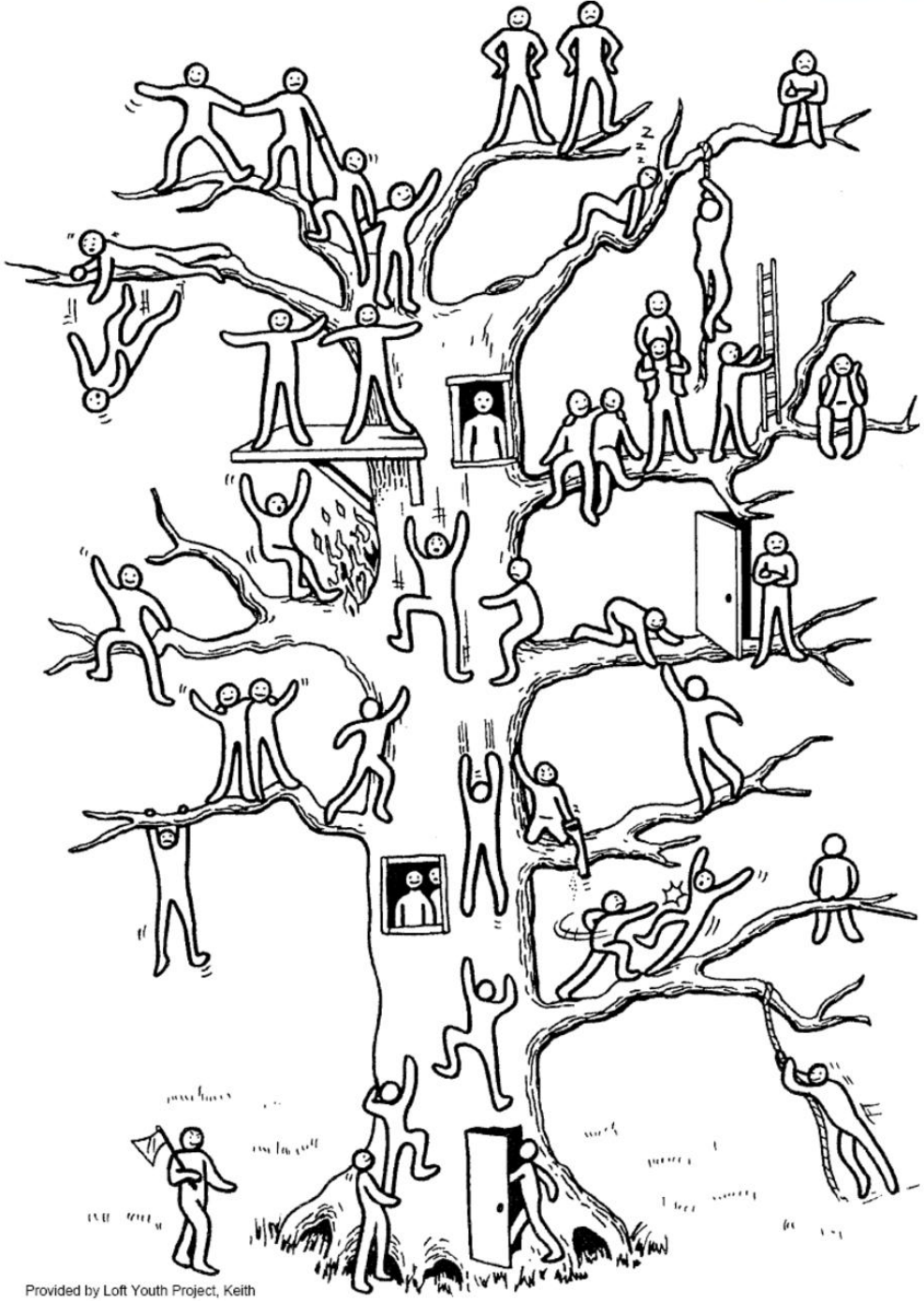
Using data for effective school improvement

(Data is wonderful!)

May 23, 2015

Robert Marshall
Senior Project Director, School Improvement
robert.marshall@acer.edu.au

Australian Council *for* Educational Research



Provided by Loft Youth Project, Keith


US Dollar (USD) To Australian Dollar (AUD) 2013 History
1.04
1.02
1.00
0.98
0.96
0.94
Jan 02
Feb 14


TODAY
DARWIN
20 34
CAIRNS
17 29
ALICE SPRINGS
7 31
BRISBANE
10 23
SYDNEY
9 22
ADELAIDE
10 21
PERTH
11 19
CANBERRA
-3 16
MELBOURNE
9 19
HOBART
9 16

Club Stats

All Rounds

TEAM	P	AR	CN	K	LB	PENF	S	T	40	DH	E	MT
Storm	9	1629	27	190	37	68	0	32	1	158	77	200
Raiders	9	1495	27	175	41	54	1	36	2	149	82	240
Bulldogs	9	1674	21	168	36	53	1	32	2	149	83	174
Cowboys	9	1680	25	195	37	49	0	34	0	80	85	199
Sea Eagles	9	1535	16	180	22	61	0	25	3	109	86	216
Sharks	9	1609	15	189	22	58	1	25	0	88	86	219
Eels	9	1489	20	151	35	69	0	32	2	131	93	246
Wests Tigers	9	1503	22	174	27	73	0	31	1	105	94	218
Rabbitohs	9	1540	23	173	36	68	0	31	1	153	94	213
Broncos	9	1555	19	174	27	52	0	30	1	127	95	178
Panthers	9	1608	19	165	38	68	1	28	0	133	100	281
Roosters	9	1515	29	184	36	65	0	34	0	86	102	218
Dragons	9	1654	11	197	23	56	1	20	1	147	102	182
Knights	9	1493	20	157	38	51	1	25	0	85	106	242
Titans	9	1493	26	153	29	74	1	34	0	124	107	290
Warriors	9	1596	24	167	47	52	0	35	1	91	118	201

Data

What do we mean by data?

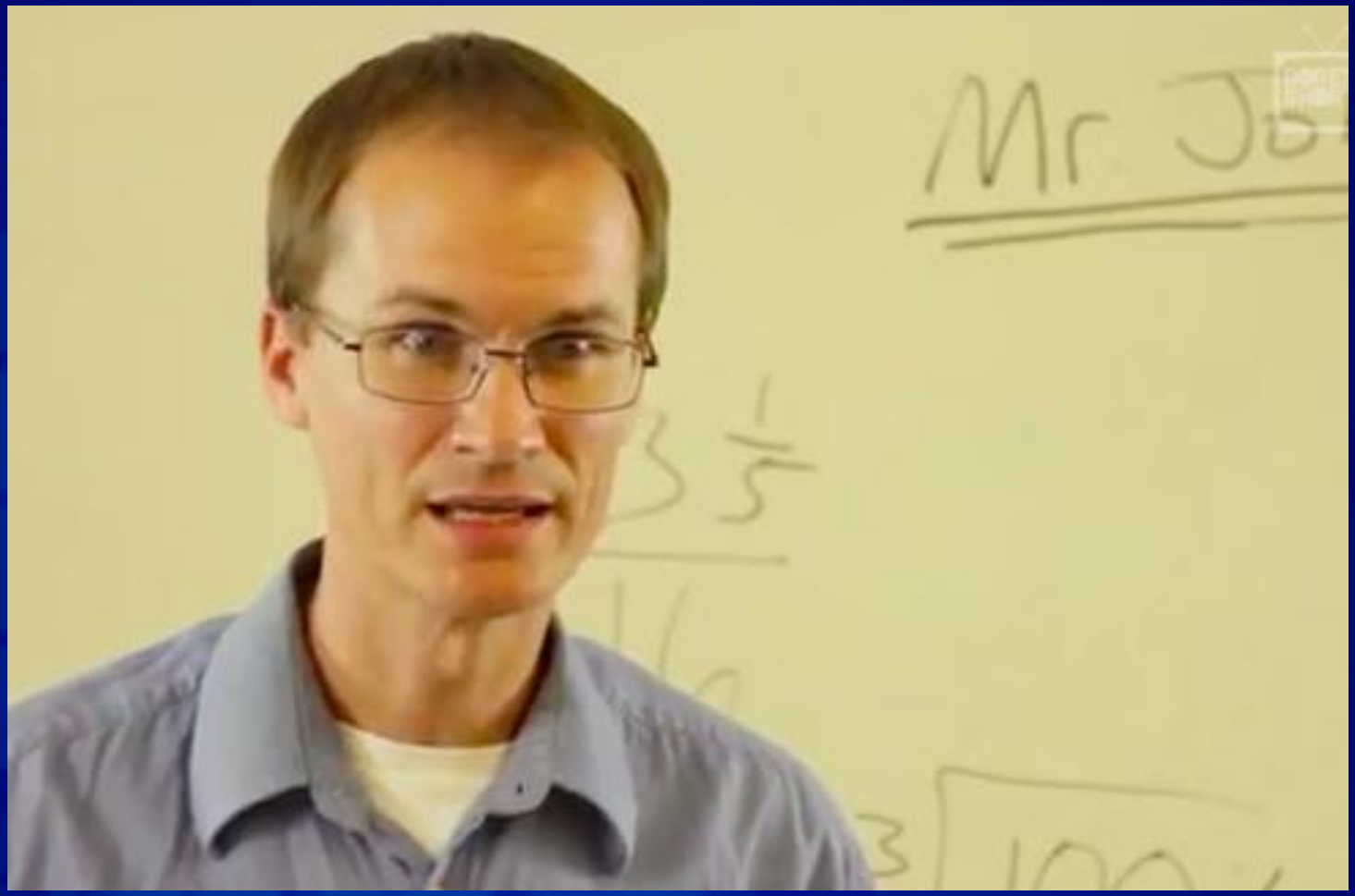
How is data collected at your school?

What data do you collect, why, by whom, For what purpose, what happens next?

How are we going?

How do we know?

Where to next?



https://www.youtube.com/watch?v=KdxEAt91D7k


20
10
1
2
3
4
5
6
9

Time : 3:25:26 PM

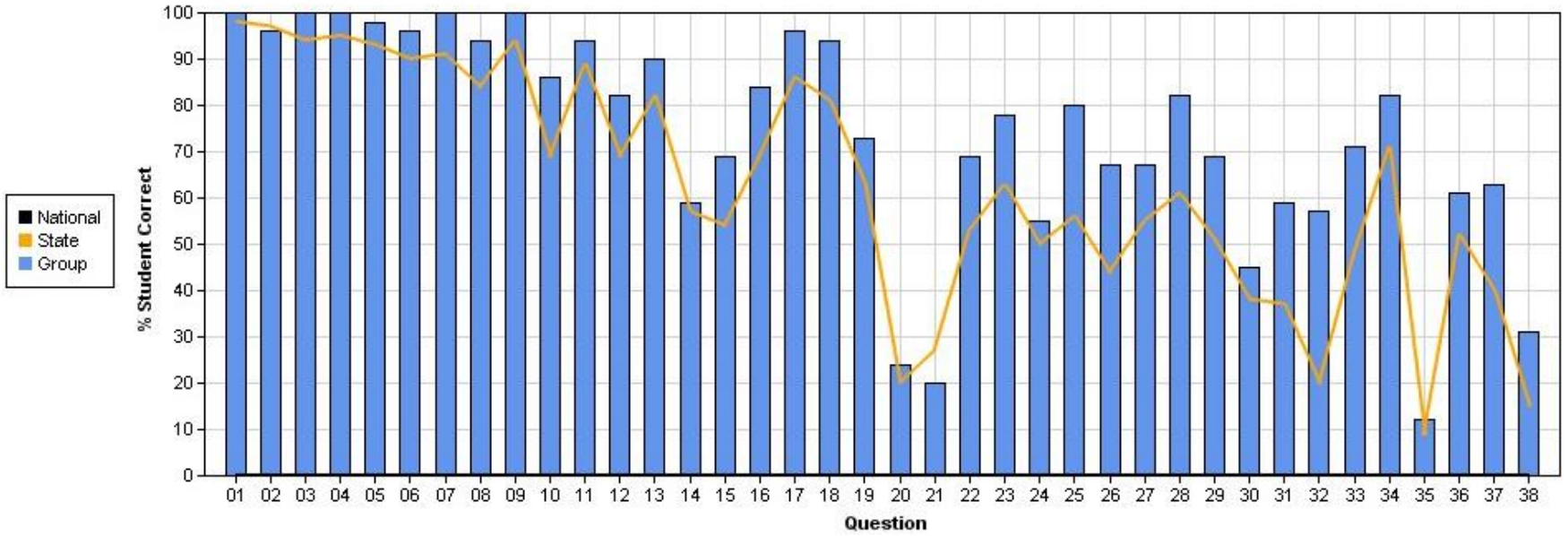
Item Analysis Report

National Assessment Program - Literacy and Numeracy Tests 2014

Reading - Item Number - Asc Order

Year 3 - Group: ALL, Class: All

NOTE: THIS REPORT CONTAINS PRELIMINARY DATA AND MAY BE SUBJECT TO CHANGE



Domain: Reading | Year level range: Year 3-5 | Calendar year range: 2011-2013 | Achievement type: Average | Results: Bands / Score

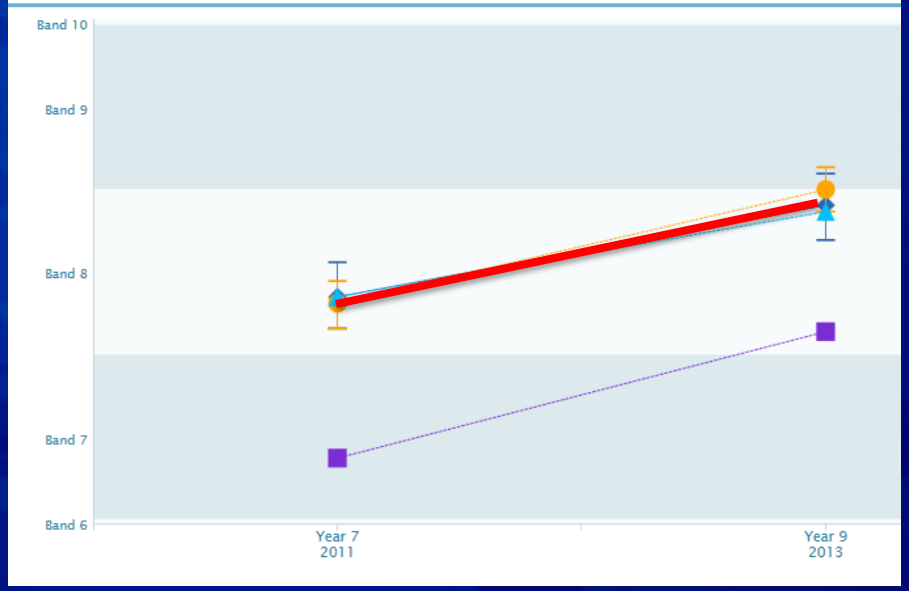
Categories: Selected school | Schools with similar students | Students with the same starting scores | All schools

Percentage of students in this school with NAPLAN results at two year levels: **59%**

Domain: Reading | Year level range: Year 7-9 | Calendar year range: 2011-2013 | Achievement type: Average | Results: Bands / Score

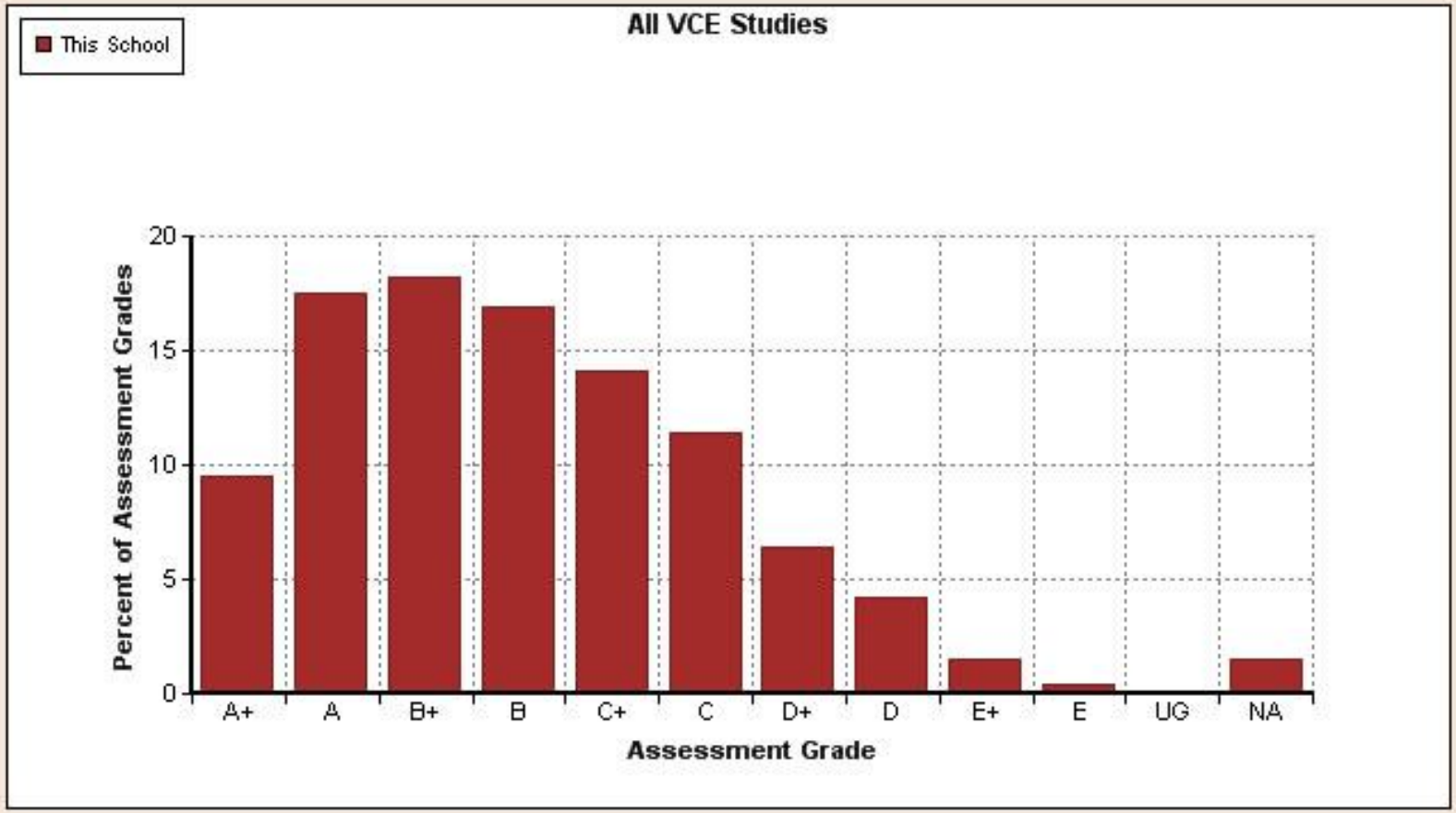
Categories: Selected school | Schools with similar students | Students with the same starting scores | All schools

Percentage of students in this school with NAPLAN results at two year levels: **80%**

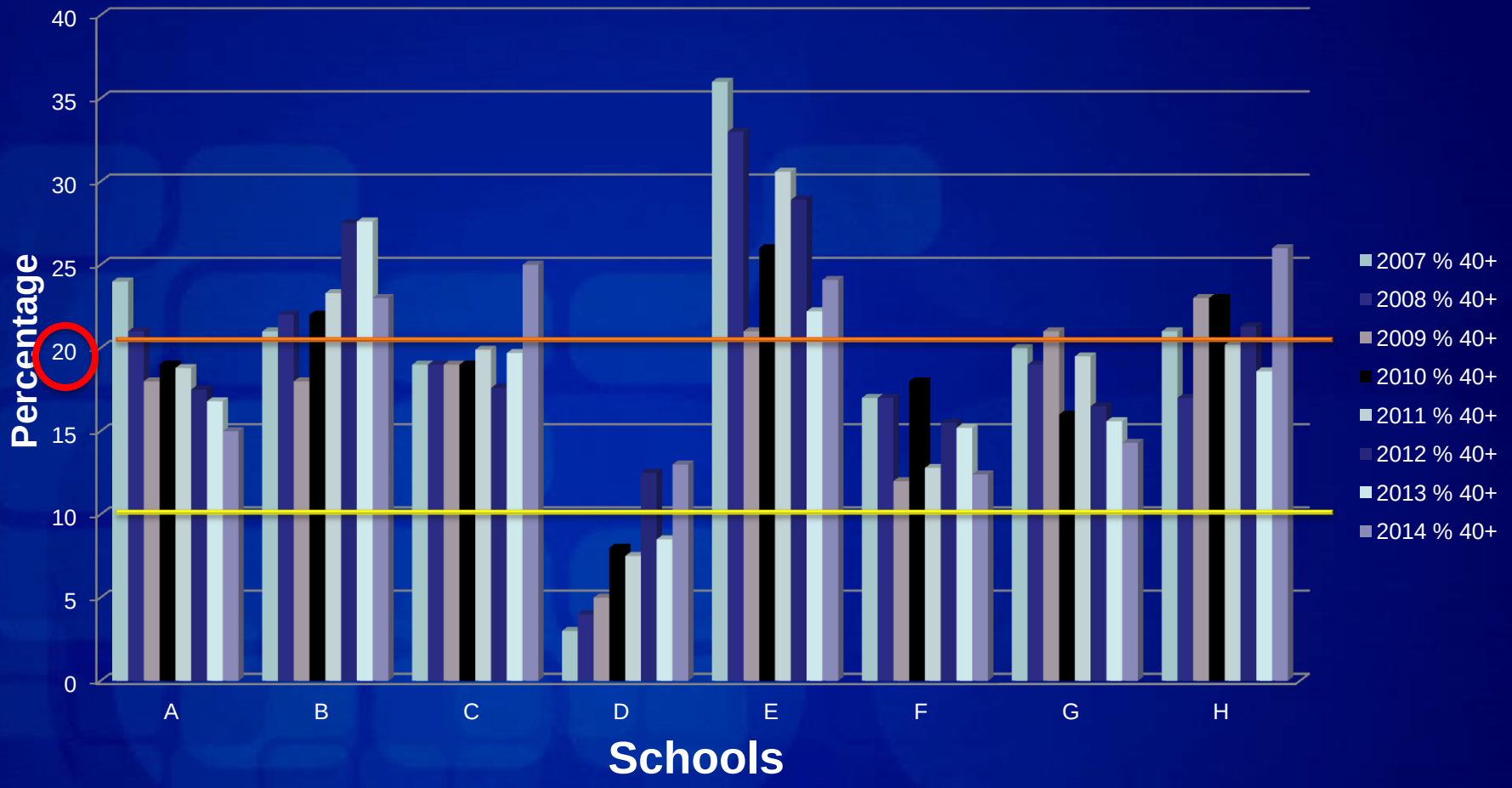


Report 2

Assessment Grades Report: All VCE Studies



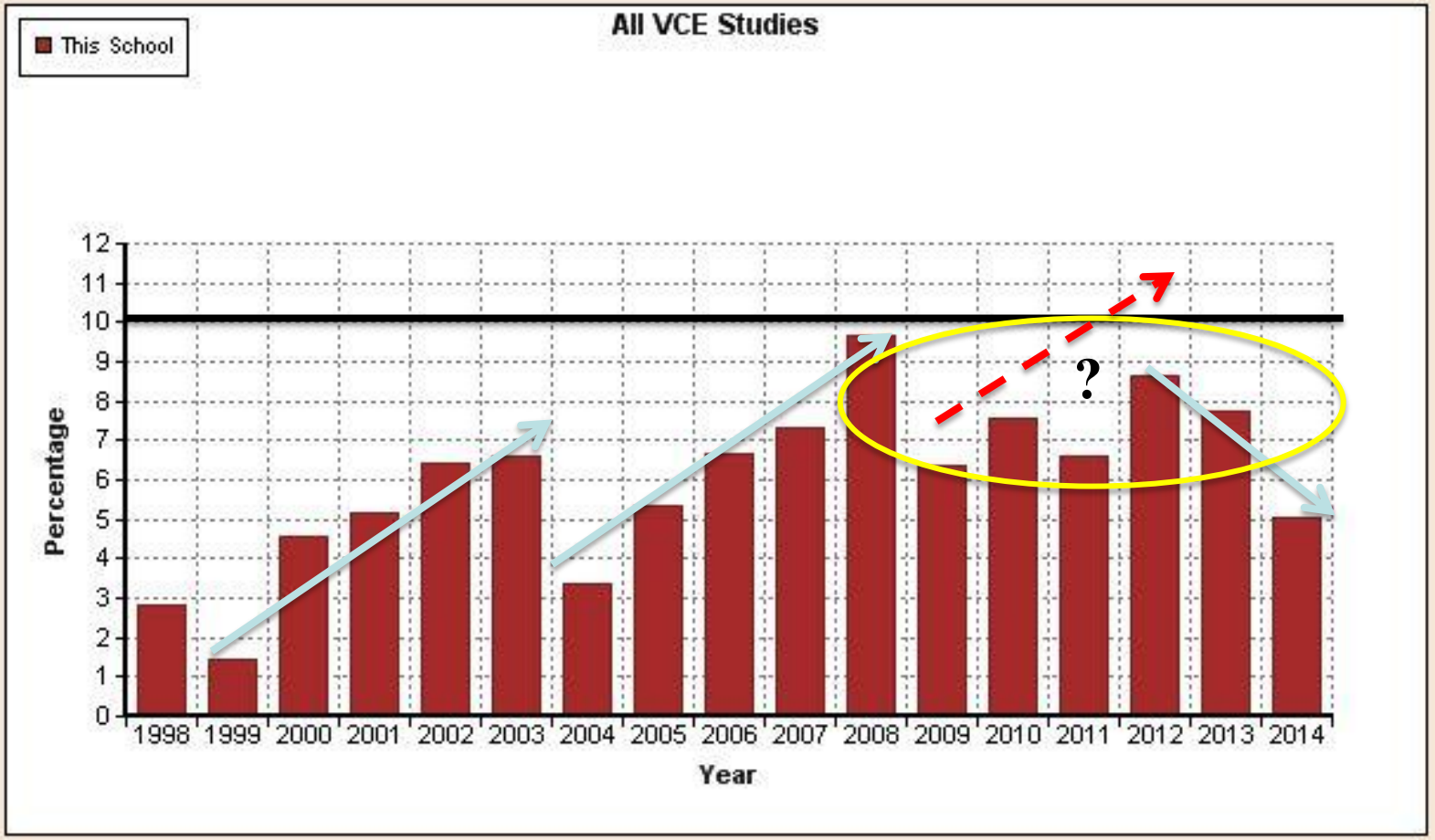
%40+ VCE study scores



Which school is the best performing? Which school is the worst?

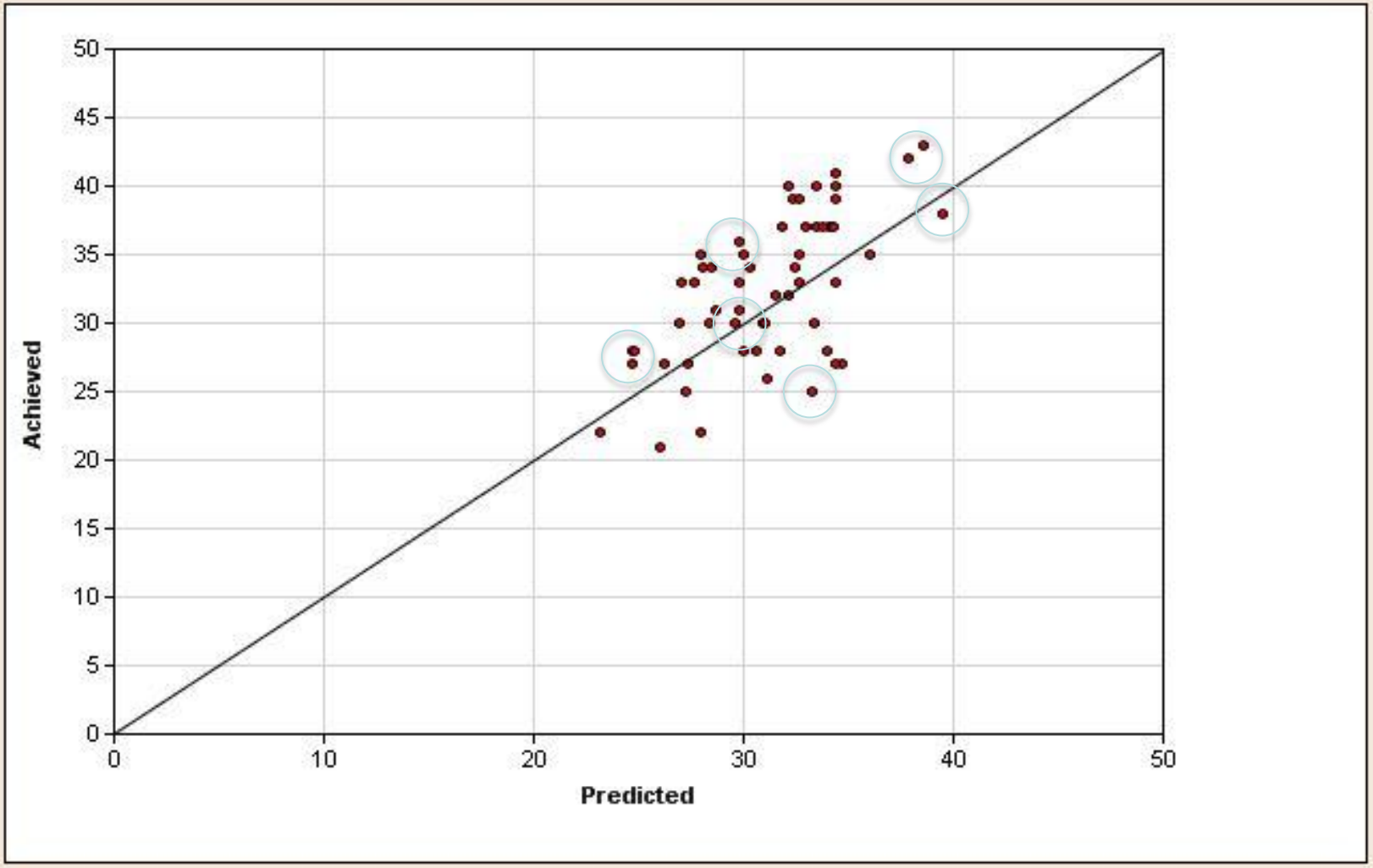
Report 5

Study Scores of 40 and above All VCE Studies



Report 17

Confidential Report



Start with quotation.

STRONG
IMPROVE

'Cant blame a person for lookin'. Curley's wife is portrayed as acting in a flirtatious manner, as shown by this quote, and due to her being the wife of Curley – the farm boss's son – is treated with constant distrust and paranoia by all of the male farm workers. To elaborate, George describes her as never seeing 'no piece if jail bait worse that her. You leave her be.' to Lenny, after being introduced to her for the first time. However, all of this distrust leads to her being ignored and isolated, the effect of this isolation is magnified by her being the only female character in the novel, enforcing Steinbeck's theme of loneliness. She is in fact used to directly voice the voice of the author on this topic, after facing a bitter rebuke by the 'outcasts' of the farm workers – Crooks', the crippled negro stable buck, Candy, the handless worker, and Lenny, the big 'dumdum' – "funny thing, if I catch any one man, and he's alone, I get along fine with him. But just let two guys get together an' you won't talk. Jus nothing But mad. Your scared of each other, that's what.' This quote shows the mistrust between people at the time, and proves that society at the time lacked a key element, trust. Curley's wife's role as a character was to directly, as the voice of the author, to show the distrust and to show how little people understood of each other, the effect of which was amplified by her bold and different personality.

In addition to this, Curley's wife was used to show how women were thought as objects by men, as there appears to new no actual feeling between Curley and his wife (....tbc

This lead sentence does not address the primary idea about Curley's wife.

over-long sentence.

grammar

Why "however"?

These are the key points.

"Magnified" is an excellent word choice

This one phrase tells me:
① that you are discussing authorial intention.
② What primary theme the essay explores

This is a great idea, however your effort to support it falls down

This is also about loneliness
→ keep to one theme.

How is she the 'voice of the author'?

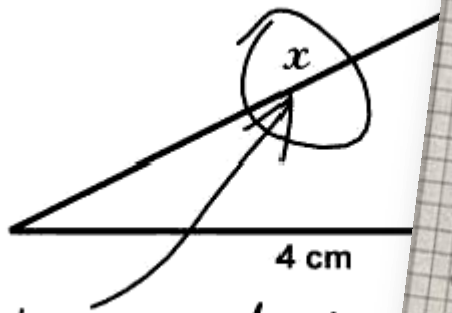
over-long sentence.

delete

by

tautological

3. Find x.



Here it is

National School Improvement Tool

2 Analysis and discussion of data

A high priority is given to the school-wide analysis and discussion of systematically collected data on student outcomes, including academic, attendance and behavioural outcomes, and student wellbeing. Data analyses consider overall school performance as well as the performances of students from identified priority groups; evidence of improvement/regression over time; performances in comparison with similar schools; and, in the case of data from standardised tests, measures of growth across the years of school.

The assessment of this domain includes consideration of the extent to which:

- the school has developed and is implementing a plan for the systematic collection of a range of student outcome data including both test data and quality classroom assessments;
- the school has identified and can demonstrate that it is using tests and other assessment tools to monitor school-wide achievement and progress in areas of national focus such as literacy, numeracy, science, cross-curricular skills and attributes, and levels of student resilience, wellbeing, and social and emotional development;
- the school uses data to identify starting points for improvement and to monitor progress over time;
- arrangements have been put in place for the collection and analysis of school-wide data and for summarising, displaying and communicating data, including to parents and the school community;
- all teaching staff have access to a broad range of student achievement and wellbeing data and use it to analyse, study and display individual and cohort progress;
- professional development is provided to build staff skills in analysing and interpreting data;
- school leaders, as part of their responsibilities, regularly work with their teams to review achievement data relating to their areas;
- time is set aside for in-depth staff discussions of achievement data and of strategies for the continuous improvement of student outcomes;
- the school includes in its data gathering input and feedback from students and parents;
- the school systematically monitors other performance data, including data relating to student attendance, school disciplinary absences and other behavioural data, school completion, student destinations and stakeholder perceptions and engagement;
- data are used in building a culture of self-evaluation and reflection across the school; and
- the school uses data to inform school-level decisions, interventions and initiatives.

2. Analysis and discussion of data

"A high priority is given to the **school-wide analysis** and discussion of **systematically collected** data on student outcomes, including **academic**, **attendance** and **behavioural** outcomes, and **student wellbeing**.

Data **analyses** consider **overall school performance** as well as the performances of students from **identified priority groups**; **evidence of improvement/regression over time**; performances in comparison with similar schools; and, in the case of data from standardised tests, **measures of growth across the years of school."**

The National School Improvement Tool: Domain 2 Analysis and discussion of data.


How do you
know?

Understanding the Ratings

Outstanding	= embedded
High	= structures and systems
Medium	= some patterns/ad hoc
Low	= events driven

OUTSTANDING

All processes are embedded. There are accountability checks, but the processes would continue without checks.

"The principal and other school leaders clearly articulate their belief".

HIGH

A documented school plan has been developed, processes in place and there are clear accountabilities for getting the job done. The structures are there and they are being driven and checked.

MEDIUM

May be used by some teachers, but generally are not used as part of a whole-school strategy.

An ad hoc approach exists to building staff skills.

LOW

Actions happening but not according to any plan and little evidence in daily use by teachers

2. Analysis and discussion of data

"A high priority is given to the **school-wide analysis** and discussion of **systematically collected** data on student outcomes, including **academic**, **attendance** and **behavioural** outcomes, and **student wellbeing**.

Data **analyses** consider **overall school performance** as well as the performances of students from **identified priority groups**; **evidence of improvement/regression over time**; performances in comparison with similar schools; and, in the case of data from standardised tests, **measures of growth across the years of school."**

The National School Improvement Tool: Domain 2 Analysis and discussion of data.

	4	3	2	1
School-wide analysis and discussion of data systematically collected data on student outcomes...				
Academic				
Attendance				
Behavioural				
Student wellbeing				
Analyses consider overall school performance as well as the performances of students from...				
Identified priority groups				
Evidence of improvement/regression over time				
Comparison with similar schools				
Measures of growth across the years of school.				
TOTALS				

Domain 2: Outstanding

A. The principal and other school leaders clearly articulate their belief that reliable data on student outcomes are crucial to the school's improvement agenda. The school **has established and is implementing a systematic plan for the collection, analysis and use of student achievement data.** Test data in literacy, numeracy and science are key elements of this plan.

A. Data are used throughout the school to identify gaps in student learning, to monitor improvement **over time** and to monitor **growth** across the years of school. A high priority has been given to professional development aimed at building teachers' and leaders' **data literacy skills**. Staff conversations and language reflect a sophisticated understanding of data concepts (eg, value-added; growth; improvement; statistical significance).

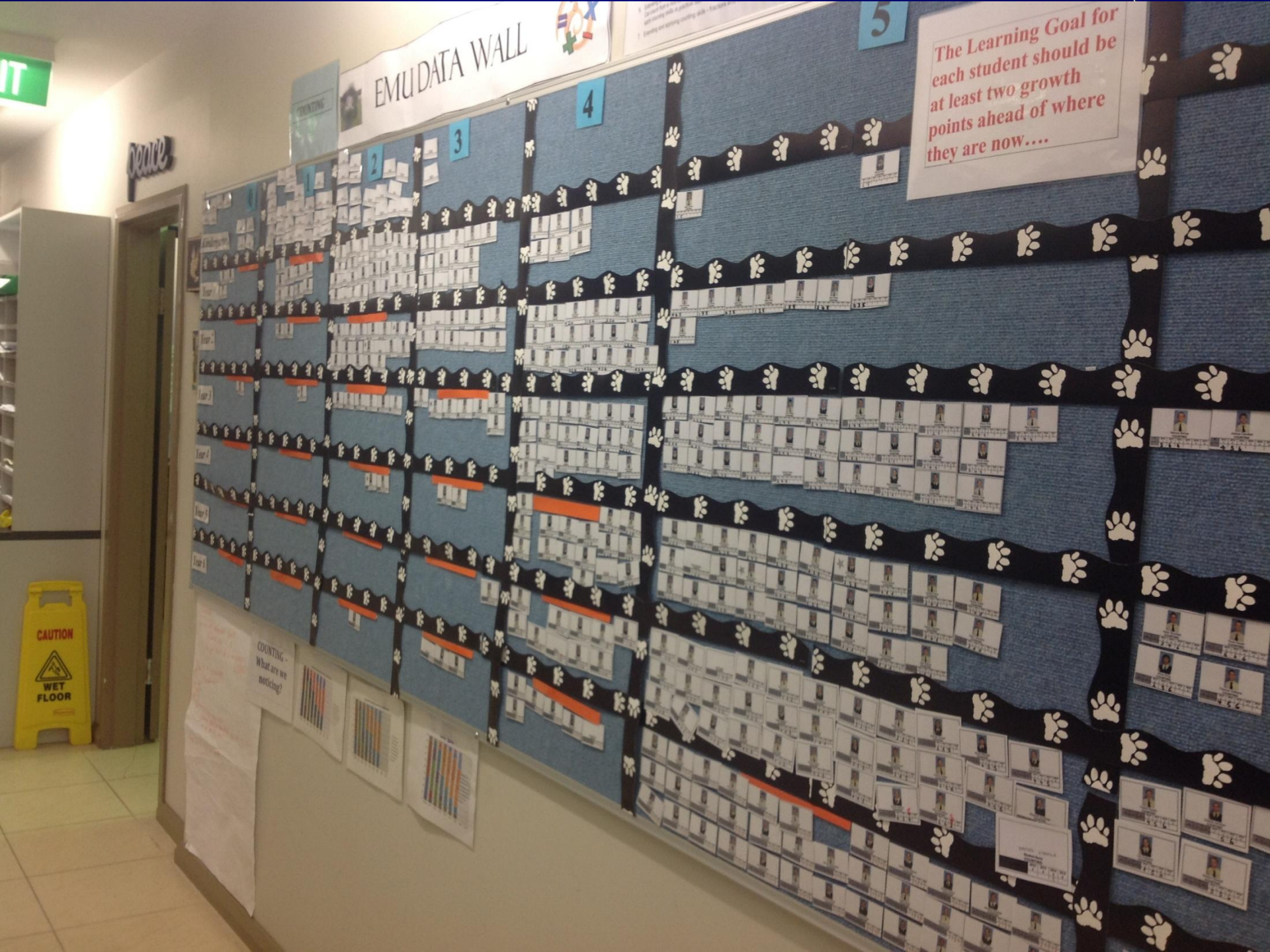
B. Teachers are given test data (including NAPLAN) for their classes electronically and are provided with, and use, software (eg, *Excel*) to analyse, display and communicate data on individual and class performances and progress, including comparisons of pre- and post-test results.

C. Teachers **routinely** use objective data on student achievement as evidence of successful teaching.

What is differentiated teaching and learning.?

Australian Council *for* Educational Research

Mean Scale Score
92
95
100
Mean Scale Score
103
105
110
Mean Scale Score
112
115
120
Mean Scale Score
120
125
130
Mean Scale Score
126
135
140
145
150
155
160
165
7 Above average
4,5,6 Average
3 Below average
2 Low
1 Very low


EMU DATA WALL
The Learning Goal for each student should be at least two growth points ahead of where they are now….
CAUTION
WET FLOOR
COUNTING – What are we noticing?


lifespan
75 years
50 years
25 years
income

School Data Plan 2015-2016

Data Collected	Data Source	Timeline for collection	Staff Responsible	Actions required
Student Learning Outcome Data				
	•	•	•	•
	•	•	•	•
	•	•	•	•
	•	•	•	•
	•	•	•	•
	•	•	•	•
	•	•	•	•
Diagnostic Data Sets				
	•	•	•	•
	•	•	•	
	•	•	•	•
Other Student Data				
	•	•	•	•
	•	•	•	•
	•	•	•	•
	•	•	•	
	•	•	•	•
Other School Data				
	•	•	•	•
	•	•	•	•
	•	•	•	•
	•	•	•	•

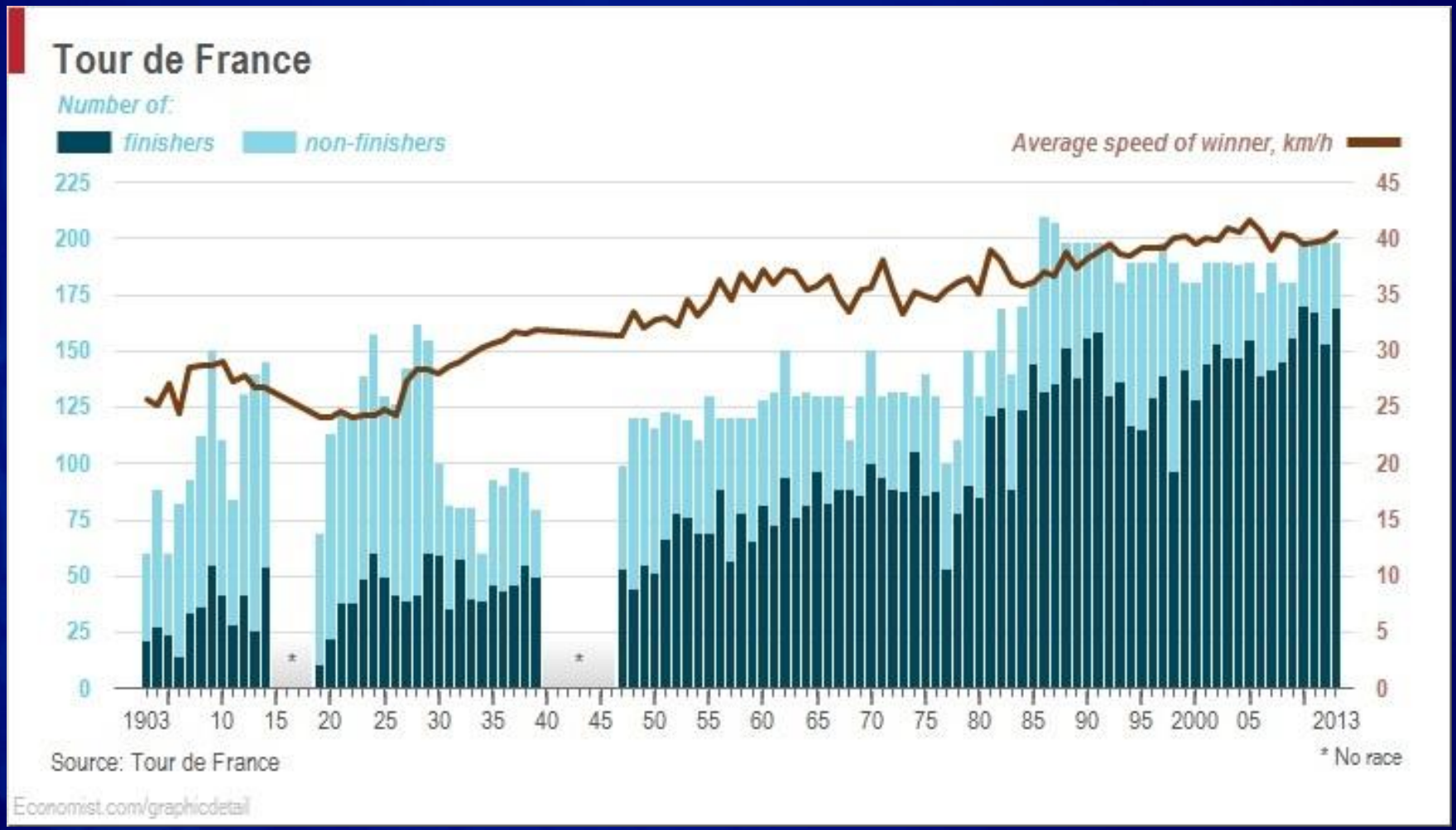
Shiny Shoes College Data Plan 2015-2016

Data Collected	Data Source	Timeline for collection	Staff Responsible	Actions required
Student Learning Outcome Data				
Student Report data	• OneSchool	• End Term 1 • End Sem 1 • End Term 3 • End Sem 2	• Deputy Principal • HoDs, SACs & Teachers • YCOs • Teachers • Principal/DPs	• Management and coordination of access to data • Evaluate subject performance & student progress • Subject selection appropriateness for students • Curriculum & Assessment review and response • Monitoring and response to Year Level performance (+ve & -ve) • Feedback to students and parent/guardian (parent teacher interviews or other meetings as required) • Non-participation, Show Cause
QCATs	• QueSchool	• October	• Year 9 Teachers • HoDs	• Upload data to QueSchool • Evaluate, moderate and correlate QCAT data
QCS	• QBA	• End of Year	• Deputy Principal • QCS Team Leaders • HoD, Senior School	• Evaluate and modify program
OP	• QBA	• End of Year	• Principal • Deputy Principal	• Evaluate and modify QCS preparation program and mentoring and Guidance processes
VET Competencies and attainment	• SDCS? • AQTF records	• End of Year	• HoD, SS	• Mandated reporting • 30th June annually
Yr 12 Exit Data - NextStep	• Destination survey • NextStep Team	• March • July	• Guidance Officer • Principal	• Evaluate and modify curriculum plan & Senior School offerings • Post to School web page
Closing The Gap	• NAPLAN	• October	• DP Numeracy and Literacy • ST Lit/Num	• Tracking and identifying students below NMS • Provide intervention program
Diagnostic Data Sets				
NAPLAN	• QueSchool Year 9 • QueSchool Year 7&9	• October • End week 1 term 1	• Deputy Principal Numeracy and Literacy o HoDs Maths/English o Yr 9 Teachers Maths/English • All teachers of Year 9 • All teachers Yr 8-10 • ST Lit/Num with DP Numeracy and Literacy	• Analyse overall school performance re % below NMS and % in U2B • Evaluate student test preparedness program • Develop school MAP and implement strategies • Evaluate Numeracy and Literacy Action Plans and curriculum programs in relation to Numeracy and Literacy • Analysis of student literacy & numeracy progress Relative Gain reports for year 9 • Access and analyse QueSchool report (Year 7 & 9) *Student Summary by Class/Cohort Current Students* - use as starting point for learning for year 8, 9, 10 • Analyse Yr 7 data for incoming Yr 8 allocate intervention for start of week 2
SWD?? testing	•	• Jan/Feb	• Guidance Officer • SEP Teacher	• Evaluate student support needs and allocate support resources Monitor student developmental progress
Pimlico Literacy test?	• School Based	• Test week 3 • Post test term 3	• English Yr 8 Teachers • Externally marked • All KLAs to make use of data	• HoDs to ensure all KLAs utilise to inform literacies across the curriculum
Other Student Data				
QCE eligibility and completion Year 11 and 12	• QBA	• End Sem 1 • End Sem 2 • End Sem 3	• Deputy Principal • YCO, • Guidance Officer • HoD, Senior Schooling	• Analyse potential QCE attainment. Inform students of remaining requirements to meet QCE (Students to get a copy) • Subject adjustment to maximise QCE eligibility • Follow up with students at risk of not attaining QCE
OP attainment	• QBA	• End of Year	• Principal • DPs • HoD, Senior School • Curriculum HoDs	• Analyse performance • Correlation to LOA performance • Longitudinal trends • Review OP preparedness programs • Review coverage of CCEs
SET Plan	• QueSchool & Student results	• Aug Yr 10 • Semester review Yr 11 and 12	• Deputy Principal & HoD, SS • Guidance Officer • TUTE /VMP teachers	• Review SET plans and evaluate appropriateness of subject choice/ mentoring advice
Student Attendance	• QueSchool • Closing the gap	• All year (on-going)	• Attendance Officer (Admin.) • DEC and Yr level DPs	• Monitor student attendance • Intervention strategies • Monitor Closing the Gap targets
Student behaviour	• School Records / QueSchool • SDAs	• Each term	• Yr level DPs • BM Teachers	• Identify students at risk, trends in behaviours • Implement proactive programs
Other School Data				
School Performance Profile	• EQ Data (SP)	• Term 2 and 4	• Principal	• Review longitudinal trends and anomalies • Implement strategies to promote school improvement
School opinion Survey	• Corporate Data Warehouse	• Surveys – Aug • Data return – Nov.	• DP administering • Principal analysis	• Review longitudinal trends and anomalies • Implement strategies to promote school improvement
Enrolment data	• QueSchool	• Day 8	• Principal	• Monitor for strategic planning, HR, Facilities
School HR Data	• School Workforce Management	• August Skyscraper report	• Principal	• Review longitudinal trends and anomalies • Implement strategies to promote school improvement

Working our Data Resources

School Reform Initiative

- http://www.schoolreforminitiative.org/protocols/


Tour de France
Number of:
finishers
non-finishers
Average speed of winner, km/h
225
200
175
150
125
100
75
50
25
0
45
40
35
30
25
20
15
10
5
0
1903
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
90
95
2000
05
2013
*
*
Source: Tour de France
* No race
Economist.com/graphicdetail

Looking at your data

1. Getting Started

- The educator providing the data set gives a very brief statement of the data and avoids explaining what she/he concludes about the data if the data belongs to the group rather than the presenter.

Note: Each of the next 4 steps should be about 10 minutes

in length. It is sometimes helpful for the facilitator to take

notes.

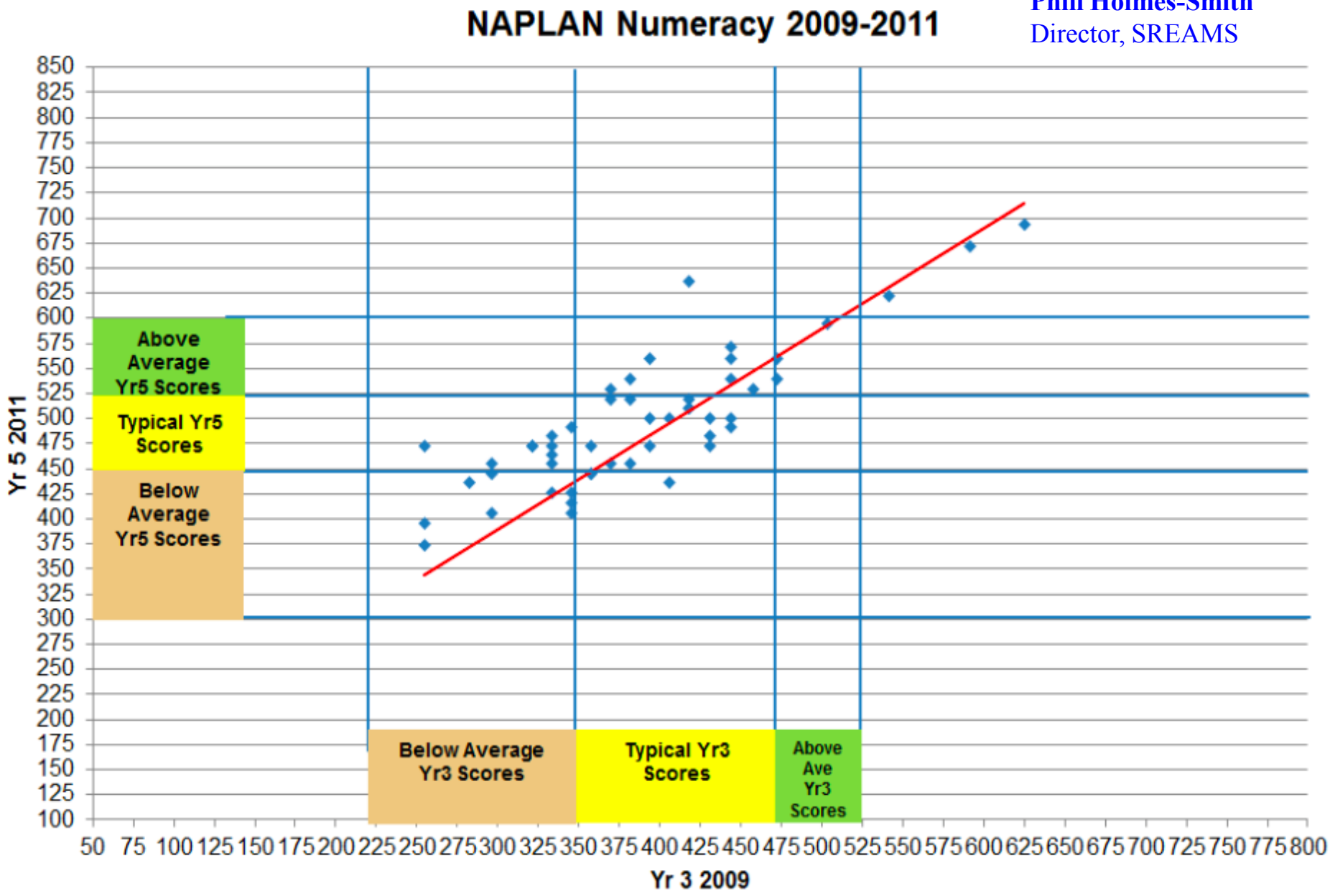
2. Describing the Data (5 minutes)

- The facilitator asks: "What do you see?"
- During this period the group gathers as much information as possible from the data.
- Group members describe what they see in data, avoiding judgments about quality or interpretations.
- It is helpful to identify where the observation is being made — e.g., "On page one in the second column, third row..."
- If judgments or interpretations do arise, the facilitator should ask the person to describe the evidence on which they are based.
- It may be useful to list the group's observations on chart paper. If interpretations come up, they can be listed in another column for later discussion during Step 3.

- **3. Interpreting the Data** (5 minutes)
  - The facilitator asks: “What does the data suggest? ”Followed by—“What are the assumptions we make about students and their learning?”
  - During this period, the group tries to make sense of what the data says and why. The group should try to find as many different interpretations as possible and evaluate them against the kind and quality of evidence.
  - From the evidence gathered in the preceding section, try to infer: what is being worked on and why?
  - Think broadly and creatively. Assume that the data, no matter how confusing, makes sense to some people; your job is to see what they may see.
  - As you listen to each other’s interpretations, ask questions that help you better understand each other’s perspectives.

NAPLAN Results

Anthony Speranza &
Debbie Darvell:
St Mark's Primary School.
Phili Holmes-Smith
Director, SREAMS



NAPLAN Results

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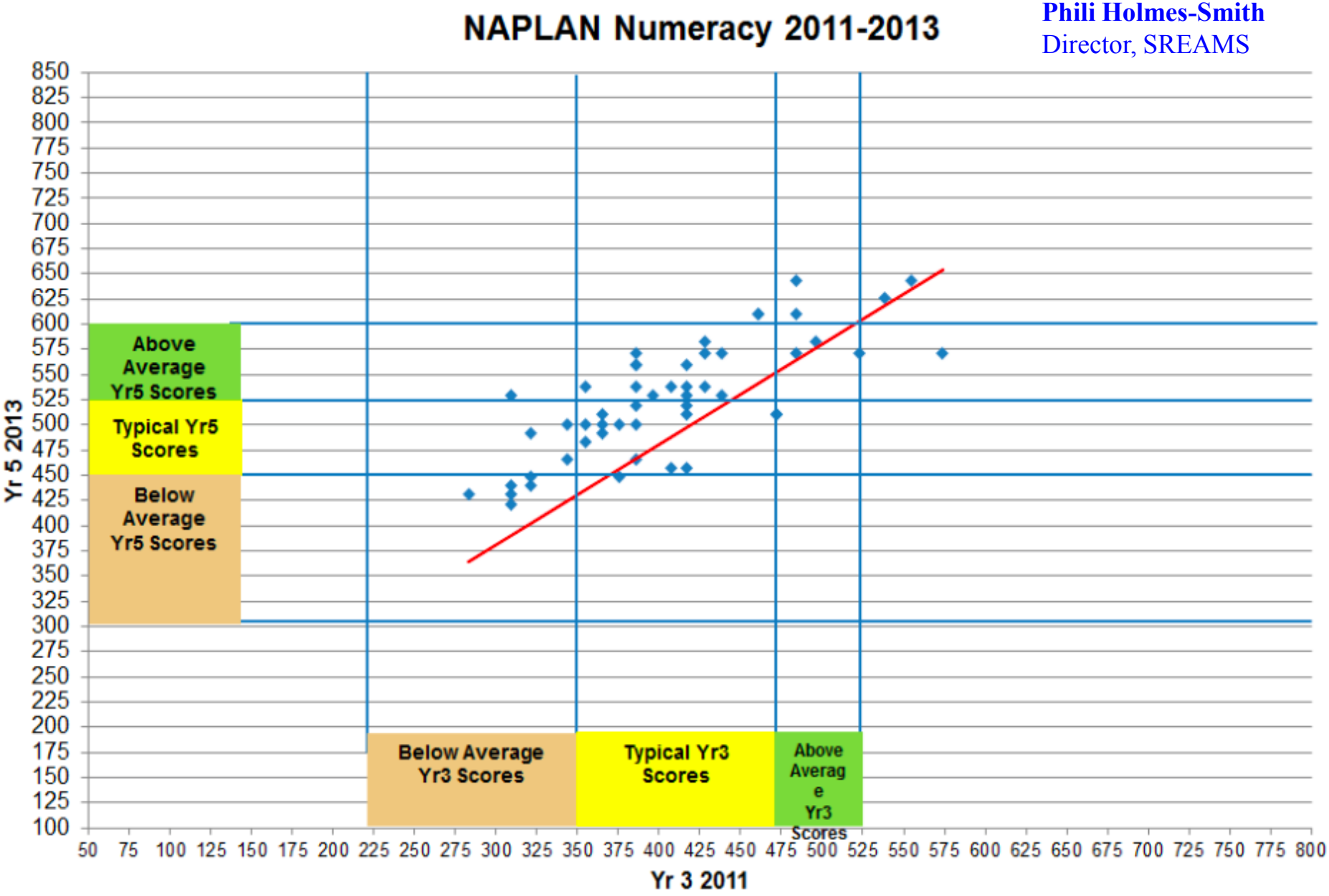


Anthony Speranza &
Debbie Darvell:
St Mark's Primary School.
Phili Holmes-Smith
Director, SREAMS

Question	Your Answer		
(Y1) (1A) I can read analogue and digital clocks to the half hour.	Half past seven	1	1
(Y1) (1B) I can read analogue and digital clocks to the half hour.	Half past five	1	1
(Y1) (1C) I can read analogue and digital clocks to the half hour.	Half past nine	1	1
(Y1) (1D) I can read analogue and digital clocks to the half hour.	Ten o'clock	1	1
(Y1) (2A) I can identify the hands on an analogue clock.	An hour hand, a minute hand, a second hand	1	1
(Y1) (3A) I can recognise time on an analogue clock (7 o'clock)	Clock A	1	1
(Y1) (3A) I can recognise time on an analogue clock (Quarter past)	Clock C	0	1
(Y1) (3A) I can recognise time on an analogue clock (Half past)	Clock D	1	1
(Y1) (3A) I can recognise time on an analogue clock (Quarter to)	Clock B	0	1
(Y2) (4A) I can identify how many minutes there are in the hour.	60	1	1
(Y2) (4B) I can identify how many minutes there are in half an hour.	30	1	1
(Y2) (4C) I can identify how many minutes there are in a quarter of an hour.	15	1	1
(Y2) (5A) I can understand time to units of 1 minute using analogue and digital clocks.	2:27	1	1
(Y2) (5B) I can understand time to units of 1 minute using analogue and digital clocks.	9:59	0	1
(Y2) (5C) I can understand time to units of 1 minute using analogue and digital clocks.	3:33	1	1
(Y2) (5D) I can understand time to units of 1 minute using analogue and digital clocks.	8:00	1	1
(Y2) (6A) I understand that there are equivalent ways of saying the time.	12 past 10	0	1
(Y2) (6B) I understand that there are equivalent ways of saying the time.	60 past 3	1	1
(Y2) (6C) I understand that there are equivalent ways of saying the time.	45 to 7	0	1
(Y2) (7A) I understand that minutes on a digital clock are represented by 00 to 59 and then a new hour begins.	12:00	1	1
(Y2) (8A) I can explain the use of AM and PM.	11AM	1	1
(Y2) (8B) I can explain the use of AM and PM.	7am because the sentence said josh woke up early for his football match		Not Graded
(Y3) (9A) I know the relationship between metric units (seconds and minutes)	2	1	1
(Y3) (9B) I know the relationship between metric units (days and weeks)	2	1	1
(Y3) (9C) I know the relationship between metric units (minutes and hours)	2	1	1
(Y3) (9D) I know the relationship between metric units (hours and days)	4	1	1
(Y3) (9E) I know the relationship between metric units (days and years)	2	1	1
(Y3) (10A) I can make connections between 12 hour AM and PM times and 24 hour times.	824	0	1
(Y3) (10B) I can make connections between 12 hour AM and PM times and 24 hour times.	357	0	1
(Y3) (10C) I can make connections between 12 hour AM and PM times and 24 hour times.	1007	0	1
(Y3) (10D) I can make connections between 12 hour AM and PM times and 24 hour times.	827	0	1
(Y3) (10E) I can make connections between 12 hour AM and PM times and 24 hour times.	1200	0	1
(Y3) (11A) I can use 12 and 24 hour times to solve problems concerning time duration.	8	1	1
(Y3) (11B) I can use 12 and 24 hour times to solve problems concerning time duration.	7	1	1
(Y3) (11C) I can use 12 and 24 hour times to solve problems concerning time duration.	10	1	1
(Y3) (11D) I can use 12 and 24 hour times to solve problems concerning time duration.	11:38	0	1
(Y3) (11E) I can use 12 and 24 hour times to solve problems concerning time duration.	01:27	0	1
(Y3) (12A) I can create, interpret and use timetables.	9:55	0	1
(Y3) (12B) I can create, interpret and use timetables.	8:10	0	1
(Y3) (12C) I can create, interpret and use timetables.	9:57	0	1
(Y3) (12D) I can create, interpret and use timetables.	12	1	0
(Y3) (12E) I can create, interpret and use timetables.	21	0	1
(Y7) (13A) I can solve problems involving duration, including using 12- and 24- hour time within different time zones.	6:00	0	1
(Y7) (13B) I can solve problems involving duration, including using 12- and 24- hour time within different time zones.	0:00	0	1
(Y7) (13C) I can solve problems involving duration, including using 12- and 24- hour time within different time zones.	11:00	0	1
(Y7) (13D) I can solve problems involving duration, including using 12- and 24- hour time within different time zones.	01:00	0	1
(Y7) (13E) I can solve problems involving duration, including using 12- and 24- hour time within different time zones.	10:05	0	1

Anthony Speranza &
Debbie Darvell:
St Mark's Primary School.
Phili Holmes-Smith
Director, SREAMS

Question	Your Answer		
(Y1) (1A) I can read analogue and digital clocks to the half hour.	Half past seven		
(Y1) (1B) I can read analogue and digital clocks to the half hour.	Half past five	1	1
(Y1) (1C) I can read analogue and digital clocks to the half hour.	Half past two	1	1
(Y1) (1D) I can read analogue and digital clocks to the half hour.	Ten o'clock	1	1
(Y1) (2A) I can identify the hands on an analogue clock.	An Minute hand, Hour hand, Second hand	1	1
(Y2) (3A) I can recognise time on an analogue clock (O' clock)	Clock A	1	1
(Y2) (3A) I can recognise time on an analogue clock (Quarter past)	Clock B	1	1
(Y2) (3A) I can recognise time on an analogue clock (Half past)	Clock D	1	1
(Y2) (3A) I can recognise time on an analogue clock (Quarter to)	Clock C	1	1
(Y2) (4A) I can identify how many minutes there are in the hour.	60	1	1
(Y2) (4B) I can identify how many minutes there are in half an hour.	30	1	1
(Y2) (4C) I can identify how many minutes there are in a quarter of an hour.	15	1	1
(Y2) (5A) I can understand time to units of 1 minute using analogue and digital clocks.	3:27	1	1
(Y2) (5B) I can understand time to units of 1 minute using analogue and digital clocks.	8:39	1	1
(Y2) (5C) I can understand time to units of 1 minute using analogue and digital clocks.	2:33	1	1
(Y2) (5D) I can understand time to units of 1 minute using analogue and digital clocks.	8:00	1	1
(Y2) (6A) I understand that there are equivalent ways of saying the time.	60 past 11	1	1
(Y2) (6B) I understand that there are equivalent ways of saying the time.	40 past 2	1	1
(Y2) (6C) I understand that there are equivalent ways of saying the time.	25 to 5	1	1
(Y2) (7A) I understand that minutes on a digital clock are represented by 00 to 59 and then a new hour begins.	12:00	1	1
(Y2) (8A) I can explain the use of AM and PM	7AM	1	1
(Y2) (8B) I can explain the use of AM and PM	AM means after midnight and PM means Pam mid-day		Not Graded
(Y3) (9A) I know the relationship between metric units (seconds and minutes)	2	1	1
(Y3) (9B) I know the relationship between metric units (days and weeks)	3	1	1
(Y3) (9C) I know the relationship between metric units (minutes and hours)	1	1	1
(Y3) (9D) I know the relationship between metric units (hours and days)	4	1	1
(Y3) (9E) I know the relationship between metric units (days and years)	2	1	1
(Y3) (10A) I can make connections between 12 hour AM and PM times and 24 hour times.	830	1	1
(Y3) (10B) I can make connections between 12 hour AM and PM times and 24 hour times.	1457	1	1
(Y3) (10C) I can make connections between 12 hour AM and PM times and 24 hour times.	2207	1	1
(Y3) (10D) I can make connections between 12 hour AM and PM times and 24 hour times.	1827	1	1
(Y3) (10E) I can make connections between 12 hour AM and PM times and 24 hour times.	0	1	1
(Y3) (11A) I can use 12 and 24 hour time to solve problems concerning time duration.	8	1	1
(Y3) (11B) I can use 12 and 24 hour time to solve problems concerning time duration.	7	1	1
(Y3) (11C) I can use 12 and 24 hour time to solve problems concerning time duration.	12	0	1
(Y3) (11D) I can use 12 and 24 hour time to solve problems concerning time duration.	11 hours 24 minutes	0	1
(Y3) (11E) I can use 12 and 24 hour time to solve problems concerning time duration.	2 hours and 25 minutes	0	1
(Y3) (12A) I can create, interpret and use timetables.	9:36	1	1
(Y3) (12B) I can create, interpret and use timetables.	8:20	1	1
(Y3) (12C) I can create, interpret and use timetables.	9:49	0	1
(Y3) (12D) I can create, interpret and use timetables.	14	0	1
(Y3) (12E) I can create, interpret and use timetables.	20	1	1
(Y7) (12A) I can solve problems involving duration, including using 12- and 24- hour time, within different time zones.	900	1	1
(Y7) (12B) I can solve problems involving duration, including using 12- and 24- hour time, within different time zones.	1200	0	1
(Y7) (12C) I can solve problems involving duration, including using 12- and 24- hour time, within different time zones.	1100	1	1
(Y7) (12D) I can solve problems involving duration, including using 12- and 24- hour time, within different time zones.	130	1	1
(Y7) (12E) I can solve problems involving duration, including using 12- and 24- hour time, within different time zones.	1625	1	1

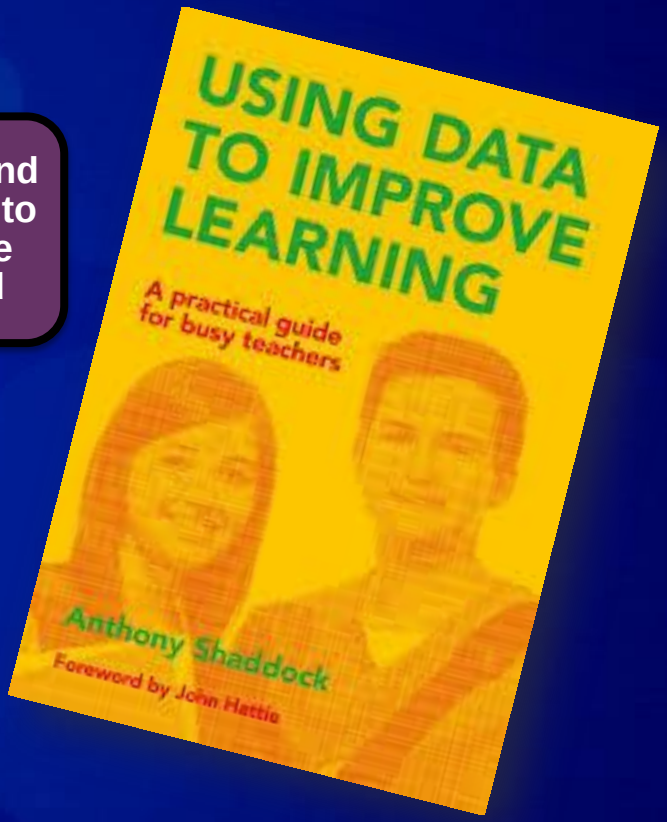
Planning and collaborating to improve teaching and learning

Analysing student data and deciding what to do to improve teaching and learning

Asking questions-what do we want to know about our initiative?

Collecting data to answer our questions and see what is happening

Analysing and reflecting on our data and experience

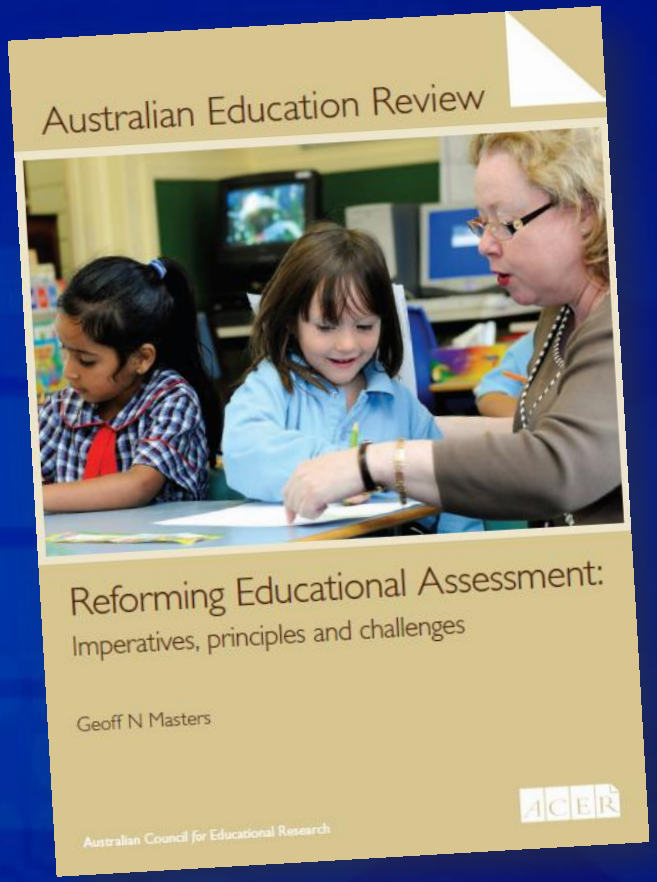


Tony Shaddock, Page 24

Useful res

www.schoolreforminitiative.org/protocol

Careful use of data inevitably leads to...



Robert Marshall
Senior Project Director, School Improvement

THANK YOU

robert.marshall@acer.edu.au