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Towards a growth mindset in assessment

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The approaches we take to assessing learning, the kinds of tasks we assign and the way we report success or failure at school send powerful messages to students not only about their own learning, but also about the nature of learning itself. Assessment and reporting processes shape student, parent and community beliefs about learning – sometimes in unintended ways.

This essay describes three general approaches to evaluating and providing feedback on the outcomes of learning. Each approach is based on a particular way of thinking about what it means to learn successfully, and each has implications for how students view themselves as learners and how they understand the relationship between effort and success. It is argued that commonly used approaches frequently send unhelpful messages.

1. Providing 'success' experiences

The first approach is based on tasks chosen because they are within students' capabilities and are likely to be completed successfully. Underpinning this approach is a belief that, if students are given tasks on which they are likely to succeed, then the resulting success experiences will make learning more pleasurable, increase engagement, build self confidence and lead to further learning success. In contrast, the experience of failure is assumed to make learning less pleasurable, lower self-confidence and lead to disengagement and thus poorer learning outcomes.

Because, under this first approach, students are assessed on tasks chosen to ensure a high probability of success, most students perform well and so receive praise for their performance. By praising success, teachers endeavour to promote positive attitudes, build self-esteem and encourage all students in their learning.

There are several unintended consequences of this approach. First, when teachers assign tasks only within students' current capabilities, they risk not challenging and stretching students and minimising learning by keeping students within their comfort zones. There is considerable research evidence that learning is most likely when students are given challenging tasks just beyond their comfort zone, in what Vygotsky (1978) called the 'zone of proximal development', where success is possible, but often only with assistance.

Second, when teachers praise students for success on easy tasks, they risk sending the message that success at school can be achieved with minimal effort. Rewarding success on unchallenging tasks does little to develop students' understandings of the relationship between effort and success.

Third, by providing success experiences for almost everybody, this approach can encourage the view that success is an entitlement – that every student is a good learner and is entitled to good results and positive feedback. By protecting students from failure, this first approach does little to develop healthy attitudes to risks, challenges, mistakes and failure.

Psychologist Carol Dweck argues that, rather than giving students easy tasks within their comfort zones and providing praise for succeeding on these tasks, teachers should be communicating to students that unchallenging tasks are a waste of time:

> *Many educators think that lowering their standards will give students success experiences, boost their self-esteem, and raise their achievement… Well, it doesn't work. Lowering standards just leads to poorly educated students who feel entitled to easy work and lavish praise.*
>
> (Dweck, 2006, 193)

2. Judging performances against 'standards'

The second approach has been developed as a response to the first. Underpinning this second approach is a belief that, by specifying 'standards' to be achieved by all students in each year of school, and by judging and reporting performances against these standards, learning expectations and thus achievement levels will be raised.

The appeal of this approach is that it sets clear expectations for student performance. Grounded in the well-established industrial processes of specifying quality standards, judging performances against standards and grading products for their quality, this approach has particular appeal to politicians because it can be represented as rigorous (setting explicit standards against which performances are to be judged) but also fair (equitable in the sense that it holds all students to the same expectations).

This approach has the added advantage of being consistent with the way society generally thinks about schooling and what it means to succeed or fail at school: the role of teachers is to teach the curriculum specified for the year level, the role of students is to learn what teachers teach, and the role of assessment is to establish how much of what they have been taught students have successfully learnt. Students who demonstrate most of the expectations for their year level are rewarded with high grades; students who demonstrate few of those expectations receive low grades and may be judged to have 'failed'.

The problem with this second approach is that it suffers from many of the same disadvantages as the first. It often is no better at helping students understand the relationship between effort and success. It often does not provide students with stretch challenges. And it often encourages fixed mindsets about learning ability.

How is this possible? The answer lies in the variability of students' achievement levels within each year of school. In any given year of school, the most advanced 10 per cent of students typically are between five and six years ahead of the least advanced 10 per cent of students (Harlen,1997; Masters & Forster, 1997; Wiliam 2007). Children begin school at very different points in their social, cognitive, emotional and psychomotor development. Many of these differences persist throughout the years of school. As a consequence, rather than being at a similar stage in their learning, students in any given year of school are in reality spread over a wide range of achievement levels.

This is not to say that students who are at different stages in their learning are not making good

personal progress. They often are. It is simply that less advanced students are tracking five to six years behind the most advanced students. And these relativities tend to be maintained across the years of school. One of the best predictors of student achievement in the later years of school is achievement in the earlier years.

We may wish that this were not the case. It may be our intention that all students of the same age should be at very similar points in their learning and development. However, the reality in our schools is that this is not the situation, and almost certainly never has been. The problems with the second approach arise from the attempt to ignore this fact.

In reality, students commence each school year with very different levels of readiness for the year-level curriculum that teachers are about to teach. Some are still several years behind. Inevitably, these students struggle, master less of the year-level curriculum than other students, and are judged and graded accordingly. Often these students perform below the year-level standard year after year. In fact, there is some evidence that, in mathematics, less advanced students, on average, fall further behind each year (Wiliam, 2007; Masters, 2013).

When students' performances are graded against year-level expectations, some less advanced students can receive the same low grade year after year. The feedback these students receive is that they are consistently performing below standard and below other students. A to E grades provide little or no sense of the learning progress that individuals actually make over time. A student who receives a 'D' year after year could be excused for concluding that they are making no progress at all when, in reality, they may be making as much annual improvement as a student who consistently receives an 'A'. And worse, they may conclude that there is something stable about their capacity to learn – that is, they are a 'D-student'. Such demotivating messages undermine students' beliefs in the relationship between effort and success and frequently lead to disengagement. As Grenny *et al.*, (2013) observe, for many less advanced students, 'dropping out [of school] is a sane response to persistent disappointment and repeated reminders that they're performing below average'.

However, the problems with this approach are not limited to less advanced students. They apply equally to more advanced students. When learning expectations are couched only in terms of year-level standards, these common expectations can fail to challenge and extend more advanced students. For example, in some secondary schools it is common for all entering students to be taught the same mathematics curriculum and to be assigned the same mathematics tasks during their entire first year. (Some schools justify this on the grounds that it gives them a year to 'sort students out'.) This practice inevitably disadvantages more advanced students who are ready for more challenging work.

And, in some classrooms, it is common for students to be given 'free time' when they complete set class work. Rather than extending more advanced students with challenging, more difficult material, this practice makes the completion of assigned class work the common goal for all students. (In fact, there is anecdotal evidence of reluctance on the part of some teachers to give additional work to more advanced students because this could be interpreted as a form of 'punishment' for finishing set work early.)

Adding to this concern is a finding by Patrick Griffin and his colleagues at the University of Melbourne that teachers are less able to identify intervention strategies to assist more advanced students. These observations may explain why more advanced students, despite receiving higher grades, do not always make as much progress in their learning as less advanced students. In their study of progress in reading and mathematics, Griffin and colleagues concluded:

> *Students at the bottom levels of the proficiency scale are improving rapidly. Students at the top end of the scale are hardly improving at all.*
>
> (Griffin *et al.*, 2013, 5)

Observations of this kind also may help to explain why the decline in achievement levels at 15 years of age over the past decade has been greatest among more advanced students (Thomson *et al.*, 2011).

And there is a risk of these students, too, developing unhelpful beliefs about the relationship between effort and success. Because they begin

each school year five to six years ahead of some other students, more advanced students sometimes achieve high grades with limited effort. These students can develop a belief that, because they are 'smart' – that is, 'A-students' – they do not have to make an effort in the way that other students do. And, as Carol Dweck observes, there is no research evidence that more advanced students are more inclined than less advanced students to enjoy challenges or to extend themselves.

This second approach – assessing, judging and grading student performances against year-level 'standards' – was intended to challenge and motivate students, encourage effort and raise achievement levels. In practice, it often has the opposite effect on student attitudes and behaviours. The costs to learning and achievement in our schools are potentially significant and certainly justify the search for an alternative.

3. Assessing 'growth' over time

The third approach is focused on establishing the points that individuals have reached in their learning, setting personal stretch targets for further learning, and monitoring the progress that individuals make over time. Underpinning this approach is a belief that, at any given time, every student is at some point in his or her learning and is capable of further progress if they can be engaged, motivated and provided with relevant learning opportunities. Rather than expecting all students of the same age to be at the same point in their learning at the same time, this approach expects every student to make excellent learning *progress* over the course of a school year, regardless of their starting point. In other words, this third approach sets high expectations for every student's 'growth'.

Carol Dweck refers to this way of thinking as a growth mindset:

> *When [teachers and students] change to a growth mindset, they change from a judge-and-be-judged framework to a learn-and-help-learn framework. Their commitment is to growth, and growth takes plenty of time, effort and mutual support.*
>
> (Dweck, 2006, 244)

When students' performances are assessed from the perspective of a growth mindset, the focus is not so much on 'judging' as on *understanding* where individuals are in their learning at the time of assessment. What knowledge, skills and understandings do they currently demonstrate, regardless of how other students are performing or what the intentions may be for students of this age or year level? To answer this question it may be necessary to investigate and diagnose in some detail the difficulties that individuals are experiencing or the misunderstandings that they have developed.

Assessment information of this kind provides starting points for teaching and learning. It enables learning activities to be selected and designed to maximise the likelihood of successful further learning. It also assists teachers and students to set targets for learning. Rather than being based on common year-level expectations, these learning targets are personalised; they set realistic stretch challenges for individual learners.

When assessments provide information about where students are in their learning at the time of assessment, they also provide a basis for monitoring individual progress over time. Assessments of progress are an alternative to judging success only in terms of year-level standards. Under a growth mindset, success is defined in terms of the progress each student makes, or the 'distance travelled'.

Importantly, the adoption of a growth mindset does not represent a lowering of expectations. On the contrary, it sets high expectations of *every* learner, including more advanced students who sometimes are not challenged or stretched and hardly improve at all. Under a growth mindset, 'failure' is defined not in terms of year-level expectations, but as inadequate learning progress.

The adoption of a growth mindset also invites a change in thinking from a belief that there are 'good learners' who meet year-level expectations year after year, and 'poor learners' who perform below standard year after year, to a belief that, although students may be at different points in their learning and may be progressing at different rates, all are capable of good learning progress.

And, when learning is evaluated in terms of the progress that individuals make, the relationship between effort and success is clarified. Students'

self-confidence is built, not through success on easy tasks, but when they are able to see the progress they are making, when they appreciate how the quality of their work has improved, and when they succeed on challenging tasks that once were beyond them.

Many existing learning frameworks provide a basis for assessing student growth. School curricula that define clear progressions of learning across the years of school make explicit what long-term growth in a domain looks like, and so provide a basis for establishing individuals' current levels of attainment and for monitoring growth over time. So do a range of empirically-based 'proficiency scales' and 'developmental continua' (Masters, 2013).

No small challenge

This essay has argued for defining, assessing and reporting school learning in terms of the *progress* that individuals make. However, this is no small challenge. Success at school usually is assessed not in terms of the progress that individuals make (for example, over the course of a school year), but by judging and grading performances against age/year group expectations. Although letter grades are a relatively recent phenomenon – they appeared for the first time in some North American higher education institutions in the late 19th century and were widely used in schools only in the 20th century – they have come to define what it means to learn successfully at school. Reform depends first on a change in mindset.

Added to this is the challenge of developing credible and easily understood alternatives to current reporting practices. The kinds of reports called for in this essay would provide information about: (1) where students are in their learning at the time of assessment (eg, what they currently know, understand and can do); and (2) how much progress they have made over some specified time (eg, a school year, a semester). Good reporting alternatives of this kind generally do not exist. In their absence, the practice of reporting success in terms of year-level expectations is often justified on the grounds that parents wish to know how students are performing in relation to others of the same age. However, this may be less true if parents also had good information about where exactly students are in their learning and what progress they are making over time.

Changing mindsets and developing assessment and reporting tools to support such change are long-term educational agenda. They almost certainly require a transition phase in which processes based on differing mindsets operate in tandem. A starting point is a wider appreciation of the ways in which efforts to provide 'success' experiences and to evaluate learning in terms of common year-level 'standards' fail to engage and challenge some students and encourage fixed rather than 'growth' mindsets in our schools.

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