Beyond the Science of Reading

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Connecting Literacy Instruction to the Science of Learning

Purpose

To help educators move beyond a narrow view of the Science of Reading by connecting literacy instruction to the broader science of learning, including attention, memory, language, knowledge-building, and instructional design.

Key Understandings

Literacy instruction is most effective when it is grounded not only in decoding and word recognition, but also in how students learn, process information, and build meaning over time.

The science of learning reminds us that:
- Learning is constrained by attention and working memory.
- Knowledge and language are central to comprehension.
- Instructional coherence matters more than the number of tools or programs used.
- Teaching—not programs—drives learning.

Teacher Reflection Questions

- When students struggle, do I examine instructional design before adding more practice or programs?
- How intentionally do my lessons support attention, memory, and transfer of learning?
- Are students asked to actively process, explain, and apply ideas—or primarily complete tasks?
- Where does my instruction build background knowledge and language alongside skills?
- How do I balance teacher-led instruction with supplemental tools or programs?

What to Look for in Students

- Can decode accurately but struggle to retain or apply learning
- Perform well during lessons but show limited transfer later
- Rely heavily on surface strategies rather than meaning
- Fatigue or disengage during extended independent or screen-based work
- Have difficulty explaining why an answer is correct

These behaviors often signal a need for stronger instructional alignment, not more time on programs.

Instructional Takeaway

Effective literacy instruction is grounded in the science of learning, not just the science of reading.

Programs and tools can play a valuable role—but only when they support instruction rather than replace it. The most powerful literacy growth happens when teaching is explicit, coherent, and grounded in how learning works.

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