

# RESTACKING THE ODDS

## IMPROVING EARLY EDUCATION: EVIDENCE FOR WHAT WORKS



### Key messages

- Access to high-quality education supports later educational attainment, health and wellbeing
- School leaders need to know where they should focus improvement efforts and which strategies have positive effects on student outcomes
- The evidence suggests most, but not all, quality domains featured in school improvement frameworks are supported by robust evidence
- Robust evidence of effectiveness that is specific to early years education is lacking for many quality domains.

High-quality early school education (ages 4-8 years) is crucial for shaping positive developmental trajectories in children. Consequently, schools are expected to continuously assess and enhance their education quality.

Improvement frameworks are widely used by Australian schools to guide efforts to improve student engagement, wellbeing and achievement. Typically the frameworks feature domains of educational quality to prioritise for improvement.

For school leaders to make informed decisions and implement strategies that effectively boost student learning and social-emotional wellbeing, it is essential their efforts are backed by the strongest evidence. By doing so, they can optimise early childhood development and ensure that improvement efforts positively contribute to students' progress.

## Why education quality is important in the early years

High-quality education supports children's immediate and the long-term academic attainment, health and overall wellbeing. It is particularly important in the early years, as this period provides the foundation for cognitive, language and social-emotional development. For children experiencing disadvantage, access to high-quality early education is critical, as it can mitigate risks and prevent negative life outcomes such as lower employment prospects, increased welfare dependency and involvement with the youth justice system.

School leaders and education authorities invest substantial resources, time and effort into school improvement activities intended to enhance education quality. To maximise the impact of these efforts, it is essential that school improvement plans are guided by robust evidence linking specific quality domains and improvement strategies to student outcomes. By grounding decisions in well-supported practices, schools can ensure that all children, regardless of background, benefit from the highest quality early education.

## What was our aim?

This Research Snapshot describes a systematic review conducted to help guide school leaders and early years specialists in designing improvement plans to ensure school improvement efforts meet the unique needs of younger children.

## What did we do?

Our study aimed to evaluate the evidence underpinning a range of educational quality domains that commonly feature in school improvement frameworks. We asked:

- Which quality domains have consistently been supported by the highest levels of evidence?
- Which specific strategies work for children in the earliest years of school (i.e. from grades K-3)?

School improvement frameworks produced and promoted by education departments across Australia's states and territories were inspected, and 13 commonly featured quality domains were identified. Relevant literature was systematically reviewed for each domain, specifically focusing on 80 published reviews and meta-analyses. Finally, the strength of evidence supporting each quality domain and the specific improvement strategies within each were evaluated.

### Common quality domains in school improvement frameworks

- ✓ Pedagogical approaches
- ✓ Differentiated teaching
- ✓ Peer tutoring and collaborative learning
- ✓ Physical activity for academic achievement
- ✓ Technology assisted teaching and learning
  - Physical environment design to optimise learning
- ✓ Class size and teacher-student ratios
  - Student empowerment, governance and leadership
- ✓ Social-emotional and behavioural interventions and promotion of positive school climate
  - Teacher-student relationships
- ✓ Staff and leadership development
- ✓ Partnerships with families
- ✓ Community-school partnerships

Green tick indicates good evidence.

## What did we find?

For students in primary school, there was good evidence that 10 of the 13 quality domains featured in school improvement frameworks have positive effects.

For students in the earliest years of school, the study found four quality domains were best supported by evidence (Figure 1).

- **Pedagogical approaches** (e.g. phonics and morphological instruction in literacy)
- **Peer tutoring** (e.g. student dyads and small groups engaged in highly structured peer teaching activities)
- **Technology-enhanced teaching and learning** (e.g. digital game-based mathematics activities)
- **Social-emotional and behavioural interventions to improve school climate** (e.g. classroom management).

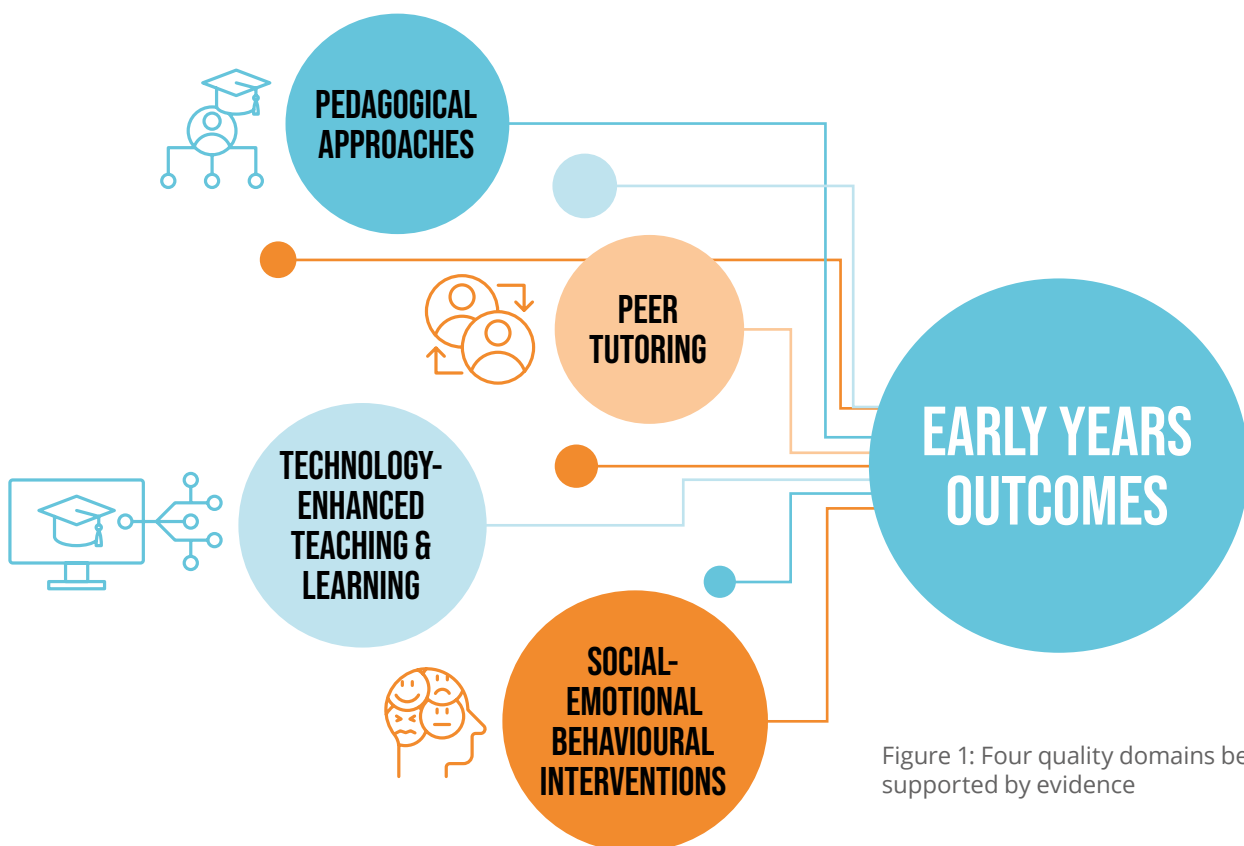


Figure 1: Four quality domains best supported by evidence

## What does this mean?

The study highlights that while many quality domains in existing school improvement frameworks are well supported by evidence and can enhance the overall quality for primary school students, special attention must be given to the evidence for the youngest students. It recommends that when crafting improvement plans school leaders specifically consider strategies shown to be effective in the early years of education to ensure that improvement efforts meet the needs of younger children.

## Implications for policy and practice

- For policymakers, the study indicates that some quality domains should be promoted more strongly than others in school improvement frameworks.
- Additional research is needed to determine the potential effectiveness of several quality domains where there is a shortage of evidence.
- School leaders should consider whether adequate use is being made of strategies shown to improve outcomes for students in the earliest years.
- School improvement initiatives could be strengthened by regularly collecting and analysing data to track and evaluate strategy implementation. This data-driven approach will help ensure that the right interventions are being applied and adjusted as needed for continuous improvement.

## Implications for research

Additional research could:

- evaluate improvement strategies in several domains where few reviews or meta-analyses of experimental research have been conducted (e.g. physical environments to optimise learning, student empowerment, teacher-student relationships, and community-school partnerships)
- determine whether school improvement plans yield better results for children when they focus on quality domains best supported by the evidence
- explore whether there are specific combinations of quality domains that are more effective than other combinations.

Research embedded within quality improvement processes could help us to learn more about the types of strategies schools select, how strategies are selected, how well strategies are implemented, and whether they produce the effects expected. Engaging in a continuous cycle of analysing data, planning and implementing actions informed by the data, then reanalysing data should help to ensure children receive high-quality early education.



## For further information

Molloy, C., Beatson, R., Harrop, C., Perini, N., & Goldfeld, S. (2024). Evidence bases to inform school improvement plans: findings from an umbrella review of school quality domains and specific improvement strategies for school leaders and early years specialists. *Research Papers in Education*. 1-35  
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## RESTACKING THE ODDS

RSTO is a collaboration between the Centre for Community Child Health at the Murdoch Children's Research Institute, Bain & Company, and Social Ventures Australia.

### For information about the study or RSTO

Email: [restackingtheodds@mcri.edu.au](mailto:restackingtheodds@mcri.edu.au)  
Visit: [www.rsto.org.au](http://www.rsto.org.au)

### The Centre for Community Child Health

The Royal Children's Hospital Melbourne  
50 Flemington Road  
Parkville 3052 VIC, Australia

LinkedIn: [CCCH  
ccch.org.au](https://www.linkedin.com/company/ccch.org.au)

The Centre for Community Child Health is a department of The Royal Children's Hospital and a research group of the Murdoch Children's Research Institute.

*We acknowledge the Traditional Owners of the land on which we work and pay our respect to Elders past, present and emerging.*