

Is there another way to think about schooling?

Geoff N Masters

Australian Council for Educational Research

There is a well-established way of thinking about schooling. It goes something like this.

What students are expected to learn at school is spelled out in the school curriculum. For each year of school the curriculum makes explicit what teachers are to teach and students are to learn. Each year-level curriculum identifies a body of content to be taught and the knowledge, skills, understandings (and possibly attitudes and values) that students are expected to develop. Because almost all students in Australia are grouped and progress through school with their age peers, year-level curricula are also essentially age-based curricula.

The role of teachers is to teach the relevant year-level curriculum. Teachers are responsible for bringing the curriculum to life – interpreting, contextualising and delivering the specified curriculum in ways that engage and encourage students in their learning and mastery of the intended outcomes.

The role of students is to learn what teachers teach. It is accepted that not all students will learn equally well and that some students are naturally better learners (more ‘academically inclined’) than others. Bright students and those who make the necessary effort will learn most of what teachers teach; less able students and those who do not make the effort will learn less.

The role of assessment is to determine how much of what has been taught students have successfully learnt. This question can be asked while a course is underway (How much of what I have taught so far have students learnt?) – information that can be used to identify learning gaps and to intervene or re-teach as appropriate. Such assessments are sometimes called ‘formative’ or assessments *for* teaching and learning. The question also can be asked at the end of a course (How much of the course content did students master?). Such assessments are sometimes called ‘summative’ or assessments *of* learning.

Students are then graded on how well they have learnt what teachers have taught. Those who demonstrate most of what has been taught receive high grades; those who demonstrate relatively little, receive low

grades. At present in Australia there is a government requirement that teachers grade students (using A to E or equivalent) on how well they have mastered the curriculum for their age/year level.

Report cards are then provided to parents conveying how students have performed against year-level expectations. A wide variety of formats are used for this purpose. School reports also often include reports on matters such as student effort, behaviour, attendance and participation in co-curricular activities. Reports may be provided two or three times a year and are generally complemented by opportunities for face-to-face meetings.

This conception of schooling is almost certainly the prevailing view among parents and most of the community. It is consistent with the schooling experiences of most adult Australians. It is also no doubt the way that most students and many teachers think about school.

So is there an issue?

This traditional way of thinking about schooling is sometimes referred to as an ‘industrial’ or ‘assembly line’ model. Students move with their age peers from one school year to the next. At each station on this ‘assembly line’ a teacher stands ready to deliver the relevant year-level curriculum. All students are judged and graded on how well they perform on the delivered curriculum before moving to the next station/year. The grading of performance is a familiar part of production processes; for example, the products of industrial and agricultural processes are routinely graded for their quality.

All of this may be unproblematic if students in the same year of school were more or less equally ready for the same year-level curriculum. However, this is far from the case. In learning areas for which we have good measures (in particular, reading and mathematics) the most advanced ten per cent of students begin each school year five to six years ahead of the least advanced ten per cent of students. If schooling were a running race, all students would be judged against the same finish line (year-level expectations), but would begin the race widely spread out along the running track.

And the result is predictable. Students at the back of the pack who begin the school year two or three years

behind average for their age group, and two or three years behind year-level expectations, struggle. They begin the school year on track to achieve low grades and, given that the best predictor of performance in the later years of school is performance in the earlier years, many of these students receive low grades year after year.

When a student receives the same low grade (for example, a grade of 'D') year after year, they are given little sense of the learning progress they are actually making. They could be excused for concluding that they are making no progress at all. Worse, they may be sent a message that there is something stable about their ability to learn (they are a 'D' student). Little wonder that so many less advanced students become disenchanted with school and eventually disengage.

Currently, the OECD estimates that 40 000 Australian 15-year-olds have reading levels below the minimum standard required to participate adequately in the workforce and to contribute as productive citizens in the 21st century. In mathematics, 57 000 Australian 15-year-olds (one in five) are judged by the OECD to be below this standard. Most of these students probably have performed below year-level expectations for much, if not all, of their schooling. In the past, many of these students would have found employment in relatively low-skilled occupations. In today's world, we cannot afford to write-off large numbers of students as low achievers and inherently poor learners.

At the front of the pack there is a different problem. These students begin the school year on track to receive high grades. Some of them do this without a great deal of effort. Some cruise. In fact, there is research evidence to suggest that least year-on-year progress is made by some of our most advanced students. Teachers also report feeling least well prepared to stretch and challenge these students. But in one sense, this is not a problem; these students achieve high grades on year-level expectations and parents, teachers and students themselves are generally satisfied with this result.

However, we also know from the OECD's PISA studies that there are now fewer Australian 15-year-olds performing at the highest international levels than there were at the turn of the millennium – an observation sometimes attributed to an increased focus in recent years on ensuring that all students meet minimum standards. We cannot afford a continuing decline in the performances of our most advanced students. They too need to be given

challenges beyond their comfort zone – in what Vygotsky called the 'zone of proximal development' – and stretched and extended rather than being held only to year-level expectations.

So there is an issue: traditional ways of organising and delivering school education are sometimes failing students at both ends of the achievement spectrum.

Is there an alternative?

The alternative is to think differently about the nature of learning; the characteristics of learners; the school curriculum; what it means to 'teach'; the role of assessment; and the nature of 'reporting' – in short, to think differently about schooling itself.

learning

An alternative to defining successful learning with reference to a body of taught curriculum content deemed appropriate for all students of a particular age or year level is to define learning 'success' in terms of the *progress* that individuals make, regardless of their starting points. Learning progress usually involves the development of deeper understandings, more extensive knowledge and/or more sophisticated skills.

This alternative view of learning requires a shift in focus from a common body of taught content to an understanding and description of the nature of long-term learning progress. In most school subjects, progress occurs over extended periods of time, usually over many years of school. Under this view, successful learning is conceptualised and measured as the progress a learner makes over time. And, rather than expecting all students to master the same curriculum content and be at the same point in their learning at the same time, excellent learning *progress* (or growth) is an expectation of every learner – even those who begin the school year at more advanced levels of attainment.

learners

An alternative to accepting that there are inherently better and worse learners is to recognise that, for a variety of reasons, students are at different points in their learning and may be progressing at different rates, but to see every student as capable of making further progress if they can be engaged, motivated to make the necessary effort and provided with appropriate learning opportunities. This is a much more positive and optimistic view of learners' capacities for learning than past views that individuals differed markedly in their ability to learn

and that part of the role of schools was to identify these differences and to sort students accordingly.

This alternative view of learners is also more consistent with modern understandings of brain plasticity and human learning. We are now much less inclined to put limits on what individuals are capable of learning. The implication for schools is that almost all students can be considered capable of achieving high standards given sufficient time and personalised (well targeted) ongoing support.

the curriculum

An alternative to viewing the curriculum as a specification of what teachers are to teach and all students are to learn in each year of school (that is, an identified body of content) is to view the curriculum as a *roadmap* – a picture of what long-term progress in an area of learning looks like. When the curriculum is viewed from this perspective, continuity and progression become important. Learning progressions, typically extending over a number of years of learning, describe typical sequences and paths of learning and make explicit what it means to develop deeper understandings and more advanced skills in an area of learning. The curriculum as roadmap thus has both a horizontal structure identifying different topics and sub-areas of learning and a vertical structure describing the nature of increasing proficiency. It is this vertical description of learning progress that can be missing when the curriculum is viewed merely as a body of content to be taught and learnt in a particular year of school.

An advantage of viewing the curriculum as a long-term roadmap is that it invites a greater focus on forms of learning that occur over time – for example, the development of deeper understandings of key concepts, principles and big ideas in a learning area and the development of increasingly complex skills. Many personal attributes also develop only over many years. When the curriculum is viewed as a defined body of content to be taught and learnt in each year of school, there is a risk of focusing on more superficial forms of learning.

And when the school curriculum is viewed as a roadmap it also becomes important that this roadmap reflects learning as it is experienced by learners. In other words, the curriculum is developed not simply as a top-down specification of what somebody believes students in a particular year of school should be learning, but as a description and picture of how long-term progress in an area of learning typically occurs in practice.

teaching

An alternative to viewing teaching primarily as the delivery of a common year-level curriculum is to view teaching as a process of establishing where students are in their long-term progress and then targeting teaching and learning opportunities to meet students at their points of need. The differentiation of teaching and learning in this way is sometimes referred to as ‘clinical practice’. It involves diagnosing where individuals are in their learning and then designing interventions and targeting teaching to maximise the probability of successful further learning.

Professional teaching of this kind requires more than expert subject matter knowledge. It also requires expert *pedagogical content knowledge* – a deep understanding of how students learn subjects, including an understanding of common learning progressions and sequences; an understanding of how learning builds on to prior learning and lays the foundations for future learning; the role of prerequisites; and an understanding of common student errors and the misunderstandings that underpin them. As such, professional teaching is much more complex than the mere delivery of pre-specified content.

assessment

An alternative to viewing assessment as the process of determining how well students have learnt what has been taught is to view assessment as the process of establishing and understanding where students are in their long-term progress in an area of learning at the time of assessment. Rather than holding all students accountable for achieving the same age/year-level expectations, assessments are undertaken to *understand* the points students have reached in their learning. This can be done at a broad level of generality (for example, to establish a student’s overall level of proficiency in a subject) or in greater diagnostic detail (for example, to explore how a student is thinking and to identify specific misconceptions).

The distinction here is more than the traditional distinction between ‘formative’ and ‘summative’ assessment, or between assessments ‘of’ learning and assessments ‘for’ learning. Those assessments typically are made against year-level expectations – summative assessments to judge and grade students on how well they have learnt the curriculum deemed appropriate for their year level, formative assessments to monitor how well students are mastering that same

body of content during instruction to inform teaching and learning.

Under the alternative described here, the fundamental purpose of assessment is to establish and understand where students are in their learning. This information can be used to identify starting points for action (for example, what students are ready to learn next), to monitor learning progress over time and to evaluate the effectiveness of educational interventions and initiatives.

reporting

An alternative to reporting how students have performed against year-level expectations only is to provide meaningful information about the points individuals have reached in their learning together with guidance on what can be done to support further learning.

The traditional ‘school report’ is a one-way document summarising for parents how well students have met year-level expectations – often as percentages or A to E grades. Scores and letter grades are not always accompanied by descriptive explanations of where students are in their learning and, in some cases, may simply indicate how a student has performed relative to others in the class. Scores and grades usually reflect the difficulties of the particular assessment activities on which they are based and generally are not directly comparable across teachers or schools.

An alternative is to provide information about where students are in their learning (for example, the kinds of knowledge and skills they are ready to learn next); what parents might do to assist further learning; and, possibly, information about the progress individuals have made over time. This information might be supplemented by details of how individuals have performed against year-level expectations and/or other students. In place of a ‘school report’ that judges and reports student performance two or three times each year, this information might be provided on a more ongoing basis – perhaps with the assistance of technology – and form the basis of two-way (or three-way) conversations about student progress.

Conclusion

It is likely that most schools have adopted elements of these ways of thinking about learning, learners, the curriculum, teaching, assessment and reporting. However, few schools are likely to have adopted all elements. In some schools, this may result in inconsistencies – for example, a commitment to a

‘growth’ mindset at the same time as grading all students against the same year-level expectations, thereby identifying some students as consistently ‘better’ or ‘worse’ learners than others; a school commitment to differentiated teaching at the same time as most teachers are simply ‘delivering’ the year-level curriculum to all students; or a commitment to using assessment to inform teaching and learning at the same time as the school’s assessment policy prioritises a significant volume of ‘summative’ assessment for the purposes of grading.

The implementation of alternative ways of thinking about schooling is made difficult by deeply entrenched and widely-held conceptions of teaching, learning, assessing and reporting; parental expectations; government requirements; and relatively few examples of schools that have attempted radical change in how schooling is organised and student ‘success’ is defined, assessed and reported. A consequence of not challenging the current model is likely to be that large numbers of less advanced students will continue to fall behind in their learning as each year-level curriculum becomes increasingly far ahead of them. We cannot afford to have so many students being judged as inherently poor learners and becoming increasingly disengaged from school. A second consequence is that more advanced students are unlikely to achieve the levels that they could achieve if their learning needs were better identified and met.

As a profession, we face the challenge of finding ways to improve the performances of Australian students by making excellent annual learning progress an expectation of *every* student. Meeting this challenge will require experimentation with alternative ways of thinking about teaching, learning, assessing and reporting and improved mechanisms for the profession-wide sharing of what is learnt.