

A collaboration between:



MONASH
EDUCATION

Importance of Contextual Relevance

Educators' Early Insights into Quality Use of Research in Practice

EIS 2021, March 2021

 @MonashQProject @MonashEducation

#QURE #UsingEvidenceBetter #researchinaction

Mark Rickinson
Jo Gleeson
Michael Coenen
Maria Karvouni
Matthew Deeble



Acknowledgement of Country

I would like to acknowledge the lands on which we all meet today and recognise that sovereignty was never ceded.

I would like to specifically acknowledge that the Wurundjeri and Boon Wurrung people, communities of the Kulin Nation, are the ongoing custodians of the lands on which Monash University now stands.

We pay our respects through our research, teaching and learning to the Wurundjeri and Boon Wurrung Elders and their past, present and future communities.

PANELISTS

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Aims



Frame contextual relevance as part of using research well



Share insights from a lead teacher, a school principal and a research broker



Stimulate reflection and discussion

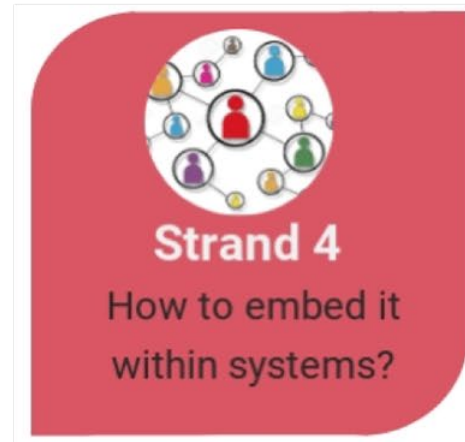
Contextual Relevance and Using Research Well

Mark Rickinson

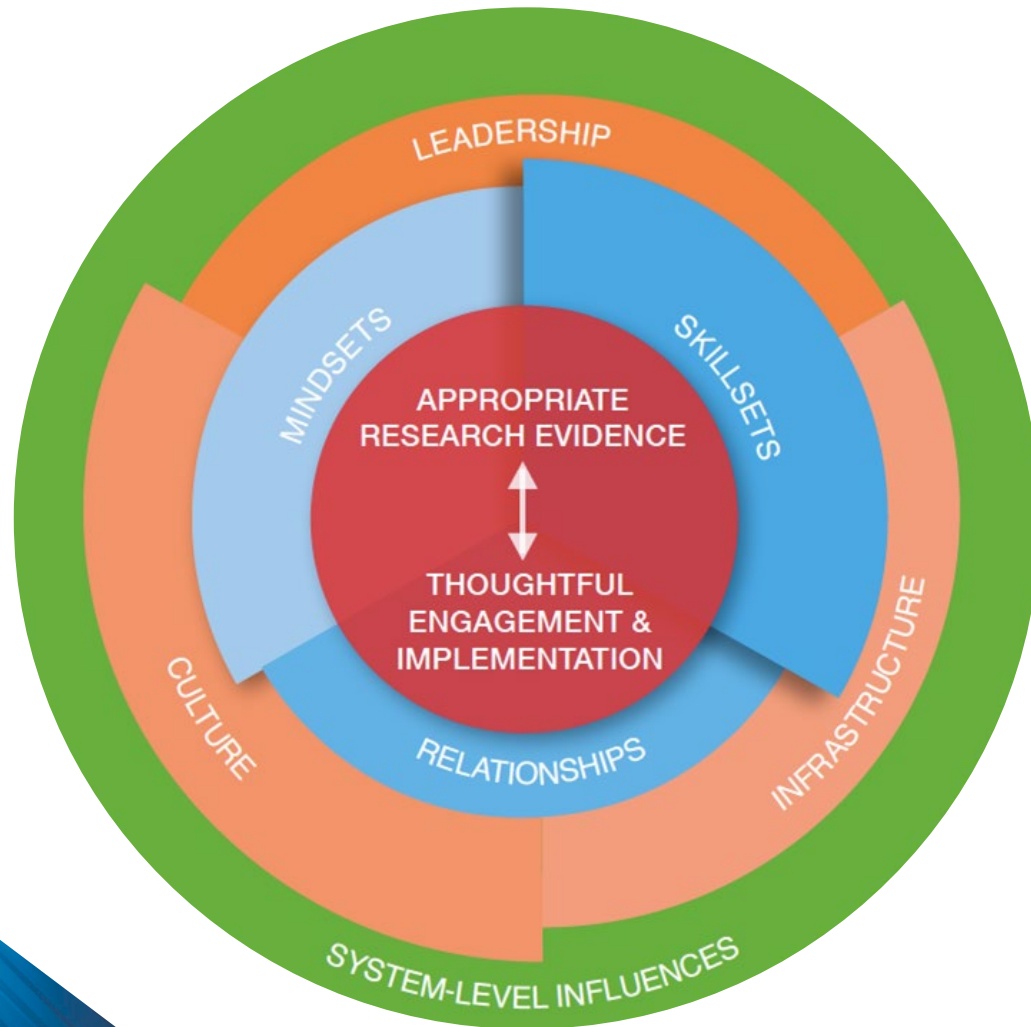
Associate Professor | Monash University
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Monash Q Project



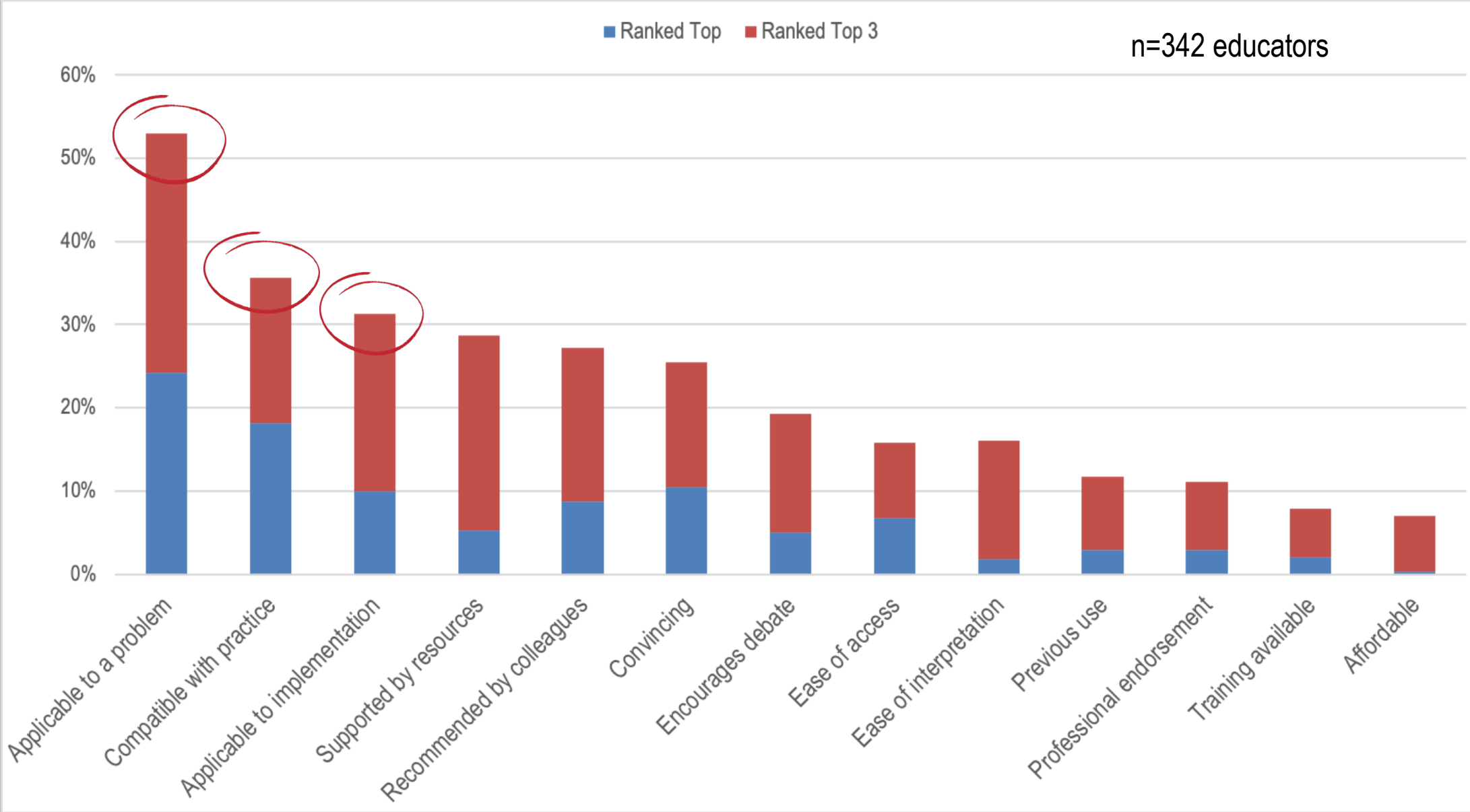
Contextual relevance is key to Quality Use of Research Evidence



APPROPRIATE RESEARCH EVIDENCE

The need for research evidence to be **not only methodologically rigorous, but also appropriate** for the educational issue, the context and intended use.

Contextual relevance is a strong influence on using research



Contextual relevance is part of using research well or poorly

Using research well means

“you understand the parameters and context of the research...and modify this to suit your specific needs”

“fully using the research as intended but within your context”

Using research poorly means

“only one body of research is used and it’s not contextualised for the setting”

“research doesn’t really apply to the situation”

Contextual relevance can present capacity challenges

Survey Item	Overall % Agree/Strongly Agree (n=492)
I know where to find relevant research for my context	65%
I feel confident analysing and interpreting research for my context	68%

For Q survey report - www.monash.edu/education/research/projects/qproject/publications

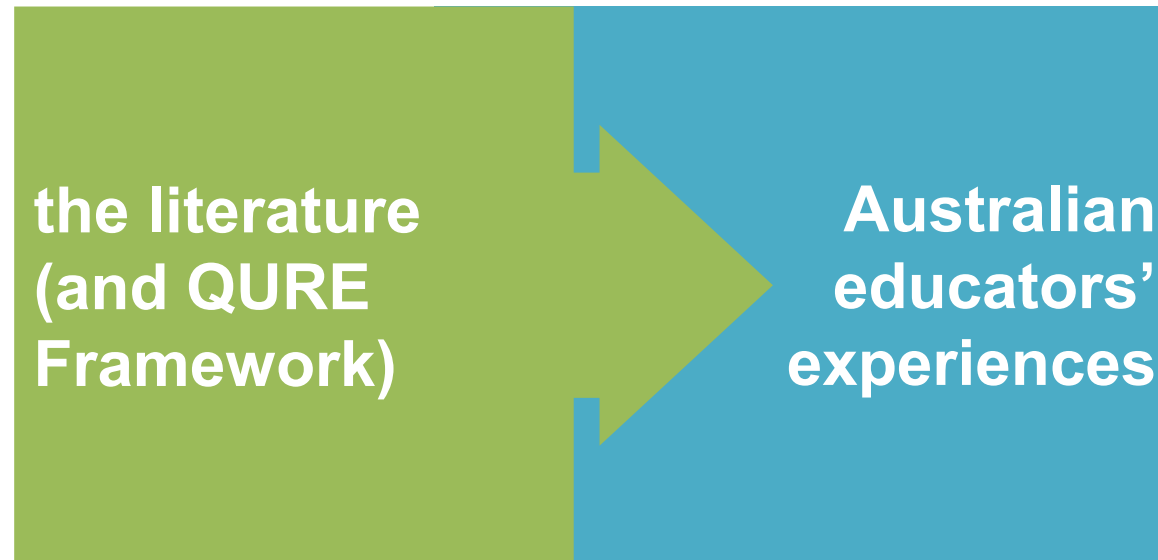
Contextual relevance can present capacity challenges

Survey Item	Overall % Agree/Strongly Agree (n=492)
I know where to find relevant research for my context	65%
I feel confident analysing and interpreting research for my context	68%
I find it difficult to keep up with new and emerging research	76%
I don't have adequate time to access and review research	76%
It is difficult to find research that addresses my specific context	64%

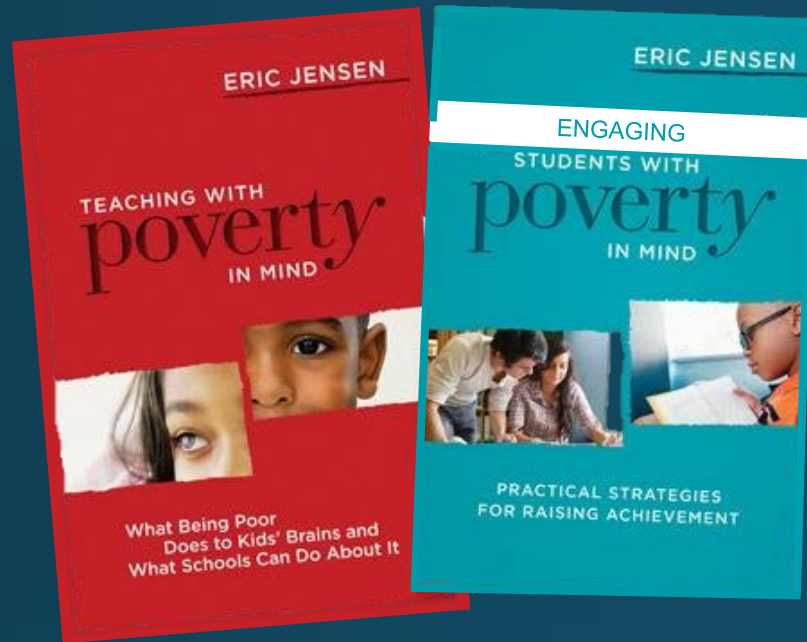
[For Q survey report - www.monash.edu/education/research/projects/qproject/publications](http://www.monash.edu/education/research/projects/qproject/publications)

In summary

Contextual relevance is key in:



BUT it is challenging



Finding and using research evidence

How Macleay Island State School is using Evidence Based Practice to build capability in staff and to support students from trauma backgrounds

Michael Coenen, Macleay Island State School, Queensland
mxcoe1@eq.edu.au

Setting



- Macleay Island State School is a Prep to Year 6 Primary School situated on picturesque Macleay Island in Moreton Bay, 15 minutes from the coast off Brisbane
- The school has a current enrolment of approximately 140 students and draws its enrolments from Macleay, Karragarra, Lamb and Russell Islands.
- The population is classified as disadvantaged with high rates of student disability (approx. 22%) and students from indigenous Background (15%)
- ICSEA rating 921

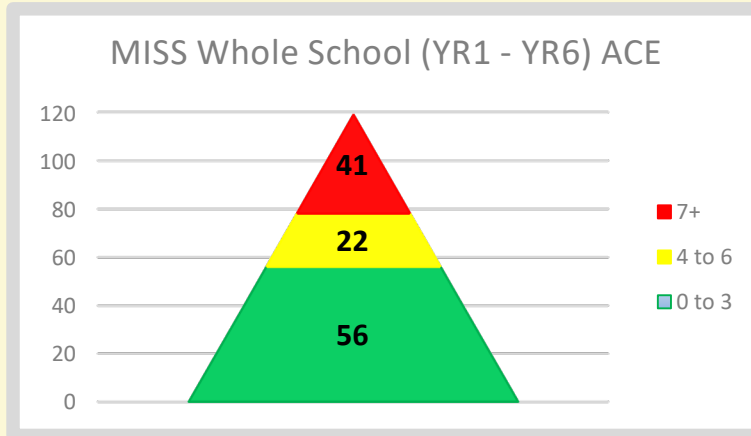




Scan and Assess (2019)



- In depth analysis of the disadvantage experienced by our students
- Adverse Childhood Experiences Study (ACE) of childhood abuse and neglect, household challenges and later-life health and well-being.



- Multiple studies have found a correlation between students' ACE scores and academic performance.
- An **ACE score of 4 or higher makes children 32 times more likely to struggle in school.**
- An ACE score of 7 or more reduces the average life expectancy by about 20 years

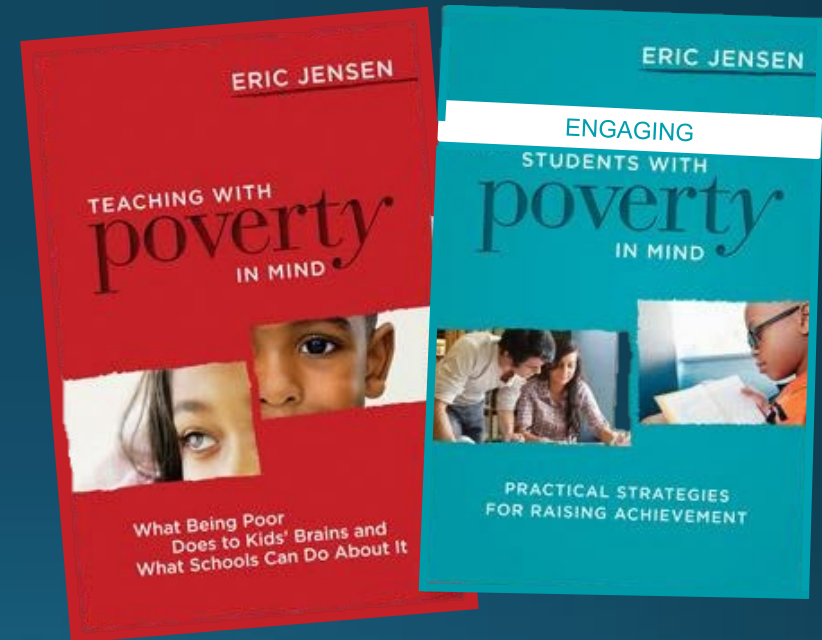
- After looking at the ACE Study, we knew we had a particular student cohort that needed specialised support (TIP contextualised)



Prioritise (2019)

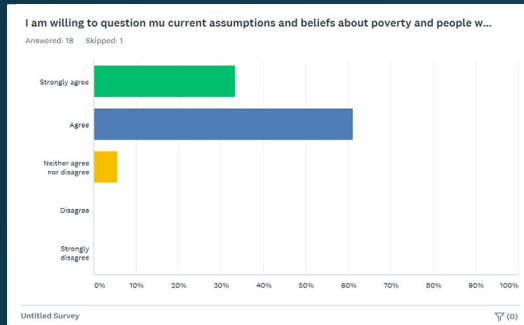


- School cluster
- DoE (Evidence Hub)
 - Standards of Evidence (Design – Impact – Scalability – Investment)
- National research (limited in AUS)
- International research
 - American Association for Supervision and Curriculum Development (ASCD)





Develop and Plan (2019)



Staff buy in through consultation



Research based delivery



Developing Capability



Act (2020 to date)

- Schoolwide professional learning teams (PLT) to implement Jensen's work.
- PLT work on Cycles of Enquiry and include monthly SMART goals for all staff.
- Support is allocated to classrooms based on the ACE data. In addition, ACE data is considered when developing support provisions for identified students.
- Emphasis in 2020: Engagement through **Relationships**
- Emphasis in 2021: Building Cognitive Capacity

2020

2020/ Month	Positive Daily Avg.	Incidents Daily Avg.	Ratio Pos/Neg.
January	0.75	1	0.8:1
February	7.15	1.35	5.3:1
March	7.23	2.41	3:1
April	0.75	1	0.8:1
May	2.6	0.8	3.3:1
June	7.05	3.05	2.4:1
July	8.73	1.53	5.8:1
August	10.19	2.52	4.1:1
September	8.54	0.85	10.1:1
October	9.26	2.05	4.6:1
November	6.81	2.14	3.2:1
December	1.71	0.57	3:1
Total	6.67	1.69	4:1

Table 1: Positive vs. Negative Reinforcement data 2020

- 4:1 is the evidence based ratio to make significant and ongoing changes in human behaviour
- Resilience research supports the importance of positive & reliable relationships

2018- 2020

Year	Positive Daily Avg.	Incidents Daily Avg.	Ratio Pos/Neg.
2018	0.69	3.1	0.3:1
2019	2.28	3.16	0.8:1
2020	6.61	1.69	4:1

Table 2: Positive vs. Negative Reinforcement data 2018 -2020

- 860% increase in positive reinforcements
45% decrease in negative reinforcements
- Early data from 2021 indicates further improvements Current ratio 5.5:1

Reflections – What did it take?



Contextualised, Evidence Based Research

- ACE study provided context (Poverty)
- Objective assessment tool supported decision making process (Standards of Evidence)
- Evidence based method reinforced project delivery (Inquiry Cycle)

Soft Skills

- Curious, adventurous and proactive attitude – “Dig deeper”
- Growth mindset



Auburn
High
School

Contextual relevance in developing a coherent approach to Teaching & Learning

Maria Karvouni

Executive Principal
Auburn High School



Context

- Auburn HS – opened 2014
- ICSEA from 1015 to 1124
- 80% teachers graduates
- Symbolic changes



Journey on consistency in teaching

- The vision
- **Consistency** in T & L practices and use of data
- **Collaboration** Leader and Teacher
- Use data to inform practice (evaluating impact)



FISO Model

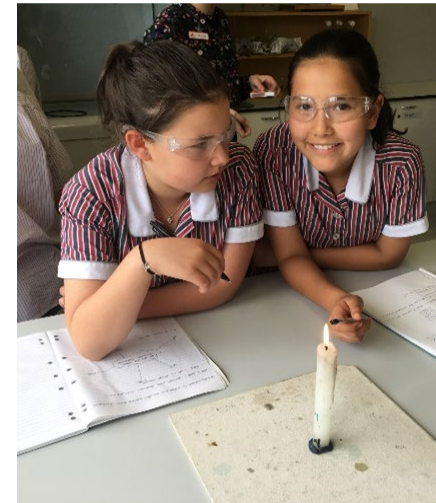
Common Language and practices

- School priority for 4 years
- Instructional Model (Marzano & Pollock)
Research - instructional model consistently in the classroom increases student achievement (Hattie, 2008; Marzano, Pickering & Pollock, 2001).
- Common Assessment Tasks (Dylan Wiliam)
Ensure a guaranteed and viable curriculum aligned with standards, evaluating impact on learning
- Everyone's performance plan

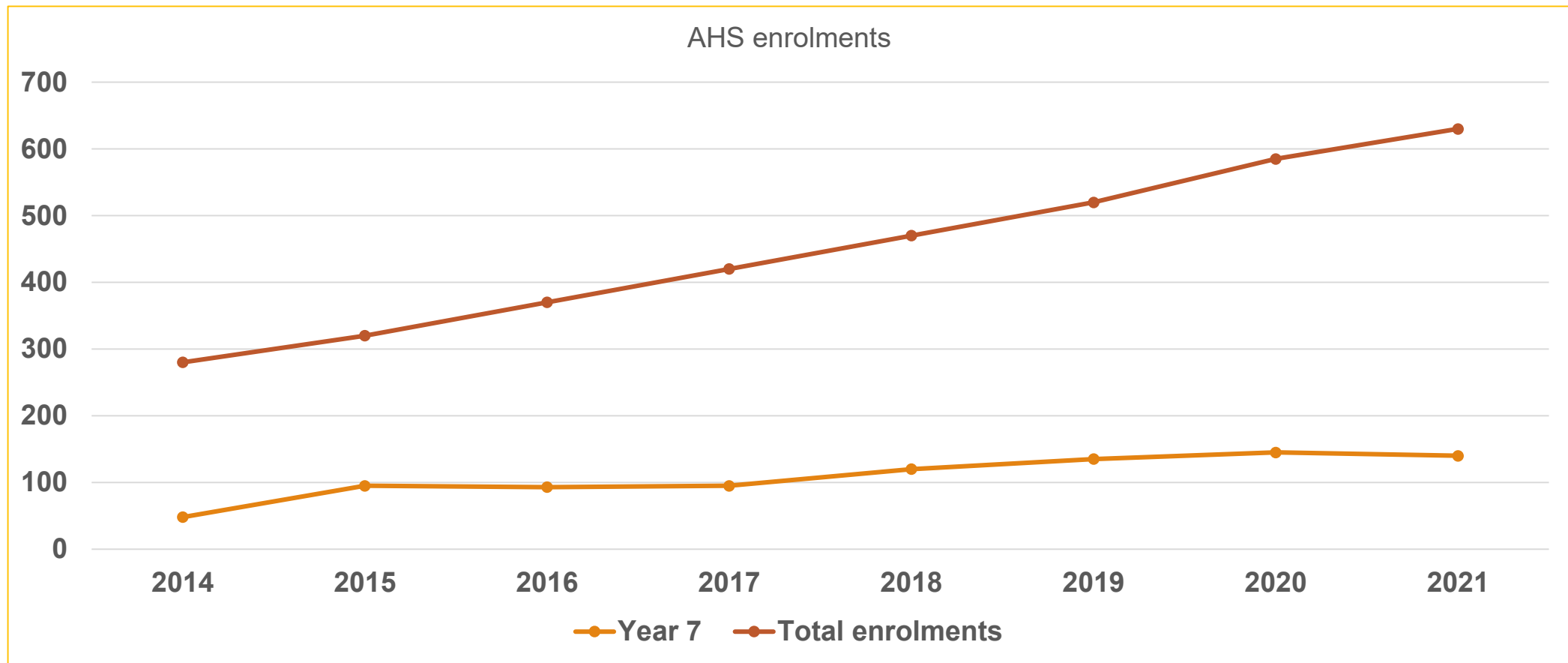


Buy in and building capacity

- Explain why – vision
- Middle level leaders
- Professional Learning targeted
- Celebrate small achievements
- Involve students and parents

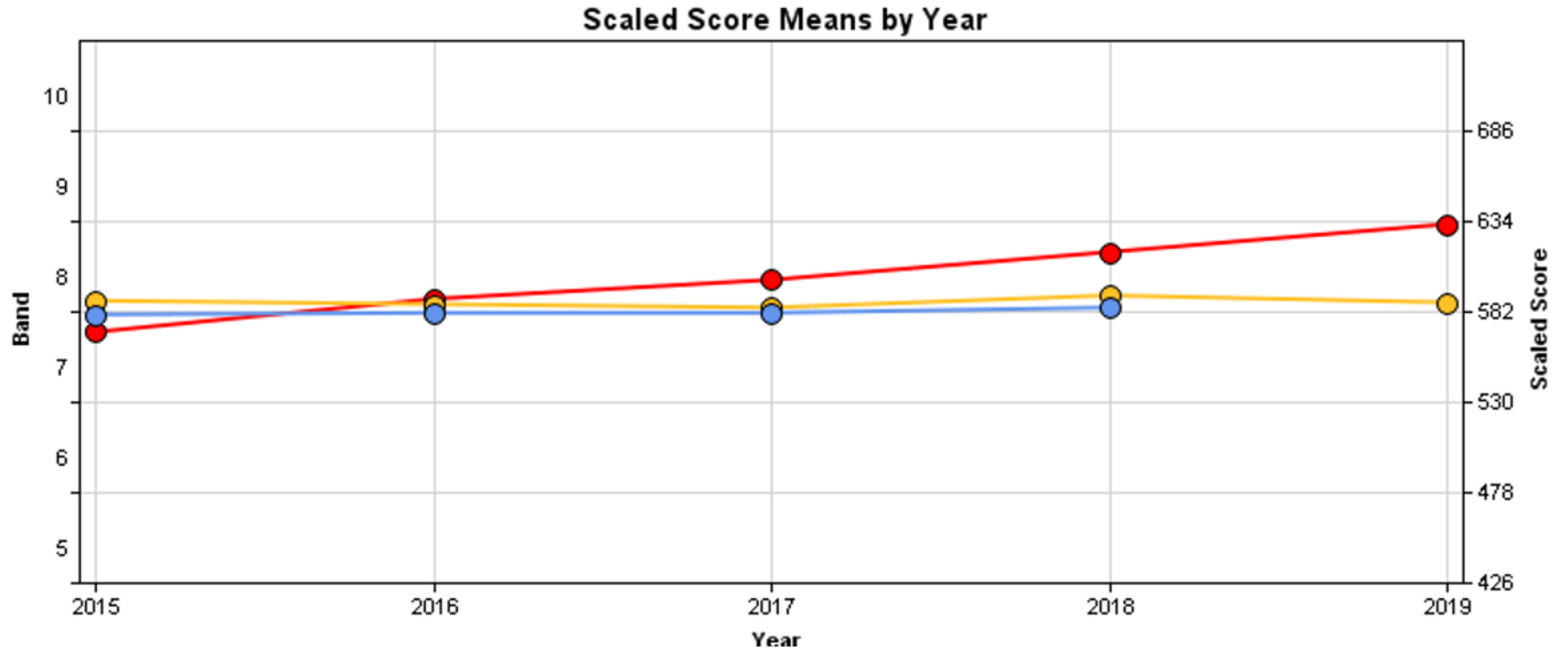


School enrolments AHS



2019 NAPLAN Year 9 Reading Achievement

(National Assessment Program – Literacy and Numeracy)



Top 2 band students in 2019 (%) ⓘ

For students in Year 9, Reading



46%

Your school

31%

Similar schools

37%

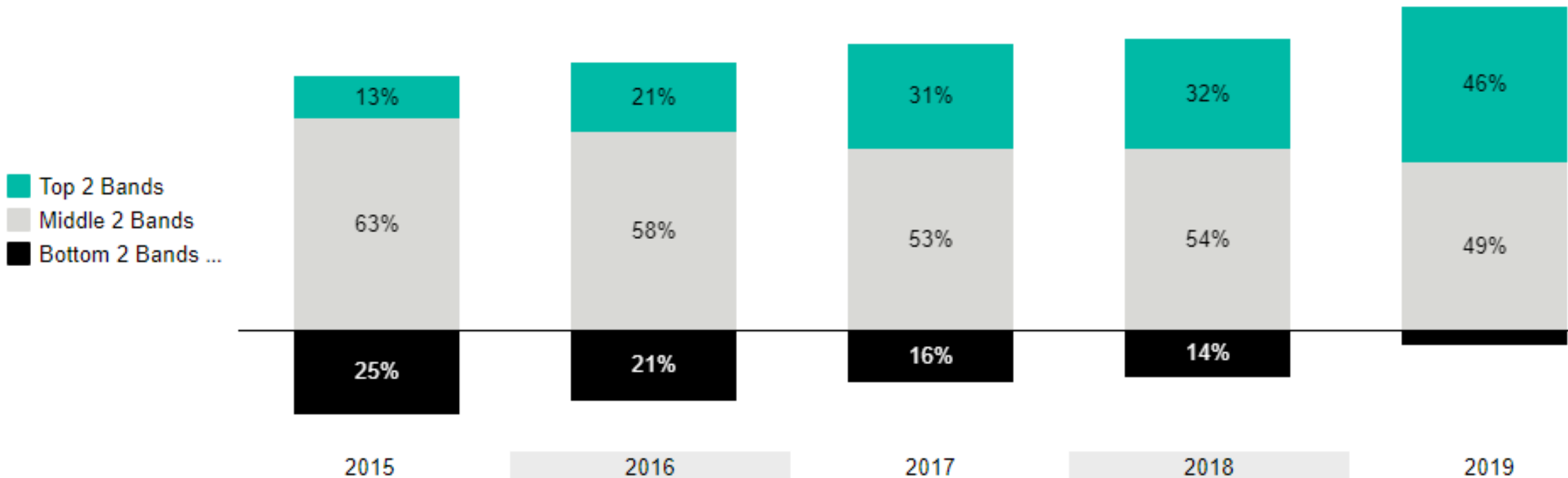
Network

21%

State

Students by band over last 5 years (%) ⓘ

For students in Year 9, Reading



VCAA Auburn High School Year 12 data



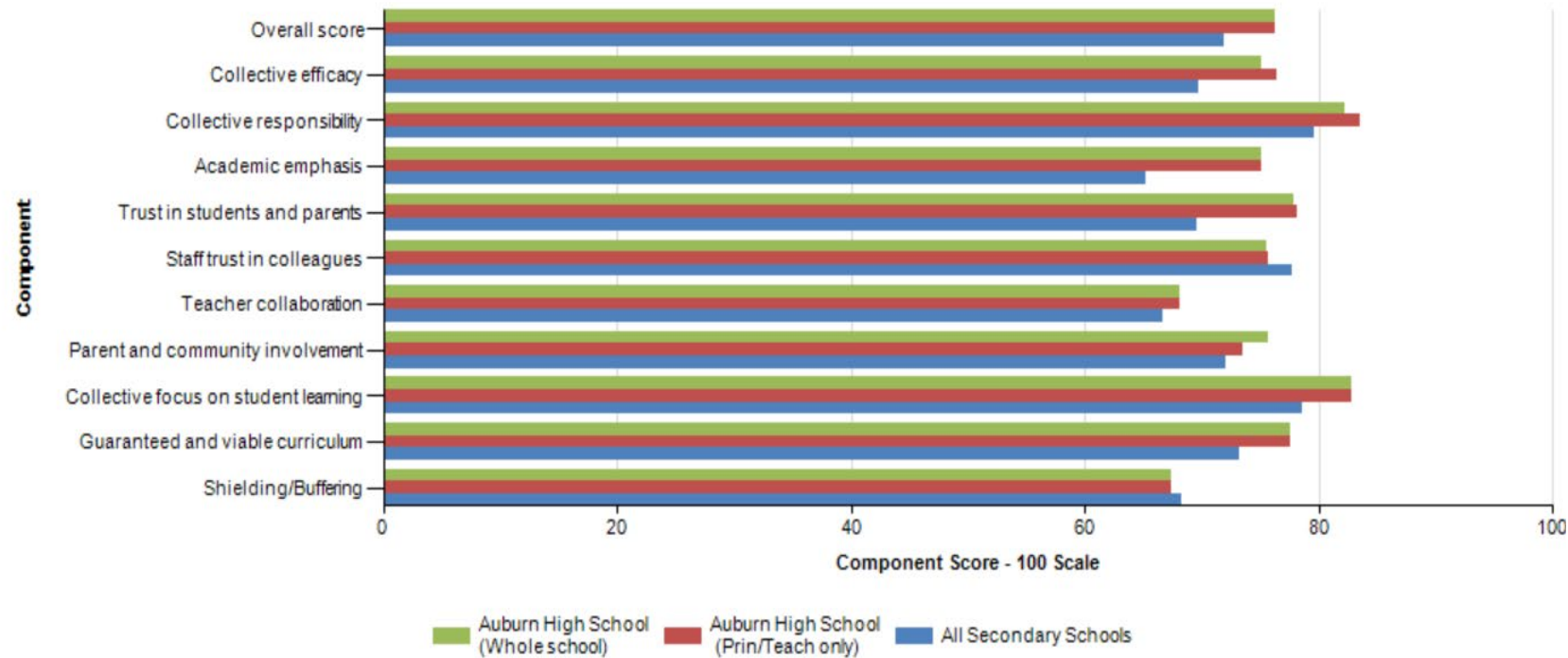
Year	Median VCE study score	% scores 40 and over
2014	24	2.0
2015	27	3.1
2016	27	3.0
2017	27	2.4
2018	30 State	8.6
2019	30	8.8
2020	31 Above State	8.7



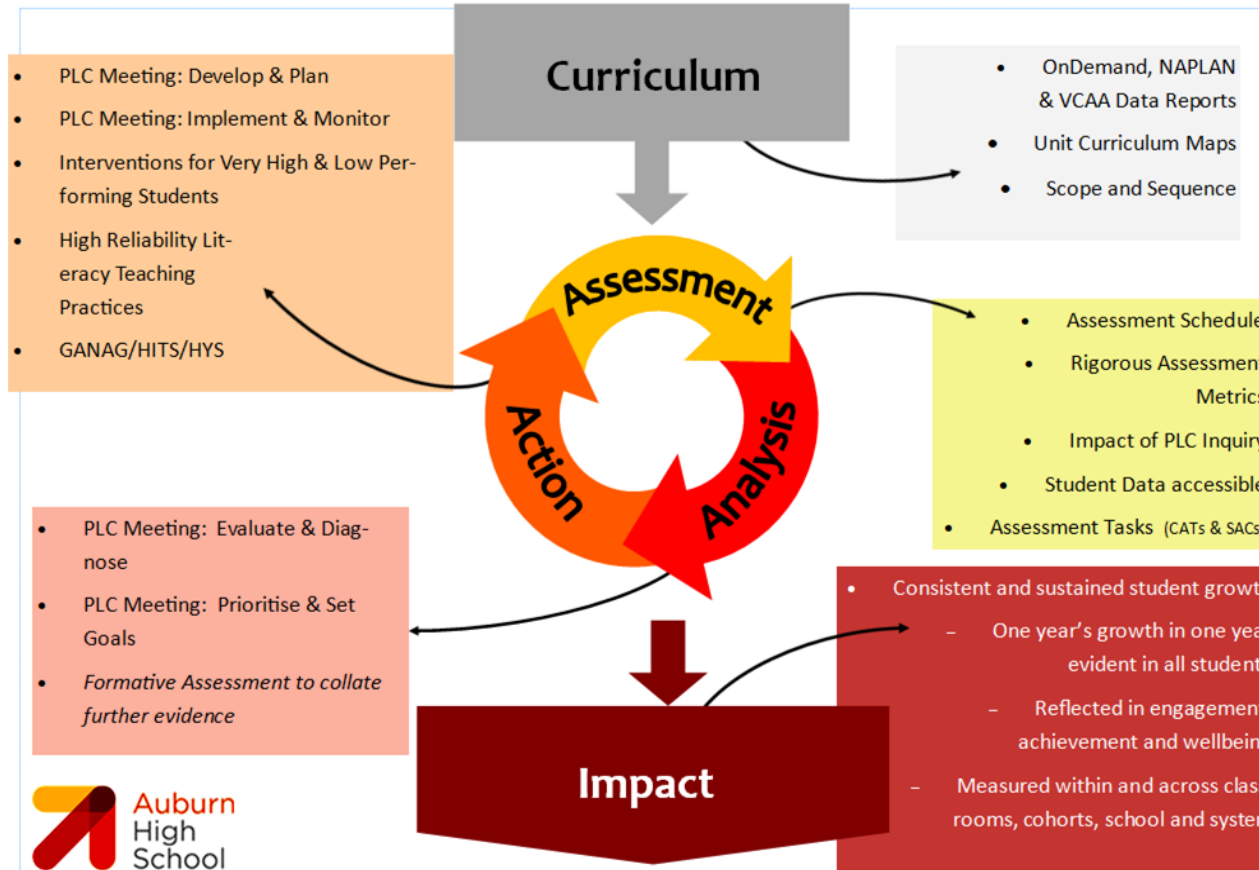
Staff opinion survey - 2020

School Staff Survey - Summary of Module Component Means - 2020

School Climate summary of module component means for Auburn High School (7526)

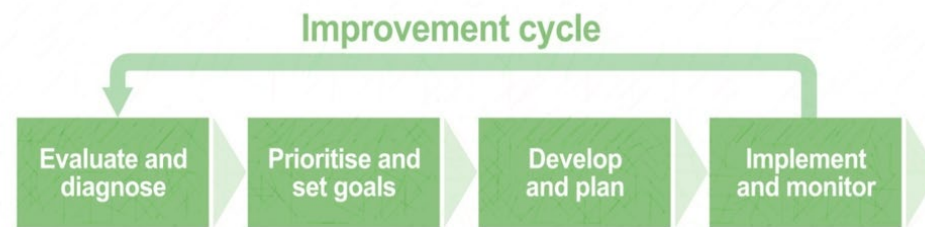


Data Driven Cycle



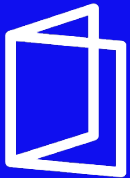
Key points

- Embed Professional Learning Communities (PLCs).
Use DET research frameworks (Helen Timperley) and PL work with other schools
- Use an improvement cycle (FISO) in all PLCs to measure impact on practice.



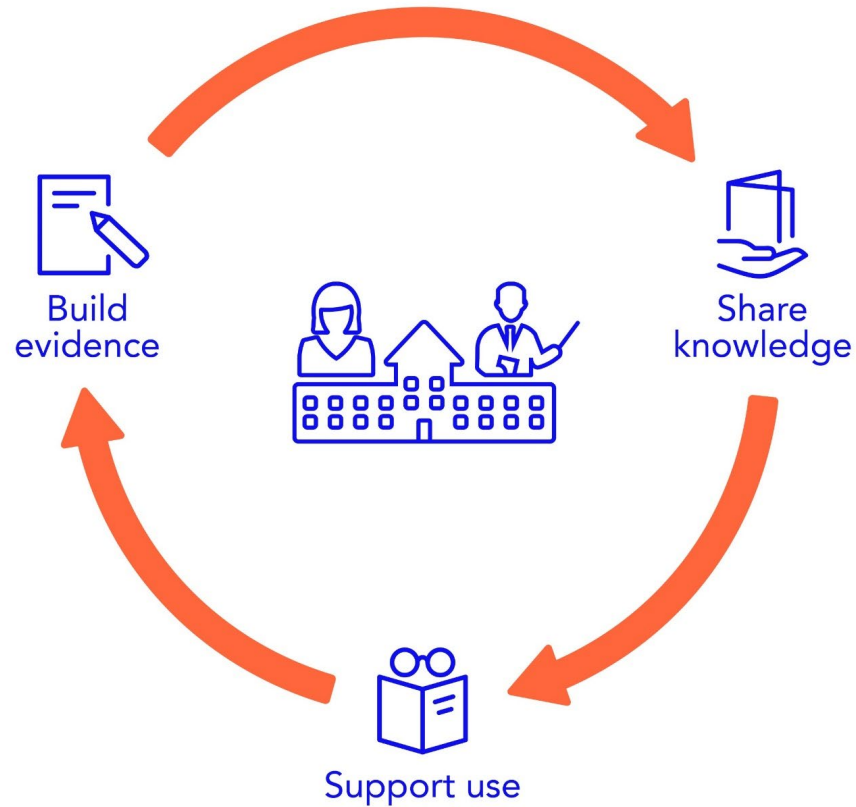
Helping best practice become common practice

Matthew Deeble



**EVIDENCE
FOR LEARNING**

Better school decisions informed by evidence



We are an **Evidence Intermediary**; we play a brokering role between research and practice

A journey towards greater benefit to educators

1. Generic evidence in education
2. Tailored for system structures
3. Tailored for practice and context

Standards of Evidence



Sort by Name –

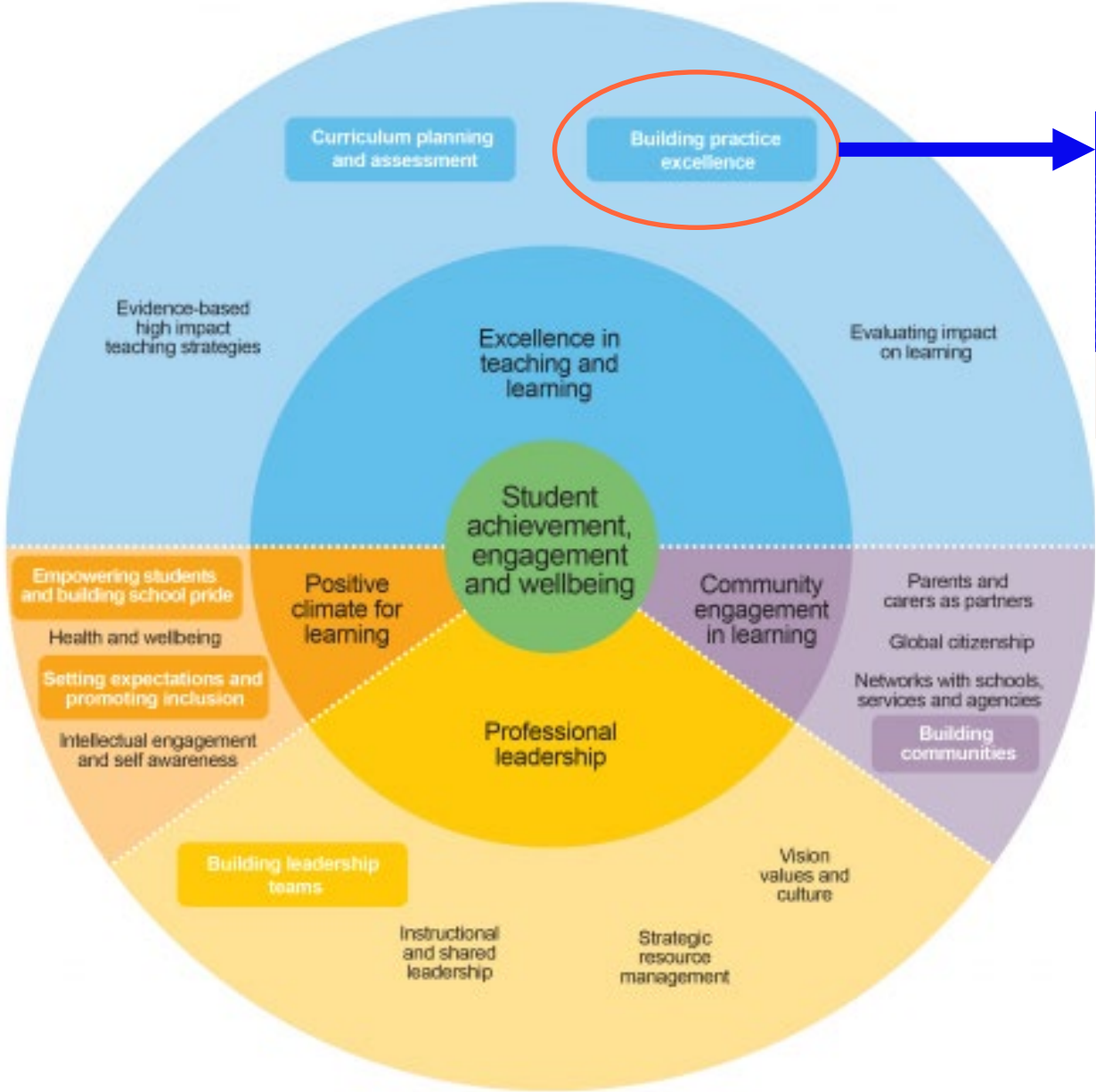
Average cost –

Evidence security –

Months' impact ▾

Feedback	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+8
Metacognition and self-regulation	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+7
Reading comprehension strategies	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+6
Collaborative learning	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+5
Early years interventions	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+5
Homework (Secondary)	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+5
Mastery learning	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+5

The FISO Improvement Model



Building practice excellence

All approaches in the Toolkit that can support the FISO area of 'Building Practice Excellence'.

Sort by Name ▾ Average cost – Evidence security – Months' impact –

Aspiration interventions	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	0
Behaviour interventions	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+3
Digital technology	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+4
Feedback	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+8
Social and emotional learning	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+4



Evidence-based resources for Victorian schools

Metacognition and self-regulated learning

This document is a Victorian compendium for the Guidance Report [Metacognition and self-regulated learning](#).

Metacognition about the ways learners monitor and purposefully direct their learning. For example, having decided that a particular cognitive strategy for memorisation is likely to be successful, a student then monitors whether it has indeed been successful and then deliberately changes (or not) their memorisation method based on that evidence.

The Critical and Creative Thinking Capability domain of the Victorian Curriculum encompasses the core elements of metacognition, supported by a scope and sequence and other resources developed by the Victorian Curriculum and Assessment Authority (VCAA). Details about the Victorian Curriculum can be [found here](#).

Evidence for Learning resources

[Guidance Report](#)

Actionable, evidence-based recommendations for Victorian schools.

[Poster: Summary of Recommendations](#)

[Red Amber Green Self Assessment Guide](#)

An audit tool to assist school leaders in understanding their school's progress against the seven recommendations of the Guidance Report.

Victorian Department of Education and Training resources and alignment

[HITS Strategy 9](#)

Metacognitive strategies.

[Professional Practice Note 14](#)

Metacognitive strategies to support student self-regulation and empowerment.

[FISO: Excellence in teaching and learning](#)

Evidence-based high impact teaching strategies

[Amplify](#)

Empowering students through voice, agency and leadership.

Exploring learning techniques in Outdoor Education Studies

Korumburra Secondary College

The leadership team at Korumburra Secondary College embarked on a path to improve the teaching of metacognition to develop skills that students require to learn with greater independence. Senior students studying Outdoor Education Studies were involved in a pilot program which staff designed to gather information about which metacognitive strategies students were already using and relying on.

Students were given a task with a week to prepare and were asked to predict their results, to record their preparation, and note the content areas that they saw as strengths or weaknesses for themselves. Following the task, students self-assessed using a rubric and reflected on their pre-task predictions.

The class then explored Dunlosky's research on effectiveness of learning techniques guided by the teacher, and analysed their own practices against the low-, moderate-, and high-utility techniques. Many of the approaches that students had drawn on were low-utility techniques. This opened a discussion about the effectiveness of each technique and students were then engaged in re-designing their preparation with new knowledge about the techniques that show greater effectiveness.

In response to the trial with these students, the school has devised explicit learning opportunities for students before they reach Year 12 to support the adoption of effective techniques to support independent learning and study preparation.

Monitoring learning to improve comprehension

California Gully Primary School

Staff at California Gully Primary School had identified that student engagement in reading was low. Looking to reverse this trend, school leadership explored a number of avenues before landing on metacognition as a way to empower and engage students.

Prior to introducing the new metacognitive strategy to students, the leadership team focused on building the confidence in staff to deliver the explicit strategies and to model them. Regular professional learning sessions linking metacognition to comprehension were complemented by professional reading and supporting resources.

Upper primary students were given tools to plan, monitor and evaluate their own learning. A focus on comprehension has enabled the school to trial an annotation code for students. This code guides students to classify their thinking through the application of key prompts such as:

- Important information,
- Questioning,
- New learning,
- This reminds me... (connections).

Initially, the annotation code was explicitly taught to students, and is now being used to track student internal voice as they engage in shared, guided, and independent reading activities.

Implementation Plan

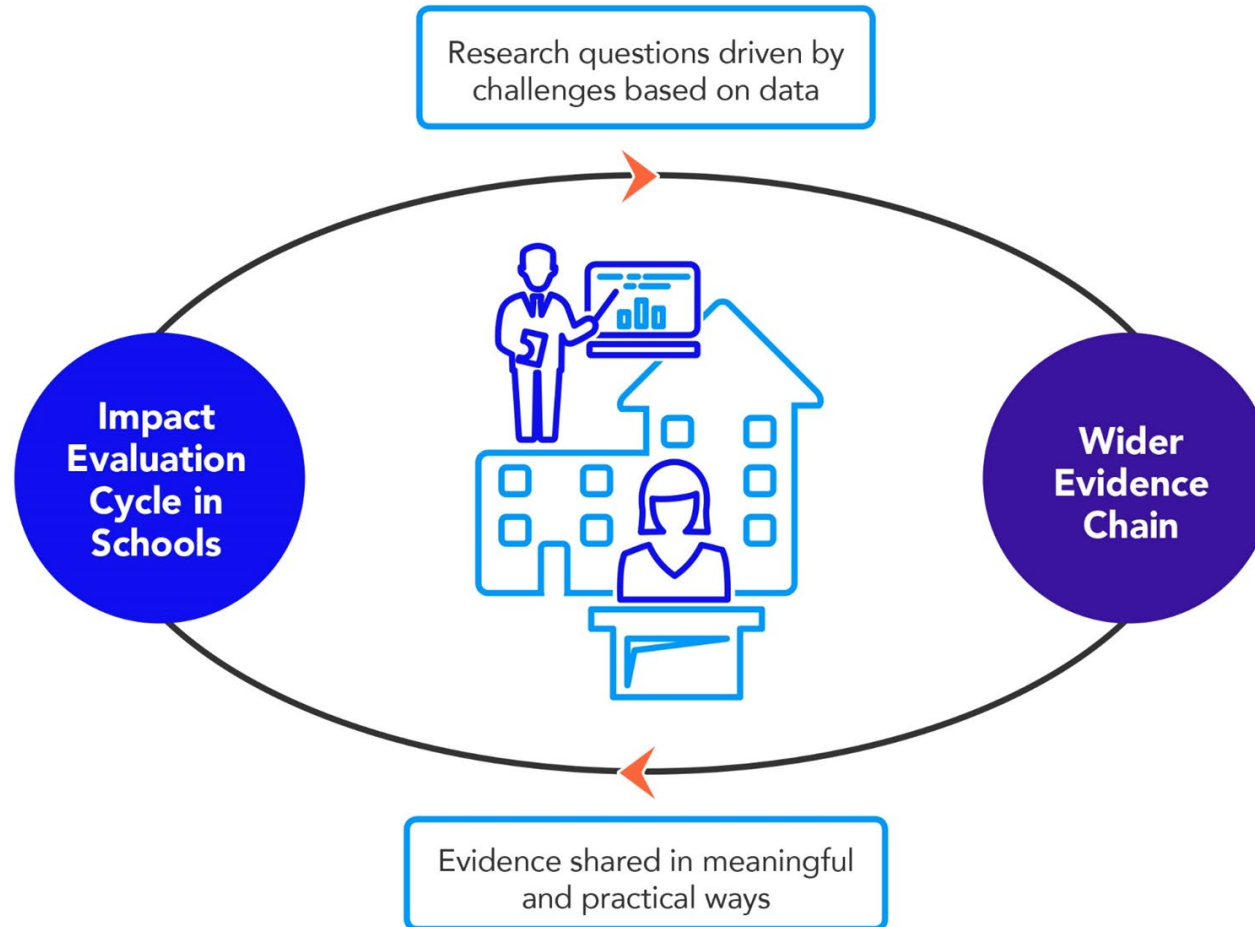
Metacognition to strengthen student capacity at Wodonga Senior Secondary College, Victoria



Problem (why?)	Intervention Description (what?)	Implementation Activities (how?)	Implementation Outcomes (how well?)	Outcomes (so what?)
<p>Wodonga Senior Secondary College is a large rural school catering for 820 students in Years 10-12.</p> <p>An audit established that:</p> <ul style="list-style-type: none"> Students were getting stuck and did not have the strategies or language to overcome challenges with learning. Teachers were not explicitly aware of metacognitive strategies and their role in literacy improvement. Achievement and retention rates were not meeting expectations. 	<p>Active ingredient 1 Professional learning (PL)</p> <ul style="list-style-type: none"> Develop a shared understanding of metacognition. Develop video content for teachers with suggestions to help engage students in metacognitive and self-regulation practices. Ensure staff have opportunities to develop their practice in teaching metacognitive skills and strategies. <p>Active ingredient 2 Building student capacity</p> <ul style="list-style-type: none"> Develop a student metacognition tool. Give students the language of metacognition to ensure they can articulate the process of learning. Explicitly teach students metacognitive strategies. <p>Active ingredient 3 Structures and policies</p> <ul style="list-style-type: none"> Adapt the reporting process to explicitly include metacognitive elements that demonstrate students' readiness to learn. Explicitly identify metacognition and self-regulation in the school teaching and learning frameworks and key documents. 	<p>Professional learning</p> <ul style="list-style-type: none"> Develop fortnightly videos and written artefacts for teachers with suggestions to help engage students in metacognitive and self-regulation practices for both in-person and online learning. Run whole-staff PL sessions with a focus on integrating the explicit teaching of metacognition into subject areas. <p>Build student capacity</p> <ul style="list-style-type: none"> Explicitly teach students metacognitive strategies, using the metacognition tool as a resource. <p>Monitoring</p> <ul style="list-style-type: none"> Survey staff to build an understanding of their current knowledge of metacognition and self-regulation strategies. <p>Structures</p> <ul style="list-style-type: none"> Include metacognition and self-regulation in the teaching and learning framework and literacy matrix. Include metacognition and self-regulation in the home-supported learning structure. Explicitly report on metacognitive strategies through the GPA matrix. 	<p>Short term</p> <ul style="list-style-type: none"> Staff acceptability – a positive change in teacher confidence regarding metacognitive strategies is observed. The development of a student metacognition tool. <p>Medium term</p> <ul style="list-style-type: none"> Staff (working group) use the metacognition tool in class regularly. Students (working group) know of the metacognition tool and have used it. <p>Long term</p> <ul style="list-style-type: none"> All staff use the metacognition tool in class regularly. All students use the metacognition tool with increasing independence. 	<p>Short term</p> <ul style="list-style-type: none"> Staff and students share a common understanding of and language for metacognition. <p>Medium term</p> <ul style="list-style-type: none"> Students can articulate where they are at with their learning, making an informed decision of what to do next. Students use metacognitive self-talk and demonstrate this through reflection. Teachers are observed developing metacognition in their teaching. <p>Long term</p> <ul style="list-style-type: none"> Changes in student achievement are evident in teacher-reported grades and external assessments. Retention of students from Year 10 to Year 12 increases.

More information about implementation is outlined in Evidence for Learning's [Putting evidence to work: a school's guide to implementation](#).

Useful



Trusted

Facilitator:
Dr Jo Gleeson
Monash Education



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Matt Deeble, Executive Director, Strategic
Business Operations, Social Ventures
Australia, NSW

A group of children in a playground, wearing hats and plaid shirts, with their hands raised in the air. The image is overlaid with a semi-transparent blue filter.

How can these insights help you in your own role?

What can you do differently to support practitioners access, adapt and use relevant research for their contexts?

A collaboration between:



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***We encourage you to connect with the Q Project
and contribute to ongoing conversations about
the quality use of research within and beyond
education.***



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