



Transform: Applying Effective Learning Strategies Independently



Miki Gardiner-McIver, Rachel Walsh, Ralda Deoki,
Anthony Hayward, Gavin Clements, Damien Coman

BACKGROUND & CONTEXT

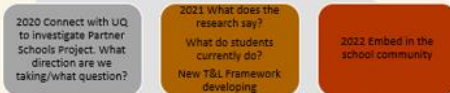
- 1736 male students, Years 5-12.
- Strong academic culture
- Investigation started Term 4, 2020
- Wanted the best research on how students should prepare for an exam.

What does the research say?

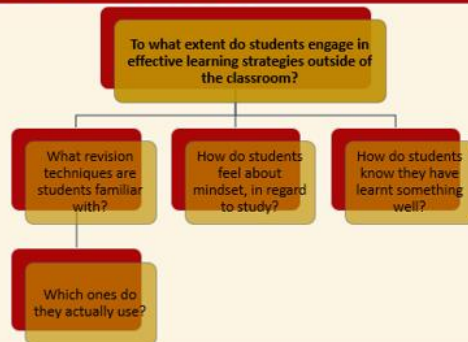
- ✓ **Active** beats passive revision
- ✓ **Spaced** practice is more effective than cramming
- ✓ **Interleaving** is more effective than blocking
- ✓ **Retrieval** practice is beneficial
- ✓ **Metacognition** is required by students



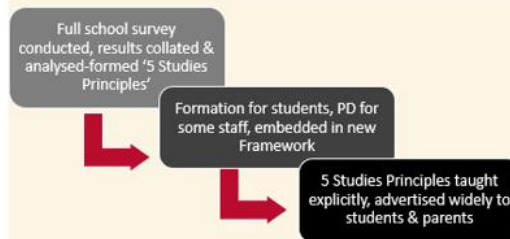
Timeline



RESEARCH QUESTIONS



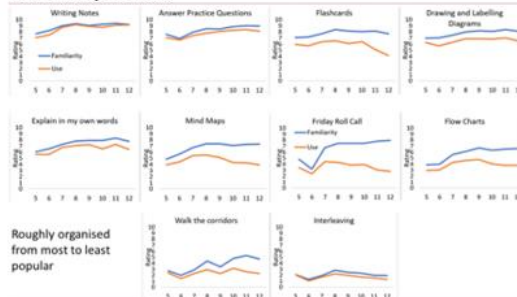
METHODS



ANALYSIS & RESULTS

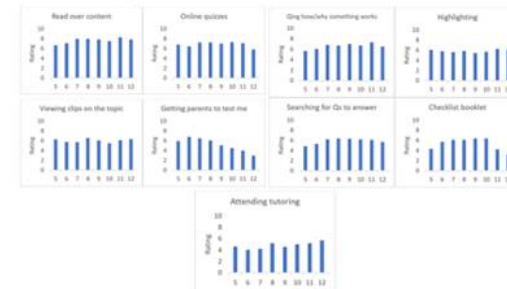
- "Writing notes" and "answering questions" were the most frequently used techniques.
- Wide variation between the techniques in rated familiarity and use. Sometimes ratings of familiarity were much higher than ratings of use.
- "Mistakes are an important part of learning" and "growth mindset being helpful" scored highly across all levels.
- "Self testing" and "judgment of learning" increased with year level.
- Test anxiety was higher in Years 7-12 than in Years 5-6.
- Reported use of multiple techniques was slightly lower in higher year levels.

Use of Study Methods



ANALYSIS & RESULTS (continued)

Use of Additional Study Methods



Implications for Teaching & Learning

- ✓ New teaching and learning framework developed at the same time studies principles are embedded.
- ✓ Significant development of staff in utilising this framework.
- ✓ Poster placed in every classroom.
- ✓ Used in self-reflection, formation lessons, and unit planning.



CONCLUSIONS & NEXT STEPS

Key Learnings

- Projects take time to embed deeply enough to make impact.
- Students & parents like the UQ partnership. The research has been credible.
- Students are using the correct terminology.

Next Steps

- Challenge: develop all staff through the PD in the language/meaning/usage of the 5 studies principles.
- School wide recognition of the benefits of the strategies.
- Embed in school culture.
- Create a Terrace academic video library.

Agarwal, P. K., Redgate, H. L., McDavid, M. A., & McDermott, S. B. (2020). How to use retrieval practice to improve learning. <https://www.retrievalpractice.org/>

Shin, K. J. H., Camp, G., Meier, L., & Kirschner, P. A. (2020). Do secondary school students make use of effective study strategies when they study on their own? *Applied Cognitive Psychology*, 191, 102-107.

Deokri, J., Kewson, K. A., Mann, E. J., Nathan, M. J., & Webb-Bohmer, D. (2021). What works, what doesn't, and why? *American Review*, 14(4), 46-53.