

How schools can improve literacy and numeracy performance and why it (still) matters

Centre for Education Statistics and Evaluation

Background

This paper examines evidence-based practices that can be implemented by schools to enhance literacy and numeracy performance. Educating students in literacy and numeracy is a key responsibility of schools as literacy and numeracy are 'foundational skills' that underpin the subsequent development of more complex skills. Literacy and numeracy skills also underpin workforce participation, productivity and the broader economy, and can impact on social and health outcomes. Individuals without these skills are at risk of not being able to participate in the workforce or engage fully in social and civic life.

Main findings

Intervene early and maintain the focus

Research shows that access to quality early childhood education programs makes a significant and long-term difference to children's development in many areas, including their cognitive development. Early intervention needs to be followed by continued high quality learning experiences to maintain efficacy. The first three years of school are a peak window within which children develop the literacy and numeracy skills that they will carry into upper primary and secondary school.

Know what students can do and target teaching accordingly

There is a wide range of learning achievement amongst students in Australian schools. Targeted teaching can lift the performance of students who are many years behind and also challenge students who are already well ahead of year-level expectations. In order to implement targeted teaching effectively, teachers need accurate information about what students know and are ready to learn next. This information can be acquired through the use of formative assessment which has been shown to have a significant effect on learning across the spectrum.

Have clear and transparent learning goals

Research shows that having clear and transparent learning goals at both the school and classroom level leads to improvements in learning achievement. Evidence shows that students who experience explicit teaching practices perform better than students who do not. Explicit teaching practice involves teachers clearly showing students what to do and how to do it, rather than having students discover or construct this information for themselves. Well-defined learning continua or progressions support explicit teaching by enabling teachers to understand what is to be learned and to determine accurately students' current learning achievement.

Focus on teacher professional learning that improves the teaching of literacy and numeracy

High-quality teaching is the greatest in-school influence on student engagement and outcomes. Quality professional learning increases teaching quality. Research indicates that professional learning is most effective if it deepens teachers' content knowledge and knowledge about how students learn that content; is supported by the wider school community and is seen as part of achieving whole school goals; and is linked to clear and relevant goals that are related to student outcomes.

More information

You can download the full paper here www.cese.nsw.gov.au/publications-filter/how-schools-can-improve-literacy-and-numeracy-performance-and-why-it-still-matters

CESE has recently released a professional learning course based on this paper, which will contribute 1.5 hours of registered professional learning for teachers. Visit www.cese.nsw.gov.au/professional-learning