KEYNOTE

Reimagining the purpose of assessment

Professor Geoff Masters AO
Australian Council for Educational Research

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Professor Geoff Masters is Chief Executive Officer and a member of the Board of the Australian Council for Educational Research. His work with governments and school systems has included the development of strategies for improving literacy and numeracy learning; a review of upper secondary assessment and university entrance procedures; a major review of the New South Wales school curriculum; the development of a School Improvement Tool; and the development of a Principal Performance Improvement Tool. For three decades he has written extensively on the reform of educational assessment processes, including in Reforming educational assessment: Imperatives, principles and challenges*. Recently he led an international study of five high-performing school systems for the US National Center on Education and the Economy. His contributions to education have been recognised through the award of the Australian College of Educators' Medal and his appointment as an Officer of the Order of Australia.*

Abstract

Assessment is commonly understood as the process of judging how well students have learnt what they have been taught. It comes at the end of a sequence that begins with a curriculum or course syllabus. Teachers are expected to deliver this body of specified content, students are expected to learn it, and assessment is the process of judging and grading students on how well they have learnt what teachers have taught. This is a common view of assessment among students, parents and many teachers.

I will argue in this presentation that this traditional understanding of what it means to learn successfully is no longer serving us well. It results in many less advanced students falling further behind in their learning, being written off as poor learners, and eventually disengaging from school. It also fails to challenge and extend some of our most advanced students, resulting in less progress than they are capable of making.

The alternative is to use assessment to *monitor* learning – that is, to establish and understand where learners are in their long-term learning progress; to evaluate growth over time; and to provide teachers, students, parents, school leaders, system managers and governments with quality information to promote further learning. Shifting the focus from judging and grading to *monitoring* would be a significant change in assessment practice with the potential to better support successful learning.

Establish where students are in their learning

The monitoring of learning requires assessment processes that are designed to establish and understand where students are in their learning at the time of assessment. In classroom settings, this information is essential for at least three reasons. First, students in the same year of school can be at widely different points in their long-term learning and development. The most advanced 10 per cent of students in any year of school are typically five to six years ahead of the least advanced 10 per cent of students. As a consequence, students commence each school year with very different starting points, levels of readiness and learning needs. Effective teachers are sensitive to these differences and work to establish and understand exactly where individuals are in their long-term progress.

Second, and related, successful learning is unlikely when individuals are given material that is much too difficult or much too easy. Inappropriately difficult material leads to frustration and disengagement; inappropriately easy material leads to boredom and lack of effort. Successful learning is most likely when learners are given stretch challenges beyond their comfort zones, in what Vygotsky calls the 'zone of proximal development', where success may depend on scaffolding and support (Vygotsky, 1978). Effective teachers maximise the probability of successful learning by providing individuals with well-targeted learning opportunities.

Third, students often differ in their skill gaps and understandings of subject matter. It is now well established that learners create their own mental models of what they are learning. These models can be different from learner to learner, as well as being markedly different from the understandings that teachers assume. Student misconceptions often remain hidden and become obstacles to further learning progress. Effective teachers work to uncover and understand how individuals are thinking about subject matter and intervene to address specific errors and misconceptions.

Thus, effective teaching recognises that individuals can be at quite different points in their learning and may be progressing at different rates. It is also underpinned by a deep belief that every student can make further progress if they can be engaged, motivated and provided with appropriate learning challenges. Many teachers intuitively believe this, but developing the skills, practices and supporting structures to make it happen across all schools requires intentional, large-scale effort.

The process of establishing where learners are in their learning depends on a deep understanding of the relevant learning domain. Progress usually takes the form of increasing 'proficiency' reflected in more extensive knowledge, deeper understandings and higher-level skills. Establishing where students are in their learning at any given time means clarifying what they know, understand and can do at that point in their learning. This can be done at the level of an entire domain such as mathematics, for particular sub-domains such as number, space/geometry and algebra, or in relation to specific skills and understandings.

Most learning domains extend over many years of school. Some begin before, and continue beyond, school. Examples include the broad domains of reading, mathematics and science. Most general attributes and capabilities, such as the ability to work in teams, to communicate, and to create innovative solutions to problems, also develop over extended periods of time. Because students of the same age tend to be at widely varying stages in their learning progress, teachers require good understandings of the nature of long-term development if they are to ensure that every student is appropriately challenged and extended.

When students understand what higher levels of proficiency and better quality work look like in an area of learning, they have a basis for reflecting on their current levels of achievement and for setting realistic, challenging goals for further learning. In this way, students are supported to take a degree of responsibility for their own learning and long-term progress.

Evaluate progress over time

The monitoring of learning also depends on the ability to evaluate the *progress* students make over time. At a minimum, information is required at two time points; for example, before and after a course of instruction. Ideally, progress is monitored over multiple time points to reveal long-term learning trajectories.

In practice, attempts to evaluate learning sometimes are based on information collected at only one time point – for example, at the end of a period of instruction. However, unless all students commence a period of instruction at the same point in their learning (a highly unlikely scenario in actual school settings) information collected only at the end of instruction is inadequate for comparing and evaluating how much students have learnt.

Information about the progress an individual makes can be used to judge the adequacy of that student's learning. If a student is making no progress, or very little progress over time, that may indicate lack of effort or a particular difficulty that the student is experiencing (e.g. the absence of prerequisite skills or understandings). By studying rates of long-term progress, it is possible to identify students who are on learning trajectories that have plateaued and who are slipping behind in their learning. Such information is crucial for effective intervention.

Current approaches to organising and delivering schooling often deny students the opportunity to see and appreciate the long-term progress they are making. Schooling usually is divided into school years, semesters, courses and learning modules, which are often treated as discrete and unrelated. Students are judged and graded on the content taught in each of these learning periods, often with each new period being treated as a fresh start. As a result, less advanced students can receive low grades year after year, reinforcing low self-perceptions and providing little indication of the long-term progress they actually make. At the other extreme, more advanced students can be judged to be performing well on year-level expectations, and so receive high grades, but make relatively little year-on-year progress.

Perhaps the most effective way to build individuals' confidence in their ability to learn is to assist them to see the progress they make over time – possibly over multiple years of school. Long-term pictures of progress allow students to appreciate how the quality of their work has improved and how they can now perform tasks that once were beyond them. Information about improvement also gives students a better understanding of the relationship between effort and success.

Policy implications

Changing the focus of assessment from judging and grading to monitoring requires a series of processes.

Underpin curriculum and assessment processes with empirically-based learning progressions

Monitoring depends on an empirically-based learning progression that describes and illustrates the nature of long-term progress in an area of learning. A learning progression normally describes the development of increasingly sophisticated knowledge, deeper understandings, and higher levels of competence and skill (including critical thinking, creative thinking, problem-solving, and collaborating). It provides the basis for the sequencing of the curriculum and a frame of reference for monitoring student progress over time.

Develop tools to support teachers to establish the points individuals have reached in their learning, with related teaching resources

To understand where students are in their learning and to design interventions to promote further learning, teachers require quality tools and resources built for this purpose. They also require skills in using these tools.

Develop forms of reporting that indicate where students are in their long-term learning and that assist in monitoring learning progress over time

We can no longer afford to have large numbers of students written off as poor learners because they perform below year-level expectations year after year. The alternative would be to have reports that identify the points individuals have reached in their learning, indicate what might be done to support further learning, and provide information about learning progress over time. The expectation should be that every student will make excellent progress every year, regardless of their starting point.

Implement systems for recording, tracking and certifying student attainment independently of year levels and phases of schooling

It is likely that, as wider use is made of technologies to support learning, students will increasingly be able to learn at their own pace. As a result, there will be a need for better ways of tracking and recording the points individuals have reached in their learning. There will also be a need for new ways of recognising and certifying achievement. Students increasingly will be judged against performance standards that are not tied to particular years of school (or even phases of school). Just as music students are able to take assessments when they feel ready to demonstrate performance at the next level, students may move through levels of certification at their own pace. In general, the assessment systems that would enable this do not currently exist and need to be developed.

References

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.