# The Future of Education

DISCUSSION BRIEF **05**

Caloundra City Private School

# Discussion Brief Number 05

## Proficiency and Self-efficacy written by Jamie Dorrington.

### The importance of proficiencies and self-efficacy

Of the 12 Discussion Briefs, we suspect this will be seen as one of the most controversial. The fact that is draws on two major reports into Australian schooling as well as globally recognised data from the OECD, will not shield it from criticism. It is often difficult to deal with data that reveals issues what would otherwise remain hidden.

The other controversy will relate to the role of educational technology (EdTech). I see high quality EdTech as being a potent learning tool when it is combined with high quality human educators. I am not a fan of students learning exclusively online, with no opportunities for face-to-face contact with educators. I could write this on every line, but some people will still insist that I am proposing to get rid of human educators. I am not, nor is the CCPS Board, or the principal. High quality EdTech (not just any EdTech) has the potential to provide human educators with the time they need to address the needs of individual students. They should complement each other. This will be explained in Discussion Brief 9.

I emphasise that the observations you are about to read apply to schools in general in many parts of the world, including Australia. They are not based on observations about the work being done at CCPS.

**Proficiency** is defined in the Cambridge Dictionary as 'the fact of having the skill and experience for doing something', while the Collins Dictionary explains 'If you show proficiency in something, you show ability or skill at it'.

This brief will investigate two overlapping gaps in proficiency; the one that exists between groups of students, and the one that resides within individual students. These point us towards the first of the jobs to be done by schools as we approach the middle of the 21st Century. It is important to note that the PISA tests referred to in this brief, conducted by the OECD and taken by approximately 600,000 students across 79 participating countries, does not test around 5% of the student population who are in remote schools, have an intellectual or physical disability, or lack proficiency in the test language. Students of a particular age in a sample of schools are tested. Schools and students do not receive their results, but they are reported for the country as a whole.

### Gaps in proficiency within groups of students

The first gap refers to differences in achievement within groups of students. Research tells us that in any given class, there will be a significant difference between the level of proficiency demonstrated by the top performing and lowest performing students. A gap exists from the first day that students attend school, and it widens, every lesson, until they graduate. This sorry fact was confirmed in UNICEF's 2018 report on educational inequality in rich nations, which stated (my emphasis in bold):

By Grade 4, around age 10, there are large gaps in children's reading abilities. **In almost all countries, more than 10 per cent of children do not reach an intermediate level of reading proficiency expected at this age.**[(i)]

Australia was ranked 30th (9th from the bottom) with respect to gaps in reading ages for 15-year-old students, but the report found that all rich countries had large gaps between the highest and lowest scoring students.[t] (Being one in a company of poor performing countries is not cause for celebration.) Australia was also in the bottom third (most unequal achievement) with respect to Mathematics. I have witnessed this myself. Data collected from Year 6 Mathematics students at my last school revealed that the most proficient students could manage work usually assigned to Year 9 or 10 students, while the least proficient were only operating at a level usually expected at Year 3. That's 6 years difference in proficiency developed in 7 years of schooling!

These observations should not have come as a shock, given the recognition by The Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA)[(1)] 2007 statement warning that up to 10% of students achieve only minimal levels in literacy and numeracy by Year 7. The 2007 National Report on Schooling in Australia noted 'around 7 per cent of Year 3 students in each of reading, writing and numeracy were not achieving the benchmark level. This level of performance was similar to the 2005 and 2006 results.'[(iii)] The situation was more dire for Year 5 where (my emphasis in bold):

In reading, around 11 per cent of students nationally are not reaching the benchmark. In writing, around six per cent and in numeracy, around 11 per cent of students nationally are not reaching the benchmark. These figures are very similar to those for 2006.[(iv)]

The report then considers the performance of Year 7 students and found that:

Approximately 11 per cent of Year 7 students are not reaching the benchmark level for reading. Approximately 7.5 per cent of Year 7 students are not reaching the benchmark level for writing. In numeracy, **around 20 per cent of Year 7 students are not reaching the benchmark level.**[(v)] (My emphasis in bold.)

Keep in mind that the minimum benchmark is below the level required to function effectively in adult society, particularly when, as we have seen in previous Discussion Briefs, adults will need to be lifelong learners.

The 2018 Gonski Review into Australian schooling also drew the nation's attention to the problem, when it noted (my emphasis in bold):

'a wide range of educational outcomes in the same classroom or school, with the **most advanced students in a Year typically five to six years ahead of the least advanced students.** Such disparity in learning outcomes means that, **within our current model of school education, some students are being left behind while others are not being adequately challenged.'**[(vi)]

While data from some testing years is different, there have been occasions when the gap between the top and bottom performers on literacy and numeracy tests has widened as students progressed through the Australian schooling system. The longer they stayed in school, the bigger the gap became.

What has been done to address the problem?

**1** Their name has changed to The Ministerial Council for Education, Early Childhood Development and Youth Affairs (MCEECDYA).

The peak governmental forum in Australia is the Council of Australian Governments (COAG). In 2006 it called for a 'significant improvement in the proportion of students acquiring the basic skills for life and learning' and 'an increase in the proportion of young people meeting basic literacy and numeracy standards.'[vii] (The problem persisted, leading the 2020 Shergold report into senior schooling to place it first on their list of twenty recommendations.)[2]

These data are cause for great concern, as is the failure of policies to address the problem. In a 2009 report, the Victorian government's Auditor General noted the lack of progress when referring to initiatives launched by their Department of Education and Early Childhood Development (DEECD). It found that:

National and international experience indicates that improving literacy and numeracy is a complex and challenging task. The government has made a significant commitment, investing $1.19 billion in initiatives over the past six years.

Over the last six years there has been a major focus on further developing the curriculum, school leadership and teaching and learning in government schools. There has also been $42.1 million invested in new initiatives specifically for schools with poor literacy and numeracy achievement. This funding was in addition to the $120 million spent annually to improve literacy and numeracy across all government schools…

[yet] over the 10–year period to 2007, DEECD's efforts have not resulted in a marked improvement in average literacy and numeracy achievement across age groups.

In fact, the report identified several areas where performance had declined. It concluded (my emphasis in bold):

**It is clear that in order to make a difference, both the nature and the scale of the literacy and numeracy strategies currently being applied need to be thoroughly re-assessed.'** [viii]

I could point to other examples where expensive education programs have failed to achieve their objectives, yet concerned governments continue to allocate more funds to a schooling system that, despite its best intentions and a lot of taxpayers' money, have not delivered. Minor refinements to our approach have not solved the problem in the past, so why should we expect similar approaches to solve the problem now? (I hasten to point out that I am not advocating less spending on education but simply spending more is not enough.)

We need to start by rejecting a model of schooling that ignores both ends of the proficiency spectrum and focuses its attention on the mythical 'average' student. The educational community at large is aware of this problem, which is why the latest Gonski Report prioritised the need for every student to experience at least one year's academic growth for every year of schooling. Most parents would be shocked to realise that many schools fail to meet this standard, but they are generally not aware of the problem because we pretend it does not exist, partly because we focus on the wrong data (pass grades instead of proficiency) and partly because the truth makes us feel uncomfortable (it's easier to pretend it doesn't exist and hope it goes away). Perhaps this is why MCEETYA, despite acknowledging that a significant number of students were failing to meet minimal levels of literacy and numeracy, boldly stated in the 2008 Melbourne Declaration on Educational Goals for Young Australians that:

Australia has developed a high quality, world-class schooling system, which performs strongly against other countries of the Organisation for Economic Cooperation and Development. [x]

**2** Recommendation i: All students should expect that they will be supported to meet the minimum literacy, numeracy and digital literacy proficiency standards, which are the foundation for success beyond school. Shergold et al. 2020. P. 20.

This claim is not supported by data. In any event, our yardstick should not be the OECD average. It should be what students need for ongoing success as learners, workers, and family and community members. Most importantly it should be a well-reasoned measure (quantitative and qualitative) of every student's growth, not just every year, but every day. These rules should apply to every area of study. We would not accept this performance from any other service sector, so why do we accept it of education? This leads us to a discussion about the other, less obvious performance gap.

## Gaps between potential and actual achievement

This gap is more difficult to measure. It relates to the difference between each individual student's achievement and their potential to achieve more. This is not just a concern expressed by parents, but by students themselves. (A 2021 Report by McCrindle[xi] found that 54% of Australian students fear not reaching their full potential.)

Let's return briefly to PISA, where the trendline on some data[3] is in a downwards direction. In other words, our students' performance in some areas has been deteriorating. The 2018 results indicated:

Mean performance in Australia has been steadily declining in reading (between 2000 and 2018) and in mathematics (between 2003 and 2018), from initially high levels of performance; it has been declining in science too, at least since 2012. In reading, more rapid declines were observed amongst the country's lowest-achieving students. In mathematics and science, performance declined to a similar extent at the top and at the bottom of the performance distribution, as well as on average. [xii]

These data indicate that 80% of Australian students attained at least Level 2 proficiency in reading,[4] which is higher than the OECD average of 77%. This also means that 20% of students did not reach this level of proficiency. The figure for Mathematics Level 2[5] or higher was 78% (compared to 98% in China and an OECD average of 76%). Therefore, 22% of Australian students did not demonstrate Level 2 proficiency in Mathematics.[xiii] Are Australian students less capable (have lower potential) and are they becoming less capable over time, or is there something wrong with the way we are educating them?

The 2018 review of Australian schooling by Gonski, D. 2018 et al. expressed concern about our focus on helping students achieve the minimum standard instead of their individual best:

Aspiring to achieve excellence in learning outcomes for every student, and to regain Australia's position as a world-leading system, it is crucial to maximise each student's learning growth each year, rather than simply supporting each student to attain the minimum proficiency for the year level.[xiv]

Further into the report the authors make the following observations (my emphasis in bold):

The slippage is national and widespread. Its extent indicates that **Australian education has failed a generation of Australian school children by not enabling them to reach their full learning potential.**[xv]

**International testing has shown that Australia's strongest students are not being stretched to achieve in the top levels of proficiency in mathematics, reading and science.**[xvi] [And,]

**3** PISA stands for Program for International Student Assessment operated by the OECD. It assesses the proficiency of 15 year old students across many countries, including Australia.

**4** At a minimum, these students can identify the main idea in a text of moderate length, find information based on explicit, though sometimes complex criteria, and can reflect on the purpose and form of texts when explicitly directed to do so.

An emphasis on the goal of student growth ensures that all students reach their full learning potential, regardless of the starting point and pace of learning compared to others. It extends academically advanced students to the limits of their potential regardless of age or year level. It ensures that the potential of initially less advanced students is revealed and built upon, so that they make steady progress towards academic achievement levels as high as those of any other student with similar innate capacities.[xvii]

The Australian Productivity Commission drew similar conclusions (again, my emphasis in bold):

It's well known that our students' performance in basic areas like English and maths have been on a downward spiral compared with many of our international counterparts. **This is despite education funding in real terms having significantly increased over the last ten years.**

So should we be worried? After all, our students' academic achievement is still above the OECD average. Well, how about these sobering figures. In mathematical literacy, an Australia 15 year old in 2015 had a mathematical aptitude equivalent to a 14 year old in 2000. **We've lost a whole year's worth of learning in 15 years. A whole year!**

Our national participation rates in Year 12 physics and advanced mathematics has fallen by more than 30 % from 1992 to 2012. That's a huge number. We aren't talking about slightly less people doing physics and advanced maths but almost a third less.[xviii]

I am not advocating that more students should do higher level Mathematics or take Physics if they are not interested in these subjects, but I doubt such a large decline in student uptake was due solely to a change in interest. An abundance of credible evidence indicates we have problems.

School reports are replete with cliches such as "not achieving to their potential", but no one (including the student) really knows the limits of that potential. (Which may explain why the Gonski review accused a significant number of schools of 'cruising'.) We just know every student can achieve more provided we offer them an education that is tailored to their needs and interests instead of the presumed needs and interests of the mythical 'average' student.

In the past, educators could argue that such shameful outcomes were a function of the constraints schools faced (there was only a certain amount that can be done by one teacher, working with a class of students, for a prescribed number of minutes each week, in thirty-eight to forty school weeks). We came to this conclusion, and will continue to do so, so long as we treat learning time as fixed and educational outcomes as variable, instead of the other way around, and allow education to be constrained by the capacity of teachers to meet the needs of individual students while clustered in class groups. I am not suggesting teachers are incapable or uncommitted, but there is only so much one person can do.

The solution is obvious (though not easy to achieve with the current approach).

**(1) Learning outcomes should be fixed and learning time should be variable.** Every student should meet the standard required for them to progress to the next step in their learning journey, regardless of the time and other resources required, and

**(2) Learning should not be constrained by the teacher's ability to deal with the learning needs of every individual student.** (Each of these constraints will be revisited in DB 11.)

**5** In Mathematics, Level 2 proficiency means 'at a minimum, these students can interpret and recognise, without direct instructions, how a (simple) situation can be represented mathematically (e.g. comparing the total distance across two alternative routes, or converting prices into a different currency).

## Critiquing some anticipated objections

I can imagine some past colleagues formulating their defence of the traditional system, which I anticipate being:

**1. Discredit these data.**

Professional educators cannot cherry-pick data they like and reject those they don't like. PISA and other tests give us a snapshot of a fragment of what occurs, or doesn't, in schools (although it's not just about basic academic skills as it also includes a measure of wellbeing). The tests are independently developed to meet high standards of validity and reliability, which is more than can be said for many other forms of assessment used in schools.

Many educational outcomes are measurable quantitatively (in numbers) and/or qualitatively (by other means). These data are part of the repertoire of a professional educator. If PISA and other data indicate a problem, we are derelict in our duty if we ignore them.

Our principal concern should not be our PISA performance in comparison to any other country, but the message it sends about the quality of our schools. Young Australians are as capable as any other students. Those who believe otherwise do not belong in the education profession.

(Educators are wary of tests such as NAPLAN because they have been used to place schools on a Leagues Table. This practice was unfair to schools that were doing an excellent job catering for the needs of students who were disadvantaged, while some academically selective schools may have been less effective, but their results placed them towards the top of the tables.)

**2. Better performing countries teach to the test and sacrifice other educational goals to do so.**

It is common for western educators and politicians to suggest high performing Asian countries teach to the test and do very little to promote creative problem solving and other 'higher order' thinking skills. There are three weaknesses in this argument. Firstly, not all Asian countries have the same approach. Not all Asian students sit in long rows being drilled on test performance. Secondly, not all the countries that outperformed Australia in PISA were Asian. Belgium, Canada, Demark, Estonia, Finland, Germany, Ireland, Netherlands, New Zealand, Norway, Poland, Russia, Slovenia, Sweden, and Switzerland outperformed us in Mathematics in 2015. A similar list can be developed from other PISA results. No one is suggesting we should drop everything to prepare for the test, but the results will improve as a consequence of adopting a more effective approach. Finally, there is no reason to believe Asian students are less proficient at higher order thinking skills.

**3. We are doing the best we can because…**

This defence is built on an assumption that classroom teachers are the only available means of delivering basic skills and subject specific learning to students. This is complete nonsense, although a lot of teachers still believe they are the gatekeepers of knowledge, but let's let that slide for the moment and consider the following:

*We are doing the best we can, given that teachers are best equipped to differentiate learning to meet the needs of individual students.*

I have been privileged to work with some outstanding teachers in my time, but even the best of them could not differentiate with the granularity required to meet the needs of every student in a class.[6]

6 **It puzzles me that we have come to expect this in so many dimensions of our life, from maps to menus, but we refuse to accept AI has a role in education.**

The power of AI is now being harnessed to create adaptive programs that are tailored to individual students. When the best of these is in operation, a group of twenty-five students will be presented with twenty-five different learning experiences. These programs can deal with any number of students simultaneously because their designers overcame two inherent weaknesses of the teacher centric model - the inability of a teacher to be everywhere at once (i.e., they can only interact with a certain number of students at once) and the fact that no one teacher possesses all the skills required to address every possible learning problem.

*We are doing the best we can, given that teachers are only available to assist students at certain times.*

Of course, our most dedicated teachers give up their free time to help students, but they cannot be available 24/7. However, it wouldn't take you very long to find high quality digital offerings (EdTech) that are in fact available 24/7. Students should not have to wait until the teacher has finished helping another student, or book a time at the next break, or wait for the after-school tutorial to have their issues addressed (they often forget the particulars of their issue by the time help arrives). They can access learning resources when they are most prepared to learn, which does not always coincide with the timetabled lesson time. In any event, teachers need to spend more time helping (including extending) individuals as well as contextualising and applying learning, which they can do better than EdTech. Time for this can only come from less time spent delivering content at the same pace to large groups, and incorrectly assuming everyone gets the message. We need to stop thinking of learning as a phenomenon that only happens on campus in timetabled hours under the gaze of a teacher. Not everyone in Year 9 was ready to learn quadratic equations at 0930 on Monday, June 6, 2022, but the lesson went ahead regardless.

These two claims that we are doing our best are the educator's version of Catch 22. We cannot do a better job because schools' supply chains and organisational architecture revolve around teachers, and because we adhere to a schooling system that revolves around teachers, we cannot do a better job!

*There is more to education than PISA and other test results.*

I agree, but that does not solve the problem.

Defenders of the traditional system will cite other benefits students derive from school. The healthy 'mentor' relationships that form between teachers and students, the range of extracurricular activities offered that enrich the lives of students, the friendships they form with their classmates – all true, at least for some students.

We need to take a reality check here. I worked in nine schools in my forty plus years in education, including some that were considered 'elite'. Only a few students in these schools had a teacher mentor. I know some of the top academics, sportspeople, actors, and musicians did, at least in the area in which they shone. Thankfully, (at least in recent times) so did many of the students who struggled academically or behaviourally, at least in the area where they struggled the most, but what about those who didn't and still don't make their presence felt? Many students, either intentionally or unintentionally, blend in with the crowd and become somewhat anonymous.

Of course, all students deserve to feel safe and valued. They need to have friends. They need to have fun. These are important not only because we are concerned about wellbeing, but because they are important platforms for learning. Having them does not require us to compromise academic outcomes or the development of transferable skills. Schools should do and can do both.

*Some of the countries that outperform Australia are also teacher centric.*

This is true, but each of their approaches is in some respect unique. Their cultures and economies are different, as are aspects of their approach to education. They have different

curriculums, different assessment systems, and different approaches to teacher training. I could present a case for a new approach for all of them, but I am an Australian educator committed to improving Australian schooling. My motivation is not to make our schools as good as Finland's but to create the world's best school in Caloundra. This defence is tantamount to standing under a leaking roof but refusing to fix it because everyone else in the street also has a leaky roof. Maybe they do, but you're still getting wet!

I restate that we should not change our approach to schooling just to get better PISA results. We need to change our approach to get a range of narrow gaps in proficiency, which will in turn lead to better PISA results. It is not the PISA results that matter, but the underlying reasons for the results. These are important issues because, as Shergold, P. et al. noted in their 2020 report (my emphasis in bold):

Literacy, numeracy and digital literacy will be recognised as essential skills for every student. At a time of technological transformation, when the future of work is uncertain, these attributes are more important than ever. Students must be supported to attain capability in these areas before they finish school. **Every young person who leaves without them is having their economic and social future short-changed.** [(xix)]

## Just in Time learning

It stands to reason that educators (and I am including parents in this) need to assist the learner at the point they experience difficulty. This requires them to have access to a constant flow of valid and reliable data and the expertise and time to offer personalised assistance. In other words, the help must come 'just in time'. The problem with traditional schools is that data is sporadic in terms of frequency and is often lacking with respect to reliability and validity. Experienced teachers claim they can determine whether a student is experiencing difficulties through means as subtle as body language, and they probably can, with some students, some of the time. If they were picking up every student in need, we would not be seeing these disappointing data. The implications of not acting quickly were recognised by the Productivity Commission (my emphasis in bold):

A fundamental quandary for some parts of the system… is that **failure to act early has consequences for people's job and lifetime outcomes that may only emerge many years later, but are at that point largely irreversible.** This requires clear directional reforms with a long term focus. [(xx)]

Let us assume for the moment that teachers do divine if students are experiencing difficulties, and they do so instantaneously. What do they do about it? If they have other educators in the room (often teacher aides), they can ask that person to assist the student. What if there are more than a few students, or a few students with different issues? Let us assume that there are enough aides to help whoever needs it at the time. What happens to the rest of the class? Some of the students are more than ready to steam ahead. Does the teacher get them to mark time while the others catch-up or are those individuals allowed to learn at pace appropriate for them, in which case the gap in proficiency widens? All these problems are faults with the traditional, teacher centric schooling model, and that is one of the main reasons students in many countries are underperforming. This is not just an academic issue, as the Productivity Commission noted. Students who continue to experience difficulties do not develop the self-efficacy (belief in one's ability) they need, and if they give up, they can manifest behaviour issues that make the problem worse. By the time some students arrive in middle school, they are completely lost. In the past, we could not do much better, given the limited tools at our disposal, but as we move through the third decade of the 21st century and witness the power of the Fourth Industrial Revolution, we need to admit we can do and must do better than this.

Imagine the learning journey as a party of 15 students on a bushwalk. We all set off together, but as time passes some students (1) stop to rest, or (2) tie their shoelaces, or (3) remove a pebble from their boot, or (4) have a drink. The leader

of the walk has his or her eyes fixed on the 7th and 8th student in line and only notices that four students have dropped off the back of the line. Unfortunately, none of the students have a map or compass and have no means of communicating with the others. To make matters worse, they are worried about being left behind, so they continue as if nothing is wrong, but take the wrong turn off the track. They are now completely lost.

Don't panic – no teacher would allow this to happen on a bushwalk. They would probably place another teacher at the back of the group to pick up stragglers, make sure they had good communication, brief everyone on the route to be taken and let them know about some waypoints, and tell them that if they ever lose touch with the group, they are to stand still and call for help. Better still, they would assess the fitness of each student and break the group into a few smaller parties that could move at a pace that is appropriate for them. Getting to the destination is more important than the time it takes.

Imagine if we used the 'time is fixed and learning is variable' method to prepare athletes (I confess I have no expertise here, so forgive my clumsy examples). Unit 1 is on how to start a race. At the end of the unit, Jim and Joan have perfected the start and are ready to move on, but Bill and Sarah are still lagging on the blocks. Imagine if the coaching team ignored the problem with Bill and Sarah and expected everyone to move on to the next unit (maybe on acceleration in the first 10 metres). Bill and Sarah may be great at this part of the process, but they will never perform well because they are always the last off the block. By the way, I forgot Samantha and Chris who were already very proficient starters and simply got bored having to attend sessions on skills they had already mastered. (Chris was eventually kicked off the squad for goofing off!) Imagine if the coach entered every member of the squad in a big race, ready or not! Now imagine if the coach gave squad members little or no feedback until after big races, when it was too late. Imagine how disheartening this would be for the athlete! This phenomenon occurs every day in many schools.

This example is ridiculous because we all know that good coaches personalise training to meet the strengths and weaknesses of every individual, even though these can change daily or even in the middle of a session. Why do we accept less of educators?

## Self-efficacy

Psychologist Albert Bandura[(xxi)] defined self-efficacy as one's belief in one's ability to succeed in specific situations or accomplish a task. This is our goal. It is subtly different to self-esteem, which Wikipedia defines as (with my emphasis in bold):

… an individual's **subjective evaluation of their own worth.** Self-esteem encompasses beliefs about oneself (for example, "I am unloved", "I am worthy") as well as emotional states, such as triumph, despair, pride, and shame.

While I want students to have a healthy level of self-esteem, I prefer to focus on 'self-efficacy' because it is founded on objective assessment rather than feelings or emotions and because it enhances an individual's ability to be a lifelong learner. In other words, students should have reasons to believe in their own ability, and these reasons should be based on evidence, as highlighted by Senge in his description of his first of five disciplines.[(xxii)] (Objective self-assessment might also help overcome some of the anxiety associated with social media.)

It was interesting to note that when participants in the 2020 Pearson Global Learner Survey were asked to select three from a list of ten outcomes that education should provide, Australian respondents ranked 'To feel confident in their abilities' in 2nd place, after 'To gain professional skills', and ahead of 'To have a better life' in 4th place and 'To earn more money' in 6th place[(xxiii)]. This makes sense, given 47% of Australian respondents found themselves in need of further education because their job or job status had changed in the last 24 months (this was the 5th highest response amongst the eight surveyed

countries.)[xxiv] Young people are not stupid. They know if they are proficient, and we owe it to them to ensure they are. Strong self-efficacy is built on a platform of proven proficiencies, which may or may not be reflected in subject grades, yet schools tend to progress most students from one year to the next regardless of their proficiency levels. A poor grade is enough to open the doors to the next level of learning, even if the student is not yet proficient in all aspects of the current year's program. This practice compounds a problem that seriously undermines the student's chances of success in later life. We send them off to do a job with a toolkit lacking basic tools.

Decades ago, a student might be asked to revisit (AKA repeat) the year, which meant going through an entire year's work again, when the gaps in learning might exist in only some of that program. At the opposite end of the proficiency spectrum sat students who were highly proficient in one or two subjects (most often Maths and Science), in which case they were often accelerated a year in all subjects. Why? Because, in the first case, the timetable would not accommodate a student taking Year 7 Maths and the rest of his/her subjects at Year 9 level, and in the second case, a student taking Year 10 Maths and Science and the rest of his/her subjects at Year 9 level. (There is no need to tag work to a particular year level if we focus on proficiencies.) The organisational architecture of the school would not allow it. This need not be an issue today. (This will be explained in DB 11.)

The first step in adopting a proficiency-based approach would be to accurately measure each student's proficiencies. My own experience with data from Year 6 Maths students confirmed Gonski's findings. The risk is that parents want to reject the data or shoot the messenger. I was delighted to see a positive response from students and parents at my last school. If there is an issue, they said, we would rather have it addressed than ignored.

I stated earlier that my observations were not based on data from CCPS. It may be that every student in every year level is right on target with respect to proficiencies. Certainly, the school's NAPLAN results have been impressive, but I suspect some students have stopped to tie their laces and may well be lost.

Forgive me for finishing on a personal note:

I attended a very strict catholic boys' school in Sydney from Year 4 to Year 12. I finished Year 10 Credit Maths placed third in my class of 40 students (yes, there were 40 in a class). I can remember the teacher asking anyone who wanted to apply to do the Level 2F Maths (equivalent to Mathematical Methods) to see him. When I got to the front of the line, he looked at me and said sarcastically, "What makes you think you're good enough?" I shut up and sat down feeling embarrassed. I took a lower level of Maths in Years 11 and 12 and, because I mucked around (a long story), I not only failed to gain proficiencies, I lost them. As each day passed, the problem became more acute. By the time I reached the HSC exam I was a mess. I was doing extension English, Economics, Modern History and Ancient History, but I was heading for a failure in Maths. When I entered the final exam room, I felt I could barely add up. I could add up, but my confidence was shot.

In later life I completed a few degrees, including an MBA. I was supremely confident in most of the MBA courses, but very worried about my prospects in Financial Management and a couple of other courses involving statistical analysis. To this day I fear heights and high-level maths.

I have told this story because I want you to know that I empathise with students who lack self-efficacy. They may be confident in some subjects but unsure in others. I learnt, like many of them, to deflect attention by looking like I know what is going on when in fact I didn't. I have ignored the problem in the hope it would go away, all the time knowing that it wouldn't. And I have sat in a class listening to a teacher talk, for all I knew in Swahili, all the time thinking that I was the only one who didn't get it.

I want, with your help and the leadership of Leon and his team, to ensure that the students of CCPS are provided with a learning program that is tailored to their needs and ensures that no student is left behind. Every student needs a red button they can press that calls out (in the words of a Dick Tracey character) “Hold Everything!” and have help arrive Just in Time.

I don’t know what data would tell me about the proficiency levels of every student at CCPS. No doubt, the school’s teachers provide individual attention to students and the gaps I referred to may be less pronounced. If the problem does not exist, the school should be congratulated and acknowledged as a rare exception. If, on the other hand, even small gaps exist, they will need to be addressed.

**Extension Activity**

Discussion Brief 5 - Proficiency and Self-efficacy written by Jamie Dorrington

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