

# **Measuring Educational Quality**

Dr Brian Stecher

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**Transcript**

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What lessons can Australia learn from recent changes in US education policy?

At this Grattan Institute event, Dr Stecher, discussed recent changes in education policy in the United States, including the growth of charter schools, the revision of national curriculum standards and assessments, the development of teacher and principal evaluation systems, the growing interest in formative assessments and data use for instructional planning, and the use of test-based accountability as a tool for reform.

Brian Stecher is a Senior Social Scientist and the Associate Director of RAND Education. His research focuses on measuring educational quality and evaluating education reforms, with an emphasis on assessment and accountability systems. His recent publications include *Organizational Improvement and Accountability: Lessons for Education from Other Sectors*, and *Toward a Culture of Consequences: Performance-Based Accountability Systems for Public Services*.

**Speakers:**      **Dr Brian Stecher, Associate Director RAND Education**  
                         **Professor John Daley, CEO, Grattan Institute**

AUDIO: This is a podcast from Grattan Institute, [www.grattan.edu.au](http://www.grattan.edu.au).

JOHN: Good evening ladies and gentlemen. My name is John Daley. I'm the Chief Executive of Grattan Institute and it's my privilege to welcome you all here this evening with our guest from RAND, Brian Stecher. First of all I should apologise, I guess, for the absence of Ben Jensen, the Program Director for School Education at Grattan Institute. Ben is currently in, is it Singapore? Ben is travelling in East Asia at the moment, through a number of countries sufficiently numerous that it's hard to keep track of exactly which one he's in on which day, actually doing work for the project, which many of you will be aware of that we have in progress at Grattan Institute, looking at the different systems of education in East Asia. If you look at the five most successful systems in the world, on PISA tests, apart from Finland, they are all East Asian countries. We suspect there may be something going on there and Ben is busy trying to figure out what they're up to. But that's not tonight. Tonight we have Brian Stecher who tells me he was originally a maths teacher, an elementary maths teacher, albeit for gifted students, so I'm guessing that ...

BRIAN: They were gifted topics but in fact ...

JOHN: Oh, gifted topics.

BRIAN: ... but in fact low performing students.

JOHN: Right. Well, in that case, for anyone who falls asleep, there will be a test at the end of this evening's proceedings. So that's where Brian started. Subsequent to that was at the Testing Service?

BRIAN: Yes. Educational Testing Service.

JOHN: Education Testing Service. But then for 20 years at RAND, which is quite a while, and is now with the school program at RAND. For those of you who are ... why don't we start actually Brian by just what is RAND, for those who are unfamiliar.

BRIAN: You might say I think RAND is sort of the inspiration for Grattan. We are the largest public policy research organisation in the US, probably the premier organisation. The corporation is a non-profit that's been around for about 60 years and we do work both on defence oriented strategic planning and manpower issues, and then we have a domestic portfolio that includes health, labour and population, transportation, education, immigration and

a number of other questions of relevance to domestic policy in the US, with a growing interest in international policy.

JOHN: Yeah. And has put out some fairly substantial reports that have really changed the game on a series of domestic issues, I think it'd be fair to say. So obviously one of those is education. And you've got a range of work underway at the moment on accountability. Why did you go after that as an issue in the first place?

BRIAN: That's an interesting question. One of my predecessors 20 years ago had this insight that states were placing greater and greater emphasis on test scores and starting to use those as a management tool and that that wasn't such a wise piece of policy, that test scores easily become inflated when people get overly narrow in their teaching. And so we began this sort of series of studies of score inflation and test based accountability and as it has grown in the US to become federal policy, greater emphasis on accountability based on test measures, we've continued to follow that.

JOHN: Is there an irony there, 'cause a lot of RAND's work historically in public policy areas has actually been about measurement and evaluation. And here we have our program which is aimed at doing exactly that.

BRIAN: Well it's true, and we are not looking at it in order to find fault. It might well be that things were working swimmingly. But in fact it's an example of this broader phenomenon where sometimes if you measure things in very discrete and narrow ways, then it leads ... and reward people on the basis of those, you get distorted behaviours. And that's true in the areas where we sort of encourage measurement. Measurement done well and measurement done on the cheap are not necessarily equally good.

JOHN: So, I mean where has your work on accountability and school education in the US taken you? What sort of aspects have you looked at?

BRIAN: Of late, the big thing we've done is study the national reform that's called No Child Left Behind, which is the largest federal effort to improve school performance. And it affects all of the 50 states and Washington DC around this idea of sanctions to schools that don't meet appropriate targets. So we've been essentially evaluating the implementation of that big reform, the quality of the measures that have been created and the impact on what goes on in schools and in classrooms.

JOHN: And just to give us an idea of the size of that, 'cause again some people here may not be so familiar with No Child Left Behind, I mean what's on the table? What is the lever that the federal government is, in the US, is pulling with this program?

BRIAN: It's the largest single federal support for education. It runs in the single digit billions of dollars a year, distributed across all of the 50 states. So it's actually been the mechanism for promoting equity in the US since 19 ... the mid-1960s. The money is targeted for low income schools and districts that have low income schools in them. But over the last 10 years it's been used more as a carrot to instil these accountability strategies in schools.

JOHN: So when we look at these accountability strategies in schools, what have they been looking at, what measures have they been using and then what have been the consequences?

BRIAN: The template is a thoughtful one. Each of the states is required to implement a set of standards that say what students should know and be able to do in each grade level. And then they have to pick some tests that are aligned with the standards and administer them every year to every student in the wide grade span. And then on the basis of those tests, they have to set a cut score that says how good is good enough. It's sort of a standard for proficiency. And over time the requirement is that a greater ... a growing proportion of students will be proficient. So accelerated a target that by 2014 all students in the country are supposed to be proficient. So it starts off with this logical kind of template but then in the working out of the details, it sets up some expectations that are not necessarily reasonable.

JOHN: So these evaluations that they've got, I mean, is this for every subject, is it focused and what sort of nature of testing are we talking about?

BRIAN: So the focus is on literacy and numeracy only. And we're ... and since the states were free to pick any tests they wanted, they tended to use the tests that they were familiar with which are on demand multiple choice measures that have been ... that were familiar to the states and the kind that were sold commonly over the last couple of decades. So we have measures that are not rich in terms of problem solving, communication strategies, multiple representations of information, but they're focused more on discrete skills in literacy and numeracy.

JOHN: And is this at every grade level, or ..?

BRIAN: It's in levels three through eight, plus either 10 or 11. There's some flexibility at that point.

JOHN: And was there thought given to running national testing, 'cause of course in Australia we've adopted the NAPLAN tests, three, five, seven and nine. The Commonwealth government sets them, everybody does them. Did anyone think about doing it that way?

BRIAN: There was on the table the idea of national tests, although were both federal systems, the balance between the states and the central government are different, from place to place. And there are a couple of things that have been an anathema in the states, in the US. And one was a national curriculum, and the other is national testing which is seen as equivalent to a national curriculum. So during the Clinton Administration the idea was floated for a voluntary national test, but even those were rejected.

JOHN: So states have each picked a test to do, some of them presumably in common because they're coming from a common provider. Or ...

BRIAN: Oh, no, everybody has to have a little tweak to make it uniquely their own, and to be aligned with their standards, which have some differences. There needs to be some difference between the tests.

JOHN: And people always note how Australia and the United States are in fact very similar countries.

BRIAN: Yes.

JOHN: So, each state's got its own test, students do the test, then what happens? What are the consequences of having more students or less students than are wanted who are proficient?

BRIAN: So, we have an annual escalating set of consequences. If your school fails to get over the bar, and the bar starts, wherever you were in 2001, whatever percentage of students were proficient at that point, and it goes up basically linearly to 100% in 2014. So if your school is below the bar, the first year you have to offer kids the opportunity to transfer to another school that's doing better and provide transportation out of your federal allocation. The second year if you still haven't gotten over the bar, and the bar is going up at this time, so you're chasing a moving target, but if you haven't gotten over it then you have to provide individual tutoring for students. The third year on you have to have an external evaluation team come in and give you advice about how to manage your school and redesign it and plan for improvement. The fourth year you have to begin moving staff. You have to identify staff who are not contributing to gains and get rid of them and replace them with new staff. For the fifth year you actually have to transform the school. So the staff and the principal need to go, for the most part you could turn it over to a charter organisation, you could close it and open a new one, but it's essentially reconstituting the school.

JOHN: So it's five strikes and you're out.

BRIAN: Five strikes and you're out. And there are no ... I can't work this metaphor. There are no balls, there's no ... there are no positive strokes associated with doing well other than avoiding the penalties.

JOHN: And so if the school's got to kind of find the extra cash to send some students in buses and provide some tutoring to other students, do they get extra money to do that, or where does the money come from?

BRIAN: For the most part, without getting into details that are really tedious, they have to reallocate the federal money that they're getting already. So these are low ... schools in low income and areas they're already getting this portion, roughly 10% of their budget is of this federal funding, so they need to reallocate it to provide these services rather than some others that they were providing.

JOHN: And so therefore what stops happening in practice? Do we know what it is that schools who aren't performing choose not to do?

BRIAN: We don't know so well what they choose not to do fiscally. We sort of know what they choose not to do in the classroom in the sense that when you talk to teachers, particularly primary teachers who are responsible for all the subjects, they say what we do is shift our instructional focus to numeracy and literacy and spend less time on science and less time on social studies or history and certainly less time on art and music. And in some schools we even see instances in which physical education is done away with, recesses are shrunk. At the same time that we have a national epidemic of childhood obesity, schools are cutting back on physical education in some cases to focus on literacy and numeracy. So we do know that in terms of consequences.

JOHN: So that's how the program is designed. Does it work?

BRIAN: It changes behaviour. So the first idea behind it was that if you gave these clear signals to teachers and to schools, they concentrate their energies on literacy and numeracy and improved scores. So yes, they change their behaviour. They spend a lot more focus on these subjects. The teachers say their curriculum is now more rigorous and they're doing more. But it hasn't led to a large overall improvement in student outcomes, even in the areas where the focus has been, because teachers say they change what they teach and they change who they focus on, we can come back to this. They sort of target the kids who are likely to earn them credit rather than the kids who are very low or very high. But they don't ... they haven't changed how they go about teaching, it hasn't led to much of a transformation in the actual pedagogy in classrooms.

JOHN: So it hasn't changed the pedagogy. When we say it has improved a little bit, I mean how do we know that and how much has it improved?

BRIAN: We know from the scores on the low stakes test that's administered in the US, called the National Assessment of Educational Progress, that there's been a small improvement and the improvement is ... if you take the difference between where typically white students perform on average and black students perform on average, that's about one standard deviation on the test. The impact of No Child Left Behind has been about a tenth of that. So it's raised scores about a tenth of that sort of metric.

JOHN: So we might describe it as statistically significant but ...

BRIAN: Yes.

JOHN: ... not necessarily material.

BRIAN: That's right. Although different people argue about whether it's material or not. To transform the whole system even a little bit suggests, to some, that we've accomplished a lot. But to most who espoused a reform that was really going to close the gap between black and white or put the US on footing to be a world leader, it's not materially accurate.

JOHN: Well and particularly when we see a Shanghai system, I think the one the PESA tests, the students in Shanghai mathematics are something like two years ahead of Australian students, I'm guessing that means about two and a half relative to the United States, it's clearly not big enough to really ...

BRIAN: No.

JOHN: ... come anywhere close to that. So far we've been talking about schools. What about teachers? How have some of these things played out in terms of providing accountability or trying to provide accountability for teachers?

BRIAN: There's been a recognition of late that the school based accountability system didn't cut it, wasn't really accomplishing what we wanted and so there's a new emphasis now on focusing accountability on individual teachers. It's in the works, so we don't know that much about the impact, but the refrain now is come up with a way to measure the effectiveness of each individual teacher based to a large extent on their students' test results. So we have a lot of statisticians working on estimating the individual effectiveness of teachers using a multiple years' worth of data from their students. And then the idea is if you have this metric, you could use it to reward effective teachers, to support ineffective ones, to dismiss ones who don't get any better, to differentiate their careers and use it to really transform the way you manage your human capital in schools. It's a little early to say how well that's working, but the simplistic experiments haven't found much success. And by that I mean the experiments that have been done that tie cash to the increases in performance of one teacher's students relative to another have not had a big benefit, have not had a big impact on student performance.

JOHN: And what's at stake for teachers, so you know, how much can my pay go up because I really transformed the performance of my students?

BRIAN: Yeah. We've been involved in three experiments and in one of them you could earn \$15,000.

JOHN: Extra?

BRIAN: Extra. So this was ...

JOHN: I'm concentrating.

BRIAN: Yeah. This is ... your ... it gets your attention. This was middle school mathematics teachers, if you got sampled randomly into the treatment group, your students' gains over a year were compared to the gains of all the other middle school mathematics teachers and if you hit roughly the 85<sup>th</sup> percentile you could earn \$15,000. And somewhat less if you did a little incrementally less. But it did not lead to overall improvement in the scores of the students whose teachers were eligible for those bonuses

JOHN: And why not, do you think? I mean 'cause, you know, superficially, for a teacher, you would think \$15,000 was kind of enough to get their attention.

BRIAN: Yeah. Our ... we have two hypotheses about why not. One is that this was going on in the context of that larger reform I was talking about, so everybody, all the schools were being flogged to get student scores up already and that had been the rallying cry for the last five or six years. So adding the new incentive on top of that didn't really rally people's attention as much as it might if that didn't already exist. So we were ... my friend, Steve Kyme, likes to use as a metaphor something he calls the squirt gun test. And the idea is you take two students and you dip them into the swimming pool and you pull them out and you squirt one of them with a squirt gun and then you ask which one is wetter. So there was so much accountability pressure going on already that adding a little more on top we don't think really mattered. And a second hypothesis is that teachers didn't know what to do differently. When we talked with them they said I'm already working as hard as I can. I'm trying as hard as I know how to try. I'd like to earn the bonus but I didn't really do a lot different 'cause this is what I know how to do. So the system

didn't have any kind of transformative property or it didn't ... and it also didn't have a support component.

JOHN: So we kind of applied a sort of management consultantesque matrix to it, we'd say it wasn't a will problem, it was a skill problem.

BRIAN: Yes.

JOHN: Yeah.

BRIAN: That's exactly ... we already sort of tackled the will problem, the motivation problem, with No Child Left Behind, but we hadn't provided any way to rethink the instructional issues.

JOHN: So taking the big step back we'd say look, a 10% improvement in terms of this white-black divide isn't all that much in the scheme of things, particularly if the bar is not just ... well, particularly if the bar is in the first place kind of closing that gap and perhaps the bar should really be about getting from where the US is to Shanghai, which is probably a much higher bar. If it's not really making that much of a difference, what are your guesses about what might make that kind of difference? Are you seeing anything in the United States ecology of school education that is providing a substantially greater shift in the kinds of things that we care about?

BRIAN: A couple of things come to mind. One is sort of a governance reform, but the more interesting one maybe is our efforts to transform the lowest performing schools. Part of what No Child Left Behind led to was some concentrated efforts to pick the schools that were doing poorly and try to raise their performance. And a number of these are comprehensive multi-faceted interventions that try to improve the teacher's understanding of their students' needs, bring them data that more accurately tells which students are performing well and which ones are performing poorly, help them ... train them to use those data to change their lessons, get teachers talking to one another and creating a culture of learning within the school so you can go to your colleague to get advice about a particular lesson that's not working well. So these multi-faceted reforms have had some success in the places where they've concentrated energy. We haven't seen a lot of cases where they scale up, but that's a bigger challenge.

JOHN: Yeah, that's obviously a bigger challenge. I mean I guess one of the questions of well why can't we scale them up, I mean if we do see some lower performing schools really transforming, what is it that they do and why is it that we can't seem to identify that and do it on a much bigger scale?

BRIAN: I'd be interested to hear why people ... why that challenge ... the answers of the people in the audience to that sort of question as well. My answer starts with a term we use a lot but it isn't always well defined, called capacity. Right now we don't have the interveners, those skilled folks who can go into a school and start really getting people to talk to each other who didn't used to talk to each other, and to demonstrate how to use data better. We don't have a cadre of those that's big enough to go to every school.

JOHN: So I mean if I am one of these teachers, if I am a teacher at one of these schools that's performing substantially better, what does my day look ... how does my day look different to a teacher in a school where there hasn't been this kind of intervention? So you've mentioned the idea that I'm getting more data on my individual students and the kind of using that to shift my lesson plan. What else changes?

BRIAN: So two or three things we see. One is there may well be an instructional coach who is in your school, who comes into your classroom, watches your teaching and then meets with you afterwards to talk about the lesson and give you suggestions on how to improve it, and such. A second is there may be an additional assessment system that gets implemented in your school that gives you feedback more frequently so students take quarterly tests that give you some indication of their current performance. That allows you to customise instruction in the now, rather than waiting for the end of the year examination. And a third is there may be some way of transformation in the way time is used so that you have an opportunity away from your students to either view other teachers, look at lessons taught by master teachers, or meet with other

teachers to talk about study lessons, study student work and discuss what's good quality and what isn't good quality and incorporate that into your interactions with students.

JOHN: And it's interesting you focus on that 'cause one of the things that's coming through the work that Ben and Grattan Institute are doing on these East Asian education systems, you know, they all do many things differently. But one of the things that they all seem to do in common is precisely have more people in the classroom some of the time. So someone up the back, whether that's another teacher, whether it's actually someone up the front, so it's someone giving a sample lesson, whether it's a co-teacher, but nevertheless someone who can see what you're doing and you can see what they're doing, whether it's a school principal up the back, whether it's an expert, visiting expert, whether it's some kind of inspector with that kind of system which obviously has been less of a feature of the Australian system for a while, a lot of this going on. And I think, I mean to take my sample size of one which I know is not going to cut it, at random I asked my daughter the other day how often ... she's in Year 7 ... she had had a teacher in her classroom in her six years of schooling. And she said well once we had a student teacher. And it's bizarre, I mean, to have that little sort of immediate feedback of actually watching someone else's work. And when we were talking about this, one of the reactions that came back was yeah, but teaching's a profession, you know, like that means that we judge our own performance. Do you get that in the States as well?

BRIAN: Well, teaching is professional in a lot of ways and we do get the notion that I'm a trained individual who understands something about this. But it's really much more historical artefact that the door gets closed and nobody looks in, I think, because certainly in other professions like medicine, the way you learn is you watch other people operate, these big fancy operating theatres that they show you on television all the time where you observe the way experts work. And then you try to mimic that. So ...

JOHN: Well and speaking as a lawyer, I try and keep this very quiet, but I used to be a lawyer, albeit briefly, you have someone looking over your shoulder at your work the whole time saying no I don't think you should write it this way, or I don't think that that quite works. And that's part of what it means to be a professional is that you've got a senior professional looking over your shoulder.

BRIAN: So I don't think ... I think teachers are comfortable not being observed because they never have been, but not that they object. So in the States we have a group called the National Board for Professional Teaching Standards which is set up to try to instil a greater professionalism among teachers, and they've created a set of standards for advanced teachers. And in order to qualify as an advanced teacher you need to submit a portfolio of your work, you need to video tape yourself teaching, and then comment on your video and do a lesson in front of a group of peers. And teachers have not been reluctant to try this. They've been willing to do it if they felt that the environment was really a positive one, and it wasn't all about gotcha, you know, it wasn't all about this is a threat to your livelihood.

JOHN: Yeah. Well and I mean I think it stands to reason then, that if you want people to improve, they need someone who can look at what they're doing and comment on it and say look, this is working really well, this is working less well. Most of us find it pretty hard to improve just kind of scratching away by ourselves in whatever role in life.

BRIAN: It's certainly true for me.

JOHN: So far we've talked about schools, we've talked about teachers. What about students? To what extent are people trying to use any of these measures on ... for students, and what's happening there?

BRIAN: Yeah. There have been a few experiments in the United States where incentives, often cash, was dangled in front of students to see whether that would improve their performance in tests. So they differ in ... there are two types. One type is just paying for better test scores. And the experience with paying kids to get higher test scores was not very successful at all. And the other type was putting incentives on particular behaviours, learning behaviours that might help kids learn. And the experiment I'm most familiar with is one in which kids received cash over ...

based on their summer activities that ... in particular the number of books from a list of identified books that they read during the summer. So, and in that case those who earned the incentives and read more books subsequently did better on the literacy tests. And I think the message is that incentives matter to students as well as adults, but if the target is something they don't know how to accomplish, getting a higher test score, I'm not exactly sure what the steps are to get me from here to a higher test score, the incentive isn't effective. But if the target is something that you figure out is going to be beneficial for me in the long run, that I can do a particular practice, then their behaviour changes.

JOHN: Yeah. Terrific. Thank you. That's been a lovely exposition of some of the kind of things that are going on in the United States. And I think at this point we should probably throw it open to the floor.

BRIAN: Good.

JOHN: And I'm hoping that someone will have a question. And in particular I'm hoping that because I know by the time we get to the end there will be hundreds of questions, and those who get in first will get their question answered. So we have one here. Thank you.

AUDIENCE: Yes. Just wondering if you could explain ...

JOHN: Have we got a microphone just ... because it makes it easier for everyone to hear and it also means it's much easier for us to record your thoughts for posterity.

AUDIENCE: Hi, yes I'm a student teacher from Melbourne University, and I'm very interested in the concept of the charter school and its effects on the success in education in the US. I'm just wondering if you could explain the concept of the charter school a bit, and your opinions on whether it's been successful or not.

BRIAN: Okay, thank you. In the US, schools are either public or private, and the private schools get no subsidy, unlike here where there is some. And so roughly nine per cent of the students in the United States are in private schools. Much smaller than here. Alright. Charters, the idea behind a charter school is to use public funds to support a school that is freed from lots of the administrative burdens that accompany ... that currently are there in managing the school. And so it's sort of like a semi-private school. The funds flow from the government, the individual school makes a lot more of the decisions than the publics do. And to understand that, I need to back off and tell you that in the US there's another layer of governance between states and schools. Many of you know this. But in the US we have local educational authorities or school districts that are actually the more significant player in running schools than the states are. The school districts have elected boards who decide how they spend their money. They hire the teachers, they are ultimately responsible for all of the HR functions and they give a lot of direction to schools. So what a charter is, is a school that's freed from the bureaucracy of the school district and a lot of the leftover bureaucracy of the State. And it operates sort of as an independent unit. And that's been kind of a hot bed of ideas for reforming schools. At the moment it's a small number of charters across the whole country, just in the few thousands. But you see some of the most interesting attempts at reorganisation in charter schools. They are sort of at the forefront of innovation in some respects. And we don't yet know too much about whether they are a lot better or worse than publics. The studies that have been done comparing charter schools in neighbourhoods where there similar public schools, or regular schools, they're both public so they're regular schools, have shown not much difference at all. On average they are accomplishing the same. But the charters have ... there's much greater variation among the charters. Some are doing a whole lot better, some are doing a whole lot worse. So they're sort of more volatile as a reform.

JOHN: I mean, does the No Child Left Behind actually work quite well for that in the sense that it kind of allows you to keep the variability towards the top and sort of cut off the tail that much faster?

BRIAN: Not necessarily, because the process of granting a charter and then reviewing it and cancelling it can be very slow and time consuming and ponderous. The governance of charters is something that's just beginning to be sort of standardised.

JOHN: Right.

BRIAN: Every state has a different law, and in some places anybody can start one overnight. Nobody's really paying attention how well they're doing. In other places they're carefully controlled. Yeah.

JOHN: Yeah. Thank you. Question here please. Sorry, yes, the lady in the black. Thank you. Dark blue. Can't see from here.

AUDIENCE: Thank you. A comment and a question. The comment is that it's not a true statement to say teachers have never been observed. Of course there was a huge, or a ... it was while ago now, but I mean there was a whole thing of the inspectors. And so teachers were observed but in that sort of, you know, how ... in a sort of review. So there wasn't anything then to ... once the inspectors went, there wasn't a sort of ... anyone to put in that peer review or a culture of having that peer review. It just ... you know, the inspectors went and that was it. But the comment is, the questions on parents and the impact of the parents on ... and their comments, were there any sort of pushback from teachers just focusing on literacy and numeracy at the expense of art and history and sports and things like that? What sort of impacted parents on that?

BRIAN: I think this is a situation where the answer differs by socio-economic status. To a large extent parents didn't complain about the focus on literacy and numeracy per se, except in the middle ... upper middle class communities, or upper ... the high achieving communities. But for the most part, the parent voice around No Child Left Behind was relatively quiet and it wasn't outraged at all. It's interesting that those two options that I described that require parents to request a transfer or parents to request tutoring, the uptake was not very great. There weren't that many parents who wanted to transfer their kids or who demanded tutoring. So in the communities that were mostly low income families, the voice of the parents was somewhat limited, and the concerns that I voiced about sort of keeping the emphasis broad were more middle class concerns.

JOHN: Thank you. Got one right there. Thank you.

AUDIENCE: Thank you. Patrick Griffin from the University of Melbourne and incidentally the AT21SC Project, which we'll talk about tomorrow.

BRIAN: Oh right.

AUDIENCE: I'd like you to elaborate a little bit on the very last comment you made before the questions where you began to allude, I think, between the relationship between skills, scores and accountability, where you were saying, I think, that accountability for improving scores does not necessarily have a long term effect. You captured people's attention by focusing more on skills and having them accountable for skill development.

BRIAN: I don't think I said exactly that.

AUDIENCE: I know you didn't say exactly that.

BRIAN: Ah, okay. But ...

AUDIENCE: I thought you were alluding to that sort of thing.

BRIAN: I was alluding to the distinction between focusing on test scores and focusing on the broader domain of knowledge and skills that's described in a document like the Australian curriculum, or our state standards. And so I was saying that focusing on what is on the test was ... didn't seem to make a powerful difference. And it certainly left out the aspects of the

standards that weren't represented on the test. And in many cases those are the 21<sup>st</sup> Century skills that are at the front of the policy agenda right now, problem solving and creative thinking and communication in different formats and such.

JOHN: Okay, thank you. I had a question here. Thank you.

AUDIENCE: Thank you. I'm really interested at the moment in this idea of education and on the one hand it being very complicated in the sense that we've created all these measures and tests and broken it into its minute pieces and we've sucked it dry to within a tenth of its life. And on the other hand I think a lot of the other cultures that are getting it right have looked at education as being complex and that idea that there are so many intersecting ways in which we learn that you can't necessarily cancel out any one piece and say well it's literacy or it's numeracy or it's this piece or that piece. So I'm interested to know whether you see that as being quite a difference in where particularly Western cultures might be getting it wrong in terms of their educational models versus those in other cultures and your knowledge of those systems. Because I suppose that's something that I've been thinking about recently that I wonder whether that rings true in other systems.

BRIAN: I welcome input from other people who have broader experience, perhaps, with other cultures. My initial reaction is the one thing I know about teachers in China from some work that I read, particularly mathematics teachers, is what they have is a much broader repertoire of ways to tackle specific skills. So there was this interesting comparative study between mathematics teachers in the US, China, Japan and Germany I think, and what stood out is if students didn't get something, let's say how you divide fractions, the typical teacher in the United States knew one way to present it. And the typical teacher in China knew three or four alternative ways to present it, understood the math more broadly and had been ... had, through their training, been trained in alternatives. So it seemed to me in that instance at least, it was still about details, it was still sort of about the acquisition of particular skills, but what they knew more holistically was multiple ways to approach them. That doesn't contradict what you were suggesting at the broad level, but it's the piece that I can speak to specifically.

JOHN: Thank you. Next, and we might take ... okay.

AUDIENCE: Here?

JOHN: Thank you, yes, and then ...

BRIAN: Oh, okay.

JOHN: ... we'll go up the back to the ...

AUDIENCE: Perhaps a more basic question. I'm just curious to understand what incentives exist in the United States to be more than just proficient in literacy and numeracy, in other words, to go beyond that. Or whether the focus is just on proficiency. Because if the focus is just on proficiency there's little risk that those who are already proficient will be bored witless, and instead of No Child Be Left Behind, no child will be pushed forward.

BRIAN: So, it's a good point and I guess we have to differentiate between what's part of this formalised accountability system that was layered on top of the schools, and the existing set of incentives that are already there culturally and from the point of view of parents. So parents certainly are part of the pressure to go beyond proficient. They're encouraging their students, their children and their teachers to get kids ready for college and for advanced training. And fundamentally I think teachers are in the profession to do well by students. You get people who are internally motivated to help to do good, and I think they also go in trying to help every student improve upon whatever it is they are. So I think there's still incentives in the system to work towards the advanced performance, but in what was done, the technical way the US system was built, it didn't actually give you any extra credit for going to the advanced level. Some of the states did their systems differently prior to No Child Left Behind. And they built the rewards around improvements throughout the distribution of skills, not a single cut score. But you got credit when kids got better regardless of where they started. California had a system

like that. And so in those cases even the formal accountability tried to influence performance at the top and the bottom as well as that threshold.

JOHN: Thank you. I've got a question here, please. Thank you. Oh, sorry, and then we'll go to ... actually go to the end first and then we'll go into the middle. Thanks.

AUDIENCE: Hi, Andy Cross, I've been working with some schools in remote Aboriginal communities doing all the three things you talked about and some more. I'm interested in the idea of teachers getting feedback as to whether what they're doing is working and how that can become a culture. And in airlines, for example, the biggest reason that airline crashes have decreased is because the feedback of culture has been brought into the cockpit. You get the great example of higher performing teachers, but what can we do to help all teachers just engender ... just as part of what I do as a lawyer, as a pilot, as a doctor, is that I have evidence that shows am I doing ... is what I'm doing working? And that may include observations, that may include more frequent testing. So not just the high, but everyone.

BRIAN: I think the right answer is that I agree, that absent any kind of reflection on how well you're doing, there's no motivation to change and no basis for deciding what to do differently. What's happening in the States is there's multiple approaches to effectiveness: observations, test scores and all are being thought of as a way for external management rather than for self-improvement. And I think we need to shift more of the attention to that.

JOHN: Thank you. Yes, in the middle here thanks.

AUDIENCE: I was just wondering how much thought is being put, if you sort of step back a little bit and focus more on what is the ultimate aim of schools. Because I've read quite a lot of research that shows that ultimate success and wellbeing, individual wellbeing isn't so much about cognitive skills, but broader issues. Some of the things that, you know, maybe Martin [unclear 47:22] was the psychology and resilience and ability to have self-control. And I was wondering whether there's any thinking about what should schools actually be teaching? Should they be sort of broadening their focus rather than just focusing on cognitive skills and literacy and numeracy and things like that?

BRIAN: I can't answer for Australia. In the US there is a conversation going on simultaneously among a lot of people who want to keep up front the notion that schools are both about cognitive outcomes and they're about psychological development and they're about social outcomes and they're about dispositions towards learning and such. But right now it's not prominent in the policy discussions in the US. They're more about the specific cognitive things that are measured on PESA or on TIMSS. It's one of the downsides of not having a nice test of resilience, or of character, is that those discussions aren't prominent because we can't compare our resilience to that of the Finns or the Singaporeans.

JOHN: Yeah, thank you. If we can just go to the gentleman immediately in front of you, and then we'll head over here, and we'll head over there.

AUDIENCE: A lot of conversations have been had about the PESA test coming out of Shanghai, and that it scores very well. To what extent is Shanghai representing China generally? And are there lessons about understanding the nature of cohorts of students moving through the US into private and public and different school districts that self-select into high income, high performing aspiration suburbs and low performing, low aspiration suburbs? I could hypothetically pick a zone in south-east of Melbourne and imagine that its scores would compared quite favourably by Victorian standards and by Australian standards. So to what extent are these problems imagined that there is actually what we're looking at, we might be confusing cohorts as well as actual performances or ...

BRIAN: It's a good question and you might want to comment on it as well.

JOHN: Well ... yeah.

BRIAN: I mean when I was in ... a couple of days ago we visited the ACT, and they told me if they were a country, they'd be scoring higher than Finland. And so there is something about the characteristics of the local environment and the student population and their family and backgrounds and such that affects performance.

JOHN: Yeah, I mean ... I'll offer a couple of observations. I mean firstly, Shanghai is quite a big place. So it definitely has quite a spread and to be as far ahead as it is with that many people is quite an impressive achievement. Secondly, if you look at the other countries that are doing very well, such as, well, Hong Kong, it's sort of a country, depending on how you think about it. But definitely Singapore and South Korea, you don't have those same kind of problems or issues of potential cohort bias. So I think without doubt you probably had, by and large, the more adventurous risk-taking Chinese are the people who are first to move to Shanghai. That said, you know, Australia is 25% people who weren't born here, 50% people who had at least one parent not born here. Arguably we should have done just as well out of that kind of cohort bias. So I think there's something to it, but I'd suggest that there may be many other things going on as well and we'd quite like some of those other things as well, please. Coming over here. Thanks.

AUDIENCE: Hi. My name's Tom Roselle, I became a teacher in New York City and, in the Bronx. And I just wanted to say I have enormous respect for the things that you said, having lived and become a teacher in No Child Left Behind. I would say your assessment is absolutely correct and sitting here listening to you it's an experience I lived. The last seven years I helped open a ... get a charter school in Harlem.

BRIAN: Oh.

AUDIENCE: And I agree with you on your assessment of charter schools because there's so much power given to the leadership. Some charter schools are terrible, and then charter schools that are amazing can do well. And I think that the benefit that we had as part of a founding team in Harlem was we were able to sort of wipe the slate clean knowing that we were going to be accountable to the test. We were able to work with Marty Sullivan and develop character assessment and character curriculum within the school. And I just wanted to say I think your two points about what really creates lasting and [unclear 52:35] school change are the stamina building within the curriculum, so we set very specific reading and writing standard building goals, independent reading and writing goals, and supported that. So we did test prep in the final two weeks before the test knowing that if our kids could really read, they'd do fine, and they did. And then the second thing I just wanted to say is this culture of observation and transparency, you know, it was difficult with our teachers. When we hired them we said when you come into our school, we're going to have an open, supportive environment around this. But we got our teachers to the point where we would set up ... if myself or the director of instruction couldn't be there once a week to observe them, we would set up video cameras in the back of the classrooms and it was a real culture of safety around that and at the point we would upload the videos for the entire school community, the teacher community to see. And so, you know, as the school leader I also taught. So it was this super transfer process. I think charter schools at their very best can allow people to do that, and create a culture around that.

JOHN: Okay. Alright.

AUDIENCE: So I just wanted to say thank you, and keep you around.

BRIAN: Thank you for your comments. The examples are really powerful.

JOHN: Yeah. Thanks very much. I think we're going over here. Thank you.

AUDIENCE: John Corrigan from Group 8 Education. About the last 10 years or so, we've been focusing on what we call outstanding teachers. So those are teachers who [unclear 54:19] really remember on average two such teachers who had a little more impact on who they've become. And such teachers tend not to represent about five per cent of all teachers. And that percentage seems to be stable over time, and seems to be [unclear 54:37]. So most schools of average size would have two or three such teachers. And what we looked at is such teachers

behave quite differently to the average teacher. They tend to use unconditional respect to children. Whereas the average teacher will use conditional respect. And given that we're able to listen to children on a number of different levels, outstanding teachers tend to listen at the levels which also [unclear 55:05] building. An average teacher won't. Now I've asked such teachers how they become what they become. It's always to spite the system, particular family background, or a teacher they had they wanted to emulate. Or interestingly a teacher they didn't want to emulate.

JOHN: Can we move to a question because ...

BRIAN: Yes.

AUDIENCE: Yes. The question is, I'm assuming that the same sort of situation pertains in the US, they would be studying this we think to say well how can you create the conditions for more teachers to be like this, to be created by the system rather than despite the system.

JOHN: Thank you.

BRIAN: Probably yes, but I don't know much about it. I think I'm not honest if at least once during this exchange I say I don't know. In the '70s and '80s there was a lot of research done identifying the outlying teachers who were doing extremely well in trying to understand what they were doing. And my memory of that is that it was hard to characterise the features that distinguished them. Some people were outstanding teachers in one way. They were humorous and they joked with the kids and class was fun. And others were outstanding and they were entirely different on the surface. So I find it interesting that you kind of can characterise what are some common traits. And I'm sure that there are people looking at it, but I don't know much about it, that research.

JOHN: Thank you. One last question here and I think that'll have to be the last question for this evening. Thank you.

AUDIENCE: Thank you. Arthur Josephson, Teacher Australia.

BRIAN: Oh, good.

AUDIENCE: And Teacher America. There's obviously a spectrum of performance in schools in America. Different schools getting different numbers of years of learning, the same year with the same populations, socio-economically. Do we have the metrics to identify those schools who are really the top performing schools regardless of population? And if so, what's stopping us learning from those schools and really spreading their practices across the system?

BRIAN: We have the metrics to identify them within the skills that we test. So that won't get at their character necessarily or these other things. But we can find rapidly growing school ... rapidly improving schools, and there have been some studies that have gone and done that. They looked at the extreme cases and tried to find out what's going on. And it's not always just a practice that you can copy. In some cases, as this gentleman was saying, it's a transformation of the culture, so the teachers talk to one another differently, and it just doesn't seem to be easy to go into an existing school and bring that about. I guess that's the best I can say is you ... there are lots of people who have lists of the characteristics of these high performing schools, from strong leadership down to a focus on data and student accomplishments. But it's not so easy to just go to a different school and make those things happen.

JOHN: Thank you. Ladies and gentlemen, I think it's been a fascinating evening. Dr Brian Stecher, thank you for your time. We appreciate the real insights you've brought on, just a huge variety of issues. One thing I'd take away is reform in this area is clearly not easy for anyone, and even harder to get reform that really works. But I suspect, as in so many fields of public policy, the one thing we do know is that rigorously looking at what we're doing and being honest about whether it works and then trying to work out what we can do differently is always important. So can I thank you? Can I thank Grattan Institute's founding members, the Victorian government, whose facility obviously we're in today, the Commonwealth government, BHP and

the University of Melbourne. Also Grattan Institute's various affiliates all of whom contribute to making events like this possible. And to all of you for coming. It's been a terrific discussion and we look forward to seeing you at Grattan Institute's next event. And in the meantime, thank you very much, Dr Brian Stecher, for your terrific contribution this evening. Thank you.

BRIAN: Thank you, John. It's a pleasure. Thank you.

AUDIO: This has been a podcast from Grattan Institute. Want to hear more? Check out our website, [www.grattan.edu.au](http://www.grattan.edu.au).

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