

Strong Foundations for Stronger Memories

Deep understanding builds stronger memories.

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Visual Insight

Deep understanding builds a strong foundation, but retrieval keeps learning standing over time.

Research in Brief

This study investigated whether deeper processing slows the rate of forgetting. Participants learned information using either deep semantic processing (thinking about meaning) or shallow processing (focusing on surface features such as sounds or letters). Deep processing produced substantially better memory immediately after learning and at later tests. However, both groups forgot information at a similar rate over time. The findings indicate that deep understanding gives learners a stronger starting point, but it does not prevent forgetting. Long-term retention still depends on opportunities to retrieve and revisit what has been learned.

Try Tomorrow

- Encourage students to explain concepts in their own words.
- Ask retrieval questions several days after teaching.
- Combine meaningful learning with spaced review rather than relying on one-time understanding.

One Key Takeaway

Deep understanding builds stronger memories; regular retrieval helps them last.

Keywords

Deep learning, levels of processing, meaningful learning, retrieval practice, long-term retention

Original Research

Peng, N., Logie, R. H., & Della Sala, S. (2025). *Effect of Levels-of-Processing on Rates of Forgetting. Memory & Cognition*, 53, 692–709.