

Standards frameworks: challenges of a new paradigm



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Structure of presentation

- **Changing paradigms**
- **Challenges**

Changing paradigms: from instrument to framework

- **An historical shift**
 - **the role of inference**

A simple idea

- **A framework independent of the measuring instrument**

A simple idea

- **A framework independent of the measuring instrument**
 - **Instruments (provided they are adequately calibrated) are superficial, interchangeable, unimportant in themselves.**

A key fact

- **Inference is central to all modern measurement/assessment.**

A key fact

- **Inference is central to all modern measurement/assessment.**
 - **Our interest is in what we cannot see; to draw a conclusion about the underlying-but-not-observable from the superficial-and-observable.**

Changing paradigms: from instrument to framework

- An historical shift
 - the role of inference
- **Implications for measurement**

A standards framework

- **Provides a frame of reference**
 - **against which achievement and progress can be mapped and monitored over time**
 - **for shared communication**
- **Is an alternative to an instrument**
- **Makes explicit what we value**
- **Defines the direction of growth**

Progress map

- **A progress map describes the knowledge, skills, understandings, attitudes, and values that students develop, in the order in which they typically develop them.**

Changing paradigms: from instrument to framework

- An historical shift
 - the role of inference
- Implications for measurement
- **Supporting research into the science of learning**
 - **implications for assessment**

Research into how people learn

- **Three principles which when incorporated into teaching, result in the improvement of student achievement.....**

Bransford, Brown and Cocking (2000) *How people learn: brain, mind, experience and school*. National Academy Press.

- **Learning is enhanced when teachers identify and work from learners' current knowledge and beliefs.**

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- **Learning is most effective when it results in well-organised knowledge and deep understanding of concepts and their applicability.**

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- Learning is most effective when it results in well-organised knowledge and deep understanding of concepts and their applicability.
- **Learning is enhanced by the ability to monitor one's own learning**

Changing paradigms: from instrument to framework

- An historical shift
 - the role of inference
- Implications for measurement
- Supporting research into the science of learning
 - implications for assessment
- **The role of assessment methods**

- **Assessment methods provide evidence that can be used to infer an individual's or group's standing in relation to a standards framework.**

To recap ...

- **A new paradigm -- a standards framework (provides a frame of reference larger than an instrument, makes explicit what we value, and defines the direction of growth)**
- **Supported by learning research**
- **Use assessment methods to gather evidence from which we infer achievement**

Challenges

- **Operationalising our conceptualisation**

We begin measurement with the idea of a *variable*. This idea can be visualized as a line pointing in a direction which indicates which way signifies 'more'. We give explicit meaning to a variable by specifying the kinds of questions (observations, test items) with which we hope to define it.

— **example:** *understanding layers of meaning*

Lovely Mosquito

**Lovely mosquito, attacking my arm
As quiet and still as a statue,
Stay right where you are! I'll do you no
harm—
I simply desire to pat you.**

**Just puncture my veins and swallow your
fill
For nobody's going to swot you.
Now, lovely mosquito, stay perfectly still—
A SWIPE! and a SPLAT! and I GOT YOU!**

**Does the writer think the mosquito is lovely?
Explain your answer.**

No because he is just ~~trig~~ trying
to be nice to it, so he can kill
it.

Reading Achievement	600	<p>Recognises the connection between presentation style and nature of information (eg question & answer format for interview data). Infers meaning from figurative language.</p>	Level 3	<p>Interprets idiomatic language and infers meaning from figurative language.</p>
	500	<p>Interprets idiomatic language (eg 'last but not least'). Recognises how linguistic features (eg exclamation marks) support ideas implicit in a text. Selects several pieces of information from a complex presentation of text. Recognises probable context for a piece of writing. Explains an author's point of view. Recognises the tone of a simple poem. Orders detailed events from a narrative.</p>	Level 4	<p>Recognises another layer of meaning in text (eg recognises irony in a poem); infers connections between newspaper heading and story;</p>
	400	<p>Recognises conventional linguistic features (eg pronunciation guides). Interprets factual information. Recognises the relationship between two pieces of text. Generates research question to explore topic about which they have read. Works out meaning of unknown word from context and picture clues. Finds evidence to support a statement. Orders instructions in a procedure. Extracts information from complex presentation of text and pictures. Infers missing step in a procedure.</p>	Level 3	<p>interprets relationships between characters when they are not stated directly).</p>
	300	<p>Recognises main idea in paragraph of factual text. Decides whether writing is fact or fiction based on described events. Recognises text genre from book titles. Makes connections between pieces of factual info. in simple text. Predicts a plausible ending for an illustrated story.</p>	Level 2	<p>Makes connections between pieces of factual information in a simple text (eg recognises the main idea in a paragraph or poem) and draws simple inferences.</p>
	200	<p>Recognises how elements of an illustration support text in a story. Uses title and illustration to predict story Interprets picture to predict what happens next in illustrated story.</p>	Level 1	
100	<p>Uses book title and illustration to identify key elements of story.</p>			

CONSCIENCE

If an opposition player were wrongly dismissed, I would tell an umpire.
I think it's just as wrong to cheat on income tax as to steal from a company.
If I found a wallet with money but no identification, I would take it to the police.

I wouldn't accept a gift from a friend if I knew it had been stolen.
If I believe in something I will speak out, even if it makes me unpopular.
I would rather do my own work poorly than cheat and do well.

I am concerned about the influence that white settlement has had on
Aboriginal culture.

I think it's just as wrong to steal from a company as from an individual.

It concerns me that there is such a large gap between the rich and the poor
in this country.
If someone else were blamed for something I'd done, I would own up.

If my friends were planning to steal, I would try to talk them out of it.
If I saw someone trying to steal a car, I would alert someone.
I would admire someone who didn't cheat on an exam when they had the
opportunity to do so.

It concerns me that there are people forced to live on the streets in this country.
It concerns me that so many people are unable to find employment in this
country.

I try to make decisions based on what I believe is right.

If I found a wallet with identification, I would try to find the owner.

I would feel bad if I had been involved in bullying another person.
I would feel bad if someone else were blamed for something I had done.
I would feel bad if I had stolen something.

**'Principled' awareness:
negative personal
consequence**

**'Principled' awareness:
no personal
consequence, or a
positive personal
consequence**

**Low level awareness:
remorse (after the
event)**

An ongoing issue

Operationalising our conceptualisation

- **Refining our frameworks**

Challenges

- Operationalising our conceptualisation
- **Setting performance standards**

“How many students are performing at the reading and writing standards expected of Year 3 and Year 5 students?”



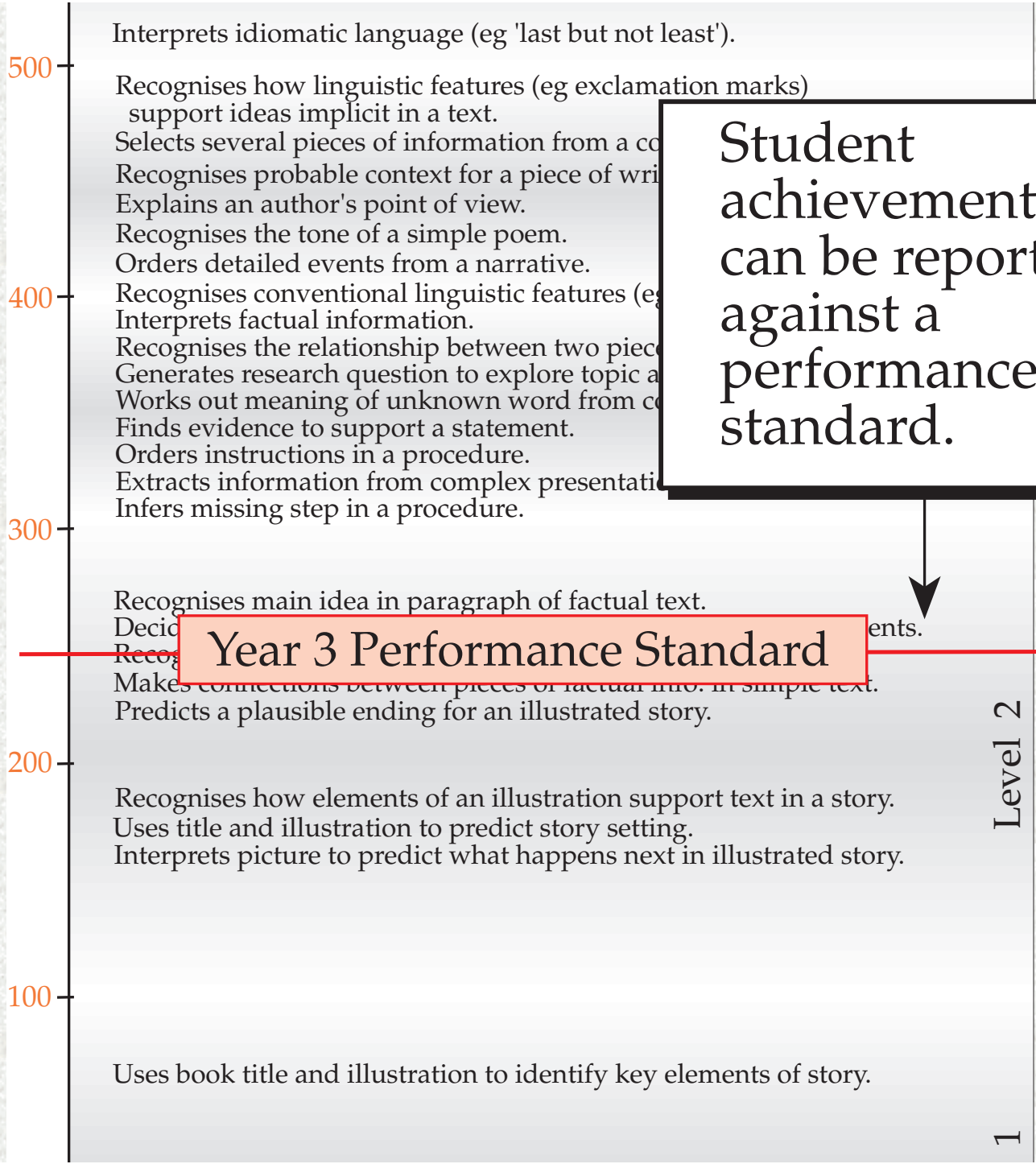
record as either
shorter or taller than
this stick



minimum
requirement

measure height and also
record whether above or
below minimum
requirement

Reading Achievement



Student achievement also can be reported against a performance standard.

Year 3 Performance Standard

Level 2

1

WRITING

LEVEL 2

35% of Year 3 students; 15% of Year 5 students

Kids should work for money so they can buy things. Mums and dads should give kids money so they can spend it.

An ongoing issue

Setting performance standards

- **Keeping the whole framework in mind
(system & school implications)**

Challenges

- Operationalising our conceptualisation
- Setting performance standards
- **Ensuring comparability of judgements**

In what contexts do we seek comparability?

- **monitoring over time**
- **across multiple forms**
- **pre and post test comparisons**
- **from year to year (eg GAMSAT or HSC)**
- **across essay questions**
- **across sites (schools)**
- **between judges**

How is comparability achieved?

- **illustrating levels**
- **professional discussion of work samples**
- **mapping test scores (item calibration)**
- **mapping test scores (standards setting, band cut points)**
- **making statistical adjustments**
- **using test results to moderate professional judgements**

Ongoing issues

Ensuring comparability

- **technical issues--refining our methodologies**
- **professional development of teachers**

Challenges

- Operationalising our conceptualisation
- Setting performance standards
- Ensuring comparability of judgements
- **Monitoring performance over time**

What reference point?

- **Achievement of individual outcomes**
- **Percentage above or below benchmark**
- **Percentage within levels of the framework**

Ongoing issues

Monitoring performance over time

- **Establishing confidence levels**

Monitoring our own progress

A final challenge:

- **keeping the big context in mind**

?

Inputs



Outputs



- **Teachers**
- **Resources**
- **Tests**

**Improved learning
(higher test scores)**

