

Assessment capability for New Zealand teachers and students

Challenging but possible

BEVERLEY BOOTH, HELEN DIXON, AND MARY F. HILL

KEY POINTS

- Assessment-capable teachers empower learners to become self-regulating learners.
- Becoming an assessment-capable teacher is challenging and involves more than supporting assessment for learning.
- This framework for teacher assessment capability, based upon Royce Sadler's conditions for formative assessment, is one way to develop assessment capability.
- Assessment-capable teachers combine curricula, pedagogical and subject-matter knowledge to recognise and respond to students' learning needs as they arise.

The term *assessment capable* was introduced in New Zealand to distinguish between the more formulaic use of assessment-for-learning practices, and those that empower students to become self-regulated learners. This article explores the concept of assessment capability. It considers what it means to be an assessment-capable teacher in New Zealand, the lessons that have been learned in this area, and why the realisation of the assessment-capable student may be challenging. It examines the critical roles that teachers play in facilitating three key conditions needed for students to become metacognitive, self-regulated learners. Finally, it suggests ways that teachers may be supported to become assessment-capable professionals.

Introduction

We teach in a time where, increasingly, our students are expected to manage themselves as learners (Education Review Office, 2015; Ministry of Education, 2007). It is not unusual for students to communicate their reflections about learning to us via apps, to work with others to give peer feedback, or to engage in peer-feedback activities online. Our furniture and classroom layouts encourage student inquiry and collaboration. When students are working independently of us, how do they know whether their emerging work is of sufficient quality? How do they, and we, know that they are learning and developing their thinking as opposed to simply seeing the desired outcome as completion of a task? Within so-called modern learning environments it could be argued that Assessment for Learning (AfL) practices are more relevant than ever—students are expected to work autonomously and independently more and more.

AfL is defined as “the process of seeking and interpreting evidence for use by learners and their teachers to decide where learners are in their learning, where they need to go and how best to get there” (Assessment Reform Group, 2002, p. 2). AfL terminology is frequently used in New Zealand schools and classrooms, with teachers readily referring to shared learning intentions, success criteria, feedback, and feedforward. Of concern is that, to date, research (e.g. Black, 2015; Marshall & Drummond, 2006) shows us that AfL is often interpreted in ways that fail to engage the learner in self-evaluative practices. While we know how powerful AfL practices can be when they place learners, their self-reflection, and their

voices at the heart of their learning with the aim of engendering pupil self-regulation, we also need to ask what needs to be done to engage learners in this way.

AfL is not a “passing fad”. Neither should it be seen as a set of individual strategies that teachers can pick and choose from. Rather all the strategies associated with AfL need to be imbedded within the learning environment so that students engage in the full range of activities that foster assessment capability. The continuing relevance of AfL is highlighted in the trial School Evaluation Indicators (Education Review Office (ERO), 2015), which include the indicator “Effective assessment for learning develops students’ assessment and learning to learn capabilities” (p.37). But whilst AfL may be a familiar term to teachers, assessment capability (a relatively new term, unique to New Zealand), may be less familiar.

What do we mean by assessment capability?

In 2009, a review of assessment approaches in New Zealand, commissioned by the Ministry of Education, resulted in the report *Directions for Assessment in New Zealand: Developing Students’ Assessment Capabilities* (DANZ) (Absolum, Flockton, Hattie, Hipkins, and Reid, 2009). The focus of DANZ quite deliberately built on existing AfL practices. The central premise of DANZ was that “all young people should be educated in ways that develop their capacity to assess their own learning” (Absolum et al., 2009, p. 5). Informed by the DANZ report, a Position Paper on Assessment was published (Ministry of Education, 2010a) where it was emphasised that students must become “assessment-capable” learners. An emphasis on assessment-capable students distinguishes the

New Zealand stance on assessment from other overseas assessment systems where the student's own assessment capability may not be seen as at the heart of the assessment process.

A capability is “the ability to meet demands or carry out a task successfully” (Absolum, 2006, p. 22). It is “a rich mix of knowledge, skills, attitudes and values” (Hipkins, Bolstad, Boyd and McDowall, 2014, p. 137). In the case of assessment capability, teachers must be able to use their curricula, pedagogical, and subject-matter knowledge to notice, recognise, and respond to students' learning needs as they arise. These ideas are not new and many New Zealand teachers will be familiar with the teacher's role in gathering and using assessment information to support learning. What is perhaps less well-known and understood is the teacher's role in the development of assessment-capable students. To fulfil the expectation that teachers will “encourage students to feel deeply accountable for their own progress and support them to become motivated, effective, self-regulating learners” (Absolum et al., 2009, p. 24) teachers must have both the will and the skill to support students to become self-regulated and autonomous learners. Significantly, the realisation of the assessment-capable student will require norms of teacher behaviour which encourage student self-regulation, autonomy, and agency during learning. However, as others have noted (James & Pedder, 2006), traditionally teachers have struggled to develop self-regulatory and autonomous learners.

What does assessment capability look like in practice?

If teachers are expected to be assessment capable themselves, as well as foster assessment capability in

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their students, it is necessary to promote a common understanding of the term. In addition, teachers need to know what being assessment capable entails and what the *teacher* will need to do within the classroom. The work of Sadler (1989) provides a useful framework to help unpack the complexities of classroom practice that might lead to student assessment capability, and ultimately autonomous and independent learning. Sadler suggests that teachers need to make explicit provision for students to acquire the necessary knowledge and expertise so students can monitor and regulate their learning. He outlines three key conditions, to be met simultaneously if teachers are to effect a shift toward students working independently and strategically to effect improvement.

Condition 1: The need to communicate standards to students so they understand what constitutes quality work.

Sadler (1989) argues that the goals of learning and the expected standards of performance have to be made explicit to students. He goes on to argue that without such knowledge students will not be able to monitor the quality of their work during its production, a key requirement if students are to monitor and regulate their learning. To this end he argues for the use of both criteria and exemplars given that neither is sufficient on their own to exemplify the standard of learning expected.

Te Kete Ipurangi (TKI), the Ministry of Education's online portal (Ministry of Education, n.d-a), emphasises the need for student clarity about expected learning. In doing so the Ministry of Education advocates both for teacher use of learning intentions to clarify the goals of learning, and for success criteria and exemplars to illustrate teachers' expectations. Despite teachers' best intentions, however, criteria and expectations often remain abstract and inaccessible to students (Sadler, 2009). Focused discussion between and among teachers and students to clarify expectations and what constitutes quality is a good effective strategy to support student understanding. Teachers also need to spend considerable time involving students in establishing criteria and then talking about what the criteria mean.

Exemplars can be described as authentic and concrete work samples. As such, they can be used in one of two ways: to illustrate quality (what is expected), or to make an evaluative judgement about quality. In New Zealand a plethora of materials has been produced to help teachers make assessment judgements and to plan next steps in learning for their students. For example, annotated examples of work, at different year levels, for reading, writing and mathematics are available in the New Zealand National Standards (Ministry of Education, 2009), and within the recently developed PaCT (Progress

and Consistency Tool) (Ministry of Education, n.d.-b). The New Zealand Curriculum Exemplars (Ministry of Education, 2003) detail the levels in *The New Zealand Curriculum* (Ministry of Education, 2007) (*NZC*). The e-AsTTle writing test (Ministry of Education, n.d.-c) has a rubric of level descriptors, referenced to exemplars which guide teacher judgements. Documents such as the Literacy Learning Progressions (Ministry of Education, 2010b) provide detailed descriptors. Because these materials have been produced for a teacher audience, the challenge for teachers is both to adapt the existing resources, and to create new materials, for use with and by students. Given that the effective use of criteria and exemplars is dependent on the quality of these resources, teachers need an opportunity—and guidance—to engage in ongoing debate about what constitutes quality intentions and criteria.

Condition 2: The provision of substantive opportunities which will enable students to evaluate the quality of their work (the development of students' evaluative knowledge and expertise to enable them to compare current performance with expected performance) and develop the metacognitive skills to help them engage in these practices.

Central to Sadler's (1989) argument is the need for students to develop the capacity to make judgements about the quality of their works-in-progress, by applying all the relevant criteria to their work. Essentially, students need to compare their actual level of achievement ("where we are at") with the expected standard ("where we need to get to"). To make these judgements students must have in-depth knowledge of all the criteria against which their work is to be judged (this is called *evaluative knowledge*). In turn, students must be able to apply their evaluative knowledge to their current work to make judgements and decisions about the quality of work in progress. The application of evaluative knowledge to one's own work is known as *evaluative expertise*. According to Sadler, within the learning environment there must be deliberate attempts made to provide students with real and sustained opportunities to develop both their evaluative knowledge and their expertise.

The trial School Evaluation Indicators (ERO, 2015) highlight the need for "explicit instruction in learning strategies" (p. 35). Specifically, the assessment-capable teacher needs to teach students how to critically appraise work. This helps students not only to understand what quality looks like, but also to expand their understanding of ways to improve their own work (Davies & Hill, 2009). An authentic way in which students can develop evaluative knowledge and expertise is through the

appraisal of each other's work. As such, peer assessment is a critical and necessary strategy to be incorporated into the learning environment. The appraisal of work similar to their own enables students to gain insight into, and understanding of: the various ways in which a learning goal can be achieved; common problems faced in achieving a particular goal; the strategies used by others; and how specific strategies used by others can be applied to their own work. To this end, *NZC* emphasises the need for teachers to build learners' capacity to assess both their own work and that of their peers. However, while the use of peer and self assessment can be used to evaluate the quality of an end product, this is not the most useful or beneficial evaluative activity. If peer assessment is to fulfil its promise of developing students' assessment capability these opportunities need to be infused into the learning environment so that students can apply their knowledge and expertise to works-in-progress in an ongoing manner.

As Claxton (1999) has noted, learning and assessment are emotional experiences, with feelings varying between attraction and repulsion. Although new learning is often exhilarating, the possibility of incompetence is threatening, particularly when that learning is public and may trigger an urge to withdraw in order to protect oneself. Therefore, teachers need to be aware that learners who are asked to critically appraise their own work and that of others can only do so in a safe, supportive, and mutually respectful learning environment (Cowie, 2005). Teachers' practice needs to convey to students that mistakes, and the disclosure of misunderstandings, are opportunities for growth. To support such understanding students need to be provided with sustained and supported experiences in questioning and engaging in a dialogue with their peers within a trusting environment (Dixon, Hawe & Parr, 2011). The quality of the work must become the focus both of students' attention and of subsequent work-related conversations. Furthermore, students must be supported to use specific language to describe, discuss, and evaluate learning (Moss, Brookhart & Long, 2013). Clearly, assessment-capable teachers need to have this language themselves, understand the concepts they intend to develop, have access to resources to help teach the skills, and be able to create space for students to engage in evaluative activity. Teacher modelling of constructive critique (Absolum, 2006) and work-focused interactive dialogue using multiple criteria is essential if students are to

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engage with each other's work-in-progress in a respectful, mutually beneficial manner.

Importantly, teachers need to model how to judge performance against criteria in a holistic manner (Sadler, 1989). Emphasis must be placed on demonstrating how the criteria work together to produce quality work, rather than treating each criterion as a separate entity. When making judgements students need to understand that is not the presence (or absence) of a particular criterion in a piece of work that determines its overall worth. How the criteria work together in an all-inclusive way is of prime importance.

While we stress the importance of developing students' evaluative knowledge and expertise, this alone is considered insufficient to effect improvement. Moreover, its development is not seen as an end in itself; it has to be "inextricably connected with constructive activity" (Sadler, 1989, p. 138). Sadler posits that productive knowledge and expertise needs to be developed alongside evaluative knowledge and expertise. Together, the two skill sets enable students to become self-regulatory and ultimately effect improvement.

Condition 3: The provision of opportunities for students to modify works-in-progress (the development of students' productive knowledge and expertise so they are able to close the gap between current and desired performance).

Evaluative knowledge and expertise, and productive knowledge and expertise draw upon two different skill sets. While students may be able to evaluate the quality of their works-in-progress in regard to an expected standard, the ability to make the changes necessary to improve the work is another matter. For Sadler (1989), the development of students' productive knowledge and expertise is critical if students are to become self-monitoring.

To support teacher (and student) assessment capability in the area of feedback a useful description of what constitutes effective feedback practice is available on the TKI online portal. Many of the advocated practices resonate with the arguments promoted by Sadler. As such, the Ministry of Education emphasises the need for teachers' feedback to facilitate learner self-regulation. Effective feedback should enable students themselves to make the decisions about what to do to effect improvement. Consistent with Sadler's view of the learner as active and independent, emphasis is placed on student action to close the gap between current and desired performance. Most importantly, students have to engage in this activity during the production of work. It is only when students engage in evaluative and productive activity concurrently as work is being produced that improvement can be made.

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To summarise, assessment-capable teachers: make explicit and illustrate expected learning through their use of learning goals, criteria and exemplars; provide substantive and on-going opportunities for evaluative conversations; and encourage students to use this information to improve their work during its production. In this way, students become assessment capable. They actively develop a concept of quality, evaluate their work, and make (and act on) decisions concerning the improvement of their work, with increasing independence. To support teacher learning about AfL capabilities, a useful online tool is now available (<http://www.evaluate.co.nz>). Developed by Evaluation Associates, and constructed in the form of matrices, these tools can be used by both teachers (http://www.evaluate.co.nz/inline/files/Teacher_capability_matrix.pdf) and students (http://www.evaluate.co.nz/inline/files/Student_capability_matrix.pdf) to determine current levels of assessment capability.

Why is the development of assessment capability likely to be challenging?

Classroom teachers, as "the orchestrators, encouragers, interpreters and mediators of learning" (Absolum et al., 2009, p. 24) clearly have the key role in facilitating Sadler's three conditions in developing student assessment capability. But presently in New Zealand there is no clear guidance for teachers about the need for such assessment capability beyond that that has been offered as AfL. While AfL is a step in the right direction, as noted earlier in this article, teachers often see this as a professional development programme they have "done" and moved on from rather than a piece of essential pedagogy (James & Pedder, 2006). Furthermore, teacher and student assessment capability go beyond what most teachers understand AfL to be. Therefore, what we propose here

builds on Sadler's (1989) conditions and on a range of work that explicates how this might be achieved in practice (for example, Davies & Hill, 2009; Dixon, Hawe & Parr, 2011; Moss, Brookhart & Long, 2013). Figure 1 sets out a list of characteristics of assessment-capable teachers linked to operationalising each of Sadler's (1989) conditions with the aim of building such student assessment capability as expressed in the DANZ (Absolum et al., 2009).

While it is one thing to provide a list such as that in Figure 1, it is quite another thing to implement these conditions simultaneously in everyday classroom practice. We believe that not only does this require extensive understanding of assessment, pedagogy, curriculum, subject knowledge, learning and metacognition, and students, it also takes a conducive context in which teachers receive the support of their peers and school leadership to do so (see for example, Hill, 2011; Poskitt, 2014; Taylor & Poskitt, 2008). As previous investigators have confirmed, teachers need the opportunity to try out a range of practices, investigate and reflect upon the effectiveness of these, and relate their experiences to theories of learning (Timperley & Parr, 2010; Timperley et al., 2007; Torrance & Pryor, 2001, for example). The use of an analytical framework such as that suggested in Figure 1, as a precursor to teachers' engagement in their own inquiry, can help provide the vocabulary and means to enable teachers to determine their stance on assessment capability and use their own experiences to develop "practical arguments" (Fenstermacher, 1994). NZC, too, presents a view of teaching as inquiry and it is feasible that teachers inquire into their assessment capability.

The role that systemic support plays in the development of teachers' assessment capability cannot be underestimated. We argue that school leaders have a pivotal role to play. They need to guide and support teachers to create assessment-capable cultures where the focus is one of a learning environment, rather than one of evaluation (Hill, 2011; Moss, Brookhart and Long, 2013; Poskitt, 2014). Assessment-capable leaders need to have a deep understanding of AfL so that they can recognise, understand, and gauge the effectiveness of AfL practices in their schools. School leaders also aid adoption through consideration of the way time, resources, and support are managed.

Changing practice by changing policy

In New Zealand, regulation and guidance documents have supported AfL practices. However, the central role of the student's own assessment capability has not yet had the strong focus recommended in the DANZ. For

example, the current New Zealand Teacher Registration Criteria (New Zealand Teachers' Council, 2010) detail the need for teachers to analyse assessment information to identify progress and ongoing learning needs of learners and use assessment information to give regular and ongoing feedback to guide and support further learning. They encompass an interpretation of assessment where the teacher is in control and holds the knowledge of what constitutes success and quality, rather than the more co-constructed-with-student approach envisaged in assessment capability. The assessment-capable teacher will need to move beyond the teacher registration criteria to realise the vision of assessment-capable students.

In principle, the development of assessment-capable students, who are responsible for their own learning, is also already supported by NZC, which views teaching as inquiry and "encourages all students to reflect on their own learning processes and to learn how to learn" (p. 9). Through the development of key competencies students "actively seek, use and create knowledge" (p. 12), develop a "can do" attitude, and see themselves as capable learners. Additionally, the New Zealand National Standards (Ministry of Education, 2010c) state that it is important that teachers *and students* know the purpose of the assessment, what is being assessed and why, and know how to use what is learnt from the assessment activity to improve teaching and learning.

So why, one might ask, does it appear that the goal of assessment-capable students in New Zealand seems to be so elusive? Perhaps, as Flockton (2102) advises, if assessment capability as proposed in the DANZ is to be realised, this direction needs to be extrapolated from policy position to the status of strategy and implementation. It is not enough to espouse a position that "sits above policy" (Ministry of Education, 2010a). As Sadler's three conditions clearly demonstrate, classroom teachers have crucial roles to play in promoting assessment capability, but to have the capability to turn this from good intention to action all the pieces—from policy through leadership to teacher and student practices—need to be in place.

Conclusion

Classroom teachers have crucial roles to play in building student assessment capability. Assessment-capable teachers must draw on a complex and challenging array of "knowledge, cognitive skills, practical skills, attitudes, emotions, values, ethics and motivation" (Absolum, 2006, p. 22) to meet the metacognitive and self-regulatory needs of their students. To do this, teachers need support. Sadler's three conditions provide a scaffold for such professional learning, and collaborative teacher inquiry

Sadler's conditions	Assessment-capable teachers:
The assessment-capable teacher communicates standards to students so they understand what constitutes quality work.	<p>Authentically share their understanding of quality with students and provide focused feedback about students' work.</p> <p>Adapt teacher resources for a student audience by deconstructing criteria and descriptors, interpreting what they mean and applying them to real examples of work.</p> <p>Explicitly teach students how to access and use materials that detail criteria and exemplify quality.</p> <p>Model how to judge performance against success criteria or assessment criteria.</p>
The assessment-capable teacher provides substantive opportunities for students to evaluate the quality of the work they have produced, and helps them develop the metacognitive skills to engage in these practices.	<p>Create a safe pedagogical, learning-focused environment, where mistakes are seen as opportunities for growth and students are enabled to take responsibility for themselves, as learners.</p> <p>Explicitly teach self-management skills.</p> <p>Explicitly teach students to review and evaluate their abilities, knowledge states and cognitive strategies.</p> <p>Devote time, support and opportunities, in the context of learning, to help students plan, problem solve and evaluate.</p> <p>Share with their students their teacher-knowledge about the skills, strategies, and resources needed to carry out a task effectively.</p> <p>Explicitly teach students how to self- and peer-assess and how to give and act on feedback.</p> <p>Provide sustained and supported experiences in discussing/questioning and improving their work.</p> <p>Give students the specific language they might need to describe, discuss, and evaluate their learning.</p> <p>Model effective problem-solving approaches and are willing and able to be learners themselves.</p>
The assessment-capable teacher provides opportunities for students to modify their own work during its production.	<p>Help students to learn how to monitor and improve the quality of their work both during and after its production.</p> <p>Provide a variety of exemplars which illustrate what is expected of the students.</p> <p>Give explicit teaching of fix-up/improvement strategies.</p> <p>Provide time, opportunities and encouragement within the school day to improve work during its construction.</p> <p>Help students to identify where and when to make improvements.</p> <p>Provide opportunities for evaluative conversations.</p>

FIGURE 1. A FRAMEWORK FOR TEACHER ASSESSMENT CAPABILITY BASED UPON SADLER'S (1989) CONDITIONS

is suggested as a powerful way to encourage teachers to engage with the deeper practices of AfL. However, until the notion of assessment capability is as well known and well supported as the term *assessment for learning*, it is unlikely that all students in New Zealand will become assessment capable in the ways described in this article. Teachers need the support of school leaders, as well as professional development, and a conducive policy environment if they are to be able to meet the goal in the ERO School Evaluation Indicators (2015)—effective assessment for learning develops students' assessment and learning to learn capabilities.

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