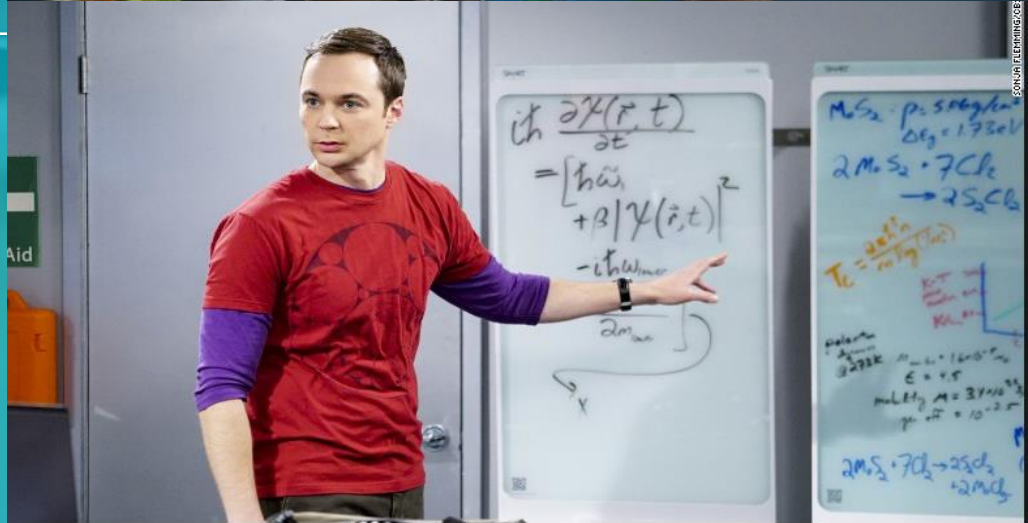


LITERACY AND NUMERACY

NSW Primary Deputy Principals'
Conference – 2017

Jason Miezis
Principal, Cherrybrook Public School



A BIT ABOUT ME





TYING IT ALL TOGETHER

- Why? How? What?...WHY?
- There are so many reforms!!!
- What works best?
- What does excellence look like?



Hopeful parents

KEY ASSUMPTIONS

- ✓ This is not a starting point
- ✓ Schools are already doing great work in the area of teaching and learning
- ✓ The Literacy and Numeracy Strategy and other teaching and learning priorities provide scaffolds to enable teachers to make significantly positive differences for our students
- ✓ Sustaining quality classrooms will create enabling environments for students to achieve
- ✓ Teachers who know their students, how they learn and what they need to learn have the greatest impact on student achievement



WHY? HOW? WHAT?

Know the research of Simon Sinek



Make Every Minute Count



P₃ R₁ O₁ F₄ I₁ C₃ I₁ E₁ N₁ T₁

YOU NEED TO KNOW THIS STUFF!

Policy Standards for Curriculum Planning and Programming, Assessing and Reporting to Parents K-12 (Updated December 2016)

1.1 Years K-6

Learning programs, based on BOSTES syllabuses, are to be provided to address each learning area in each year of schooling. In primary schools, the six Key Learning Areas (KLA) are:

- creative arts
- English
- human society and its environment (incorporating history and geography)
- mathematics
- personal development, health and physical education
- science and technology.

In providing curriculum, schools are to ensure that priority is given to English and mathematics.

Schools have flexibility in how they deliver learning programs, for example through integrated programs, provided that:

- approximately 50% of time is allocated for English and mathematics and 40% of time for the other KLAs and sport
- as part of the 40% allocation, schools are to include 150 minutes per week for planned physical activity, including a minimum of one hour for sport in Years 3 – 6
- provision is made for Special Religious Education (SRE) and Special Education in Ethics (SEE) in each primary year, where authorised personnel from approved providers are available.



THE REAL WHY...

...students become literate as they develop the knowledge, skills and dispositions to interpret and use language confidently for learning and communicating in and out of school and for participating effectively in society. Literacy involves students listening to, reading, viewing, speaking, writing and creating oral, print, visual and digital texts, and using and modifying language for different purposes in a range of contexts. Literacy encompasses the knowledge and skills students need to access, understand, analyse and evaluate information, make meaning, express thoughts and emotions, present ideas and opinions, interact with others and participate in activities at school and in their lives beyond school. Success in any learning area depends on being able to use the significant, identifiable and distinctive literacy that is important for learning and representative of the content of that learning area (Australian Curriculum)



THE REAL WHY...

...Numeracy encompasses the knowledge, skills, behaviours and dispositions that students need to use mathematics in a wide range of situations. It involves students recognising and understanding the role of mathematics in the world and having the dispositions and capacities to use mathematical knowledge and skills purposefully (Australian Curriculum)



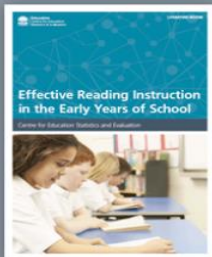
RECENT PUBLICATIONS

Why aren't students studying higher level maths?

Great Teaching, Inspired Learning: Beginning teacher support evaluation report.

Evaluation of the Cluster Management Trial

Literature review - Effective reading instruction in the early years of school



EFFECTIVE READING INSTRUCTION IN THE EARLY YEARS OF SCHOOL

Reading is a foundational, yet complex cognitive skill upon which other skills are built.

Download the Literature Review

School Finder:

A new tool created by CESE to help parents locate NSW public schools



EFFECTIVE PRACTICES IN TEACHING & LEARNING

Effective Practices in Teaching & Learning supports educators in their pursuit of excellence through access to educational research.



NSW EDUCATION STATISTICS

CESE is a one-stop-shop for education data and information.



EVALUATION RESOURCES

The evaluation resource hub provides tips and tools to support evaluation in schools. The evaluation repository provides access to evaluation publications.



BUSINESS INTELLIGENCE

The DoE Business Intelligence program is being rolled out across the Department.



NSW EDUCATION SURVEYS

Information for schools about the Tell Them From Me surveys for Students, Teachers and Parents.



Sign up for the CESE newsletter



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Scout

STAFF ONLY

Enter your search...



In this section

About

Scout is the new Business Intelligence for Education. Discover who can use it and what the benefits are

Training and Engagement

Find information on mandatory online training and ongoing learning options.

Reports

Link to reports. Users must be eligible and trained to use Scout reports.

WHAT WORKS BEST

What works? Evidence to help improve student outcomes

Centre for Education Statistics & Evaluation



Value-added measures: NSW government schools

Centre for Education Statistics & Evaluation



Six Effective Practices in High Growth Schools

This *Learning Curve* describes effective practices common to government schools that achieved high growth in NAPLAN between 2011 and 2014. These High Value-Add (HVA) schools showed a strong professional and institutional culture emphasised academic excellence, professional and leadership development and student engagement and involvement. The leadership of these schools is a key factor in their success.



School Improvement Framework: The evidence base

Centre for Education Statistics & Evaluation



High Value-Add Schools: Key Drivers of Improvement

Centre for Education Statistics & Evaluation



5 Essentials for Effective Evaluation

All education programs are well-intentioned and many of them are highly effective. However, there are usually more ways than one to achieve good educational outcomes for students. When faced with this scenario, how do educators and education policymakers decide which alternative is likely to provide most 'bang for buck'?

There's also an uncomfortable truth that educators and policymakers need to grapple with: some programs are not effective and some may even be harmful. What is the best way to identify these programs so that they can be remediated or stopped altogether?

Program evaluation is a tool to inform these decisions. More formally, program evaluation is a systematic and objective process to make judgements about the merit or worth of our actions, usually in relation to their effectiveness, efficiency and appropriateness (NSW Government 2016).

Evaluation and self-assessment is at the heart of strong education systems and evaluative thinking is a core competency of effective educational leadership. Teachers, school leaders and people in policy roles should all apply the principles of evaluation to their daily work.

Research shows that:

- Effective teachers use data and other evidence to constantly assess how well students are progressing in response to their lessons (Timperley & Parr, 2009).
- Effective principals constantly plan, coordinate and evaluate teaching and the use of the curriculum with systematic use of assessment data (Robinson, Lloyd & Rowe, 2008).
- Effective education systems engage all school staff and students in school self-evaluations so that program and policy settings can be adjusted to maximise educational outcomes (OECD, 2013).



This *Learning Curve* sets out five conditions for effective evaluation in education. These are not the only considerations and they are not unique to education. However, if these parameters are missing, evaluation will not be possible or it will be ineffective.

The five prerequisites for effective evaluation in education are:

1. Start with a clear and measurable statement of objectives
2. Develop a theory about how program activities will lead to improved outcomes (i.e. a program logic) and structure the evaluation questions around that logic
3. Let the evaluation questions determine the evaluation method
4. For questions about program impact, either a baseline or a comparison group will be required (preferably both)
5. Be open-minded about the findings and have a clear plan for how to use the results.

WHAT WORKS BEST – LITERACY AND NUMERACY

Effective Reading Instruction in the Early Years of School

Centre for Education Statistics and Evaluation



How schools can improve literacy and numeracy performance and why it (still) matters

Centre for Education Statistics and Evaluation



**LITERACY AND
NUMERACY STRATEGY
2017–2020**

WHAT WORKS BEST?

1. High expectations
2. Explicit teaching
3. Effective feedback
4. Use of data to inform practice
5. Classroom management
6. Wellbeing
7. Collaboration





BAD, FOR THE
GREATER GOOD

WHAT WORKS...?

4. Use of data to inform practice

Effective analysis of student data helps teachers identify areas in which students' learning needs may require additional attention and development.

Key points

- High quality assessment practice is crucial for effective data analysis of student outcomes and wellbeing.
- Teachers need access to tools, skills and training to help them interpret and use this data effectively.

2. Explicit teaching

Explicit teaching recognises that learning is a cumulative and systematic process, starting with building strong foundations in core skills in literacy and numeracy.

Key points

- Explicit teaching is a cumulative and systematic process, starting with building strong foundations in literacy and numeracy.
- Teachers ensure that students have clear instruction on what is expected of them, and what they need to learn from tasks. It ensures that students are given time to engage with the learning process, ask questions and get clear feedback.
- Students who experience explicit teaching practices make greater learning gains than students who do not experience these practices.



TRACTION...

School Level =
Classroom Level =

Student Learning

...and what they
need to learn

...and
how they learn

AUSTRALIAN
PROFESSIONAL
STANDARDS
FOR TEACHERS



BOARD OF STUDIES
TEACHING &
EDUCATIONAL
STANDARDS NSW





Education

ACCOUNTABILITY WITH REGARD TO LITERACY AND NUMERACY

Improving education results



Improving education results

Increase the proportion of NSW students in the top two NAPLAN bands by 8%.

SHARE THIS CONTENT





LITERACY AND NUMERACY STRATEGY 2017–2020



Clear guidance on explicit teaching and better, faster diagnostic assessments

2017

Literacy and numeracy progressions and revised Best Start Kindergarten assessment trialled in the 673 Action Plan schools.

2018

Final literacy and numeracy progressions and revised Best Start Kindergarten assessment available to all NSW schools.

2017 – 2020

Online literacy and numeracy assessments made progressively available.

We will:

- Better support teachers with evidence-based literacy and numeracy learning progressions that map student literacy and numeracy development from Kindergarten to Year 10.
- Make quality online literacy and numeracy assessments, linked to the learning progressions, available to all NSW schools, to help teachers identify and target the support students need.
- Improve the Best Start assessment to give teachers an immediate and clear picture of the literacy and numeracy skills of students on entry to Kindergarten.



KNOWING THE CONTINUUMS

Literacy K-10



P₃ R₁ O₁ F₄ I₁ C₃ I₁ E₁ N₁ T₁



LITERACY K-10



- Reading texts
- Comprehension
- Vocabulary knowledge
- Aspects of writing
- Aspects of speaking
- Phonics
- Phonemic awareness
- Concepts about print.



LITERACY K-10

Year 3 students who have achieved Cluster 8 at a deep level and are working strongly in Cluster 9 are the most likely to achieve in the Top Two Bands in NAPLAN.

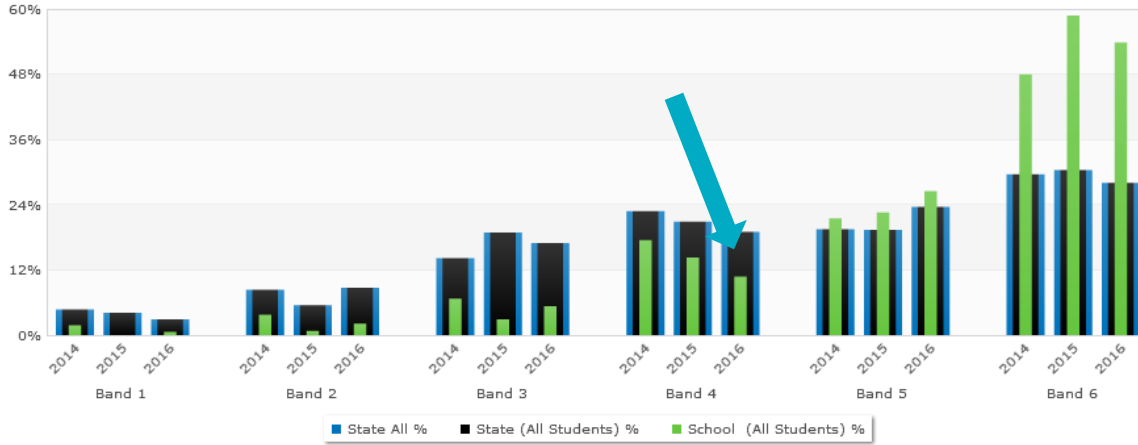
Focus on the students assessed as 'achieving' in Cluster 8 at the end of Year 2 BUT are not yet working strongly at Cluster 9.



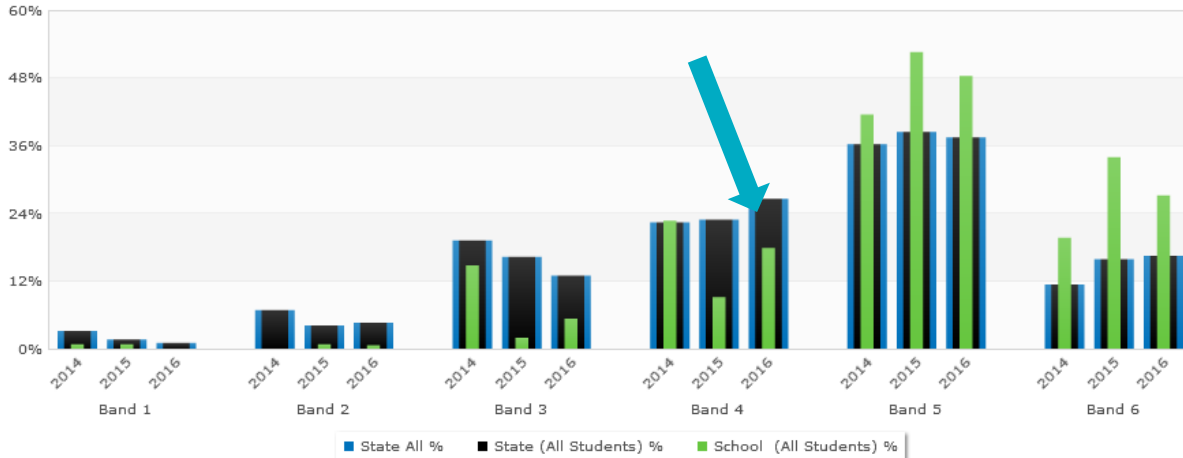
	Reading texts	Comprehension	Vocabulary knowledge	Aspects of writing
Cluster 1	<ul style="list-style-type: none"> Recognise own name. Engages 	<ul style="list-style-type: none"> Responds to stories read aloud/visually 	<ul style="list-style-type: none"> Knows and uses a range of words 	<ul style="list-style-type: none"> Engages in writing-like
Cluster 2	<ul style="list-style-type: none"> Reads one or two words in 	<ul style="list-style-type: none"> Gives a sequence: retell of a story 	<ul style="list-style-type: none"> Knows the meaning of, and 	<ul style="list-style-type: none"> Writes at least one recognitional word
Cluster 3	<ul style="list-style-type: none"> Reads one or more sentences 	<ul style="list-style-type: none"> Begins to understand inferred meaning 	<ul style="list-style-type: none"> Begins to expand the vocabulary 	<ul style="list-style-type: none"> Writes first name correctly
Cluster 4	<ul style="list-style-type: none"> Reads all or most of a more 	<ul style="list-style-type: none"> Interprets meaning by answering 	<ul style="list-style-type: none"> Knows the meaning of 	<ul style="list-style-type: none"> Writes one or more simple
Cluster 5	<ul style="list-style-type: none"> Reads texts with varied 	<ul style="list-style-type: none"> Responds to questions about a 	<ul style="list-style-type: none"> Uses knowledge and understand 	<ul style="list-style-type: none"> Selects vocabulary and phrases
Cluster 6	<ul style="list-style-type: none"> Understand that pathways for 	<ul style="list-style-type: none"> Retells and responds to 	<ul style="list-style-type: none"> Demonstrates the use of more precise 	<ul style="list-style-type: none"> Creates longer texts supported
Cluster 7	<ul style="list-style-type: none"> Understand text features such as 	<ul style="list-style-type: none"> Responds to texts by referring 	<ul style="list-style-type: none"> Knows the meaning of 	<ul style="list-style-type: none"> Plans texts by making notes
Cluster 8	<ul style="list-style-type: none"> Reads increasing complex texts 	<ul style="list-style-type: none"> Refers to prior knowledge and 	<ul style="list-style-type: none"> Uses words and phrases 	<ul style="list-style-type: none"> Creates longer texts (at least one)
Cluster 9	<ul style="list-style-type: none"> Reads for sustained periods (15-20) 	<ul style="list-style-type: none"> Builds understanding during reading 	<ul style="list-style-type: none"> Uses synonyms for a range of 	<ul style="list-style-type: none"> Construct well-sequenced imaginative



Percentage in Bands for NAPLAN 2016 Year 3 All Students in Reading



Percentage in Bands for NAPLAN 2016 Year 3 All Students in Writing



LITERACY K-10

Year 5 students who have achieved Cluster 10 at a deep level and are working strongly in Cluster 11 are the most likely to achieve in the Top Two Bands in NAPLAN.

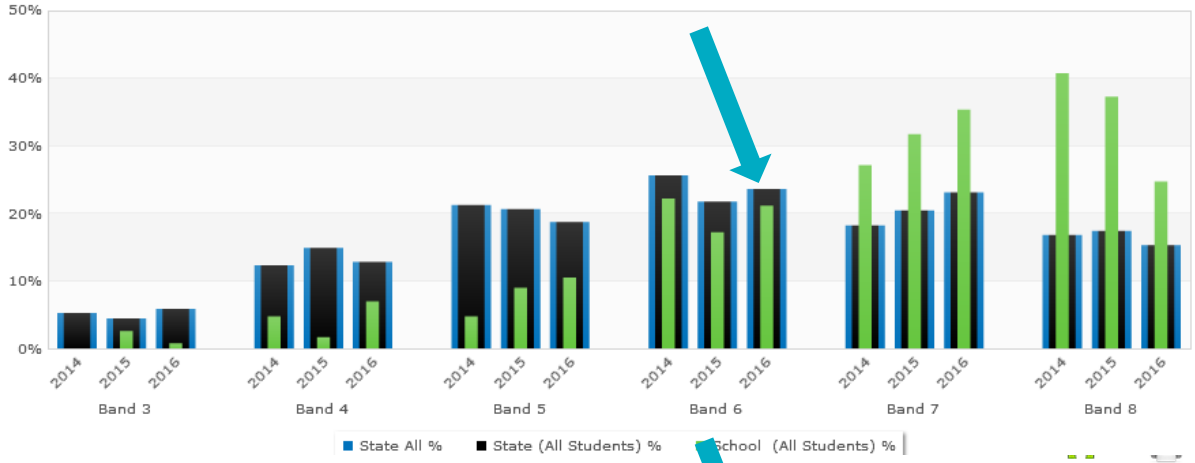
Focus on the students assessed as 'achieving' in Cluster 10 at the end of Year 4 BUT are not yet working strongly at Cluster 11.

Cluster 8	<ul style="list-style-type: none">Reads increasing complex texts LINKS	<ul style="list-style-type: none">Refers to prior knowledge and LINKS	<ul style="list-style-type: none">Uses words and phrases LINKS	<ul style="list-style-type: none">Creates longer texts (at least one LINKS
Cluster 9	<ul style="list-style-type: none">Reads for sustained periods (15-20) LINKS	<ul style="list-style-type: none">Builds understanding during reading LINKS	<ul style="list-style-type: none">Uses synonyms for a range of LINKS	<ul style="list-style-type: none">Construct well-sequence imaginati LINKS
Cluster 10	<ul style="list-style-type: none">Reads short novels with LINKS	<ul style="list-style-type: none">Interprets text by inferring connectio LINKS	<ul style="list-style-type: none">Demonstr understand that words LINKS	<ul style="list-style-type: none">Draws ideas from personal LINKS
Cluster 11	<ul style="list-style-type: none">Reads for sustained periods (20-30) LINKS	<ul style="list-style-type: none">Analyses and evaluates the ways LINKS	<ul style="list-style-type: none">Makes effective word choices LINKS	<ul style="list-style-type: none">Writes coherent, structure texts for LINKS

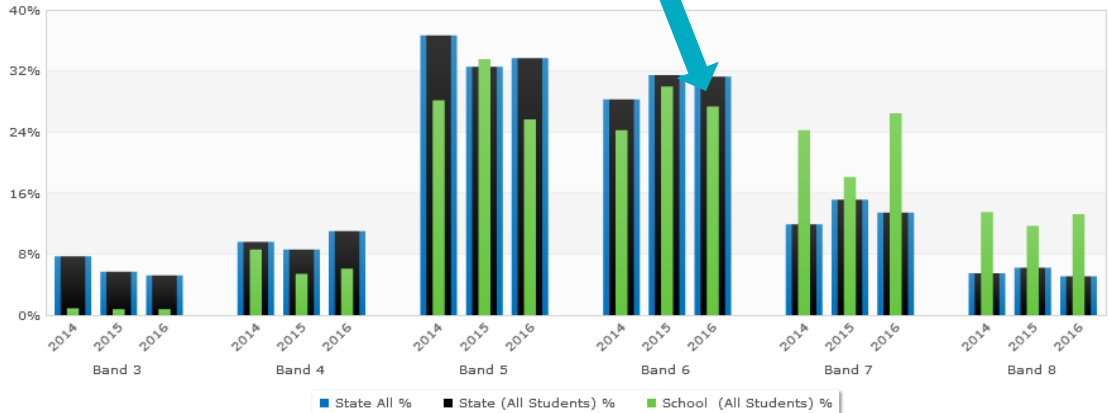
It needs to be noted that Years 3-6 = 4 clusters, with many aspects of literacy included within each cluster



Percentage in Bands for NAPLAN 2016 Year 5 All Students in Reading

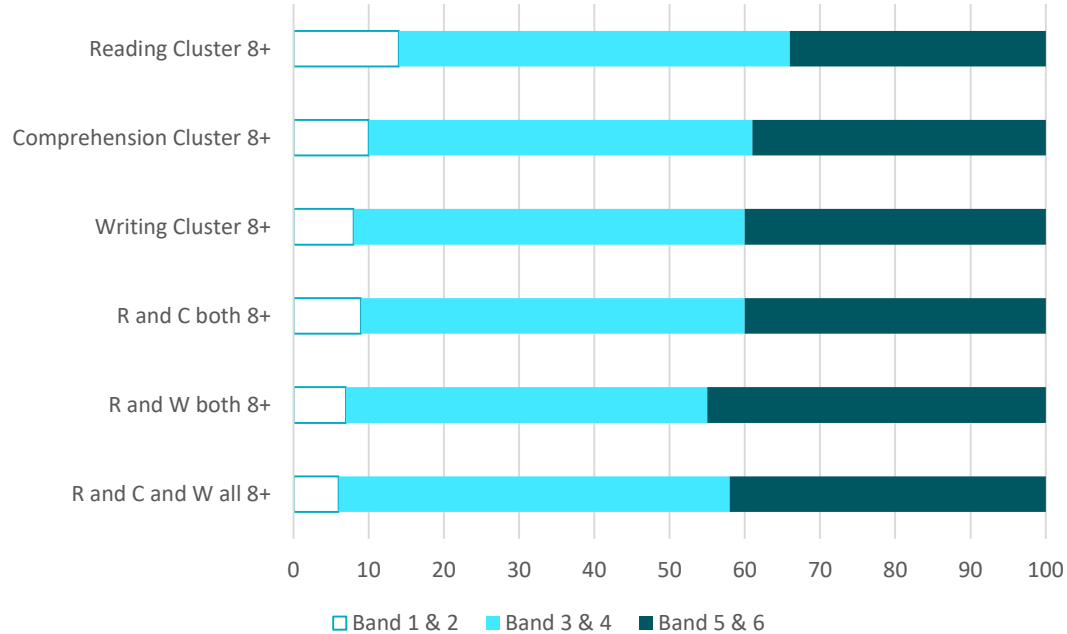


Percentage in Bands for NAPLAN 2016 Year 5 All Students in Writing



5 SCHOOL CASE STUDY

Percentage of students at each NAPLAN Reading Band by Cluster level at end of Year 2



KNOW YOUR STUDENTS - LITERACY

Talk to me about your Year 5 students who achieved Cluster 10 in Comprehension at the beginning of this year, but are not strongly within Cluster 11 at the end of the year? What are their needs? What do they need to learn? What are you doing to address their needs? How are your Teaching and Learning Programs reflecting what you are doing with those students to maximise their growth?

So, what does this really mean?



LITERACY – “THE BIG 5”

Year 3

1. Audience and purpose
2. Knowledge about texts

Year 5

1. Audience and purpose
2. Knowledge about texts
3. Figurative language

Year 7

4. Text complexity
5. Characterisation



Vocabulary



YEAR 3 2016 NAPLAN – 5 SCHOOLS

Bats

Types of bats

Bats can be subdivided into two main groups: microbats and megabats. This is determined by their diet and the way they navigate when flying.

Microbats are very small. They are mostly insectivorous, which means their diet consists of flying insects such as beetles, moths and mosquitoes. They usually live beside rivers and creeks, so they have access to fresh water. They also live in parks, reserves and even residential areas. During the day they roost in trees and hollows. They feed at night and although they have good eyesight they use sound waves and echoes to find their prey in the dark. This 'bat sonar' is called echolocation.



Kitti's hog-nosed bat

Megabats tend to be larger than microbats (but not always!). They are frugivorous, which means their diet consists of fruit and nectar from flowering plants. Like microbats, megabats are nocturnal but they rely on their good eyesight and excellent sense of smell to find food.

Some megabats are called flying foxes because of their fox-like faces and the red-coloured fur on their bodies. Although megabats hunt at night, large groups can often be seen during the day hanging from tall trees.



Flying fox mother and baby

Did you know?

- Bats are the only mammals that can fly.
- Bats have been known to live more than 30 years.
- A group of bats is called a colony.
- There are about 1240 different species of bats in the world.
- Australia is home to over 90 different species of bats.
- The Kitti's hog-nosed bat is the smallest bat in the world. It weighs up to two grams: about the same as a tea bag!
- The giant golden-crowned flying fox is the biggest bat; it weighs up to 1.6 kilograms with a wingspan of 170 centimetres!

Year 3

1. Audience and purpose
2. Knowledge about texts

Q.35: Some bats are called flying foxes because of their

✓ appearance 28%

✗ speed 24%

✗ size 22%

Library magician

On Saturday afternoons, I go to the library for story time with my little sister, Tess. The children's librarian, Mr Frank, has been leading story time ever since my mum was a little girl! Today he was wearing a funny white beard and a lumpy, brown coat.



YEAR 3

Read *Library magician* on page 6 of the magazine and answer questions 26 to 32.

26

Today he was wearing a funny white beard and a lumpy, brown coat.
(paragraph 1)

This sentence shows that Mr Frank

- feels cold.
- is very old.
- is in a costume. 33%
- works at the library.



YEAR 3

Read *Library magician* on page 6 of the magazine and answer questions 26 to 32.

26

Today he was wearing a funny white beard and a lumpy, brown coat.
(paragraph 1)

This sentence shows that Mr Frank

- feels cold.
- is very old.
- is in a costume. 33%
- works at the library. 30%



Library magician

On Saturday afternoons, I go to the library for story time with my little sister, Tess. The children's librarian, Mr Frank, has been leading story time ever since my mum was a little girl! Today he was wearing a funny white beard and a lumpy, brown coat.



Year 3

1. Audience and purpose
2. Knowledge about texts

Year 5

1. Audience and purpose
2. Knowledge about texts
3. Figurative language

Direct locate = 30%

Read *Library magician* on page 6 of the magazine and answer questions 26 to 32.

26

Today he was wearing a funny white beard and a lumpy, brown coat.
(paragraph 1)

This sentence shows that Mr Frank

- feels cold.
- is very old.
- is in a costume. 33%
- works at the library. 30%

WHERE TO NEXT?

Consider

Analysis of PLAN data for reading, writing and comprehension for students who participated in NAPLAN 2016.

Conduct data driven conversation with teachers on what changes we need to see in how students navigate the demands of texts.

Engage students in discussion around texts that requires them to collaboratively negotiate their understanding of the texts.



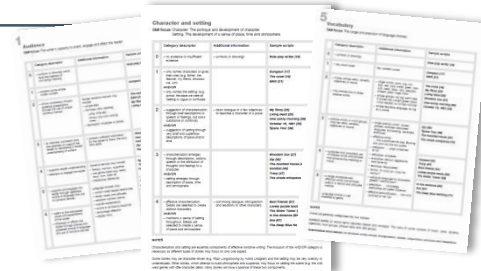
Audience and purpose

Knowledge about texts

Figurative language

Characterisation

Vocabulary



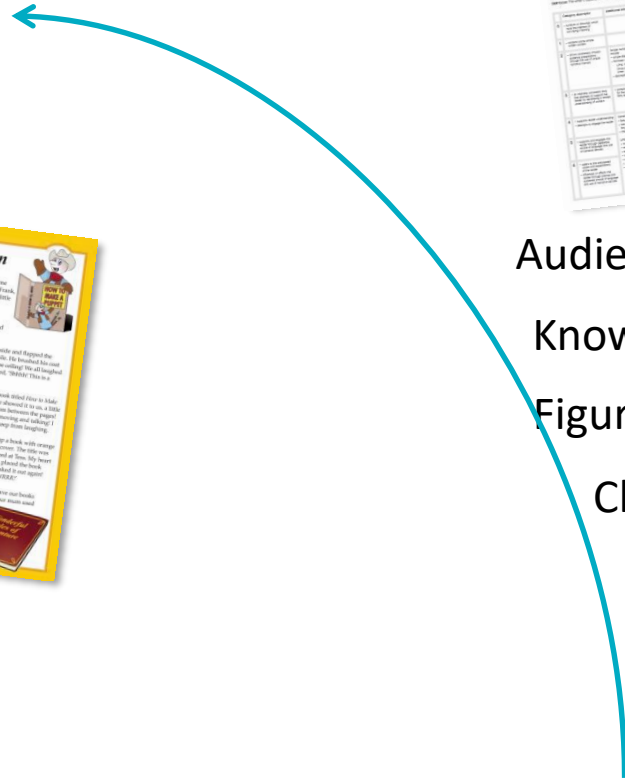
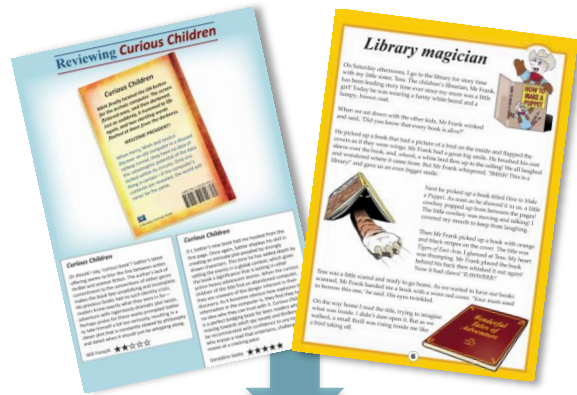
Audience and purpose

Knowledge about texts

Figurative language

Characterisation

Vocabulary



CONTINUUMS AND SYLLABUS

- ➔ Reading texts
- ➔ Comprehension
- ➔ Vocabulary knowledge
- ➔ Aspects of writing
- ➔ Aspects of speaking
- ➔ Phonics
- ➔ Phonemic awareness
- ➔ Concepts about print.



The Continuums provide the enabling environment for teachers to address the Syllabuses

<https://detwww.det.nsw.edu.au/literacy-and-numeracy-support/literacy/nsw-literacy-continuum-k10>

KNOWING THE CONTINUUMS

Numeracy K-10



P₃ R₁ O₁ F₄ I₁ C₃ I₁ E₁ N₁ T₁

A close-up photograph of wooden Scrabble tiles spelling out the word "PROFICIENT" on a wooden surface. The tiles are arranged in a row, with a wooden roller bar in front of them. The background shows a blurred Scrabble board with colorful tiles.

NUMERACY K-10



THE CONTINUUM

ASPECT 1

Introduction
Challenges in the teens
Forward number word sequences
Backward number word sequences
Zero and the counting numbers
Counting by 10 and 100 in the service of calculating
Numerical identification
References & Acknowledgements

ASPECT 2

ASPECT 3

Aspect 1: Counting sequences and numerals **123**


INTRODUCTION

Counting begins with the task of reproducing a sequence of number words starting from one. Over time, children's familiarity with the sequence of counting words develops to the point where they are able to identify the number word before or after any number without needing to start the count from one. That is, the process of oral counting starts as a fixed recitation but moves to a 'breakable chain' of number words.


Students can use counting as the basis of a range of strategies for solving addition and subtraction problems. Within these strategies, counting words, sometimes called 'counting words', are used initially to count objects.

This student counts from one to find the next number word in a counting sequence.

THE NUMERACY CONTINUUM CHART
ASPECT 1



Click the image above to view the Aspect 1 chart.

Challenged in the teens 



The continuum outlines a progression of learning that can be used when observing students working on problems in mathematics. The aspects described should not be regarded as distinct from one another, nor developing in a fixed order. Rather, the aspects are overlapping and interrelated.



NUMERACY K-10

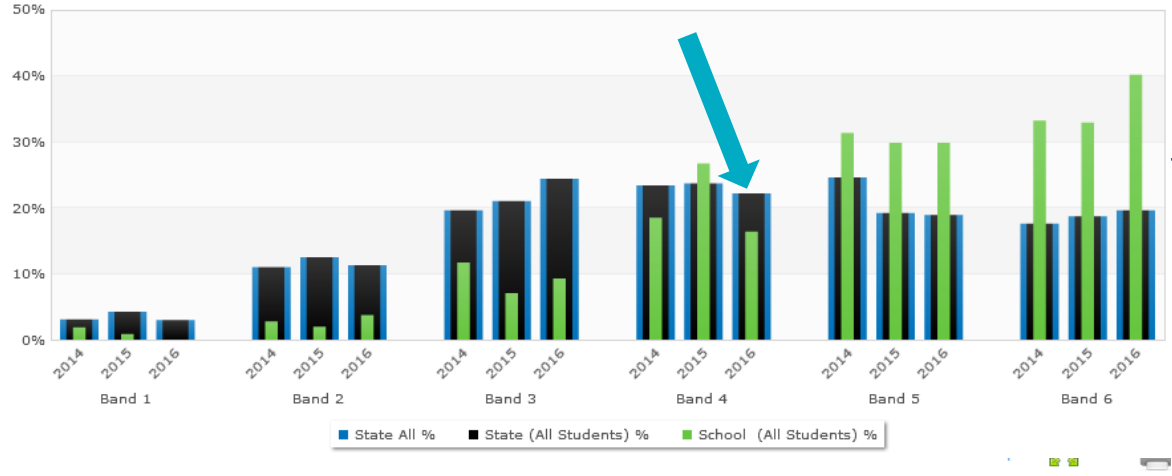
Numeracy continuum K-10

Year Level	Counting sequences	Early arithmetical strategies	Pattern and number structure	Place value	Multiplication and division	Fraction units	Unit structure of length, area and volume
K	Counting forwards and backwards from 0 to 10	Counting on and back	Recognising and extending simple patterns	Understanding the relationship between tens and ones	Understanding multiplication and division as inverse operations	Understanding fractions as parts of a whole	Understanding length, area and volume
1	Counting forwards and backwards from 0 to 100	Counting on and back	Recognising and extending simple patterns	Understanding the relationship between tens and ones	Understanding multiplication and division as inverse operations	Understanding fractions as parts of a whole	Understanding length, area and volume
2	Counting forwards and backwards from 0 to 1000	Counting on and back	Recognising and extending simple patterns	Understanding the relationship between tens and ones	Understanding multiplication and division as inverse operations	Understanding fractions as parts of a whole	Understanding length, area and volume
3	Counting forwards and backwards from 0 to 1000	Counting on and back	Recognising and extending simple patterns	Understanding the relationship between tens and ones	Understanding multiplication and division as inverse operations	Understanding fractions as parts of a whole	Understanding length, area and volume
4	Counting forwards and backwards from 0 to 1000	Counting on and back	Recognising and extending simple patterns	Understanding the relationship between tens and ones	Understanding multiplication and division as inverse operations	Understanding fractions as parts of a whole	Understanding length, area and volume
5	Counting forwards and backwards from 0 to 1000	Counting on and back	Recognising and extending simple patterns	Understanding the relationship between tens and ones	Understanding multiplication and division as inverse operations	Understanding fractions as parts of a whole	Understanding length, area and volume
6	Counting forwards and backwards from 0 to 1000	Counting on and back	Recognising and extending simple patterns	Understanding the relationship between tens and ones	Understanding multiplication and division as inverse operations	Understanding fractions as parts of a whole	Understanding length, area and volume
7	Counting forwards and backwards from 0 to 1000	Counting on and back	Recognising and extending simple patterns	Understanding the relationship between tens and ones	Understanding multiplication and division as inverse operations	Understanding fractions as parts of a whole	Understanding length, area and volume
8	Counting forwards and backwards from 0 to 1000	Counting on and back	Recognising and extending simple patterns	Understanding the relationship between tens and ones	Understanding multiplication and division as inverse operations	Understanding fractions as parts of a whole	Understanding length, area and volume
9	Counting forwards and backwards from 0 to 1000	Counting on and back	Recognising and extending simple patterns	Understanding the relationship between tens and ones	Understanding multiplication and division as inverse operations	Understanding fractions as parts of a whole	Understanding length, area and volume
10	Counting forwards and backwards from 0 to 1000	Counting on and back	Recognising and extending simple patterns	Understanding the relationship between tens and ones	Understanding multiplication and division as inverse operations	Understanding fractions as parts of a whole	Understanding length, area and volume

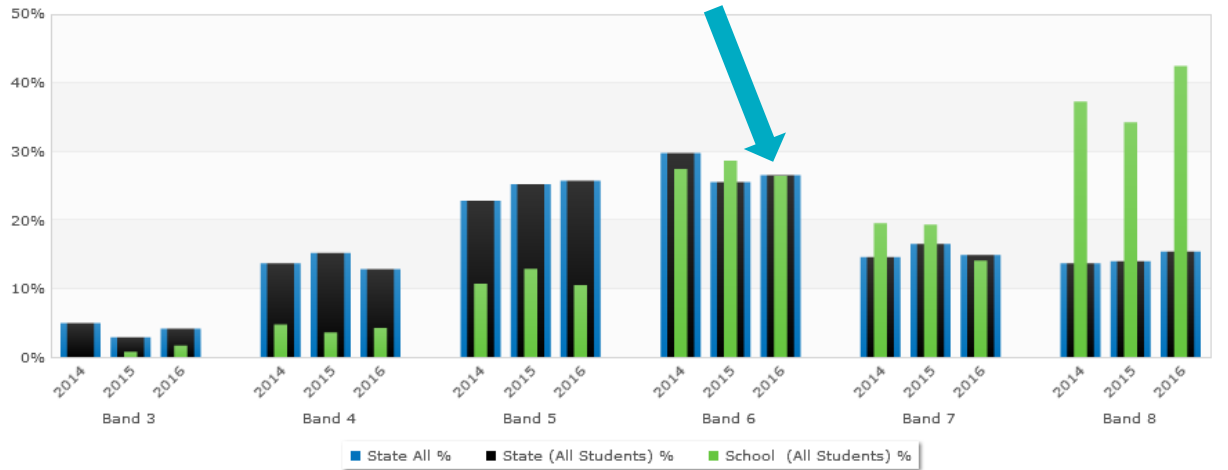
- Counting sequences
- Early arithmetical strategies
- Pattern and number structure
- Place value
- Multiplication and division
- Fraction units
- Unit structure of length, area and volume.



Percentage in Bands for NAPLAN 2016 Year 3 All Students in Numeracy



Percentage in Bands for NAPLAN 2016 Year 5 All Students in Numeracy



UNDERSTANDING THE TARGET | NUMERACY

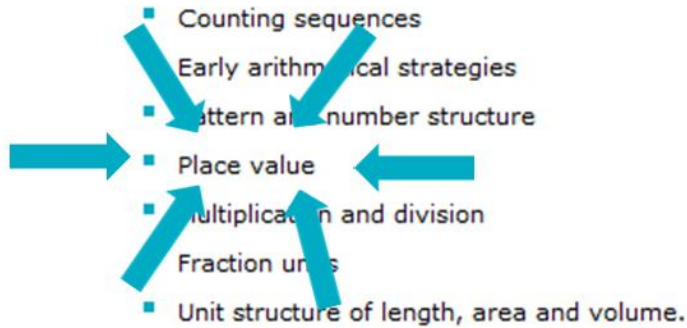
In Year 3, ***multiplicative*** ways of thinking includes understanding multiples of 10 in place value

Year 3 Numeracy (2015)

5. $64 - 28 = \bigcirc$	
-------------------------	--

Students need more than knowledge of number facts or procedures to get to the top bands in numeracy.

NUMERACY K-10



Students with a sound understanding of place value can tell whether their answers are reasonable.



NUMERACY K-10



Year 3 Band 4 Numeracy (2015)

5. $64 - 28 = \bigcirc$	
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KNOW YOUR STUDENTS - NUMERACY

Talk to me about the students in your Year 3 and 4 classes who are yet to achieve the 'Jump Method' in Aspect 4 of the Numeracy Continuum. What are their names? How many have achieved 'Counting on and back' in Aspect 1 of the continuum? What do they need to learn? What are you going to address their needs?

So, what does this really mean?



CONTINUUMS AND SYLLABUS




The Continuums provide the enabling environment for teachers to address the Syllabuses

<https://detwww.det.nsw.edu.au/literacy-and-numeracy-support/numeracy/nsw-numeracy-continuum-k10>

THINGS TO CONSIDER

KEY ASSUMPTIONS

- ✓ This is not a starting point
 - ✓ Schools are already doing great work in the area of teaching and learning
 - ✓ GTIL and other teaching and learning priorities provide scaffolds to enable teachers to make significantly positive differences for our students
 - ✓ Creating and sustaining quality classrooms will create enabling environments for students to achieve
 - ✓ Teachers who know their students, how they learn and what they need to learn have the greatest impact on student achievement
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Explore Curriculum

Creative arts

Students discover a variety of art forms through a study of dance, drama, music and visual arts where they learn to appreciate, make and perform.

Mathematics

Students develop knowledge, skills and understanding of mathematical concepts and their use within and beyond the mathematics classroom.

English

Students learn about the English language through written, spoken and visual texts of increasing complexity as they progress through their schooling.

PDHPE

Students explore issues of health, safety and wellbeing and develop skills and confidence through challenging and enjoyable movement experiences.

HSIE

Students explore varied subjects in human society and its environment to learn about history, geography, people, societies and culture.

Science

Students learn about the natural and made worlds and how to apply scientific skills, knowledge and understanding across a broad range of contexts.

Languages

Students are able to appreciate different cultures and develop an ability to communicate in written and oral forms in the language being learned.

TAS

Students use a range of tools, materials and techniques in the design process and technological experiences through theory and practical lessons.

KEEP DOING A GREAT JOB!!!

