Data coaching to lift teacher capability

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NĀU I WHATU TE KĀKAHU, HE TĀNIKO TAKU

Background

We came together to frame up a TLRI project.

Focus areas:

◄ What are the benefits and challenges of working across a Kāhui Ako?

◄ What does teacher data literacy in action in classrooms look like?

◄ How can teachers work as data coaches and change agents when working with colleagues?

Focus for this presentation...

- ◂ The importance of partnerships

- ◂ Understanding of data literacy and ideas for the coaching process

- ◂ Examples of how teachers have collaborated by sharing, analysing and action on data

Multiple Partnerships

Formal in–school coaching

Informal in–school coaching

Data Coaches
TLRI Team

University of Waikato

Kahui Ako

Governance Group

Kahui Ako
School's unpacking and moderating LPF

Action Plan

NZCER

Multiple partnerships...
Supporting factors

◄ A clear and shared vision for and commitment to the use of data to inform teaching to enhance learning for students within and across schools

◄ Trust for schools to share data with each other

◄ Trust between teachers to share, discuss and plan for action on their own classroom data

◄ A shared commitment to generate ideas and information that can be shared with other teachers/schools

◄ Regular cycles of teacher inquiry, sharing and collaborative reflection

Developing a culture of data use and literacy definition

Teachers and researchers analysed some definitions for data literacy then co-developed a project definition for data literacy

This is being revisited and revised at each meeting.

Revisiting and revisioning is necessary because:

- ◂ the concept of data literacy is challenging to define
- ◂ it was important that the group has a shared understanding
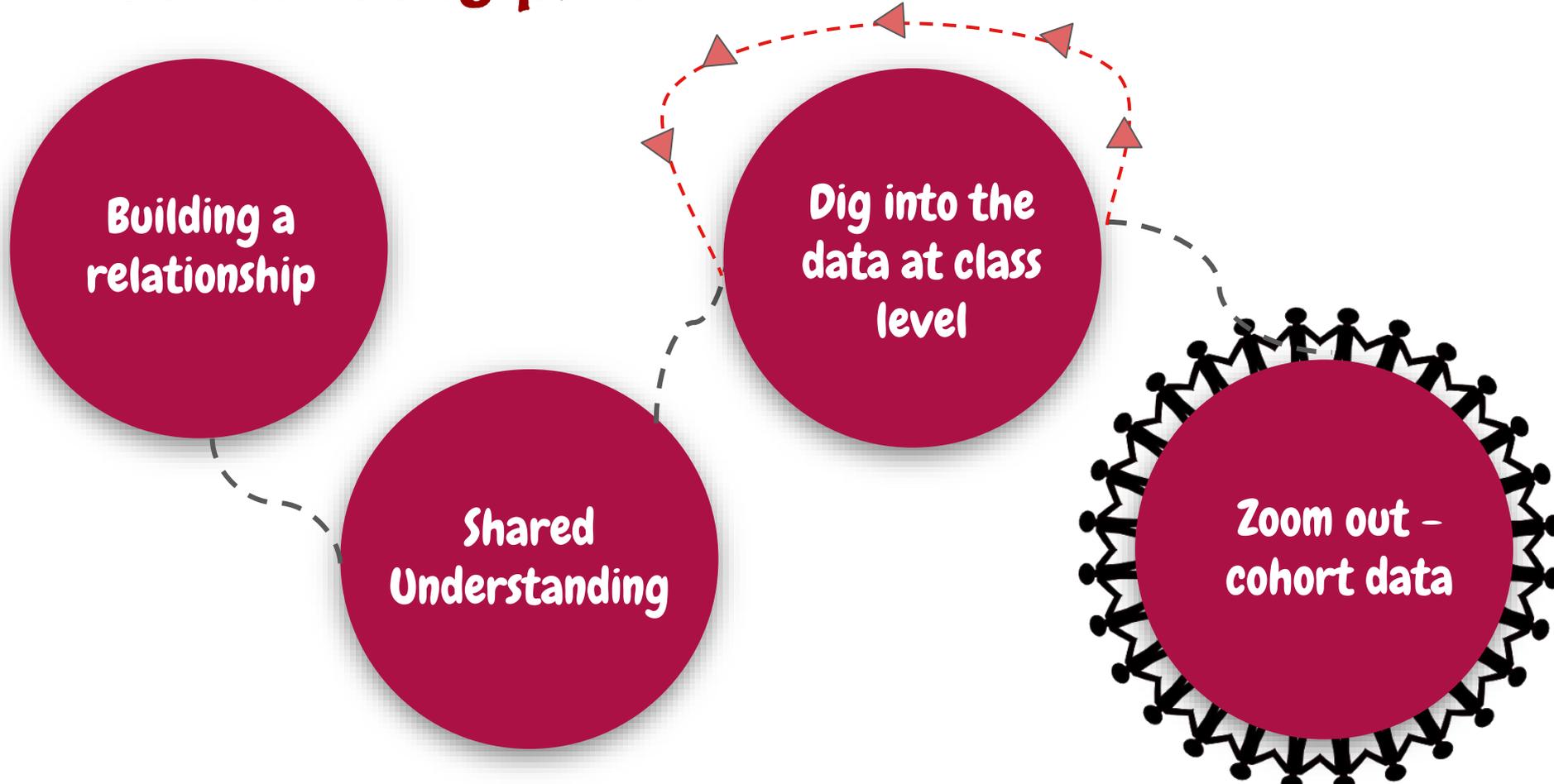
Our data literacy statement

A data use culture exists when everyone values data literacy by making regular use of data to inform teaching action, and views action on data as a shared responsibility and collective endeavour.

Data literacy provides a foundation for a data use culture across a school. Data literacy involves collecting/ gathering multiple sources and kinds of data, analysing and understanding it, and then using this understanding to take targeted action, including developing student agency. It includes the knowledge needed to decide if data is worthwhile and or valid. It includes the shared language and understanding needed to converse with different groups to achieve common expectations and goals (students, family/whānau, other teachers, principal, BOT, and other stakeholders).

Data use is part of 'what we do here' with the active support of leadership.

The coaching process

Building a relationship

Shared Understanding

Dig into the data at class level

Zoom out – cohort data

Thinking About Coaching

Building a relationship

- Sharing data success

- Data from coachees class

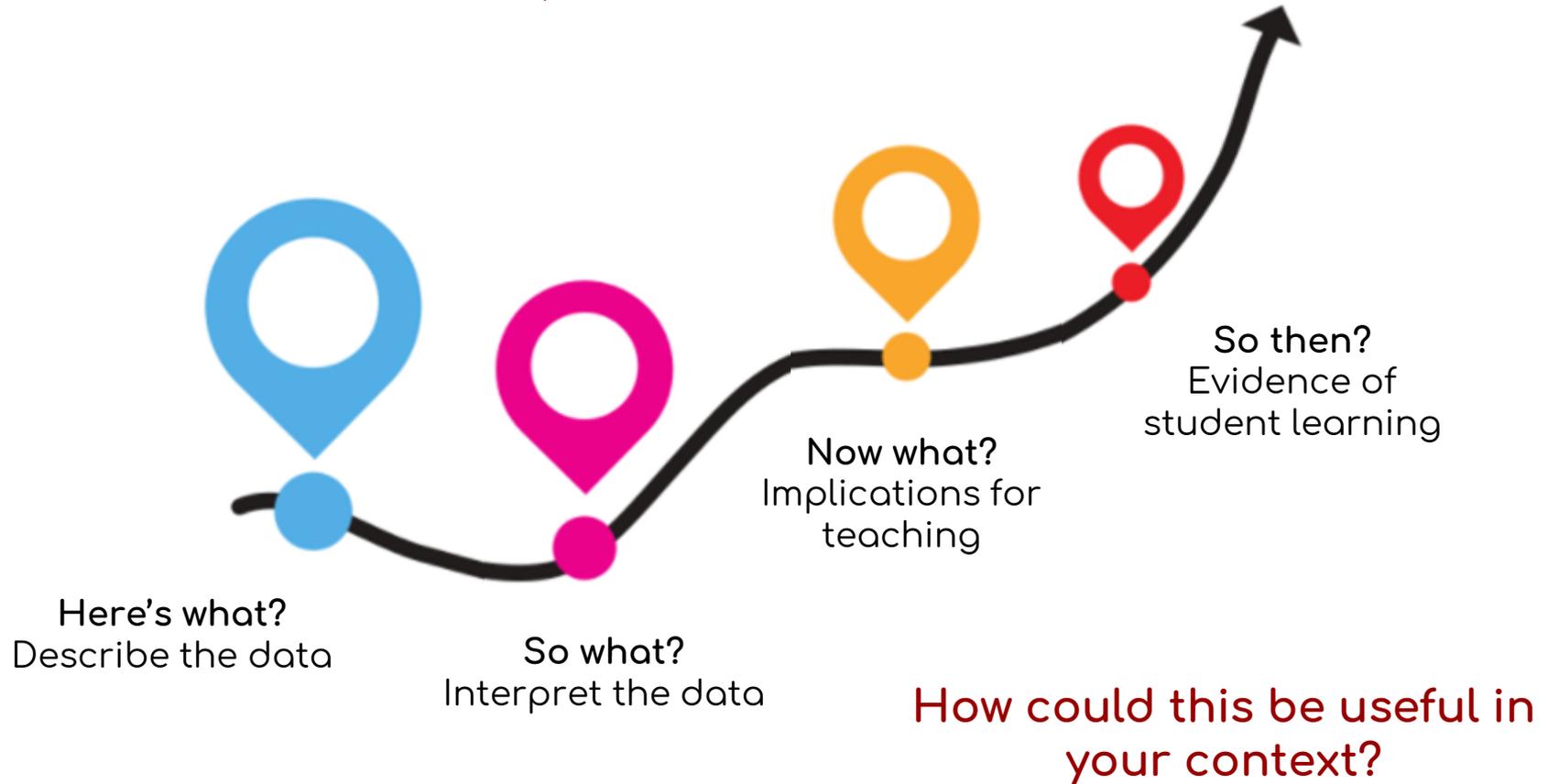- Informal chat/coffee date

Thinking About Coaching

Shared Understanding

- Data literacy definition

- Theory of action

- Goals for coaching

- Data Conversation Protocol

Data conversation protocol

Here's what?
Describe the data

So what?
Interpret the data

Now what?
Implications for teaching

So then?
Evidence of student learning

How could this be useful in your context?

Thinking About Coaching

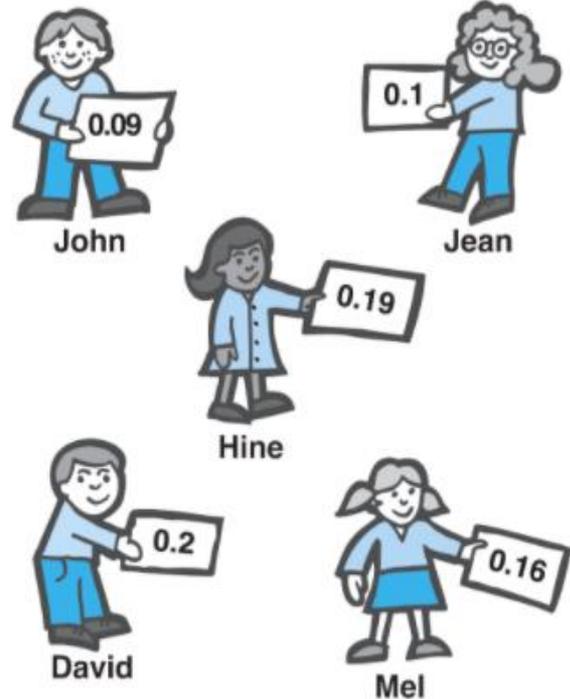## Dig into data at class level

- A narrow and specific focus

- Identify target students

- Plan small scale inquiry

- Share and celebrate success

Zooming into data

- Which answer do you think most children chose?

- WHY do you think...

Only 21% of year 7 students get this correct at the beginning of the year nationally

John 0.09
Jean 0.1
Hine 0.19
David 0.2
Mel 0.16

Year 7 -Test 4

Question

Who is holding the sign with the **biggest** number?

Zooming into data

$4 + 5 = \boxed{} + 3$

What number should go in the $\boxed{}$ to make the sentence **true**?

- Which answer do you think most children chose?

- WHY do you think they chose this answer?

- Can you think of a reason why a student might choose D - 12?

Answer O

(A) 6

(B) 8

(C) 9

(D) 12

(E) none of these

Only 26% of year 7 students at the beginning of the year get this correct nationally
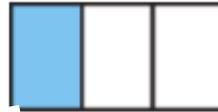
-Test 4

14

Zooming into data

Which rectangle is two-thirds **shaded**?

- Which answer do you think most children ch...

- Wh... ... thi...

- Car... a stu...

Only 34% of year 9 students get this correct at the beginning of the year nationally

(A)

(D)

(B)

(E)

(C)

Year 9 -Test 6

15

Time

Ready and able

Knowledge

The coaching process

Building a relationship

Shared Understanding

Dig into the data at class level
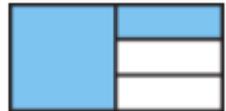
Zoom out – cohort data
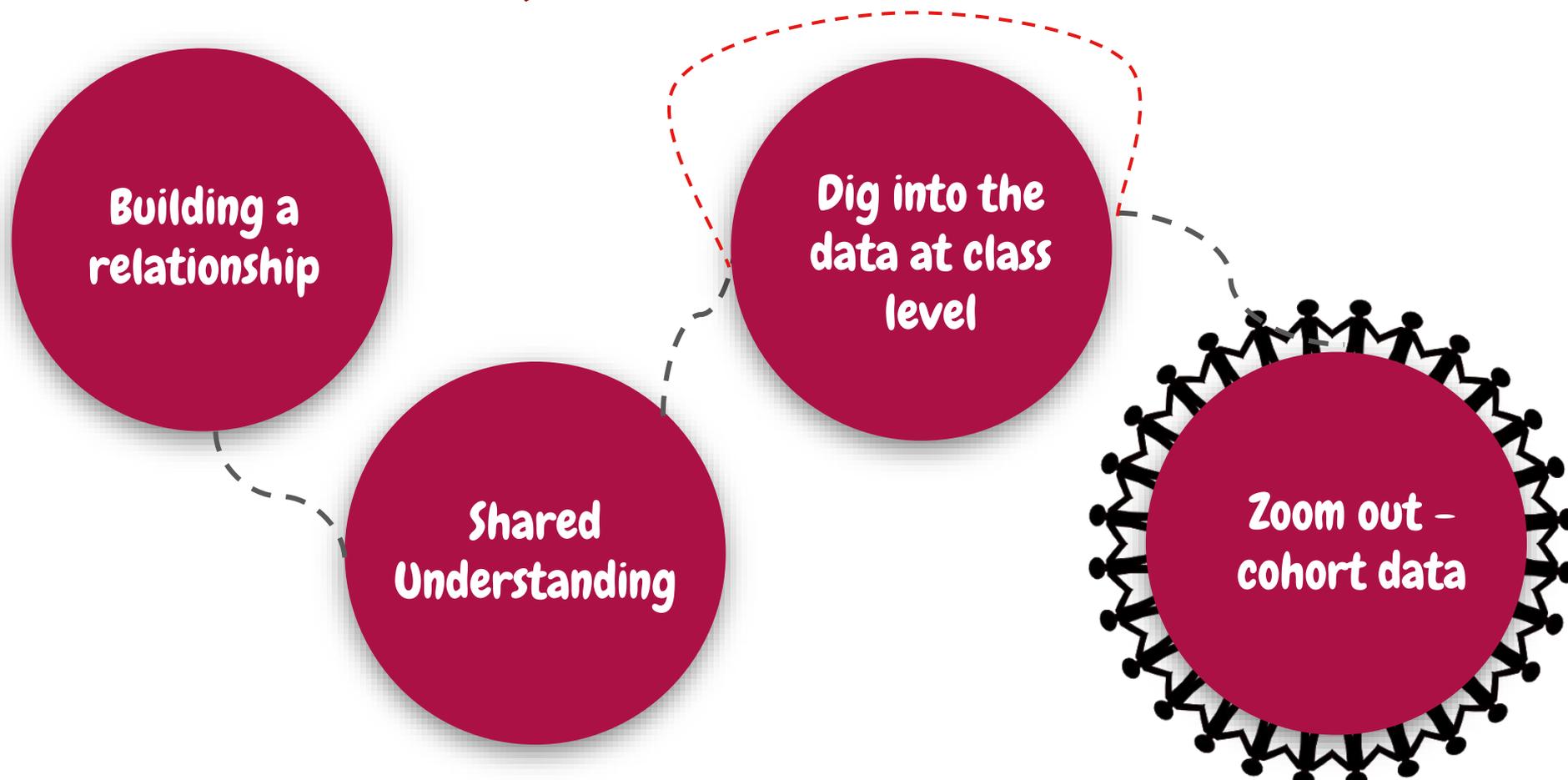
Thinking About Coaching

Zooming out of cohort data

- Identify targets and trends

- A narrow and specific focus

- Plan large scale interventions, allocate resources, content workshops, PLD

Maths data dips

Item Report

Progressive Achievement Test of Mathematics

Pukekohe Intermediate All Test 5 (Reference Group Used: Year 9, Number of students: 280)

Search:

Questions	Questions type	Questions description	Percentage Correct (%)	National Percentage (%)
8	Number Strategies	Recognise an example of estimation	22.9	(41)
28	Number Strategies	Find how many tables are needed for 317 people at 8 per table	22.9	(36)
29	Number Strategies	Find x when 6:4 is equivalent to x:10 in a word problem	23.9	(32)
32	Algebra	Identify which distance-time graph matches a described journey	25	(32)
38	Geometry/Measurement	Identify which of 3 patterns can be completed by tessellating a shape	25.7	(33)
16	Geometry/Measurement	Identify which rotation will leave a star looking the same	28.6	(46)
37	Geometry/Measurement	Know that angle size is invariant under enlargement	40.7	(49)
27	Number Strategies	Find 15% of 300 in a word problem	41.4	(46)
41	Statistics	Identify a general trend in a scatter graph	41.4	(58)

Across Year 8 at one school

Maths data dips

Maths	Well below		Below		At		Above		Total	No at or above	% at or above
	Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion	Number		
End of Year 1	17	4.1%	49	11.8%	328	78.7%	23	5.5%	417	351	84.2%
End of Year 2	17	4.7%	72	19.7%	228	62.5%	48	13.2%	365	276	75.6%
End of Year 3	41	9.9%	101	24.3%	183	44.1%	90	21.7%	415	273	65.8%
End of Year 4	46	11.8%	87	22.3%	155	39.6%	103	26.3%	391	258	66.0%
End of Year 5	35	8.4%	95	22.8%	167	40.1%	119	28.6%	416	286	68.8%
End of Year 6	32	8.1%	105	26.6%	144	36.5%	114	28.9%	395	258	65.3%
End of Year 7	69	14.4%	148	30.8%	152	31.7%	111	23.1%	480	263	54.8%
End of Year 8	108	23.6%	110	24.0%	154	33.6%	86	18.8%	458	240	52.4%

Across school Kahui Ako data

Zooming out - looking at across school data

- Cohort data has helped us to better use our resources - across school, in-school etc
- Historical data dips in Year 3 and 7 have been identified
- Lead us to the across school moderation - use of uni at unpack
- PAT across all primary schools
- What gaps and strengths do we have as a collective?

What have we learnt?

◂ The coaching process is varied and different for everyone - use what works in your context.

◂ Slow down and start small.

◂ Celebrate the successes.

◂ Take responsibility for your data and use it to move forward.

◂ Take time to build relationships and a shared understanding of data literacy and how that drives action to inform teaching and learning.

Cowie, B., Edwards, F. & Trask, S. (2021). Explicating the Value of Standardized Educational Achievement Data and a Protocol for Collaborative Analysis of This Data. *Frontiers in Education,* https://doi.org/10.3389/feduc.2021.619319