Review to **Achieve Educational Excellence** in Australian Schools

Public submission made to the Review to Achieve Educational Excellence in Australian Schools

Summary

Many students in our schools are not learning as well as they could because they are not being given learning opportunities at an appropriate level of challenge. Instead, students are grouped by year level (age) and teachers deliver curricula assumed to be appropriate for all students in the same year of school. However, the most advanced ten per cent of students in any year of school are five to six years ahead of the least advanced ten per cent. For less advanced students, the year-level curriculum is often too far ahead. Many are judged to be underperforming year after year, even though they may be making good personal year-on-year progress. For more advanced students, the year-level curriculum is often not sufficiently challenging. Many receive high grades on year-level expectations, sometimes with limited effort and lower rates of year-on-year progress. Rather than defining success in terms of year-level expectations, we need to define success in terms of the progress that individuals make, regardless of their starting points. Our high expectation should be that every student will make excellent progress every year. The Curriculum Challenge is to develop and implement an alternative to presenting the school curriculum in year-level packages. The Assessment Challenge is to develop and make available high-quality assessment resources that teachers can use to identify starting points for teaching and to monitor growth over time. The Teaching Challenge is to build teachers' skills in diagnosing where students are in their learning and to provide them with a bank of effective, evidence-based, subject-specific teaching strategies and interventions to address individual learning needs. The Reporting Challenge is to develop alternatives to A to E grades that are more effective in communicating to students and parents the points individuals have reached in their long-term learning and the progress they make over time.

Main submission

SOME SUGGESTIONS FOR LIFTING ACHIEVEMENT LEVELS FOR IMPROVING THE RETURN ON AUSTRALIA'S INVESTMENT IN SCHOOLING

Currently, success at school is defined in terms of expectations based on students' year levels – which are essentially age groupings. Students are taught, assessed and graded against these common age/year-level performance expectations.

A problem with this practice is that students in each year of school begin the school year at very different points in their long-term learning progress. The most advanced ten per cent of students in any year of school are typically five to six years ahead of the least advanced ten per cent of students. This means that students are not equally ready to benefit from the same year-level curriculum.

One consequence is that many less advanced students begin the school year well behind the bulk of their age peers and the expectations for their year level. Predictably, these students struggle. The year-level curriculum is simply too far ahead of them. Many are judged to be learning poorly and receive low grades year after year even though, in an absolute sense, they may be making good personal progress. Many eventually infer from their consistently low grades that they are inherently poor learners and disengage from school. By 15 years of age, 40 000 Australian students do not meet the minimum reading level judged by the OECD to be necessary to function effectively in life beyond school. Most of these students will have struggled with, and performed poorly on, year-level expectations throughout their schooling. In numeracy, the figure is 57 000. As a nation, we cannot afford to have large numbers of students being left behind in our schools.

The consequence for more advanced students is that they are often not adequately challenged and extended. They begin the year on track to achieve high grades on what for many are the middling expectations for their year level. And they sometimes do this by coasting. There is some evidence that least year-on-year progress is made by some of our most advanced students (despite the high grades they receive on year-level expectations). These students also can develop a belief that they are entitled to high grades for minimal effort. By 15 years of age, the top 10 per cent of Australian students in mathematics perform at about the same level as the top 40 per cent of students in the world's top-performing countries. It seems likely that many of our more advanced students are capable of higher levels of achievement. As a nation, we cannot afford to have large numbers of our more able students not achieving their potential.

The research on learning is clear. The way to maximise learning is to provide learners with challenges that are beyond their comfort zones, but not so far beyond that they are unable to engage and become frustrated and give up. Under current arrangements, many of Australia's least advanced and most advanced students are not being provided with appropriately targeted challenges to maximise their learning.

A solution is to redefine what it means to learn successfully. Rather than defining success in terms of common age/year-level expectations, success needs to be redefined in terms of the progress that individuals make in their learning, regardless of their starting points. Our high expectation should be that every student will make excellent progress every year – even the most advanced students. In other words, we need to lift our expectations of all students.

This is no trivial undertaking. The implications are that we need to think differently about the school curriculum, what it means to learn successfully, learners themselves, the role of teachers, the purpose of assessment, and the way learning is communicated/reported.

CURRICULUM

Rather than presenting the school curriculum as a sequence of year-level packages to be delivered by year-level teachers to students of the same age, the curriculum needs to be reconceptualised as a long-term map of student progress in each area of learning. Teachers of different year levels all require deep understandings of the same region of this map because they all have students widely dispersed throughout this region. (For example, the most advanced Year 3 students already read at about the same level as the average Year 9 student, and the least advanced Year 9 students still read at about the same level as the average Year 3 student.) We can no longer pretend that students of the same age are more or less equally ready for the same learning experiences.

Under this alternative, the curriculum would be presented as a continuum of learning, independent of age or year level and informed by experience and research into the nature of progress within each area of learning (including an understanding of natural learning sequences, the role of prerequisites, and common student errors and misunderstandings). This approach would not rule out the possibility of identifying the points students ideally should reach by particular times in their schooling. The difference is that this alternative recognises that students are at very different points in their learning and is focused on providing learning opportunities targeted on individuals' current levels of attainment and learning needs.

The Curriculum Challenge: to develop and implement an alternative to presenting the school curriculum in age/year-level packages on the assumption that students in the same year of school are more or less equally ready for the same learning experiences and challenges.

ASSESSMENT

Rather than being a process of determining how well students have learnt what teachers have taught, assessment needs to be reconceptualised as the process of establishing and understanding where individuals are in their long-term learning progress at the time of assessment. This usually means establishing what they know, understand and can do, possibly in some degree of diagnostic detail. Assessments of this kind are essential for establishing appropriate starting points for teaching, setting realistic but challenging learning goals and diagnosing specific student difficulties, errors and misunderstandings. Assessments of this kind also are essential for monitoring learning progress over time and for evaluating the effectiveness of teaching interventions.

When assessment is viewed merely as the process of determining how well students have learnt what they have been taught, the assessment process is usually considered straightforward; teachers simply develop questions and tasks based on what they have covered. However, when the purpose is to diagnose where students are in their learning to establish starting points for teaching and to monitor progress over time, professionally developed assessment resources are often beneficial. Such resources are designed from evidence-based understandings of how learning occurs in an area, including understandings of typical learning sequences and the kinds of difficulties that students encounter.

The Assessment Challenge: to develop and make available high-quality assessment resources that teachers can use to pinpoint where students are in their long-term learning progress, diagnose individual difficulties and misunderstandings, identify starting points for teaching and monitor growth over time.

TEACHING

Rather than being a process of delivering the same year-level curriculum to all students in the same year of school, teaching needs to be seen as a process of establishing where individuals are in their learning and then providing targeted, challenging learning opportunities and evidence-based teaching interventions to promote further learning. For some students this will mean teaching content and skills that currently occur in earlier or later years of the school curriculum. It also means using proven teaching interventions to address diagnosed difficulties, skill deficits and misunderstandings. This in turn depends on teachers having deep knowledge of the subjects they teach and deep pedagogical knowledge of how students learn those subjects.

Teaching of this kind is much more difficult than simply delivering the same curriculum to all students and then assessing and grading them on how well they have learnt what has been taught. It is also more consistent with the nature of professional work. Rather than delivering one-size-fits-all solutions, professionals

first assess the presenting situation and then draw on their professional knowledge base to design solutions appropriate to the problem or challenge at hand. Teaching that maximises the likelihood of learning first establishes where students are in their learning (including their interests, motivations and personal circumstances) and then designs learning challenges to meet individuals at their points of need.

Essential to such teaching is a teacher's knowledge of effective, evidence-based ways of teaching particular content and responding to specific student difficulties. Teachers require a knowledge bank of such strategies and interventions. Subject-specific pedagogical practices of this kind are likely to be more effective in promoting student learning than blanket teaching strategies such as providing homework, using peer-to-peer tutoring, providing feedback, or building students' metacognitive skills.

The Teaching Challenge: to build teachers' skills in diagnosing where students are in their learning and to provide them with a bank of effective, evidence-based, subject-specific teaching strategies and interventions that can be used to address individual learning needs.

REPORTING

Rather than simply grading students on how well they have performed against year-level expectations, methods of reporting are needed that more effectively communicate to students and their parents/carers the points individuals have reached in their learning and the progress they have made over time. The problem with A to E grades and similar methods of reporting is that they do not show where students are in their long-term learning or indicate progress over time. A student can receive the same grade (eg a grade of D) year after year. The first problem with this is that it does not enable students to see the absolute progress they are making (and in fact hides this progress). The second problem is that this method of reporting risks sending a message that there is something stable about the student's ability to learn (eg they are a 'D-student'). Students need to be helped to see and understand where they are in their learning so that they can work with teachers to set targets for further learning and take a degree of responsibility for their own further progress. And one of the best ways to build students' confidence in their ability to learn is to help them see the progress they make over time – including over the years of school. Similarly, parents require better information about where students are in their learning (what they currently know, understand and can do) if they are to support their children's ongoing progress.

The ways in which schools communicate with parents/carers are changing rapidly, with new technologies allowing more regular communications and the provision of greater detail about student learning and work. With these changes, the traditional 'school report' may eventually be replaced by more informative, ongoing forms of

communication. However, new ways of communicating often are being driven by information technology specialists rather than educators, and so are simply new ways of delivering traditional reports. Work is now needed to create better ways of communicating student learning that are consistent with, and drive, changed ways of thinking about the curriculum, learning, teaching and assessment. Improved performance in Australian schools depends on every student making excellent progress every year – which in turn depends on ways of establishing and communicating whether this is occurring.

The Reporting Challenge: to develop alternatives to A to E grades that are more effective in communicating to students and parents the points individuals have reached in their long-term learning and the progress they make over time.

ADDRESSING THE CHALLENGES

The Australian Council for Educational Research (ACER) is engaged in research and development to address all four of these challenges in curriculum, assessment, teaching and reporting. We see this as difficult, long-term, but essential work for improving outcomes in Australian schools. We also see this as a national agenda that would benefit from broad input and widespread collaboration.

In relation to the curriculum, in specific areas of learning we are working to develop and promote the concept of an underpinning continuum or 'progression' of learning that extends across the years of school. We have begun this work in the areas of reading and mathematics in collaboration with the UNESCO Institute for Statistics and with financial support from the Australian Department of Foreign Affairs and Trade. The reading and mathematics learning progressions we have developed are likely to provide a basis for the 'global metrics' that will be used internationally to monitor student learning and progress in achieving the UN's 2030 Sustainable Development Goal 4.1. These progressions and others we have begun developing in science, writing, creative thinking, critical thinking, collaboration and research skills are informed by empirical data on how progress occurs in each of these domains.

The learning progressions we are developing provide an alternative to presenting the curriculum as year-level 'packages' to be delivered to all students in the same year of school. Maps of long-term progress recognise that students of the same age/year level are at very different points in their learning and usually require different, well-targeted teaching and learning opportunities. They also provide a basis for monitoring long-term growth.

In relation to assessment, ACER now routinely designs assessment resources to establish where students are in their long-term learning progress. In other words, ACER assessments are aligned with, and locate students on, well-constructed learning progressions that describe the nature of development in particular areas of

learning. For example, our Progressive Achievement (PAT) assessments, which are used online by the majority of Australian primary and secondary schools, allow teachers to administer different tests across the years of school, but provide information about where students are on the same underlying learning progressions in reading, mathematics and other aspects of literacy. The psychometric techniques that allow this approach are well developed and are being applied throughout ACER's assessment work.

Our current work includes the development of resources for teacher use in assessing skills in communicating, collaborating, critical thinking, creative thinking and research. These resources are based on complex problems on which students work in teams over a period of time. Each problem provides a context for making and recording observations relevant to this set of capabilities. A described and illustrated learning progression is being developed for each capability. At present, the focus is on assessing individuals, but this work is raising the question of whether useful assessments also could be made of the capabilities of teams.

In relation to teaching, ACER's starting point is to recognise that teachers generally teach subjects, and that highly effective teaching depends on expert content knowledge and pedagogical content knowledge within specific subjects. To maximise learning, teachers need to establish in some diagnostic detail where students are in their learning and then draw on their expert knowledge to promote further learning. This clinical approach to teaching requires a focus on subject-specific knowledge and strategies.

ACER's current work is focused on supporting teachers in their understanding and implementation of effective, evidence-based teaching of content and skills in learning areas such as mathematics, science, reading and writing. For example, following the assessment of students using our progressive achievement tests, our PAT Teaching Resources provide teachers with targeted, subject-specific interventions and teaching strategies in reading and mathematics. Similarly, our work to support teachers to reflect on, and to provide evidence of, the effectiveness of their teaching uses portfolio entries based on subject-specific teaching (eg to develop students' capacities to write for a range of audiences and purposes; to build students' knowledge and conceptual understanding of important mathematics content through quality classroom discussion; and to develop students' skills in science inquiry). We focus on fine-grained, subject-specific teaching because we are convinced by the evidence that this is likely to be more effective in promoting successful learning than one-size-fits-all curriculum delivery, blanket teaching solutions or generic teaching standards.

In relation to reporting, we are working to develop and explore alternatives to A to E grades and other traditional forms of reporting. We are working on two fronts: to identify schools that are experimenting with improved ways of

communicating/reporting learning to students and parents/carers; and to develop and explore improved ways of reporting learning against well-constructed learning progressions. This work is at an early stage, but we see it as crucial to reconceptualising curriculum, teaching, learning and assessment.

ACER recognises that there are many other challenges confronting school education in Australia, including challenges in the recruitment, training, deployment and ongoing development and recognition of teachers and school leaders. We see a number of these challenges as linked to the challenges outlined here. For example, the expectation that every student will make excellent progress every year has implications for how teachers and school leaders are deployed to schools in disadvantaged areas most in need of outstanding teaching and school leadership. A focus on student growth needs to become a fundamental element of all teacher preparation programs. The ability to diagnose student learning and to implement evidence-based, subject-specific teaching strategies and interventions needs to be a central goal of teacher professional development programs. And conceptualising and promoting teaching as professional work of this kind should make a contribution to raising the status of teaching and making it more attractive to more able school leavers.

ACER will continue its research and development efforts focused on reconceptualising school learning. It is clear that current approaches are not serving all students well – a fact reflected in the performance of Australian students in national and international achievement surveys. We believe that the challenges outlined here need to become a national agenda and a priority for governments and national education agencies. We stand ready to assist in the challenge of lifting achievement levels and improving the return on Australia's investment in schooling.