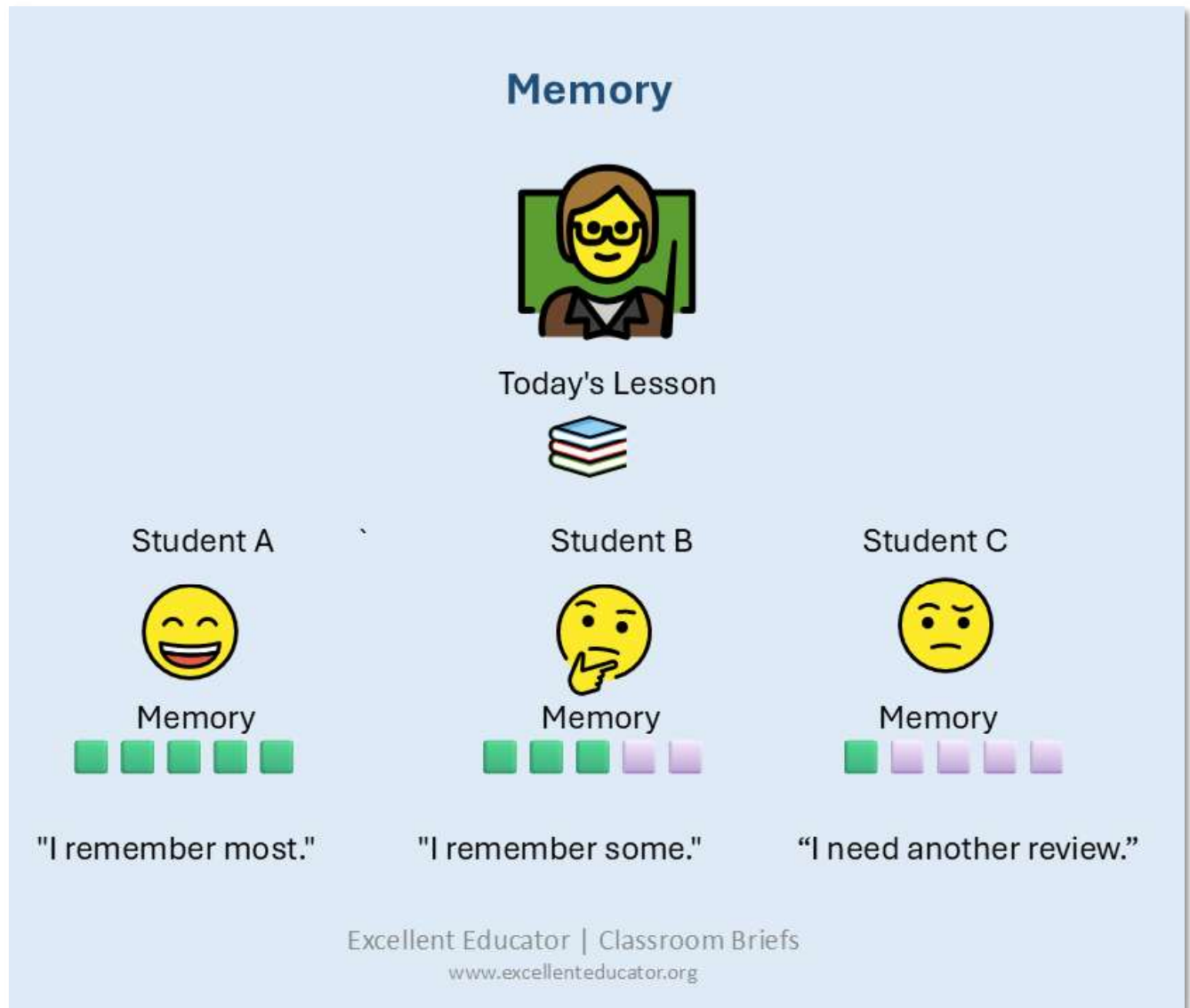


Different Students Remember Differently

One lesson does not create one memory.

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💡 Visual Insight

The same lesson can lead to very different levels of learning and retention.

Research in Brief

Students do not forget at the same rate. This study developed a knowledge-tracing model showing that each learner follows a different pattern of forgetting rather than one common memory curve. By recognising these individual differences, teachers and learning systems can provide review when each student needs it most, improving long term retention rather than relying on a single lesson.

✓ Try Tomorrow

- Begin lessons with two retrieval questions from previous topics.
- Revisit important concepts several times during the term.
- Provide additional review for students who forget more quickly.

★ One Key Takeaway

Effective teaching recognises that students forget differently and plans review accordingly.

Keywords

Forgetting, knowledge tracing, memory retention, individual differences, retrieval practice, long-term learning

Original Research:

Bai, Y., Li, X., Liu, Z., Huang, Y., Tian, M., & Luo, W. (2025). *Rethinking and Improving Student Learning and Forgetting Processes for Attention Based Knowledge Tracing Models*. Proceedings of the AAAI Conference on Artificial Intelligence.