TRACKING PROGRESS OVER TIME

In education, the proportion of resources allocated to assessment is large. Teacher time spent on 'correction', assessment of student work and provision of feedback to the learner is considerable. **JAN MCCLURE** outlines how one school monitors the progress of individuals learners.

Given the resources allocated to the assessment process it is critical that these resources make a contribution to student learning. We could ask: To what extent do the assessment and reporting processes of the school contribute to student learning? What type of assessment will best influence the progress of each student?

A whole school approach

Five years ago, staff at Ballarat and Clarendon College embarked on a lengthy and significant discussion to determine the essential learning outcomes for students in years 5–9. Schools facilitate many important learning outcomes for young people, but what are the really essential areas for which we are accountable? We are talking about basic literacy and numeracy skills, the capacity to reason, the capacity to self-monitor and maintain appropriate levels of physical fitness, independent learning, etc.
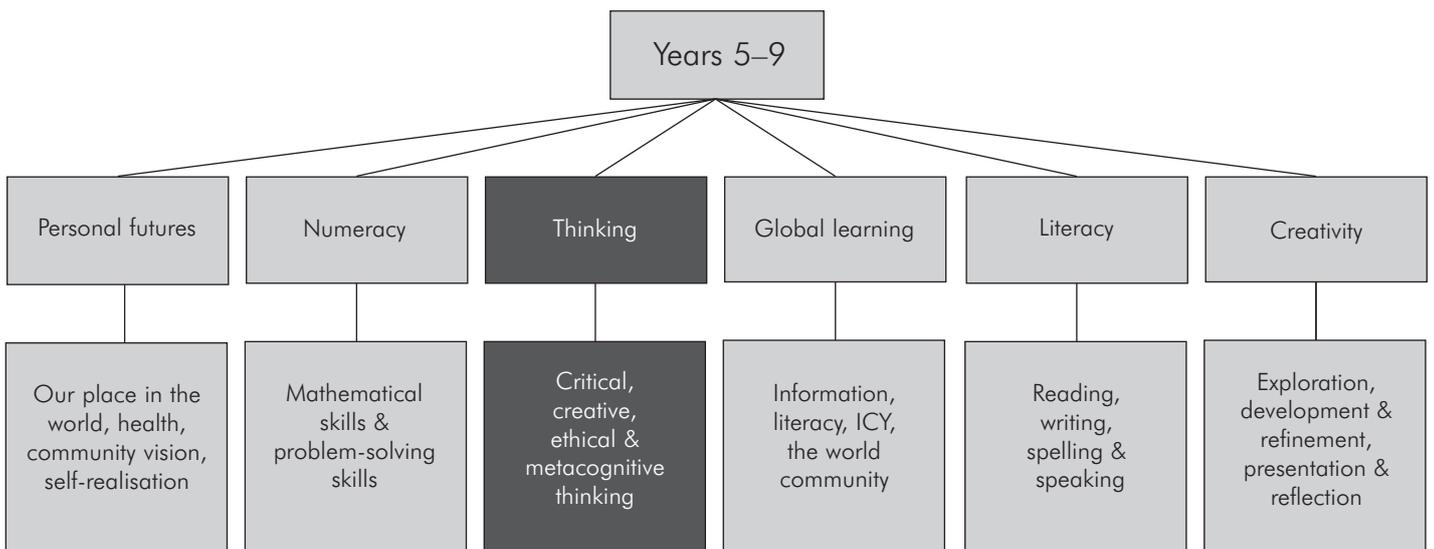
The curriculum framework skeleton that resulted from the discussion is represented in the diagram below.

For Ballarat and Clarendon College, we believe that the progress of the individual learner is the most critical point of focus in the assessment process, not the level of achievement. Our core business is learning. We are responsible for, and should be accountable for, effective progress or learning for each individual student.

To assess student progress and whether the 'teaching' has been effective, the teacher must know:

1. What does a typical learning sequence in an area identified as essential learning for a student look like?

2. Learning is not linear but, over time, a learner develops in a roughly linear way.

3. Do the assessment tools supply accurate information about the level of achievement of the learner?

4. Does each learner have accurate information about their level of achievement and rate of progress? Is the learner able to set achievable learning goals and are they sufficiently aware of real progress to remain motivated?

5. What are the learning intentions for this lesson/sequence of lessons?

Years 5–9

Personal futures	Numeracy	Thinking	Global learning	Literacy	Creativity
Our place in the world, health, community vision, self-realisation	Mathematical skills & problem-solving skills	Critical, creative, ethical & metacognitive thinking	Information, literacy, ICY, the world community	Reading, writing, spelling & speaking	Exploration, development & refinement, presentation & reflection

6. Which context will best facilitate this learning, keeping in mind the starting points of the learners?

The answers to these questions contribute to a model of learning that should drive decisions about learning.

Improving the teaching—improving the learning

Over the last three or four years, staff at Ballarat and Clarendon College have engaged in whole school strategic professional development, resulting in the mapping of learning paths for students in the identified Essential Learning Outcomes (ELOs) areas of the years 5–9 curriculum.

In the box below left is an example of a learning continuum or progress map.

Robert Slavin (1996) proposes a 'model of effective instruction' based of the work of John Carroll (1989). The components are:

1. Quality of instruction: the degree to which information skills are presented so that students can easily learn them.

2. Appropriate levels of instruction: the degree to which the teacher makes sure that students have the necessary skills and knowledge to learn a new lesson.

3. Incentive: the degree to which the teacher makes sure that students are motivated to learn the lesson.

4. Time: the degree to which students are given enough time to learn.

According to Slavin, 'The focus elements of this model have one important characteristic: All four must be adequate for instruction to be effective'.

The implications of this model of effective instruction are significant for teachers and for schools.

• The teachers and students must be clear about the learning objectives.

• To design the teaching sequence, the teacher must be clear about what the learner already knows.

• In order to decide whether the learner has made progress, (ie that the teaching has been effective) the teacher must know the likely learning path.

• The assessment tools must be designed such that the information provided about the learning is accurate and is closely related to the intended learning.

•The incentive for the learner is likely to be enhanced when they can see clearly the connection between effort and achievement and can set achievable learning goals.

Assessment and the Thinking curriculum

Learning continua enable both the teacher and the learner to improve the effectiveness of the instruction. The following example of the ELOs for Thinking illustrates how the details of a learning continuum can facilitate assessment for learning.

Writing (linguistic structures and features)

5 Controls the linguistic structures and features necessary to communicate ideas and information clearly in written texts of some length and complexity. (Eg: uses suitable headings and subheadings in sustained informational text such as projects and assignments; uses paragraphs to indicate a sequence of ideas in informational and narrative text so that the reader is clear about what is happening and why; controls tenses and subject-verb and noun-pronoun agreement.)

4 Controls most distinguishing linguistic structures and features of basic text types such as stories, procedures, reports and arguments. (Eg: adopts organisational conventions when given a structured format for writing a particular type of text; recognises meaningful divisions between sections of text and sets these out as paragraphs; uses a range of conjunctions to indicate relationships between ideas in writing; consistently uses most common punctuation marks.)

3 Controls most basic features of written language and experiments with some organisational and linguistic features of different text types. (Eg: controls basic sentence structure and attempts to vary sentence beginnings and clause structures; spells many common words correctly in own writing; writes legibly on most occasions; uses some conventions of layout; uses time order to organise writing of recounts and stories; uses correct tense for text type; writes with clearly discernable beginnings, middles and ends.)

2 Uses some basic linguistic structures and features of written language so that writing can be readily interpreted by others. (Eg: always writes from top to bottom, left to right and leaves spaces between words; usually uses correct word order in sentences; links ideas in writing by using pronouns to refer to preceding nouns; links ideas using 'and' and 'then', and sometimes 'because' or 'but'; uses some punctuation markers correctly such as capital letters to begin names; spells some common words accurately, forms most letters of the alphabet correctly.)

(Forster & Masters 1996)

ELO 1:	**Hypothesis and Contention**
	• Generation of an aim/contention
	• Number and variety of hypotheses/claims
	• Identify the most promising hypothesis/claim

ELO 2:	**Collecting and Evaluating Evidence**
	• Range of sources collected
	• Effectiveness of collection procedure
	• Evaluating the reliability of sources

ELO 3:	**Argument and Conclusion**
	• Number of valid claims made
	• Develops a coherent and well-supported argument
	• Develops a strong conclusion

ELO 4:	**Implications of Decisions**
	• Further investigation
	• Ethical judgements
	• Metacognition

Assessing Argument and Conclusion

Following are some examples of assessment of student work against levels of the continuum (shown in box, below right) in ELO 3 of the Thinking curriculum.

Level 5 Determines patterns; uses supporting evidence; uses complex arguments; some measure of reliability.

The sandstone was most likely the most resistant rock to weathering as 2 of 3 weathering tests had least effect on this type of rock. Physical testing of water had no to little effect on the sandstone, although all others deteriorated. The hammer, while it removed a moderately-sized portion of the rock, as opposed to the siltstone. The siltstone had profound disintegration in the hydrochloric acid test, and a larger degradation than sandstone in the water test. Also, biological weathering has a lesser effect in nature than chemical or physical weathering. Sandstone also had the least largest disintegration in the acid test, and it was all plaster, not sand and silt in the other rocks.

Level 3 Determines patterns of results; uses basic argument and little supporting evidence.

The Conglomerate was the most resistant to weathering. Even though the rock with everything in it was the strongest rock against weathering in all of the other tests. All of the other tests were weakening the rock up to the final test. After the final test, it was the one that was the most intact. The rock with everything in it was in theory the strongest, as it had the most substances compacted in it, but this made it weaker as well. It had the strength of all three substances compacted in it, but it also had each of the individual traits of those substances. Eg: the sandstone helped to degrade the rock dramatically in the acid.

Level 2 Misinterprets results/data; only superficially acknowledges results; evidence is lacking.

The sedimentary rocks, which contained sand in them, proved to be much more resistant to the effects of weathering. This was because the cement molecule, which was the plaster, has a larger surface area to hold on to the sand. My hypothesis was correct because the hydrochloric acid decreased the weight of all of the sedimentary rocks. The acid had a greater effect on the mixed material as well as the clay material. This may have been because the plaster, which worked to keep the bits together, was able to use the smaller pieces of material such as sand to connect better to make the rock stronger.

In support of learning continua

We are responsible for the progress of individual learners in each of the essential areas of the

Level 6	The student is able to make a number of claims and can identify a number of points of disagreement about an issue. They can also identify claims that are unusual or that go beyond what they know to be true.
	The student is able to develop a highly coherent argument which is well supported by the evidence.
	The student is able to formulate a clear and unambiguous conclusion relevant to the evidence.
Level 5	The student is able to make a number of claims about an issue and can identify a number of points of disagreement and can identify claims that are unusual.
	The student is able to develop a highly coherent argument which is generally supported by the evidence.
	The student is able to develop a clear conclusion relevant to the evidence.
Level 4	The student is able to make a number of claims about an issue and can identify a number of points of disagreement.
	The student is able to develop a relatively coherent argument which is generally supported by the evidence.
	The student is able to develop a clear conclusion relevant to most pieces of evidence.
Level 3	The student is able to make a number of claims about an issue and can identify a point of disagreement.
	The student is able to generate a basic argument which is generally supported by the evidence.
	The student is able to generate a basic conclusion with some relevance to pieces of evidence.
Level 2	The student is able to make a claim about an issue but is unable to identify a point of disagreement.
	The student is able to generate a basic argument, but has little evidence to support claims.
	The student develops a conclusion that bears little relevance to the evidence collected.
Level 1	The student is unable to make a claim about an issue.
	The student develops a disjointed argument which is rarely supported by evidence.
	The student cannot generate a conclusion.

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