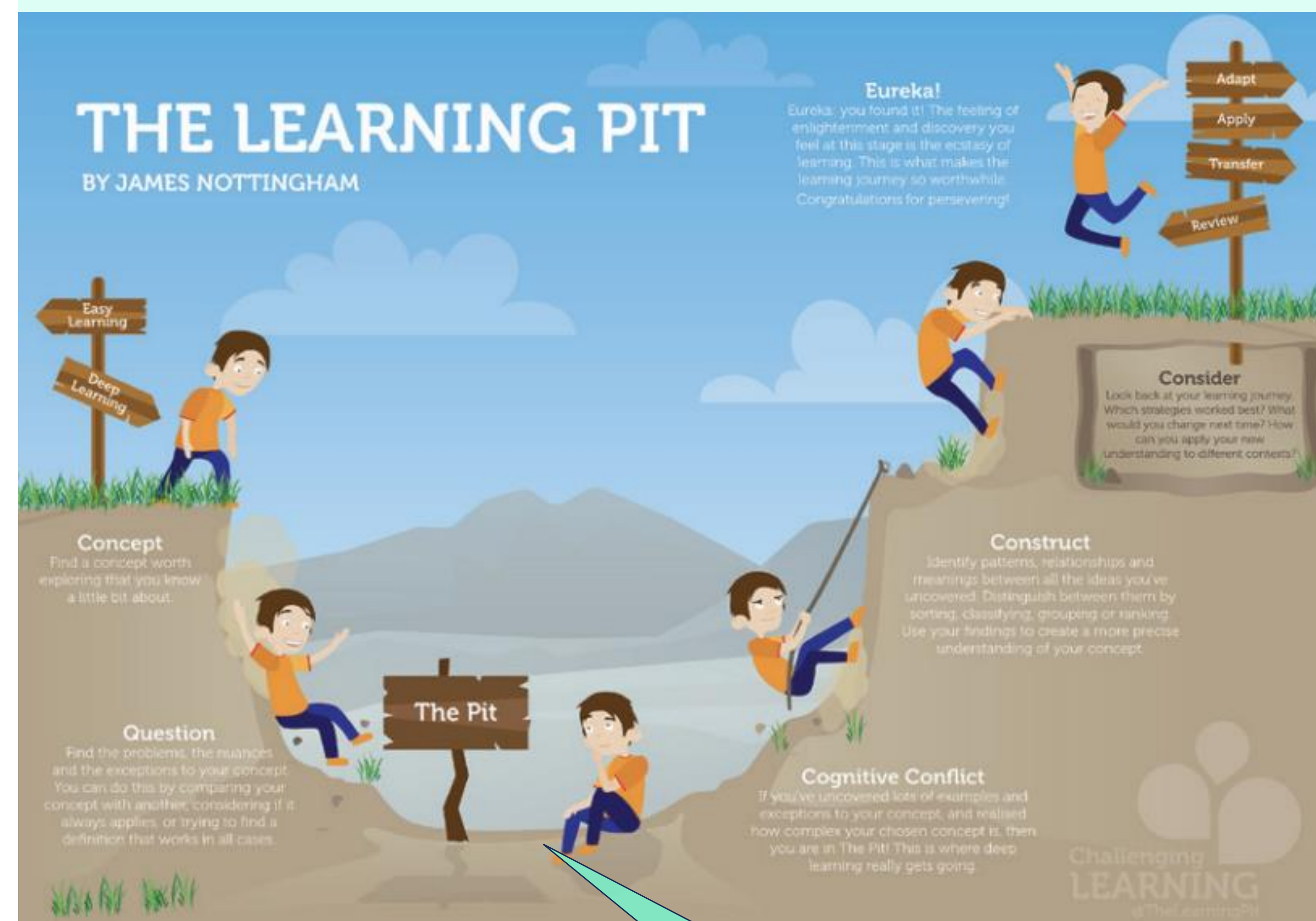


What metacognitive strategies do students employ at the point of productive struggle?

Jo Belchamber, Melanie Percival, Linda Sydes,
Michelle McMillan & Tiffany Harman

BACKGROUND & CONTEXT

- ❖ We are a team of Middle College (Years 6-9) educators.
- ❖ Our Strategic Plan identifies the action of *'supporting the growth of intellectual character and the development of dispositions and skills for the future'*.
- ❖ Our project aligns with the Teaching & Learning Development Plan aiming to *'promote and support the development of the skills of metacognition in Middle College students'* over the next three years.
- ❖ Our collective mindset, drawn from the school's pedagogical framework Project Zero's Teaching for Understanding, is that *'learning occurs at the point of challenge'* therefore we wanted to covert that principle into practice.



Metacognition:
Learning to learn

Productive Struggle
Learning occurs at the point of challenge!

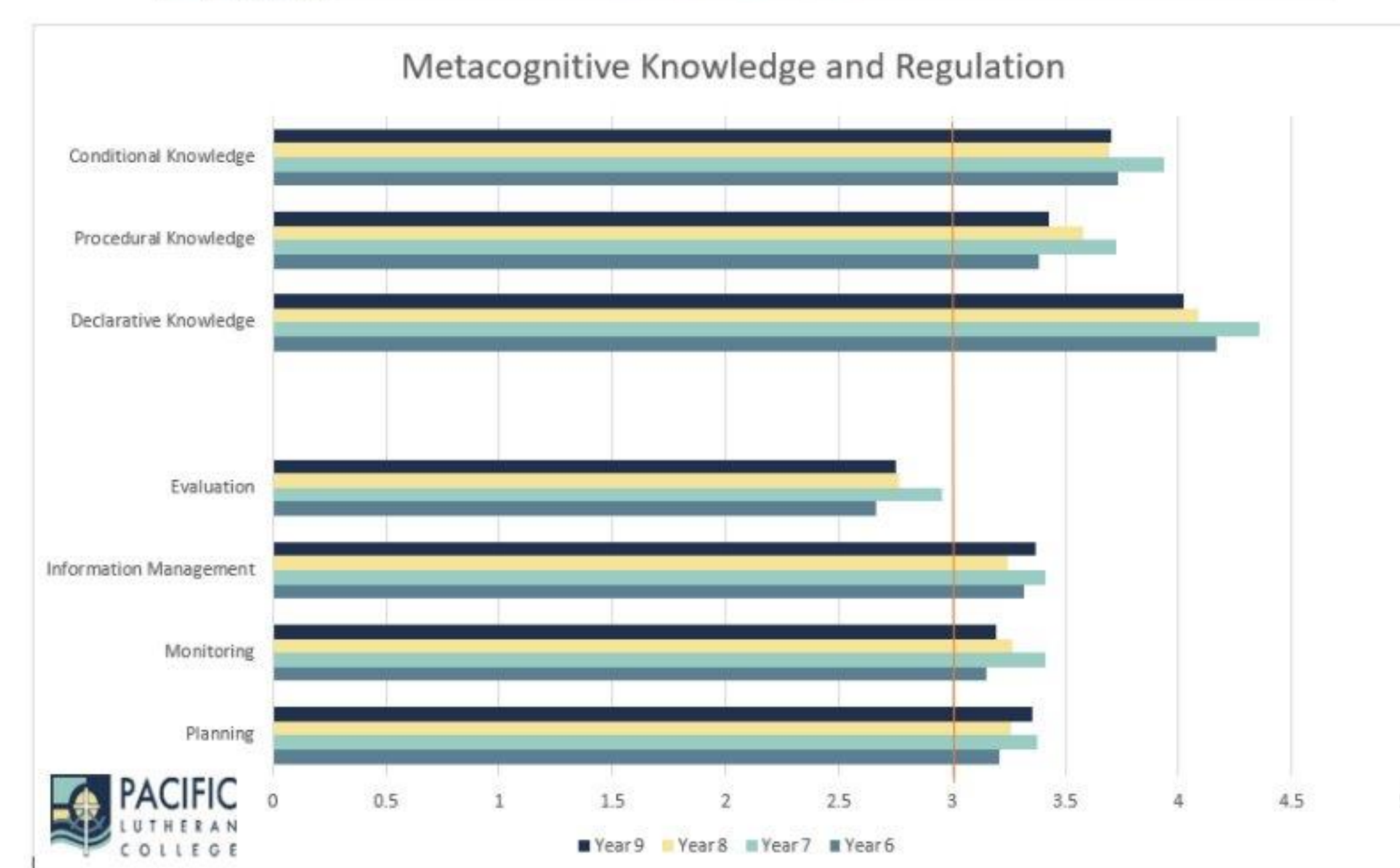
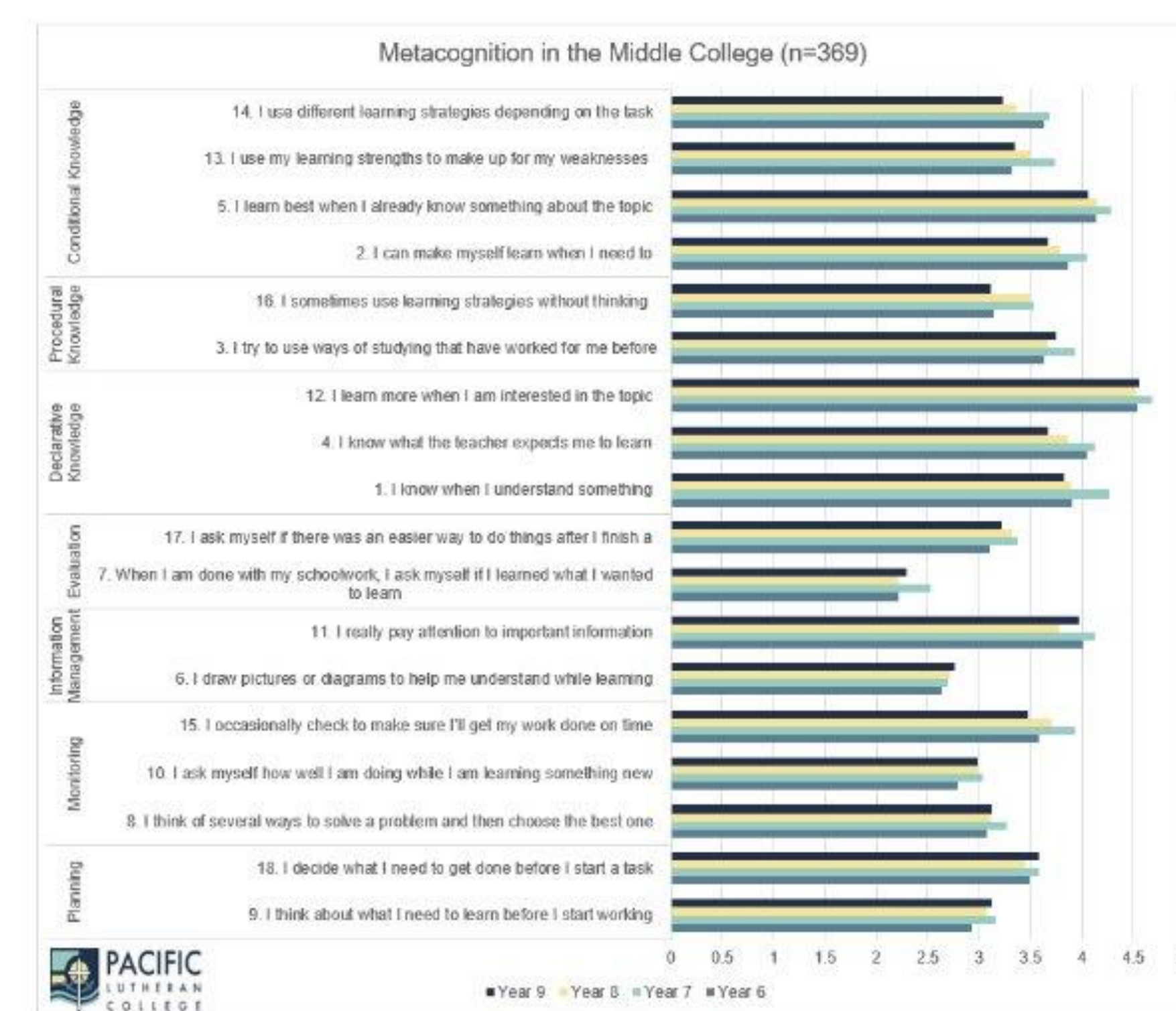
RESEARCH QUESTIONS

What metacognitive strategies do students employ at the point of productive Struggle?

METHODS

Methodology	Mixed Methods
Participants	369 Middle College Students Year 6: 83% Year 8 73% Year 7: 81% Year 9: 64%
Measure	Junior Metacognitive Awareness Inventory
Procedure	Students completed a challenging and unfamiliar thinking routine (Seek to See) after reading a complex text in their HASS lesson. They were reminded of the Learning Pit prior to the task and were administered the Inventory after the thinking routine. Data was analysed.

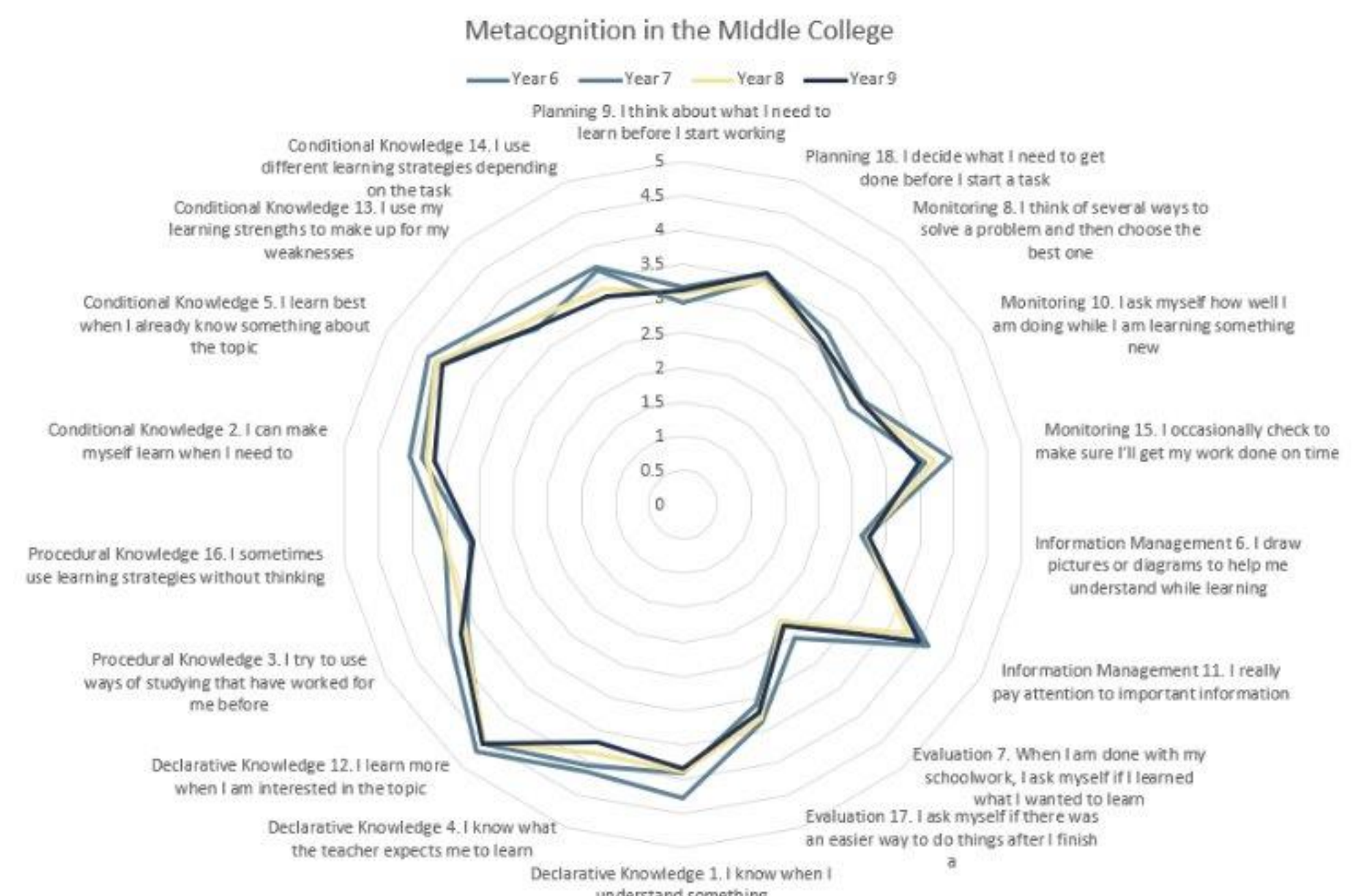
ANALYSIS & RESULTS



- Preliminary findings confirmed that students in all year levels felt confident that they have metacognitive knowledge.
- In contrast, students in all year levels reported lower levels of metacognitive regulation.

ANALYSIS & RESULTS

Strategies for Learning Regulation



Students are most likely to:

- ☐ Really pay attention to important information
- ☐ Occasionally check to make sure I'll get my work done on time

IMPLICATIONS FOR TEACHING & LEARNING

- Our results indicate that Middle College students report more confidence about knowing themselves as learners than they do about applying strategies to learn better.
- In line with research, students' metacognitive awareness was not correlated with their academic performance.
- We hypothesise that Middle College students will benefit from an intervention phase, where metacognitive knowledge and metacognitive skills are explicitly taught.
- The impact of metacognition and self-regulated learning (+7 months) could be actuated by explicitly teaching the strategies of metacognitive regulation to students of all abilities.

KEY LEARNINGS & RECOMMENDATIONS

Key learnings:

- ❖ The power of research and data to identify targets for teaching interventions.
- ❖ The professional growth developed in a research-practice partnership with the UQ Learning Lab.

Our recommendations for other:

- ✓ Choose a project that is beneficial to the school and is easy to implement.
- ✓ Make the most of the momentum at the start of the project.
- ✓ Enlist the help of others early on.
- ✓ Share your journey with your students. It is important for them to see you as learners and their input is thoughtful, insightful and helpful.

CONCLUSIONS & NEXT STEPS

- We have been developing a Metacognitive Toolkit prototype in co-agency with Middle College teachers.
- We are planning an intervention phase of our project for 2025.