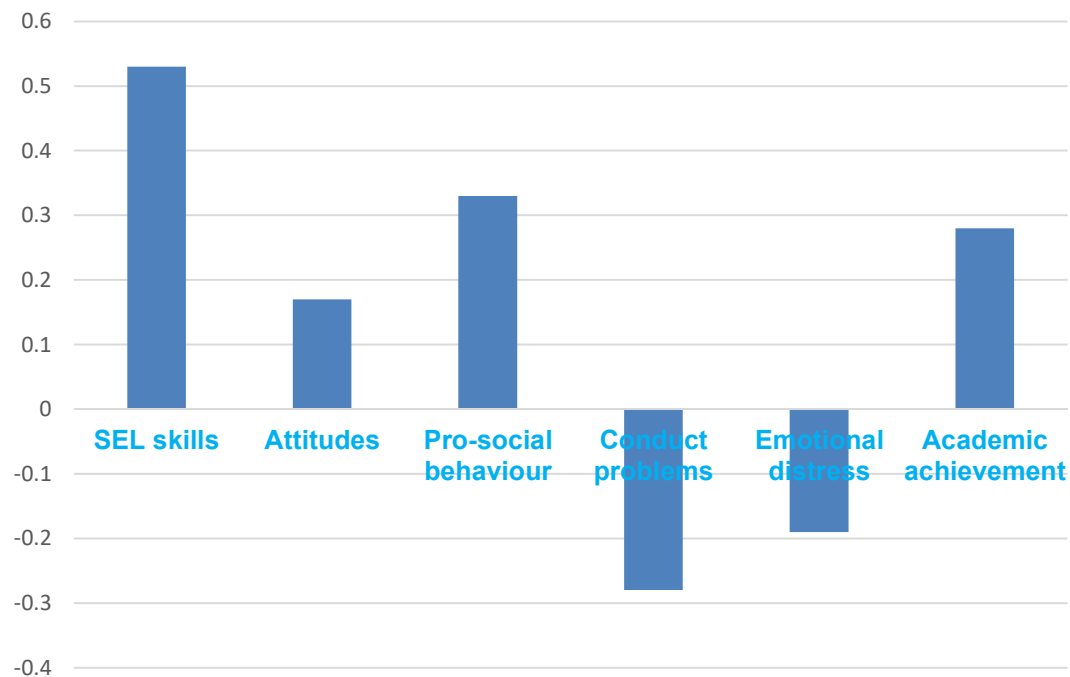


# Social and emotional learning



# Social and emotional learning

- The evidence base is well advanced in relation to the question of ‘what works?’
- Five meta-analyses covering hundreds of studies hundreds of thousands of children and young people (Corcoran et al, 2019; Durlak et al, 2011; Sklad et al, 2012; Taylor et al, 2017; Wigelsworth et al, 2016)



Wigelsworth et al (2016)



# Beyond 'what works?'

- How and why? (implementation and mechanisms)
- For whom? (differential gains)
- When? (timing of effects)
- At what cost? (cost-effectiveness)
- What practices underpin effective interventions? (kernels)



# Promoting Alternative Thinking Strategies (PATHS)

- PATHS is a universal SEL curriculum that helps children to manage their behaviour, understand their emotions and work well with others
- Based on the Affective-Behavioral-Cognitive-Developmental model of development, which emphasizes the developmental integration of affect, emotion language, behavior and cognitive understanding to promote social-emotional competence
- Series of twice weekly lessons covering topics such as identifying and labelling feelings, controlling impulses, reducing stress and understanding other people's perspectives
- Three main components:
  - Taught curriculum
  - Generalisation activities
  - Parent materials
- Delivered by class teacher
- Strong international evidence base – c.10 RCTs across the USA, UK, Switzerland and Croatia



## PATHS TO SUCCESS



### Implementation Guidance Manual

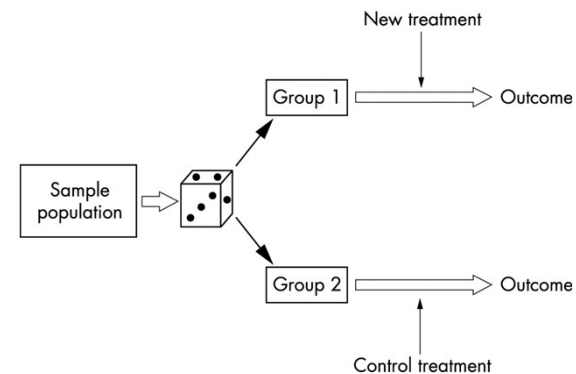
University of Manchester  
PATHS to Success Research Team





# Promoting Alternative Thinking Strategies (PATHS)

- Manchester PATHS to Success trial
- 45 primary schools randomly allocated to intervention (PATHS) or control (usual practice) arms of trial
- Children aged 7-9 (N=5,218) at baseline
- Sample composition mirrored national picture (with a few exceptions)
- Intervention schools implementing PATHS for two years; control schools to continue usual practice
  - All teachers given one-day initial training and half-day follow-up training
  - Technical support and assistance provided by PATHS coaches
- Assessment of implementation and outcomes



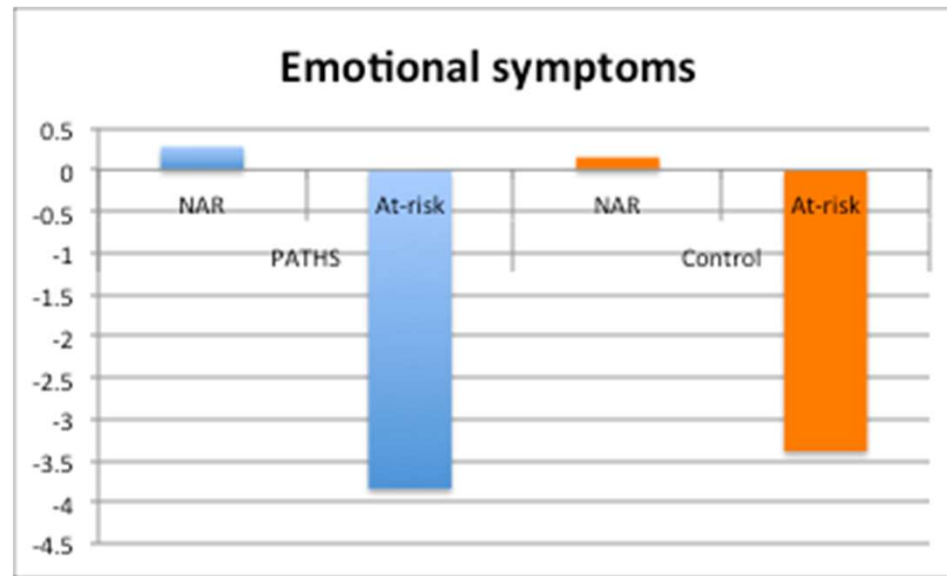
# Promoting Alternative Thinking Strategies (PATHS)

- **Assessment of outcomes**
  - Significant impact of PATHS on teachers' rating of children' social and emotional skills (small ES) (Humphrey et al, 2016)
  - Significant impact of PATHS on children's psychological wellbeing (small ES) (Humphrey et al, 2018)
  - No significant impact academic attainment (Hennessey & Humphrey, 2019) or other outcomes (Humphrey et al, 2018)
- **Assessment of implementation**
  - Fidelity, quality, reach and participant responsiveness were all high
  - Only about 50% dosage (1 lesson per week instead of 2)
  - Teachers reported struggling to find time to deliver PATHS in what was already a packed timetable
  - A minority of teachers reported that they found the materials 'too American'



# Promoting Alternative Thinking Strategies (PATHS)

- Do some children benefit from PATHS more than others? (Humphrey et al, 2016)



# Promoting Alternative Thinking Strategies (PATHS)

- Does implementation matter? (Panayiotou, Humphrey & Hennessey, 2020)
- Comparison of main ('intent to treat') effect of PATHS vs complier average causal effect (CACE) analysis (taking into account implementation variability – in this case, dosage)
  - Moderate compliance = 67% or more lessons taught
  - High compliance = 79% or more lessons taught



Psychological wellbeing



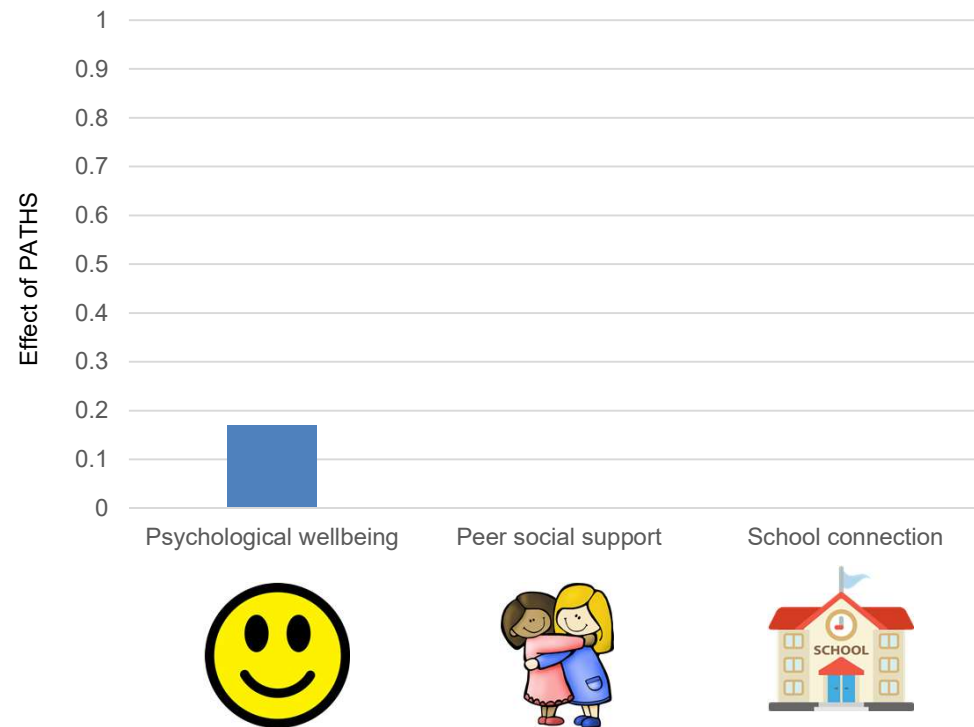
Peer social support



School connection



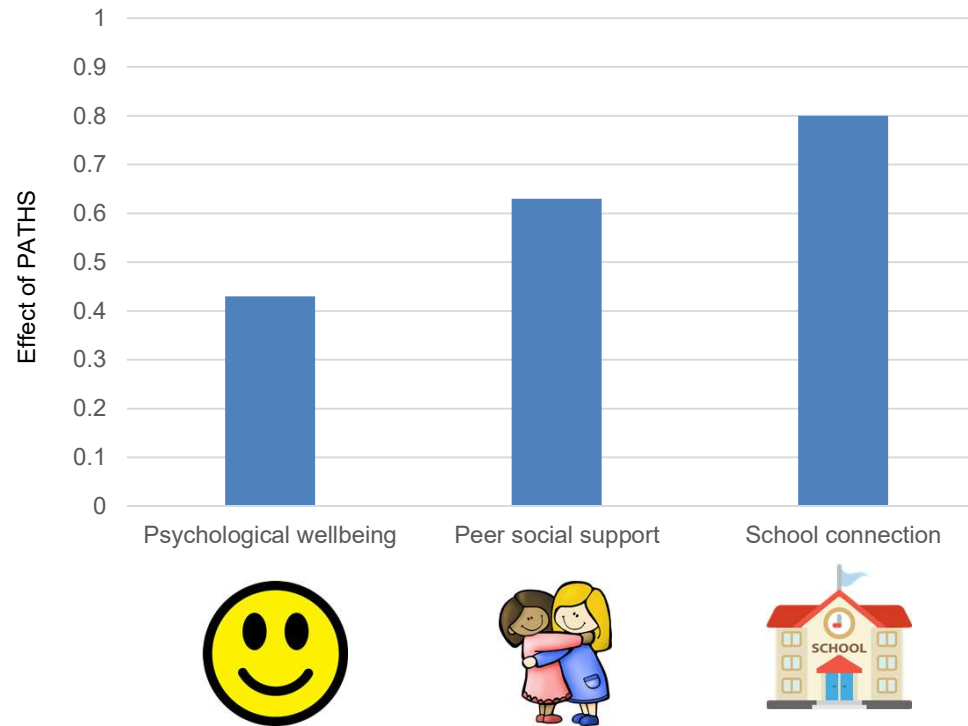
# Promoting Alternative Thinking Strategies (PATHS)



Main (ITT) effect of PATHS



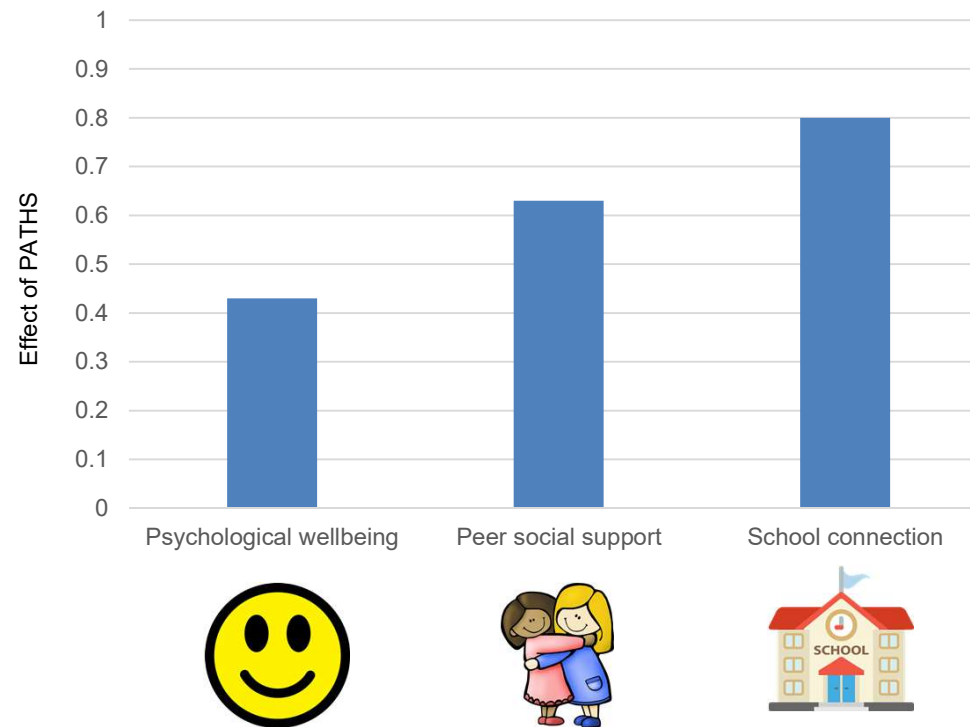
# Promoting Alternative Thinking Strategies (PATHS)



Moderate compliance effect  
of PATHS



# Promoting Alternative Thinking Strategies (PATHS)

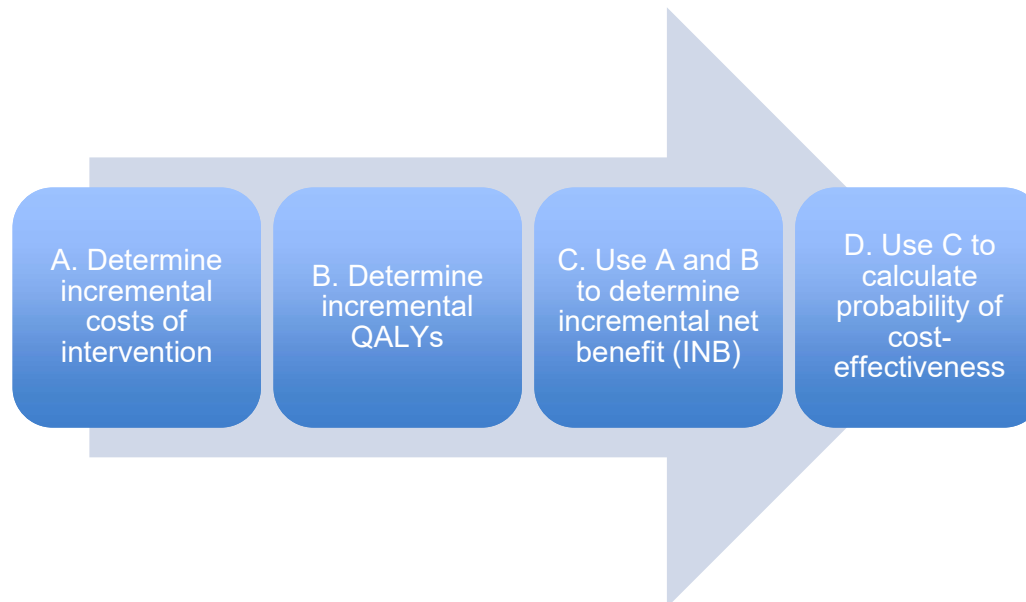


High compliance effect of  
PATHS



# Promoting Alternative Thinking Strategies (PATHS)

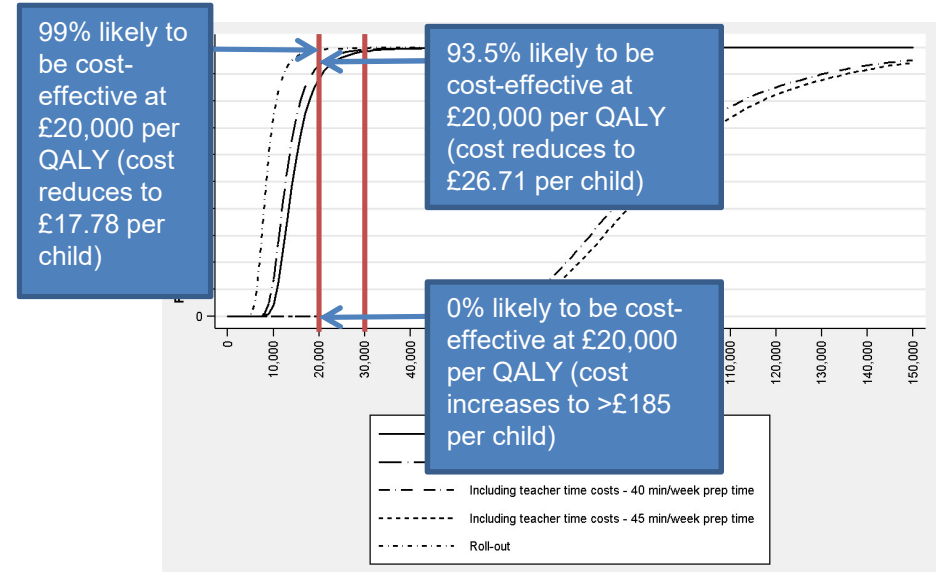
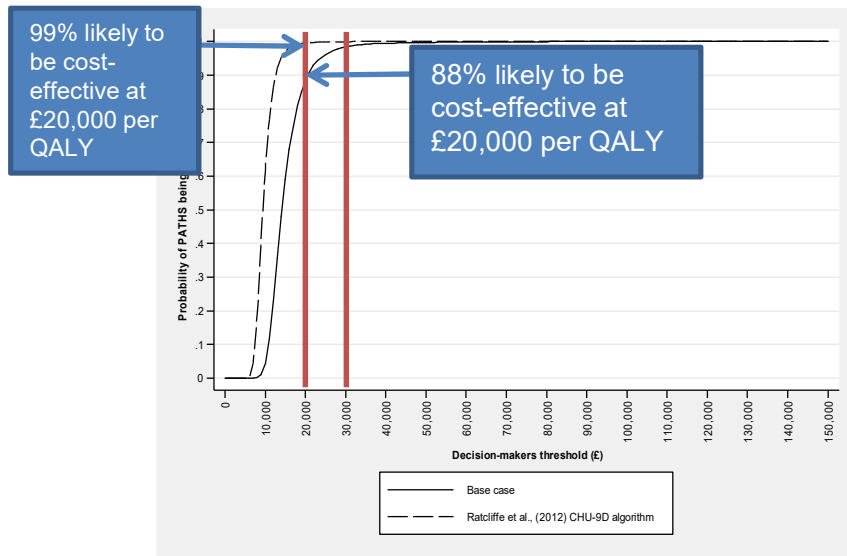
- Is PATHS cost-effective? (Turner et al, 2019)
  - Quality-adjusted-life-years (QALYs) are, “a measure of the state of health of a person or group in which the benefits, in terms of length of life, are adjusted to reflect the quality of life. One QALY is equal to 1 year of life in perfect health” (NICE, 2017)
  - Surveys used to generate QALYs assess the person’s ability to carry out normal daily activities, and the extent to which they are free from pain and mental health difficulties
  - QALYs can be assigned a monetary value using ‘willingness to pay’ thresholds
    - In the UK, this is set by NICE, at £20,000 to £30,000 per QALY





# Promoting Alternative Thinking Strategies (PATHS)

- Total intervention costs of PATHS: £80,099
  - Cost per child: £29.93
- Statistically significant impact of PATHS on QALYs
  - Adjusted mean incremental QALYs = 0.0019
- Incremental net benefit (INB) of PATHS = £7.64



# The Good Behaviour Game (GBG)

- Based on principles of positive reinforcement and contingency management (behaviourism), modelling (social learning theory), and social adaptation (life course/social field theory)
  - Four key tenets: class rules, team membership, positive reinforcement, and monitoring
- Children in a class divided into teams, who then play the game during an ordinary class activity as a means to access rewards/privileges
- 4 rules of the GBG (infractions recorded by teacher on scoreboard)
  - We will work quietly (4 noise levels)
  - We will be polite to others
  - We will get out of our seats with permission
  - We will follow instructions



# The Good Behaviour Game (GBG)

- The GBG is won by the team with the fewest infractions, although any team with fewer than 4 also accesses the reward
- Over the course of the GBG there is a natural evolution in terms of types of rewards used (from tangible to abstract), how long it is played for (from 10 minutes to a whole lesson), at what frequency (from 3 times a week to every day) and when rewards are given (from the end of a given game to the end of the week)
- 3 days of training for teachers (2 day initial, 1 day follow-up)
- Teachers supported by GBG coaches (e.g. modelling, observation, feedback)



# The Good Behaviour Game (GBG)



- First research on the GBG published in the late 1960s; many, many studies since then!
- Two meta analyses providing evidence of positive effects (Flowers et al, 2014; Smith et al, 2019)
- Some key GBG studies
  - The Baltimore studies (Kellam et al, 2008; Jalongo et al, 1999)
  - The UK pilot (Chan et al, 2011)



# The Good Behaviour Game (GBG)

- Manchester GBG trial (Humphrey et al, 2018)
- 77 schools randomly allocated to intervention (GBG) or control (usual practice) arms
  - 38 GBG, 39 control, N=3084 pupils aged 7-8
  - Sample composition mirrored national picture (with a few exceptions, as per PATHS trial)
- Intervention schools implementing GBG for two years; control schools to continue usual practice
  - All teachers given two-day initial training and one-day follow-up training
  - Technical support and assistance provided by GBG coaches (e.g. game observation and feedback)
- Assessment of implementation and outcomes



# The Good Behaviour Game (GBG)

- **Assessment of outcomes**
  - No significant impact upon children's reading or behaviour (concentration problems, disruptive behaviour or pro-social behaviour)
  - Analysis ongoing in relation to mental health and other outcomes
- **Assessment of implementation**
  - c.1 in 4 GBG schools discontinued implementation before the conclusion of the trial
  - Average frequency (1-2 per week) and duration (15 minutes) of game play did not match developers' expectations (e.g. by the end of a given school year, teachers are expected to be playing daily, for up to an hour)
  - Average levels of fidelity/quality (c.70%), participant responsiveness (c.72%) and reach (c. 96%) all high



# The Good Behaviour Game (GBG)

- Does implementation matter? (Humphrey, Panayiotou, Hennessey & Ashworth, under review)
  - Compliers (>1030 minutes played) vs non-compliers (<1030 minutes played)
  - Very large, statistically significant reduction in disruptive behavior among compliers
  - Compliance effect varied by levels of cumulative risk exposure (CRE) among children, such that children at high and low level of CRE experienced significantly greater and lesser reductions in disruptive behavior
- CACE and follow-up analysis of reading outcomes (Ashworth, Panayiotou, Humphrey & Hennessey, 2020)
  - Null main effect on reading replicated in CACE analysis (that is, still no effect on reading even after accounting for implementation)
  - Null main effect on reading at 1 year follow-up (that is, still no effect on reading one year after the intervention ended)
  - Small, statistically significant increase in reading scores among compliers at 1 year follow-up



# The Good Behaviour Game (GBG)

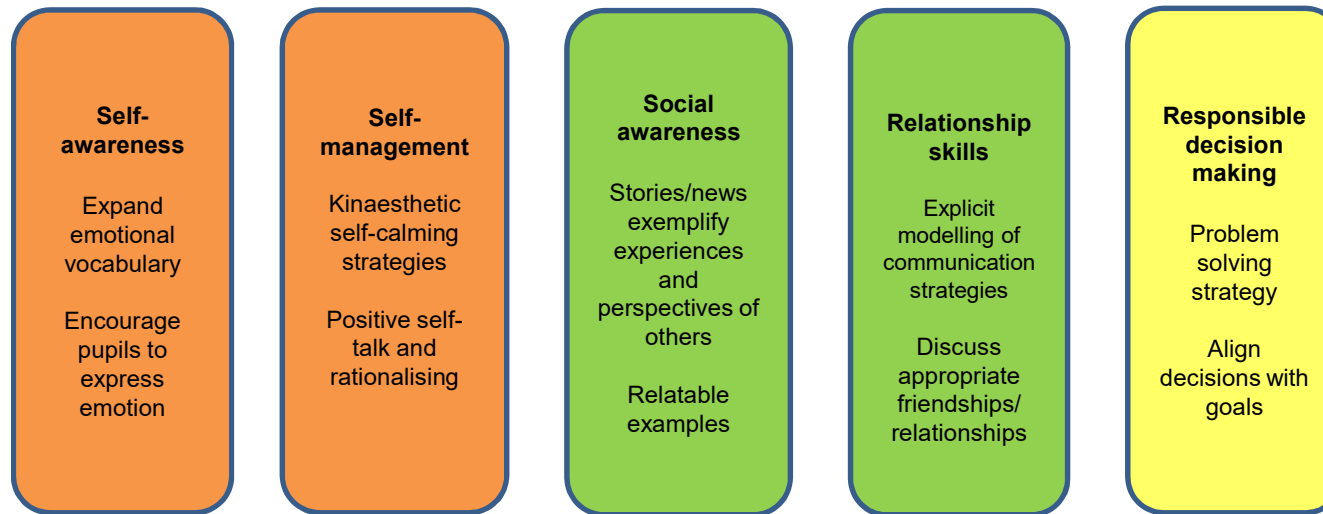
- Putting the two sets of findings together:
  - Minimally effective dosage required in order to produce effects on disruptive behaviour
  - These effects trigger downstream impact on reading one year later





# From programmes to practices

- What practices underpin effective SEL interventions? (Wigelsworth, Verity, Mason, Humphrey, Qualter & Troncoso, 2020)
- Systematic review of reviews to identify SEL interventions with strongest evidence base (e.g. 2 or more randomized trials reporting positive effects)
- 15 interventions identified, of which content could be reviewed for 13
- Distillation and matching
  - Practice elements (e.g. specific skills learned)
  - Instructional elements (e.g. methods of delivery)



# From programmes to practices

Teaching strategies		Curriculum		Whole-school	Implementation
<p><b>1</b></p> <p>Teach SEL skills explicitly</p> 	<p><b>2</b></p> <p>Integrate and model SEL skills through everyday teaching</p> 	<p><b>3</b></p> <p>Plan carefully for adopting a SEL programme</p> 	<p><b>4</b></p> <p>Use a SAFE curriculum: Sequential, Active, Focused and Explicit</p> 	<p><b>5</b></p> <p>Reinforce SEL skills through whole-school ethos and activities</p> 	<p><b>6</b></p> <p>Plan, support, and monitor SEL implementation</p> 
<ul style="list-style-type: none"> <li>Use a range of strategies to teach key skills, both in dedicated time, and in everyday teaching.</li> <li>Self-awareness: expand children's emotional vocabulary and support them to express emotions.</li> <li>Self-regulation: teach children to use self-calming strategies and positive self-talk to help deal with intense emotions.</li> <li>Social awareness: use stories to discuss others' emotions and perspectives.</li> <li>Relationship skills: role play good communication and listening skills.</li> <li>Responsible decision-making: teach and practise problem-solving strategies.</li> </ul>	<ul style="list-style-type: none"> <li>Model the social and emotional behaviours you want children to adopt.</li> <li>Give specific and focused praise when children display SEL skills.</li> <li>Do not rely on 'crisis moments' for teaching skills.</li> <li>Embed SEL teaching across a range of subject areas: literacy, history, drama and PE all provide good opportunities to link to SEL.</li> <li>Use simple ground-rules in groupwork and classroom discussion to reinforce SEL skills.</li> </ul>	<ul style="list-style-type: none"> <li>Use a planned series of lessons to teach skills in dedicated time.</li> <li>Adopting an evidence-based programme is likely to be a better bet than developing your own from scratch.</li> <li>Explore and prepare carefully before adopting a programme—review what is required to deliver it, and whether it is suitable for your needs and context.</li> <li>Use evidence summaries (such as those from EIF and EEF) as a quick way of assessing the evidence for programmes.</li> <li>Once underway, regularly review progress, and adapt with care.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure your curriculum builds skills sequentially across lessons and year groups. Start early and think long term.</li> <li>Balance teacher-led activities with active forms of learning, such as: role-play, discussion and small group work, to practise skills.</li> <li>Focus your time: quality matters more than quantity. Brief regular instruction appears more effective than infrequent long sessions.</li> <li>Be explicit: clearly identify the skills that are being taught and why they are important.</li> </ul>	<ul style="list-style-type: none"> <li>Establish schoolwide norms, expectations and routines that support children's social and emotional development.</li> <li>Align your school's behaviour and anti-bullying policies with SEL.</li> <li>Seek ideas and support from staff and pupils in how the school environment can be improved.</li> <li>Actively engage with parents to reinforce skills in the home environment.</li> </ul>	<ul style="list-style-type: none"> <li>Establish a shared vision for SEL: ensure it is <i>connected</i> to rather than <i>competing with</i> other school priorities.</li> <li>Involve teachers and school staff in planning for SEL.</li> <li>Provide training and support to all school staff, covering: readiness for change; development of skills and knowledge; and support for embedding change.</li> <li>Prioritise implementation quality: teacher preparedness and enthusiasm for SEL are associated with better outcomes.</li> <li>Monitor implementation and evaluate the impact of your approaches.</li> </ul>



# Take home points

- A significant proportion of the children and young people are likely to develop mental health difficulties during the school years
- Schools can make a difference to children's mental health
- Universal school-based SEL interventions can be an effective means to prevent the onset/maintenance/escalation of mental health difficulties
- Knowing what works in SEL is necessary but insufficient
  - Some children will benefit more than others
  - Implementation really matters
  - Even relatively small improvements to outcomes can make an intervention cost-effective
  - Effects for some outcomes may take time to become evident
  - Effective interventions are underpinned by a set of key practices

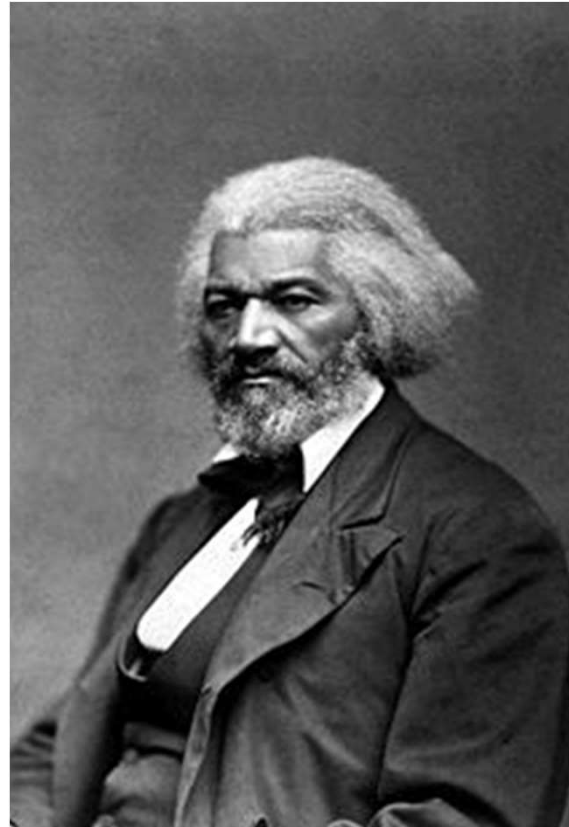


## Some resources

- EEF SEL guidance [here](#)
- The Early Intervention Foundation Guidebook [here](#)
- Collaborative for Academic, Social and Emotional Learning programme guide [here](#)
- Mentally Healthy Schools [here](#)
- Mind Ed [here](#)



# Thanks for listening!



“It is easier to build strong children than to repair broken men”  
(Frederick Douglass)

