It is now curriculum policy in many countries that schools and other educational organisations situate complex capabilities for learning at the heart of their teaching, learning and assessment. This section explores the lessons learned about scaling such efforts, based on the case-study profiles of innovative practice (see Appendix 1).
Benefits and costs

The organisations featured in this paper are energetic innovators. Their work has been typically years in the making and involves reimagining educational opportunities for their students and stakeholders. The SWANs program of assessments took nearly a decade of combined efforts by the University of Melbourne and the Department of Education and Training Victoria, tapping into the deep experience of many schools and hundreds of teachers. The assessments are now in use in six school systems and many other schools nationally. Similarly, the credential for Big Picture builds on 15 years of success with students who were not thriving in standard senior secondary programs of study.

Smaller scale, school-based initiatives described in the paper were based on the long-standing determination of their leaders to strengthen educational opportunities for all learners. Each initiative involved prodigious effort by teachers, school leadership and interested stakeholders, rethinking the curriculum, the organisation of learning and assessment and recognition.

Proportionality

It is important to dispel any impression that adoption of a robust approach to assessment and recognition will necessarily lead to the counterproductive domination by assessment of the educational process. There are instances in Australia and elsewhere of such disproportionality. NAPLAN, PISA and the ATAR have all been criticised on the grounds of skewing teaching and student experience, making teaching too instrumental and focused on narrow performances captured in the tests and overwhelming deeper and more valuable outcomes of schooling with accountability for results on standardised assessments. Two key points about proportionality arise from the initiatives described in this paper. First, ensuring the robustness of assessments need not lead to the dominance of assessment that skews teaching and learning efforts; quite the contrary. For Big Picture and Beeleigh, for instance, the aim is to have assessments fully in tune with the rhythms of normal teaching and learning. In the case of VAPA and LVA, the assessments are one-off, developmental and episodic, intended to be manageable in terms of workload for all concerned and designed principally to assist a candidate when they are seeking to change their roles or professions.

Second, the robustness of the assessment design is a way to guard against disproportionality. Assessments and credentials designed using the described methodology (see Figure 5) are sensitive to context, built on inputs by all stakeholders and use authentic, performance-based measures. These assessments and credentials are, by virtue of the care put into their development, in tune with the teaching and learning environment. It is notable that the majority, but not all, of the innovations described in this paper has been focused on secondary or post-secondary education, particularly the transition from school to work. This can be regarded as a form of proportionality, that is, putting effort where it is most required. Pedagogies and learning organisation in primary schools are already more aligned to the development of complex capabilities. The primary years help students to develop essential and transferable social and emotional capabilities. In this context, it seems that there is an argument for giving greater attention to formal assessment and recognition of learning capabilities in the lead-up to transitions. The needs of secondary students and those transitioning from one phase of education to another are becoming more acute.

Proportionality should be regarded as a key requirement of all assessment in education, as important as reliability and validity and utility and interpretability. A light touch is better than a heavy one, and developmental is better than one-shot, high-stakes assessment.

Assessments that are integrated seamlessly with learning generate the most effective results for learners, candidates, recruiters and assessors.

Exacerbation or amelioration of educational disadvantage?

The question often arises as to whether or not incorporation of capabilities into assessment and recognition and the use of learner profiles, might entrench educational disadvantage. It is argued that students from socially advantaged communities have more social capital to draw upon and will have greater access to life experiences that help with the development of complex capabilities. By and large, the organisations featured in this paper did not accept that position. Rather, they are of the view that the teaching, assessment and recognition of capabilities makes explicit the nature of these capabilities, which can be learned both in or out of schools and in any community. Assessment and recognition make visible the goalposts for learning that might otherwise be implicit, unrecognised by learners who have little in the way of cultural capital required to claim and have recognised their capabilities. Providing a common, trusted and fair approach to demonstrating capability will not disadvantage students and may well do the opposite.

A related view is that learner profiling provides a means for individuals to monitor their own progress, to better understand their strengths and weaknesses and to recognise the value of the capabilities they have or should attain in, or from, any context. It would provide a tool for learners to take more control of their own learning, a powerful antidote for the disengagement and lack of confidence that at times characterises learners from disadvantaged backgrounds.
Systemic support

Other than monetary funding, the organisations featured in this paper were unable, in the main, to rely on systemic support for the work they undertook.

A touchstone for judging the adequacy of systemic support is a comparison with the level of support provided for schools assessing and recognising discipline-based or content attainment of students at senior secondary, or in the assessment and recognition of general capabilities like literacy or numeracy. In these cases, clear curriculum statements or progressions, albeit instrumental and thin, exist.

Exemplars of student work that illustrate different standards and common assessment tasks are available; boards of experienced examiners abound, providing teachers with the relevant training; moderators support comparability in assessments; there are also extensive frameworks of rules, regulations and agreements supported by a range of official organisations in each jurisdiction, including curriculum and assessment authorities, education departments and tertiary admissions centres. These organisations play an important role in the community, helping everyone to interpret what is meant by the reports and certificates that emerge.

However, few of these kinds of resources are available to support assessment and reporting of learning capabilities by schools and other educational institutions. A recent review of the AQF examined this issue for the tertiary education sector. It highlighted the lack of standards and currency for ‘short-form credentials’, including those that might be used to report attainment of general capabilities. It found no common currency that can be used to guide interpretation.

The review proposed that the existing tertiary education regulators in Australia should provide guidance on quality assurance for the purpose of determining the credit that such a credential might earn towards a traditional qualification. The review suggested that to earn credit for an award course, any credential should provide a summative assessment and have a means of verifying identity at the time of assessment.

It should set out learning outcomes for consideration by the crediting institution, specify a minimum volume of learning and a purpose, showing its potential utility. It should be subject to a verifiable internal or external quality assurance process.

For schools to manage an assessment and recognition program, assessors and issuers of credentials will need systemic support. Such support should include technology of greater sophistication than is currently available in most places.

A common framework of standards for benchmarking attainments and agreement on a common currency for reporting are required, including the format for learner profiling. This needs to be of equivalent utility to what is now available for moderating and comparing the attainments of students in subjects that contribute towards obtaining senior secondary school certificates.

Three approaches to teaching and the organisation of learning

The focus of this paper is assessment and recognition, not pedagogy or the organisation of learning. However, it is evident that changes to assessment and recognition are concomitant with changes in the organisation of learning. This observation is entirely consistent with understandings about how people learn to be competent, as distinct from becoming merely knowledgeable.

Figure 8 summarises one representation of the learning environments that people need as they develop expertise in any domain. The main message is that high levels of competence are not realised in lessons that focus on an individual’s cognitive skills, no matter how cognitively demanding.

A taxonomy of approaches to the organisation of teaching capabilities can be observed in the industry at present, as depicted in Figure 9. At one end of this taxonomy is the use of a supplementary approach, in which easily implemented add-ons are adopted within a school.

Examples include creation of innovative new subjects, such as a course on entrepreneurialism, use of extended research projects, or work experience and camps. In such cases, innovative approaches to teaching and the organisation of learning are sometimes developed. This is a very manageable approach for schools, as it essentially quarantines the reform effort to one part of the organisation and leaves the rest of the organisation largely unchallenged.

The adaptive approach describes situations where responsibilities for developing complex capabilities are given a dedicated space within the current organisation of learning. For instance, critical thinking is sometimes aligned with Science and History, communication is tied to English and ethical capability is linked to Philosophy.

The rationale is that teachers in these areas already teach for these capabilities and can easily extend and recognise student attainments. In this approach, some capabilities, such as knowing how to learn, become everybody’s or nobody’s responsibility. The advantage of this approach is that it demands most teachers to engage with at least some of the capabilities. However, it may not give full rein to the idea of capabilities as transferable and broadly applicable. It also tends to conserve the existing patterns of school organisation and hence pedagogy and student engagement. Beenleigh is probably an unusually successful, yet ambitious, example of this approach (see Appendix 1).

At the peak of the taxonomy is a reformist approach. In this approach, new organisational designs for learning are applied in order to optimise opportunities for learners to develop complex capabilities.

This includes, for example, bypassing traditional approaches to credentialing so that candidates do not have to enrol in classes. This unbundling of teaching and assessment essentially recognises prior learning regardless of where it has been learned.

This approach is characteristic of both the LVA and VAPA initiatives. Neither initiative has a course of study attached to the assessment or credential.
Any person may participate and earn the credential, at no cost and development support for assessed individuals is expected to come from other sources, such as employers, or the local schools and colleges. Another reformist approach is illustrated by the Big Picture example described earlier, with further detail included in Appendix 1.

**Final word**

To have every student develop and have recognised a range of capabilities for lifelong learning is not a small ask of schools and other education bodies. It is likely that these organisations would take some years to adapt or reform the organisation of teaching, learning and assessment in order to optimise opportunities for students.

As the innovations profiled in this paper have shown, it is simply not feasible to play around the edges of current practice, with only minor adjustments to teaching and assessment, if the goal is to generate trust that individuals are mastering complex learning capabilities as part of their day-to-day endeavours.

---

**Figure 8. Learning environments required for developing expertise in any domain.**

**Novice:**
- Direct instruction;
- drill; texts

**Beginner:**
- Coaching;
- practice;
- trial and error

**Competent:**
- Apprenticeship;
- watching experts;
- developing own style

**Expert:**
- Varying situations;
- working with mentors

**Master:**
- Risk taking;
- seeking out new experiences;
- challenging convention

**Reformist**
- The organisation of learning is redesigned

**Adaptive**
- Teaching responsibility sits within existing curriculum and organisational structures

**Supplementary**
- Teaching responsibility occurs via special courses, programs, projects and co-curricular activities

---

**Figure 9. A taxonomy of approaches to the organisation of complex capabilities teaching.**