

Assessment for learning: Using Statewide Literacy & Numeracy tests as diagnostic tools



Philip Holmes-Smith

School Research, Evaluation and Measurement Services

Philip Holmes-Smith B.Sc., Grad Dip Curriculum Admin., M.Ed. is the principal consultant at School Research, Evaluation and Measurement Services (SREAMS), an independent educational research consultancy business. Philip has taught Science, Biology and Mathematics in Victorian government secondary schools. He is also an experienced educational program evaluator, consultant, researcher and psychometrician/statistician whose current research, evaluation and measurement projects and interests lie in the areas of teacher effectiveness and school improvement; school accountability models; improving literacy, numeracy and science teaching; the use of learning technologies to improve student outcomes; students at educational risk; and large-scale, state achievement testing programs including benchmarking.

Philip established SREAMS at the beginning of 1997 and is currently contracted to a number of State education departments and curriculum authorities around Australia conducting curriculum program evaluations, educational research and psychometric analysis of state-wide testing programs.

Assessment of, assessment as, and assessment for learning

The Victorian Government's *Blueprint for Government Schools* (Department of Education and Training, 2004a) promised the development of guidelines 'to assist government schools with school-based decision-making in areas of curriculum development, pedagogy, assessment and reporting'. Subsequent draft assessment advice (Department of Education and Training, 2004b) suggests that assessment for improved student learning and deep understanding requires the range of assessment practices to be used including:

- *Assessment for learning* [which] is undertaken to ascertain students' prior knowledge, perceptions and misconceptions and to monitor student learning progress ... [and] to inform teaching practice and curriculum planning in order to support students' future learning and understanding. (*formative assessment*)
- *Assessment as learning* [which] focuses on constructive feedback from the teacher and on developing the student's capacity to self assess and reflect on their learning – to improve their future learning and understanding. (*ongoing assessment*)
- *Assessment of learning* [which] makes judgements about what the student has learned in relation to the teaching and learning goals. ... [and] should be comprehensive and reflect the learning growth over the period assessed. ... (*summative assessment*)

Assessment for, assessment as, and assessment of learning are certainly not new concepts. For example, Black and Wiliam (1998a, 1998b, 1998c) make little distinction between assessment

'for' and 'as' learning grouping both under the one title of 'formative assessment'. They do, however, make a distinction between this formative assessment and summative assessment.

Black and Wiliam (1998c) argue that raising the standards of learning has become an international priority but governments throughout the world have put most of their efforts into summative assessment type initiatives such as 'National, State, and district standards; target setting; enhanced programs for the external testing of students' performance; surveys such as NAEP (National Assessment of Educational Progress) and TIMSS (Third International Mathematics and Science Study); initiatives to improve school planning and management; and more frequent and thorough inspection'. However, Black and Wiliam (1998b, 1998c) argue that the impact of all these reforms have amounted to little. They, and others, argue that there is now compelling evidence to show that 'the important message now confronting the educational community is that assessment, which is explicitly designed to promote learning [formative assessment] is the single most powerful tool we have for both raising standards and empowering lifelong learners' (Assessment Reform Group, 1999).

The pattern of assessment efforts in Australia certainly mimics that of many other countries such as the United Kingdom and the United States in that each State Government conducts its own version of Literacy and Numeracy summative testing at Years 3, 5 and 7 (and will be extended to Year 9 by 2007) and the expenditure on these policy initiatives greatly overshadows any policy initiatives that promote formative assessment. Reporting of these data is dominated by summative

type reports and accountability units around the country look at these data in terms of what they say about overall school performance.

Using Statewide Literacy & Numeracy tests as diagnostic tools

Despite this apparent incongruence between what the research suggests will have the greatest impact on raising the standards of learning (formative assessment) and the actual practice that most jurisdictions around the world have implemented (summative assessment), it is too often overlooked that summative type tests actually contain valuable formative (or diagnostic) information.

For example, in Australia, because each State bases its tests on its version of the national curriculum profiles and because each item on the tests reflects

one or more outcomes from the State's curriculum standards, responses to each item reflect students' knowledge, perceptions and misconceptions with respect to the standard being tested. Let us look at two items from Victoria's English and Mathematics tests to demonstrate the use of Statewide Literacy & Numeracy tests as diagnostic tools.

Look at Table 1. It shows for each student at the school the response to each item. If a student answered the item correctly, a 'tick' is entered in the body of the table; if a student answered the item incorrectly, the incorrect response is entered into the table. Look at the highlighted item No. 6. The answer key shows that the correct answer is option 'd' and that the first three students (David Billsdon, Stephane Byrne and Anne Conlan) answered this item correctly. The fourth student (Rhonda Connor), however, gave the incorrect response 'c'. Summary data near

the bottom of the report shows that thirteen of the twenty-one students (or 62% of the group) answered this question correctly. Furthermore, the summary data shows that across the whole State, 59% of students answered this item correctly. In other words, although less than two-thirds of the students in this group answered the item correctly, this percentage was very similar to the percentage of students in the whole State.

More interesting, however, is to note that of those students in this group who answered the item incorrectly, all of them gave the same incorrect answer 'c'. (This can be seen by either running your eye down the column for item No. 6 or by computing a tally for each response as has been done in the last four lines of the table.) By reviewing the item, teachers at this school can gain some very interesting diagnostic information about this group of students.

Table 1 Student response report for Year 3 Reading

VICTORIA COLLEGE																											
Report 2 - Student Response Report																											
AM Pencil & Paper 2004																											
(Year 3, Group ALL, Class A0)																											
Reading - Item Order																											
Item Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	
Answer Key	a	c	c	b	b	d	c	b	b	b	c	c	b	c	c	a	c	a	b	b	d	b	c	b	d	b	d
Strand	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
BILLSDON, DAVID	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
BYRNE, STEPHANE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CONLAN, ANNE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CONNOR, RHONDA	✓	✓	✓	✓	✓	c	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CREW, BELINDA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
GILL, PETER	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
DEWIS, ANNE	✓	b	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EDWARDS, LUKE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
GREGORY, GILL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
GREY, MARY	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
HOPKINS, JOE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
LEWIS, NICOLENE	✓	✓	✓	✓	✓	a	c	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MILLER, KAY	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
NAYLOR, EDWARD	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
NOLAN, DANIEL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PERRY, LARRY	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PETERS, KEVIN	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
RWAN, NGIRO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SANDERSON, TERRY	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
TAN, TAMARA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
THOMAS, MURREEN	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Total Item Correct	21	25	21	19	14	13	14	18	15	17	14	11	17	16	13	13	14	15	12	13	13	7	14	9	9	7	
% Correct (Group)	100	95	100	90	67	62	67	86	71	81	67	52	81	76	62	62	67	71	57	62	62	33	67	43	43	33	
% Correct (State)	66	81	84	66	77	59	68	81	74	84	61	33	81	84	64	69	56	73	59	66	68	49	69	55	54	43	
% Responses																											
A	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
C	0	0	0	0	0	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

6 Which student wants to do some extra work?

- Paul
- Alice
- Vlad
- Rosa

Homework Letters

Dear Miss Johnson,

No I don't like doing my homework at all. I would much rather be outside playing with my friends and playing computer games.

Please don't give me any more homework.

From

Paul

To Miss Johnson,

Thank you for all the homework you give us. I always do it before I eat my dinner.

Thank you from

Vlad

Dear Teacher,

I am glad that you don't give us homework on the weekends.

Please can I do a project on the solar system to share with our class?

Rosa

Miss Johnson,

My parents think that the homework you give us is a good idea. I don't mind doing it as long as you don't give us too much.

Please don't give us any more projects to do.

Yours sincerely

Alice

3

The letter from Paul clearly says 'Please don't give me any more homework'. Any student who gave the answer 'a' can't even read for literal interpretations from this text. Most students would probably first approach answering this question by looking at each letter and trying to find a one-to-one match between the question and the text. For most students, matching up 'Which student wants to some extra work' with 'Please don't give me any more homework' is a simple task and option 'a' would be eliminated easily. Although no one in this school gave 'a' as the answer, there were many in the State that did indicating a low level of literal reading skills amongst such students.

The letter from Alice says 'Please don't give us any more projects to do'. Matching up 'Which student wants to some extra work' with 'Please don't give us any more projects to do' is a slightly harder task because it requires students to have a higher level of vocabulary understanding to be able to equate *extra work* and *more projects*. Again, although no one in this school gave 'b' as the answer, there were many in the State that did, indicating a low level of literal reading skills amongst such students. It should be noted, however, that these students may be reading at a higher level that those students who answered 'a' – their problem may be more to do with a limited vocabulary.

The letter from Vlad says, 'Thank you for all the homework you give us' but makes no mention of whether or not he would like to do some extra work. The letter from Rosa says, 'I am glad that you don't give us homework on the weekends' but does ask, 'Please can I do a project on the solar system to share with our class'. Students who answered either 'c' or 'd' can probably

comprehend the literal interpretation of option 'a' or 'b' and have eliminated them as possible correct answers. This places these students at a higher reading level than those who gave answer 'a' or 'b'. What separates students who gave the correct answer 'd' from those who answered 'c' is the level of inference these students are able to make from the text. Those who answered 'c' are incorrectly making the inference that liking homework ('Thank you for all the homework you give us') with wanting to do even more of it. On the other hand, those who answered 'd' have been able to infer correctly that wanting to do a 'project on the solar system' means that Rosa wants to 'do some extra work' even with the distracter statement from Rosa that she was 'glad that you don't give us homework on the weekends'.

The diagnostic information from this item gives the teachers at this school

some powerful information. If supported by information from similar items, it would be possible for the teachers to conclude that reading the literal meaning of text is probably a skill already mastered by all students in Year 3 at this school. Therefore, it would probably be a waste of time devoting too many learning and teaching opportunities to this skill. On the other hand, although about two-thirds of students can make correct inferences from text, making inferences from text has not been mastered by all Year 3 students at this school and additional learning and teaching opportunities in this area are warranted.

Table 2 gives a Numeracy example. Again, it shows for each student at the school the response to each item. Look at the highlighted item No. 17. The answer key shows that the correct answer is option 'b'. The summary data near the bottom of the report shows

that seven of the eighteen students (or 39% of the group) answered this question correctly. Furthermore, the summary data shows that across the whole State, only 47% of students answered this item correctly. Although less than half the students in the State answered the item correctly, even fewer students in the school answered this item correctly.

More interesting, however, is to note that of those students in this group who answered the item incorrectly, most of them (another 39%) gave the same incorrect answer 'd'. (Again, this can be seen by either running your eye down the column for item No. 17 or by computing a tally for each response as has been done in the last four lines of the table.) Again, by reviewing the item, teachers at this school can gain some very interesting diagnostic information about this group of students.

Table 2 Student response report for Year 3 Mathematics

VICTORIA COLLEGE																																		
Report 2 - Student Response Report																																		
AIM Pencil & Paper 2004																																		
(Year 3, Group ALL, Class ALL)																																		
Mathematics - Item Order																																		
Item Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32		
Answer Key	a	c	b	d	c	7	4	142	17	#	c	#	d	a	c	b	b	a	b	a	7	b	b	a	a	c	#	#	b	d	b			
Strand	M	S	N	S	C	N	C	C	N	N	N	N	N	M	S	N	C	N	S	S	N	C	M	M	N	N	N	N	N	N	M	N		
BILLSDON, DAVID	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
BYRNE, STEPHANIE	✓	b	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
CONNAN, ANNE	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
CONNOR, RHONDA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
CREW, BELINDA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
CULL, PETER	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
DENNIS, ANNE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
EDWARDS, LISE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
GREGORY, DILL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
GREY, MARY	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
HOPKINS, ZOE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
LEWIS, NOELENE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
MILLER, KAY	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
NAYLOR, EDWARD	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
NOLAN, DANIEL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PERRY, LARRY	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PETERS, KEVIN	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
RYAN, NORD	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SANDERSON, TERRY	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
TAN, TAMARA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
THOMAS, MUREEN	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Total Item Correct	18	16	15	15	15	15	18	16	12	14	12	13	8	14	8	8	7	10	10	8	12	8	4	5	5	5	3	4	3	1	4	4		
% Correct (Group)	100	89	89	83	83	83	100	89	67	78	67	72	44	78	50	44	39	56	56	44	67	44	22	28	28	28	17	22	17	6	22	22		
% Correct (State)	94	91	89	79	91	85	82	87	76	86	77	88	58	84	79	69	47	62	66	64	66	46	54	49	50	43	41	37	30	32	41	38		
% Responses																																		
A	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B	0	31	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
C	0	0	0	17	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D	0	0	0	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



How many people watched the game?

150

1 500

10 015

15 100

To answer this question, students need to employ at least two different skills. First, they must be able to match numbers written in word format with the equivalent number written in numerical format. That is, fifteen hundred means 15 lots of 100. Second, they need to have some understanding of place value. That is, 1500 signifies one lot of a thousand (which indicates 10 lots of 100) plus 5 lots of 100 (i.e. 15 lots of 100).

In this school, about 6% of the Year 3 students gave the incorrect answer 'a' (150) as their answer. These students show no understanding of either concept. No one gave answer 'c' indicating that the '15' in 10 015 fooled no one. However, 39% of the Year 3 students in this school chose the incorrect answer 'd' (15 100), suggesting that while these students may be able to match numbers written in word format ('fifteen hundred') with an equivalent number that somewhat resembles its numerical format (15 100), they do not fully understand the concept of place value. That is, they have incorrectly read '15 100' as meaning 15 lots of 100.

Again, the diagnostic information from this item gives the teachers at this school some powerful information. If supported by information from similar items, it would be possible for these teachers to conclude that place value is a concept not understood well by many students. Therefore, additional learning and teaching opportunities in this area are warranted.

Furthermore, some students, but not many, also have a problem matching numbers written in word format with the equivalent number written in numerical format. These students need to be identified and supported.

Interestingly, this item also appeared on the Year 5 Numeracy test as a link item¹. At Year 5, 82% of all students in the State answered this item correctly and almost the same number of students in the school answered correctly. However, of the remaining students answering incorrectly, by far the greatest number gave 'd' as their answer, indicating that there are still a few students in Year 5 who do not fully understand the concept of place value.

Summary

Assessment of learning dominates assessment efforts around the world, and systems, whether intentionally or unintentionally, typically portray such programs as the best means of raising the standards of learning. At the classroom level, such programs are rarely appreciated and most teachers have little faith in either the reliability or validity of such State-mandated tests. While it is clear that school administrators take the results of such programs very seriously, few classroom teachers give any more than cursory attention to the results for their own class. This is a shame for a number of reasons. First and foremost amongst these reasons is that item-level

results from the tests actually contain valuable formative information that could inform teaching practice and curriculum planning in order to support students' future learning and understanding. Research suggests that much could be gained (in terms of raising the standards of learning) by supporting classroom teachers to make better use of formative assessment. One place to start should be to support teachers in using Statewide Literacy & Numeracy tests as diagnostic tools.

References

- Assessment Reform Group (1999). *Beyond the black box*. Cambridge: University of Cambridge.
- Black, P., & Wiliam, D. (1998a). Assessment and classroom learning. *Assessment in Education 5(1)* pp. 7-71.
- Black, P., & Wiliam, D. (1998b). *Inside the black box: Raising standards through classroom assessment*. Kings College London.
- Black, P. & Wiliam, D. (1998c). *Inside the black box: Raising standards through classroom assessment*. *Phi Delta Kappan Vol. 80(2)* pp. 139-148
- Department of Education and Training (2004a). *Blueprint for Government Schools*. Melbourne: Department of Education and Training
- Department of Education and Training (2004b). Website: www.sofweb.vic.edu.au/blueprint/fs1/assess.asp

¹A link item is an item placed on two different Year level tests to aide in the establishment of a common performance scale across the different Year levels.