

Policy Pitch - *Mind the gaps: what can we do about widening gaps in school education in Australia?* - Melbourne 10 May 2016

Learning gaps between Australian students of different backgrounds are alarmingly wide and grow wider as students move through school. Grattan Institute recently published [Widening gaps: what NAPLAN tells us about student progress](#). The report finds that the gap between students with parents with low education and those with highly educated parents grows from 10 months in Year 3 to around two-and-a-half years by Year 9. Bright kids in disadvantaged schools fall two and a half years behind bright kids in advantaged schools by Year 9, even though they were doing just as well in Year 3. These students are not getting a fair go. Dr Peter Goss, Grattan Institute School Education Program Director, hosted a panel of senior leaders in school education to explore: How big are these learning gaps, and what do they mean in practice: for young Australians, for the economy and for Australian society? What should we do to enable every child in every school to achieve their potential?

Speakers: Dr Peter Goss, School Education Program Director, Grattan Institute
Melodie Potts-Rosevear, Founder & CEO, Teach For Australia
Geoff Masters, CEO, Australian Council for Educational Research (ACER)
Sonia Sharp, Principal, Nous Group's Public Policy Practice

ANDREW HISKENS: Good evening everyone, as the last people filter in I'll start because I'm only the welcome so it doesn't matter if you miss anything that I'm going to say. My name is Andrew Hiskens, I'm the Manager of Learning Services here at the State Library and it gives me great pleasure to welcome you all to the *Policy Pitch* presented by Grattan Institute and State Library Victoria. Tonight's topic is *Mind the gaps: what can we do about widening gaps in school education in Australia?* This seminar is being held on the traditional lands of the Kulin nation and I wish to acknowledge their elders and them as the traditional owners on the land, and I also want to pay my respects to any other elders who may be present with us this evening. I'd like to give a warm welcome to you all. Grattan Institute members and staff, Friends of the Library and, of course, tonight's speakers, Peter Goss, Melodie Potts-Rosevear, Geoff Masters and Sonia Sharp.

Tonight we are privileged to be hearing insights from four senior leaders in school education. Learning gaps between Australian students of different backgrounds are alarmingly wide and grow wider as students move through school. Our knowledgeable panellists will explore what this means in practice for young Australians, the economy, and for our society. They will also tackle the question of how we enable every child in every school to achieve their potential. I'm very pleased that this month Grattan Institute's attention has turned once more to examining school education. Here at the library we are committed to bringing big ideas in education to national conversation, working with the Koshland Innovation Fund we have developed the Australian Learning Lecture (ALL) which is a ten-year joint project designed to strengthen national conversation in Australia and for all Australians and along the way we've had very interesting discussions with a number of the panellists, with Pete, with Melodie and with Geoff. And Sonia, clearly I think we will have to have a conversation as well. In our broad range of learning programs offered here at the State Library we endeavour to engage young people in

critical thinking, through the development of research skills, and our writing programs foster literacy and communication skills, supporting best practice in writing both for and by young people. We also offer programs which build the capacity of teachers and adults to support young Australians' education development.

It's very satisfying to see so many people here this evening to hear about this important issue. Peter, Melodie, Sonia and Geoff, I'm looking forward to hearing your observations and solutions. I'm now pleased to introduce Dr Peter Goss, School Education Program Director at Grattan Institute, who will introduce the panellists and lead the discussion. Pete has over ten years of experience as a strategy consultant, most recently with the Boston Consulting Group advising federal and state governments on service delivery innovation. He has worked with Noel Pearson to improve education outcomes for Cape York primary students and advised the Federal Government on the future of international education in Australia. Recently he wrote the Grattan Report titled *Widening Gaps: what NAPLAN tells us about student progress* which, of course, is the starting point for our conversation this evening. So please join me in welcoming Pete.

PETER GOSS: Thank you Andrew for such a warm welcome and welcome to you all on what could have been a miserable day, but thank you for coming out tonight. We have about an hour-and-a-quarter together and I'll respect that time. Briefly, the way that the evening is going to run is I will give a high level overview of some of the findings that we had in the report that we called *Widening Gaps* and then I'll step into a more traditional moderator role and invite our panel members to make their comments. Education is a very topical thing in the election. It's one of the things that can set young people for the future. When it's done poorly, people suffer. When it's done well, education can increase the opportunities that young people have in life and the positive benefits can reverberate down the generations. That's what we're talking about and the panel members are all very passionate about it.

So if I could introduce Melodie Potts-Rosevear, who is the Founder and CEO of Teach For Australia. Melodie's passion is to challenge education inequity and that was inspired by her work in disadvantaged schools also in Cape York – we've both worked with Noel Pearson – and in the USA. In 2014 Westpac in the Australian Financial Review named Melodie one of the 100 Women of Influence in recognition of her contribution to combatting education inequity in Australia. Next we have Professor Geoff Masters, CEO of the Australian Council for Education Research (ACER). He has a PhD in education measurement from the University of Chicago and has published widely in the fields of educational assessment and research. I read each piece that he writes and he's written extensively on the challenges of education and the spread in the different achievement that lies behind some of what we'll talk about tonight. His contributions to education have been recognised through the award of the Australian College of Educators' Medal in 2009 and his appointment as an Officer of the Order of Australia in 2014. Sonia Sharp is currently a Principal in Nouse Group's Public Policy Practice. She's worked at an executive board level for the past 17 years in the UK and Australia across all aspects and levels of policy and delivery for children, young people and families. She's also a chartered psychologist, having taught in mainstream and specialist schools, and was Principal Research Fellow on a national anti-bullying program. Three quite different perspectives and three very deep sets of experience, could you please join me in welcoming our panel?

Mind the Gaps: what to do about widening gaps in school education. We all know that there are differences in where students are at in their learning and where some of the outcomes are. In

Australia I think we're fortunate to have NAPLAN as a national test that can give us some real insight into what's happening at a national level. Now, on a day where students in Years 3, 5, 7 and 9 have all sat NAPLAN maybe they wouldn't all thank me, but I'm hoping that they've had a brief look at what type of test it is and then have gone in there and done their best, realising that there aren't personal consequences for them or their teachers or, indeed, their schools. That's not what it was designed to do, but NAPLAN, linking information together across the broad bulk of the middle years of schooling in literacy and numeracy, these foundational skills, give us an unparalleled opportunity to understand what is happening in Australian schools. It's also sometimes quite tricky to understand and interpret, and that was one of the reasons that we did this report to try and understand in what we think are quite intuitive terms how well students are doing relative to one another; how much progress, how much learning they make relative to one another over time; and where those gaps go because, after all, the purpose of schools is about progress on the academic side. There's more to schools than that of course, but on the academic side it's about progress, it's about learning. A school can't choose how much its students know when they walk through the door in Prep or in Year 7, but they can and the job of the teachers every day is to maximise that learning.

So the report that we wrote is publically available, you can download it. For those of you who like social media, you can tweet this. Let me take you through very briefly some of the highlights of that report. The first one was to look at what is the spread of student achievement in our schools? So let me take you through what we've got here. We've got along the bottom Years 3, 5, 7 and 9, the four years when students sit NAPLAN. Up the left-hand side we have the measure that we translated NAPLAN scores into that we called "equivalent year levels" and then for each year level we looked at where do the bulk of students sit? So the orange bar is the middle 60% of students from the 20th percentile to the 80th percentile, this is not the extremes. What you can see on this chart is that in Year 3 we found that there was a two-and-a-half year gap between the 20th percentile and the 80th percentile student. That's a lot, two-and-a-half years, but that gap grows to four-and-a-half years, five-and-a-half years and five-and-a-half to six years in Year 9. Within any school the two dots which represent the bottom 10th and the top 10th there's up to a seven year gap in the equivalent level at which we estimate the students are functioning based on the NAPLAN data. That makes the job of a teacher tough, but if that isn't recognised the students that are well ahead are not going to be learning much and will be bored, the students who are well behind will not be learning much because they'll be lost.

The second thing that we found when we looked through this data was that national minimum standards are set too low. So what we have on here is the equivalent year levels along the bottom and then the NAPLAN scale scores, and that orange curve is the performance of the typical, the median student in Australia. This is like the classic height for age chart that we have for kids, but just the 50th percentile line. When we read off that from the national minimum standard, the threshold above which we say students are at minimum standard or below which they're below it and then go down, what we find is that in numeracy the national minimum standard cut-off is slightly below the average level of a Year 5 student. What does that mean? That means that when we tell ourselves as a nation that 90-something per cent of our students are performing at or above national minimum standards what we're actually saying is that 90-something per cent of our students are no more than four years behind the average of their peers. That's not good enough. We've called publically for that to be raised and ACARA is well-aware of this and are looking to put in higher level standards because you can't aim high if the bar is set too low.

What about gaps between students? That's talking about the spread between individual students, but some of these gaps are predictable on known factors to do with the students' background: the educational level of their parents, where they come from, what school they go to, where they live. And what we found with our approach is that when we looked at the parental education levels either for those students who had parents who had a university degree or more, the top line, or the bottom line had maybe finished Year 12, maybe had a TAFE certificate 1 to 4. In Year 3 the gap was about 10 months on average, that's a chunk in Year 3, but by Year 9 it was two-and-a-half years. When we broke it into what school the students went to the gaps were much bigger. When we looked at schools with a top quartile of the student body and the bottom quartile in Victoria – and this data is all collected and it's all public through the NAPLAN tests – we found that the gap went from one year three months in Year 3 to over three-and-a-half years on average, depending on the school that students went to.

The last thing we did - because some people will say, "But different students have different levels of natural ability and you can't do this, you can't control it that way" - is we did control it for that. We said let's take three groups of students, those who did not so well in Year 3, who did at the average in Year 3 and then students who did well in Year 3, and that's shown because in Year 3 all of them start from the same level. Even from the same starting point, in Year 3 there is a very big difference in where students end up by Year 9 based on what school they go to. The biggest relative losses are for the bright students, those who are at the 80th percentile in Year 3. Every student deserves to have their learning maximised and if we're going to be an innovative society we need to make the most of the human potential of every bright kid, and they are losing up to two-and-a-half years compared to people who did no better than them in Year 3. That is not what I would call a fair go. In Victoria this plays out, as it would in Australia, across depending on where you live, the darker the colour the greater the relative progress, so you can see the inner eastern suburbs tend to make the most progress. We don't want to have a postcode lottery of how well people do in school because NAPLAN, for all its limitations, has some predictive power for what's going to happen in later life.

So these are some of the challenges we're facing, what I'm going to do for the remainder of tonight is we're going to talk a little bit about what does this mean, let's try and put a human face on it. So the first question is does this resonate, the second is what do these gaps mean in practice, the third is what can we start to think about doing about these gaps? Then we'll have time for audience questions. I've had many audience questions submitted, well over 20, I've been able to incorporate about half of them into the questions that I will ask the panel but I'll save as much time as I can for questions at the end and make sure we still get out of here on time. I'm going to start with Geoff. Geoff, you wrote a great article last year about the big five challenges in school education, three of which seem very relevant here: reducing disparities between Australian schools; promoting flexible learning arrangements focused on growth – and we'll return to that one later I think; and identifying and meeting the needs of children who are on trajectories of low achievement. Let's focus at this stage on the first challenge.

In a couple of minutes, what are the main factors that contribute to the disparities between Australian schools?

GEOFF MASTERS: Thanks Pete. I think this is an important general question because there is evidence within Australia, particularly through our participation in the OECD's PISA program that disparities between Australian schools have increased recently. So what that means as I interpret it is

that it's becoming increasingly important in Australia which school students go to. How they perform depends on which school they attend and I'm drawing here on analyses that my colleagues John Ainley and Eveline Gebhardt undertook in their report *Measure for Measure* looking at data from 2000 through to 2012. What we can see there is that over that 12 year period there was a steady increase from 20% to 28% of the variants in student performance being between schools. So our schools appear to be becoming more different and what John and Evelyn also observed is that it's not just that our schools are becoming more different, those differences are increasingly related to socioeconomic background.

So in terms of what we can do, one thing we know is that government policies do make a difference when it comes to disparities between schools, and we know this because you can see it at the extremes. If you look at a country like Finland, in Finland, and I'm not advocating this but it's government policy, there are relatively few private schools and private schools are not able to select the students they admit, they're not able to charge additional fees. The consequence of that is that Finnish schools are very similar to each other. It doesn't matter much in Finland which school a student goes to. In fact, I said our percentage has increased from 20% to 28%, in Finland it's bounced around between about 5% and 9% of the variance between schools. At the other extreme you have governments that have introduced other policies, for example to stream students into academic schools and vocational schools, and where there's a decision of a structural kind that governments take you can see even greater disparities between their schools, their schools become even more different. So the general point I'm making here is that policies can make a difference and the things that we need to be really paying attention to I think in Australia, apart from the fact that there is this trend underway, we need to be thinking about what's often called "residualisation", students being residualised, less advantaged students, lower performing students ending up, one way or another, in particular schools and more advantaged, higher achieving students ending up in others.

So we need to be thinking about that whole issue of student residualisation. We need to be thinking about how we ensure that high quality teaching is occurring in all schools and that we don't end up with less able teachers being shuffled - and this is an anecdotal comment rather than a research-based comment - and teachers ending up in lower performing, less advantaged, harder to staff schools, less able teachers ending up in those schools. So we need to be thinking about that and obviously also that applies to leaders, so we need to be ensuring that high quality leadership and effective school improvement practices are being implemented across all our schools, and I think policies are able to address, to some extent, some of those issues.

PETER GOSS: So in some ways, having chosen a way in which we have three sectors, and that has evolved historically, and recognising that that is a reality in Australian schooling, then there are still a range of things that we can do at a policy level to remove the disparities?

GEOFF MASTERS: I think that's the point. We need to be looking at what we can do from a policy point of view within the constraints of the current system and I believe there are things that we can be doing. We certainly need to be paying attention to what's happening, the trend that's occurring in Australian schools.

PETER GOSS: So one of the ways of doing that maybe not at a policy level is to work within the current system and try and infiltrate it in some ways, in the best possible ways. Melodie, Teach For Australia was set up in large part to address these gaps by getting talented young people into

classrooms focused on disadvantaged schools. Can you talk to me about how much is it the person in front of the classroom and how much is it about broader factors, like the culture of the school or factors at the school gate? What's happening in some of these challenged schools?

MELODIE POTTS-ROSEVEAR: So the good news is you've given me the easy question because it's clearly all three of those things. It matters who's in front of the classroom, it matters the context of the school in which they're in and it matters very much what the students and the community are presenting, if you will, at the school gate. But I guess the underlying premise that informs our work at Teach For Australia is that the quality of the teaching that occurs in the classroom with students can have a transformative effect, even when you control for the school environment, and we exclusively work in disadvantaged contexts and often more residualised contexts.

So in the work that I've seen our now 420 teachers do across 96 schools ranging from metro Perth to Tennant Creek to regional and urban Victoria, we see across very different contexts teachers able to have pretty remarkable results, so a year-and-a-half worth of literacy gains and six months' worth of time and testing and assessment to account for that. We know from the international research that school effects, whether that's the teacher or the leadership, the combination of things that happens within schools, can range from between 30% or I think the late Dr Ken Rowe estimated even as high as 60% can be attributed to the school effect. So when you think about where it is that we want to try and intervene and what is a very complex context, particularly when you're talking about disadvantaged and schools serving lower socioeconomic communities, I don't think we can underestimate the power of the teacher, but I don't think that the teacher as a hero is necessarily the context, the sort of policy setting that we need to have a more equitable set of outcomes for students.

PETER GOSS: I'm going to pick up on that and throw a couple of related audience questions to Sonia. Given that some kids are living very tough lives, do we expect or have evidence that the effect of disadvantage can be nullified through school leavers or do we expect there will always be some gap? Another way it was put was would educational policies alone redress these achievement gaps or are more general social policies needed?

SONIA SHARP: I think we've heard and we know that there's lots of research that says that intergenerational poverty and growing up in disadvantaged circumstances does have a lasting impact, and from your presentation earlier we know that disadvantaged individuals can achieve less and that schools that work in highly challenged communities can struggle to raise attainment and achievement. We know that those gaps grow as children get older sometimes and also we know that it has a long-lasting impact. However, there are individual schools and individual teachers who make a massive difference and who genuinely do close that gap and we see examples of those around the world and we see them here in Victoria.

There's plentiful evidence to show on an individual school basis or an individual classroom basis people do make a difference and those individual schools and individual teachers seem to have some things in common. They first of all have a belief that it's effort rather than ability that leads to success and they organise themselves in order to leverage that to maximum impact. They also invest an incredibly intensity of attention in terms of the individual student, individual learner, who they are, where they are in their learning and what they need to do next, and they engage them in that conversation and their families in that conversation wherever possible. They make learning fun and exciting and so people have the "whoopie" factor when they're coming to school, and they leave

nothing to chance, so that intensity. These seem to be some of the factors that make a difference. There are also some systems that seem to make a difference, so recent outcomes and reports on Vietnam, for example, where 19 out of 20 ten year olds are achieving significantly higher in maths and other areas than their counterparts in similarly poor economic backgrounds.

So we can make a difference, the question is how do we extend that and how do we make sure that that is the case for every child, not a postcode lottery depending on which is your local school?

PETER GOSS: Before we go into the next phase, by audience request I'm going to touch on an important area, the issue of specific learning difficulties which includes, for example, dyslexia. The questions broadly, one was around what is the scale of these specific learning things? Because, in a sense, the prescription you have of what good teachers do would apply to the whole population disadvantaged otherwise, but where there are specific learning difficulties something more might be needed. Then specifically why is there inertia to change when there's pretty credible educational research about what are the evidence-based practices that help children to learn literacy with these difficulties? So Sonia, you're the psychologist, here you go.

SONIA SHARP: Well, lots of children struggle to learn to read, it isn't unusual that learning to read is difficult, but most of us have forgotten that by the time we get to our age because the majority of the population are relatively fluent readers. But there are some children who struggle for a range of reasons and dyslexia is one of those, so different neurological networks and connections that mean that our experience of learning to read takes a different route and can be much more challenging and that challenge can persist throughout our lives.

The question was about the extent of it, so around about 20% of children will experience some difficulty in learning at some stage, sometimes temporary, sometimes a little bit longer term, and about 10% of children I think in Australia are estimated to have specific learning or literacy difficulties of the dyslexia type, and there are lots of things that underpin that. So say, for example, the incidence of language processing difficulties is emerging as a key issue in terms of affecting literacy development and also we know more now about the impact of trauma and early childhood disturbances on learning processes as well. There are a whole range of reasons why children find it difficult.

PETER GOSS: So this seems quite technical. To what extent does every teacher need to be able to do this? To what extent is it beyond a reasonable expectation of a teacher?

SONIA SHARP: I think every teacher needs to know how to work with children across the range of ability and many teachers do do that. Why is it difficult, why is it challenging, and I think the question is about why do we seem to be ignoring the evidence base that's available there? I think that teachers and most of the teachers, in fact, all the teachers I know really try hard to do the best job they can for the children that they work with on a daily basis. But the information around literacy in particular is confusing, it's full of mythologies, and depending on when you trained your perspectives may be very, very different. So this is an area where understanding has developed enormously, but if you trained ten years ago, 15 years ago, 20 years ago you might have a very different approach to current and also literacy is an area that's full of polarised views. So making sense, removing the clutter of information around what works and bringing it down to some simple things that you can use in your classroom, that's what we've got to do and the evidence base is there and we do need to apply it.

PETER GOSS: So remove the clutter, make it very clear and then some additional training is what I'm hearing?

SONIA SHARP: Absolutely, definitely, bring people up-to-date, bring people up-to-speed.

PETER GOSS: Anyone else want to add to this very important issue?

MELODIE POTTS-ROSEVEAR: I would just add that I've never visited and observed a classroom with one of our teachers where there haven't been learning difficulties very, very present. So the ability, whether it's through initial teacher education degrees or through further training to be provided as we learn more about the evidence base and about the underlying learning difficulties to really help teachers stay abreast of that knowledge and what do to about it and how to use whatever additional supports may come with the child, is paramount. I think it is on teachers to have that knowledge, but it's also on the system to be able to cut through the chatter and actually provide the clear instruction to the teacher about how to work with that.

PETER GOSS: So now we're getting down into the heart of it, what happens in classrooms, what are some of the genuine challenges that are faced? Because while policy can clearly make a difference, the practices that teachers do in classrooms, the minute-to-minute decisions that they have to make with 20, 25 children in front of them, that's where the game is. So I'm going to throw this one to Geoff, I put up some information there on a five to seven year gap in a classroom, you've written on this. What does that mean? What are the academic implications for the kids who are either well ahead or well behind the average in a classroom?

GEOFF MASTERS: Thanks Pete. Well, the way that I think about this is that we're continuing in our schools to organise learning along an industrial or an assembly line model of schooling. By that I mean we organise children basically into age groups and we march them from one station along the assembly line to the next, from one year level to the next, and we deliver them the curriculum that somebody's judged to be appropriate for that year level. All of that might be fine if children were more or less at the same point in their learning, but we know that that is very far from the case. We know that, as you've been saying, the most advanced 10% of children starting any year of school are at least five years, maybe more, ahead of the least advanced 10% of students in that year level.

So I sometimes say if schooling were a running race, at the beginning of the year we already have students spread out along the track towards the finish line and they're spread out over five, six, seven years of school. It's inevitable, it's predictable what's going to happen: the students at the back of the pack are going to struggle, they tend to struggle year after year, they end up achieving low grades because as part of this industrial model we require teachers to judge and grade students on how well they're performing. So they're all being judged and measured against the same finish line and teachers are required to do that, so what we end up with is some students towards the back of the pack who are there year after year after year and they get a D this year, a D next year, a D the year after. In doing that we're not helping them see the progress they're making and, worse, we're sending them a message potentially that there's something stable about their ability to learn, they're a D student. So it's not surprising to me that we have many students who become disengaged and eventually drop out of school in some cases and become disenchanted with the whole game of school.

But at the front of the pack there's a different problem. At the front of the pack you have students who are going to get to the finish line often, not always, just by cruising, by not making a huge effort and there's research evidence that says some of the least annual progress is made by our most advanced students. So I think we have a potential problem at both ends of this pack that I'm talking about, students who are being judged to be poor learners, who are being sent the wrong messages year after year, who are unable to see the progress they're making because, the truth is, they are making progress, it's just that we don't always help them see the progress that they're making, and at the front of the pack we have some students who are coasting and who are not being stretched and challenged. So this is a long-winded way of saying I really think we have a problem. In my view it has its origins in the way we structure school, the way we think about learning. We think about learning as success on a curriculum that we've specified for an age group or a year level, rather than thinking about learning as successful progress that students make.

Our expectation should be that every student makes excellent progress in the course of a school year, for example, regardless of their starting point.

PETER GOSS: I totally agree and I want you to hold the thought on whether we need to break this industrial model because we'll get back to that towards the end. So that I think is a superb description of the challenges that are happening in each and every classroom with the students spread out across that track. What about some of the widening gaps between students of different backgrounds? I'm going to throw this one to Melodie, what are some of the broader social and economic consequences of what we're seeing?

MELODIE POTTS-ROSEVEAR: We know that kids who are in the lowest socioeconomic quartile, 40% of them won't finish Year 12. So economically what that means for them is that their choices in life are constrained, their earning potential, income potential is constrained. But just building on your point Geoff about the running race and have you got to the finish line versus have you made substantial progress, I think both for kids who are behind and for actually those, as you pointed out Pete, who are at the top the challenge that I think is most concerning is an orientation to learning itself.

There's been a lot written about growth mindset and I think that the kids who are at the beginning of the race, the front end of the race, part of what actually happens is they themselves end up with a fixed mindset because they're not seeing the challenge in learning and they come up with a narrative around "I'm just smart student" and they actually then don't stretch themselves and challenge themselves, and this happens regardless of the economic profile of the school. The kids who are behind really struggle with confidence and with that sense that year after year, D after D after D and we're not helping to construct a narrative about what learning is and that learning is a process and that learning is something that you can celebrate and see. So the social consequence of that I think correlates very highly, and we've seen this and we've sadly seen the conversations that our teachers are having with their students around suicide and dropping out of school and feelings of worthlessness. All students, irrespective of how well they do at school, can feel those things, but I think it's particularly acute when year after year after year you've been told that you're not making progress because of your grade, in effect that judgement.

So working with teachers and with students to cultivate more of a mindset of learning is a muscle and not a grade I think is critical to making sure that they'll either stick with it and have the outcomes that

Year 12 then means they're more likely to be able to have later on in life, but also just avoid some really disastrous personal consequences.

PETER GOSS: Thank you. It's sobering, this is happening in Australian schools, but there are some things that can be done about it. We've discussed the problem for a while now, none of us up here would be doing the work we do, nor I suspect many of those in the audience, unless we believed that change was possible and that your background is not your destiny. I'm going to kick-start this next phase before we move into question time with a particularly challenging question from an audience member. If you could change one thing to reduce the gap in achievement between students of different backgrounds what would it be? Now, there are no silver bullets in education, but a question like this does focus the mind. So in one or two sentences Sonia, Geoff and then Melodie, and then we'll dig a little deeper.

SONIA SHARP: It's a great challenge just to come up with one thing, but I would say start early, invest in high quality full day preschool, pre-early years learning. My reason for that is that we know that makes a difference and we're seeing that come through in the data here in Australia if you look at the work of Collette Taylor. And it's got to be quality, so really high quality early learning.

PETER GOSS: Fantastic.

GEOFF MASTERS: We should have talked about this before we started because that was exactly what I was going to say. We know that the achievement gaps that exist by Year 3 were there at the time children started school and many of them were there long before they go to school. We know through the Australian Early Development Census (AEDC) that we have something like 60,000, 22%, of children in their first year of full-time school who are judged to be developmentally vulnerable in at least one of the domains of the AEDC. So we have children who are starting school behind their cohort often, vulnerable, at risk of being locked into trajectories of long term low achievement, and I think if we're going to address the gap the time to address it is as early as possible.

MELODIE POTTS-ROSEVEAR: I'll be contrary and go to the other end, because most of our work is at the secondary context, to say that in primary school it seems as though you are learning to read and reading is critical to the concepts around computation and maths, numeracy, but in high school it's expected that you are reading to learn. If we look at what you put up on the PowerPoint earlier Pete, the idea that those gaps are widening over time, I think there's absolutely evidence to say we need to invest early and earlier intervention is better, but I would also suggest that something is happening, even if your starting point is the same, that's widening that gap, so what is it that we're doing to intervene later on at critical junctures? One of the things that I would like to see is an increased focus for secondary teachers on core literacy and numeracy pedagogy and instructional techniques, whether it's the teachers or it's other supports that are created within the school, to help those catch up as quickly as possible in Year 7. So I think yes, let's try, but I don't think we're always going to be able to solve it from the beginning and I think we've got to have really early and intense at the Year 5, Year 7 mark in order to try and level the playing field if it has widened in the meantime.

PETER GOSS: Thank you. More than one sentence each, but these are complex things. I'm going to take the Chair's prerogative and put one in myself because I would agree with all of those, but a way of doing it is to start to shift the mindset. We hear a lot about autonomy and accountability as a way of improving schools. It's not clear that they improve schools. Schools need a degree of autonomy, they

certainly need a degree of accountability, but I would want to shift the emphasis to helping teachers take the responsibility for maximising the progress of their students' learning and doing that in a way that's responsive and that is rigorous, so actually helping give teachers the tools to be able to understand and put this progress focus into practice.

So there we go, let's dig a little deeper and we need to keep the answers as short as we can. From Sonia, let's go then into some of those strategies, an audience question: over and above funding, not just "throw more money", what would limit the gaps between students from widening from the middle primary to middle secondary ages that Melodie was talking about?

SONIA SHARP: I think the bottom line is great teaching in every classroom every day. Of course, we could unpack that but we haven't got time at the moment, so I guess I'd pull out four things that we know do work. We know that literacy is really important, I'd absolutely concur with everything that Melodie was just saying, and we know as well that it's really important that every child is as articulate and literate as they are able to be, and I would add in numerous as well, by the age of eight and that we continue to work on that for those young people for whom it is harder for whatever reason, they need to continue, as you've just mentioned. I think engagement is really, really important and I think as part of that if every young person before the age of 13 was actively and positively engaged in some element of school life or community life, not necessarily to do with academic learning, it can be to do with any kind of learning and experience, that would make an enormous difference in terms of connectedness, because we know connectedness matters.

I think it's really important that individual teachers, groups of teachers and whole-of-school staff are, I would say, up close and personal when it comes to learning and individual students so that they really do know the children as individuals, they do target the teaching very much along the lines of your previous report in terms of targeted teaching, and that there's a pit stop mentality which means that we identify early signs of things not quite working right and understand that many children will stumble in their learning for whatever reason, but that we're very prompt to take action. That we do something about it, we notice it and we do something about it very swiftly. Finally, in terms of that middle primary to middle secondary, that we smooth the transition. We make it so much harder for children than it needs to be and probably, going to your point Geoff, we need to be a little bit more radical, a little bit less bounded in terms of how we move from primary to secondary school and have more of a blend of that generalist, good pastoral and specialist teaching probably throughout children's lives.

PETER GOSS: So this is sounding like there are some things that every individual teacher needs to do, but some things that happen at another level, and Melodie, you said earlier that it's not about hero teachers, that's not a way to get a system. Geoff, ACER developed the National School Improvement Tool, that next organisational unit. With that and with the data you've gathered, what are the improvement strategies at schools that would make the most difference?

GEOFF MASTERS: Well, I think we know that the things that really make a difference in schools are the quality of the teaching and the extent to which the schools are focused on addressing the needs of the students in the school, so identifying their needs and doing what can be done to address those needs. So I'm really picking up Pete from the point I made a little while ago that what we need in our schools are high expectations of all students learning. We should expect every student to be making excellent progress and we can't afford any longer, maybe last century we could, to be writing some students off as inevitable failures in our system. We need to have a deep understanding as teachers

that they are capable of making progress if we can get the conditions right, if we can engage them, motivate them, provide them with appropriate learning conditions. Every child is capable of making progress in their learning and maybe, over time, achieving high standards as well. So it's about expectations and it's about seeing teaching as a process of establishing where students are in their learning and trying to meet them at their points of need.

PETER GOSS: To Melodie, what needs to change in the policy level and the system level to enable every school to be working in the ways that well-documented in a number of different places to support them? The systems can't do it. Can they get in the way? What's going on?

MELODIE POTTS-ROSEVEAR: I think schools have to exist within some framework of a system, we want to know that there's a curriculum that, broadly speaking, is going to give our kids not just the content, but the competencies to be agents of their own destiny as well as productive and contributing members of society. You gave me the hard one. I think that there are a couple of things that we've seen. The first is that there's been a lot of emphasis, for example, in initial teacher education about what needs to change, but I don't know that systemically, beyond our broad framework for how teachers themselves might progress in terms of standards, that there's been an underlying set of resources and tools and almost self-help of how to go about continuing to build from an early entrant into teaching the kinds of skills necessary for the kinds of interventions that Geoff was just talking about.

So how do we continue to develop as a system and then use as schools and teachers the assessment tools that are out there to help us know exactly where students are and exactly where they're not getting concepts so that we can intervene quickly? I don't know that those things systemically are as robust as they could be, which is kind of to your point in your earlier report, Pete, of targeted teaching.

PETER GOSS: So what's happening, are schools just making some of these up themselves?

MELODIE POTTS-ROSEVEAR: No, I think that there are some, but they're not enough and they're hard to access and pull together.

So I was just at a meeting of some of the early career teachers that we're working with through a program called Teach To Lead and sitting around the dinner table it was amazing to hear their stories of how it was very difficult to pull together the information that they wanted to have at the start of the year when they got the roster of kids about where they were the previous year, what other things are going on, that ostensibly the system is collecting, and then to be able to have the various assessment tools ready and able to be deployed that weren't just going to give them broadly how much they were going against the curriculum, but specifically what concepts they were struggling to grasp. So there's something about being able to take the curriculum-based view of the content and the progression in content with an overlay of competencies - which is I think maybe the industrial bit that we wanted to avoid but I'll take us there - the competencies that we want kids to have on top of that content that will ultimately mean they're successful in the world that we now live in, and then to be able to give teachers real-time ability to assess on both of those things so that the school can be the engaging place.

The only other thing that I would add, and maybe this is a bit left of field, we were having this conversation before the night began. We talk about engagement, schools need to be engaging, schools need to be welcoming of parents and of communities and likewise for teachers, but I think we do much better in our sporting lives of being able to coach and engage students, again, around both skill and competence than sometimes we are in our classrooms. I don't know if that resonates.

SONIA SHARP: Can I just add something there?

PETER GOSS: Please.

SONIA SHARP: Because I think the sporting comparison is really helpful. In sport we have this concept of personal best and trying to beat personal best, and I think that's such a helpful and healthy context for all the reasons that we've talked about in terms of you can see your progress and sometimes you don't quite make it, other times you do; you have a sense of challenge, so you're pushing yourself and really challenging yourself; and also you are making progress and it's progress from where you were to where you've got to that day.

PETER GOSS: My last question before we throw it open to the audience is a number of factors of coming together I think. There seems to be a consensus on this panel that a focus on progress really matters; that you need to be able to test that and there are assessment capabilities now to understand that and see where students go to; that nearly every child is getting educated in modern Australia and every child needs to be given the chance to reach their educational potential, we can't afford to leave any behind, as Geoff said; and with technology we've got opportunities to actually do things in some quite different ways. So Geoff, I know the time that we really need to make a sharp break from this industrial model that you talked about and really re-imagine a school which is focused on personal best, where each student is focusing on building the competencies, because knowledge can come from Google to an extent?

GEOFF MASTERS: I do think that's a challenge. I think one of the reasons that we are seeing gaps increase as students move through school, one of the reasons we're seeing many students fall behind in their learning is, as I said earlier, because of the way we structure and organise schools. I think what we need to do is we need to be re-thinking how we think about learning, how we think about learners, how we think about the curriculum, how we think about teaching, assessment, reporting, the whole game.

By that, just very briefly, I've already said what I mean by learning. Rather than judging the quality of learning in terms of someone's expectations of where you should be given your age, think about learning as the progress that you're making and judge learning according to the progress that you're making. Rather than saying we're stuck with good learners and poor learners and that's just the way the world is, let's start with a belief that every student, if we can get the conditions right, is capable of making progress. Rather than the job of teachers being to deliver the curriculum for the year level, let's think about the role of teaching as identifying where students are up to in their learning and then trying to target learning opportunities to where students are. rather than thinking about assessment as the process of judging how well students have learnt what I've just taught, let's think about assessment as an integral part of good pedagogy. It's about, as I said, establishing where students are, diagnosing the difficulties that they're having and then meeting their needs in the best ways possible.

When it comes to reporting, rather than thinking about reporting as judging and grading on how well you've performed on the year level expectations, this is difficult but let's try to be innovative and think creatively about new ways of reporting that would indicate to students and parents where individuals are up to in their learning, what that means in terms of the support that might be provided for further learning, and let's think of ways of sharing with students and parents the progress that's being made. The curriculum, similarly, rather than just thinking about the curriculum as a body of content that needs to be taught to students of a particular age in a particular year level, let's think about the curriculum as a road map with students of different ages being at different points on that road map and it's important that we understand the road map and the nature of learning within a domain of learning in a lot of detail so that we can identify where students are and we can think about what strategies, what teaching is going to be most effective in moving them forward.

PETER GOSS: I'm going to hold that there because I do want to get to the audience questions. I would agree with very much of that. I've written some pieces, my observation would be that there patches of this in Australia, there are some really hopeful elements, but as a whole-school education system we have a very long way to go. Now it's your turn, I've tried to incorporate some of the questions, but do get in early because there will be a limited amount of time.

AUDIENCE: Sonia, I really liked how you spoke about connectedness and Geoff about engagement and Melodie about autonomy. A link between all of those things is that it's about supportive behaviour from a humanism sort of concept. I'm interested to know what you think about the funding mechanisms that we have in Australia, because that's something that's probably a little bit easier to measure than measuring human supportiveness. Do you think there's a chance that bipartisan funding reform may be able to help assist some of the gaps we have in education in Australia?

PETER GOSS: I'm going to jump in there and take that as the question. Geoff, are you willing to dive in here?

GEOFF MASTERS: I'm happy to have a go at that. The important question for me is what we need to spend money on. We know that as a nation we are slipping backwards in some important respects, achievement levels are going down, disparities are increasing between our schools, teaching is becoming a less attractive career option among our most able school leavers, and we could go on. We're actually sliding backwards in some significant ways, so we need to be thinking about how we use our available resources and limited resources to address the most pressing challenges that we have. We know that in Australia we have significantly increased spending on schools. We've spent it on things like, well you know as well as I do, reducing class sizes, school halls, flagpoles, laptops, on and on. While we've been doing that, we've been going backwards so one thing's for sure, more money along doesn't make a difference; it's a question of how the money is spent.

Now I'm not saying we don't need to spend more money on our schools, but we need to spend it intelligently and, for my money, we need to be spending it to address the challenges that we now see which I think are quite urgent. We've actually slipped as a nation over the last 12 years from being near the top of the world to being not much better than average among OECD countries. The decline in mathematics, for example, at 15 years of age has been really dramatic. What do we think about that as a country? Are we happy with that? What should we be doing? So I'd be targeting money to address some of the declines that we're currently observing.

PETER GOSS: I'm going to pick up and follow on with Sonia on that one. Geoff, you made the point that the variation between schools is growing, that's what we saw in our data that there is a very big gap. Do we need some really tough trade-offs?

SONIA SHARP: I think we do. I think we need to focus on building capacity in each and every school. There are some trade-offs to be had and we know that generally speaking in Australia the size of schools is relatively small, and that means that it can be a real challenge for leaders in a school and teachers in a school to create a viable environment where people have the flexibility of resources to be able to really do things that make a difference. But, at the end of the day, I do have a belief, and my experience supports this and the data supports this, that it is possible to have a system where there is great teaching every day in every classroom, and there is that intensity of focus on the individual child that makes a difference. There are some incredible things happening. Here in Melbourne I was talking to the Principal at Templestowe College and there students from Year 8 choose their curriculum, they choose the pace at which they study, they choose the teachers that teach them because it's recognised that actually sometimes we do get on better and are more inspired by some people than others and we connect with them in a different way. So it is possible to do things in a different way, in a radically different way and a better way with the resources that we've got.

PETER GOSS: I'm keen to go and find out more about that particular school.

AUDIENCE: I want to ask a question because I don't know the answer to this about the secondary curriculum here and in particular engagement with linking social capital for the bottom 1% to 5%, the most marginalised and the ones with multiple causes of deprivation. What I mean by that is, bringing mentors in for these young people in the school to help them change their expectations about their options for life and engaging them in curriculum activities that take them out of school into the community in constructive learning exercises where they meet people in employment and who can offer them avenues towards employment. Has any work been done in Australia in that regard in the recent decade?

SONIA SHARP: Yes indeed and there's still more to be done. In the Australian schools one of the things that I've noticed whilst being here is there's a really good blend of vocational and academic learning streams in education. So it's very possible for any student to pursue an academic interest and also a vocational interest at the same time, rather than a segregated approach that perhaps we see in some of the systems and I think that's of great benefit. I think the area that we can go further with is those links between people in the workplace and actually having coaches and mentors in school working alongside students, engaging students in real projects and real challenges alongside employers. So I think we can take it a step further so that we really ensure that every child is both world-ready and work-ready.

PETER GOSS: I would add to that and then I'll throw to you Melodie. For the most challenged 1% to 5% it really helps if the support is beyond school. The Smith Family is a charity that is focused entirely on education and they do a lot of very good evidence-based work. They now have 30,000 children, which is 1% of Australian students that they support from about age six up to the time they get to university. They work with the families, they talk about it as a scholarship really aiming for the high aspirations and then linking in with the school to raise those expectations to make believe possible

and then to provide interventions where needs be. So there are some encouraging things at the interaction. Melodie, you wanted to add something as well?

MELODIE POTTS-ROSEVEAR: I was actually going to mention The Smith Family, there's also an organisation called The Beacon Foundation that attempt to do other linkages between local business and communities and schools. What I'm also aware of from some of the work that our alumni are doing is that in the context of Year 10 here in Victoria, for example, there's an expectation that students do work experience, but I think that the statistics are that only some 54% of them take up that, even though it's part of the Year 10 expectation and curriculum. So you can imagine what percentage and the kinds of students and the kinds of schools where the other, broadly speaking, 50% don't take that up. So I think it's a very, very ad hoc where The Smith Family has the opportunity to have these school and community partnerships or Beacon and others. I don't know how targeted it is systemically on those young people.

AUDIENCE: I just wanted to hear your thoughts on how can we make teaching a more attractive career for students? There are lots of high-achieving students that would love to go into teaching, but there are huge social barriers to going into it due to the stigma, and the work that TFA (Teach For Australia) does is a great way of alleviating that, but how on a large scale do we promote teaching as an attractive career to bright students? Because I think there's something inherently wrong with it, I think there are some policy things we could do and I'd love to hear your thoughts.

PETER GOSS: Melodie, start quickly, but don't talk your own game too much.

MELODIE POTTS-ROSEVEAR: I will, fair enough. I actually think more broadly we need to be celebrating it. The number of times that you hear sadly teachers telling students "Don't do teaching, don't waste your ATAR". I don't think that happens universally, but it certainly happens too much. Teaching is a career where you can have immediate impact, you can be developed and stretched, you can have responsibility and autonomy, and all those things. I actually think it's got all the things that graduates wanting to make a difference can have and do and want in whatever job they're pursuing, we just need to celebrate that as a society irrespective of TFA and our work on campuses, celebrate it more.

PETER GOSS: Geoff?

GEOFF MASTERS: One of the things we know internationally is that countries can get onto a spiral, either a downward spiral or an upward spiral. I think right now we're on a downward spiral in Australia. We can see actually from year to year currently in Australia that we are choosing more and more of our future teachers from students with ATARs below 70, so it's quite measurable. What the McKinsey study of a few years ago found was that if countries can get on an upward spiral and attract more able people into teaching, and then that creates an environment in which even more able people are selected in.

So it's hard for us in Australia often to even imagine that teaching could be as attractive as medicine and law and engineering and so on, but in some countries that's exactly what's happened and sometimes it's happened through deliberate policies of governments. Money is important, salaries are important in that, controlling the number of people who go into teaching is often important. High-performing countries often do what we do with medicine: we control the number of people who are

being trained to around about the number required. What you see in countries that open it up is often it's that downward spiral that they get into and people end up going into teaching because they didn't get into the course that they wanted to get into. So I think we have to be careful about trying to learn lessons from other countries and implementing directly what they're doing, but it is interesting that there are countries like Finland and Singapore that are selecting only one of ten applicants to teaching, that are drawing their teachers in a couple of countries from the top 10% of school leavers.

So we shouldn't give up on trying to do this. In fact, in my view, we have to reverse the current trend and we have to start making teaching more attractive, because it's a continuing downward spiral the way we're going, in my view.

PETER GOSS: I think they are fantastic descriptions of the overall framing of it. I think there are some very practical things within schools. The worst school in a New South Wales country town that I visited was where one of the teachers was ready to quit and become a checkout chick. Loved teaching, but was pulling her hair out. With time for understanding the sort of stuff we're talking about, with the tools, with the training to actually understand where the kids were at to know whether they were making progress, she's now helping to train other teachers. The teachers there say their job is better when they are given the tools to do the sorts of things because guess what, pretty much every teacher I've ever met went into teaching to help kids learn and if you can set the context so that more learning is happening in the way we've been talking about and the teachers can see that and have the data and make that rigorous, then the job is incredibly worthwhile is what I hear.

AUDIENCE: I was just wondering if you had any viable alternatives to that industrialised structure, so the Templestowe individualised sort of model or at the primary level there are multi-age classrooms? Using your race analogy, that might be putting everybody at the same starting point, a homogenised ability group, or do you equip teachers with the skills to handle that big gap in ability?

GEOFF MASTERS: It's partly about a mindset I think. I was speaking with a Year 7 mathematics coordinator in a school and he said to me, "We have students coming from many different feeder primary schools and what we do is we put all students into the same mixed ability classes, we teach them the same Year 7 curriculum for 12 months and that gives us time to sort them out". Well, these kids are coming in five or six years apart in their levels of mathematics achievement, so this idea that I'm a Year 7 teacher, this is a Year 7 class, I'll teach the Year 7 curriculum, we need to break out of that mindset. So I'm sure there are things, policies, structures in schools that we can change, but we also need to be working on mindset as well in all of that.

SONIA SHARP: There are some really exciting models of education emerging with some very different, particularly using technology. So there are micro-schools who are doing things very, very differently and really breaking the traditional mould. I think using technology, so say, for example, nowadays this face recognition that can read emotions and you can understand how people are feeling and whether they're engaging. There's some amazing work on feedback and engaging students and really coaching their teachers in how to be the best teachers. So there are some good alternatives emerging and I think we need to evaluate them, learn from them and share that.

AUDIENCE: Just following up on something you said earlier Geoff. I'm a little bit concerned that we are easily playing into the hands of governments that might be looking for an easy way to justify cutting funding or not increasing it to schools. So I'm wondering if someone, especially in the

measurement game as you are, could comment on how we can start getting those bits of evidence about what's working into the public conversation and take it a little bit beyond this mantra of "Well, we've spent money and we're slipping behind in relative terms".

GEOFF MASTERS: Yes. From my point of view right now, a lot of the discussion is only about money, it's about who's going to spend how much, which political party is going to spend more than the other, what the responsibilities of different levels of government are, how the revenue is going to be raised. I would like to see the conversation switch to some of the challenges that we face in education. If we're clear about those challenges then I expect it's going to become obvious that we're going to have to find more funding to address some of these very significant challenges we face. But it's also true that we can't expect to just throw money at it and solve the problem. So it is a bit of a bind, people could interpret what I've said as "Okay, we don't need to spend more money, we just need to spend what we currently spend in a smarter way" and that's no doubt partly true, but I'm not arguing that we don't need additional resources to be able to meet the challenges that we now face as a nation.

SONIA SHARP: Peter said I can just have one sentence to add, which is that Social Ventures Australia are supporting the Australian Learning Toolkit which is a really easy to access resource. You can click on it, you can see the evidence base behind something, you can see what works most and understand why it works. So I would just recommend that as somewhere to go to have a look at.

PETER GOSS: I would add to that, roughly one in three UK students are involved in a randomised trial of some sort. It is actually possible to do really rigorous work and to look at cost benefits. Ladies and gentlemen, you've been very, very patient. One of the commitments that we make to you is that we will get you out on time and that means that my apologies over here that I won't get to your question. Potentially my panel members may be willing to stick around for a brief discussion afterwards, but I would like to say thank you very much to you as an audience for being so attentive and for asking some very good and challenging questions. I would like to thank the State Library who help Grattan to put on these *Policy Pitch* series of events so that we can talk to and hear from the public about the work that we do and some of the big issues. I'd like to thank Grattan's sponsors and the affiliates who mean that we can operate and be genuinely independent, which is a very fortunately position to be in. Then there are a couple of people, Andrew McDonald, Alex Stott and others from the State Library who work behind the scenes to make these types of events possible and to Andrew Hiskens, so thank you to those. My final thank you is to three tremendous panel members for sharing their expertise, to Sonia, to Geoff and to Melodie, can you please put your hands together.

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