

Audio Transcription of Dr Ryan Naylor presenting “Developing a Critical Interventions Framework” at Curtin University on Wednesday 5 February 2014, 1pm – 2pm.

>> Professor Sue Trinidad: Welcome everyone. I'd just like to pay my respects to the Indigenous members of our community by acknowledging the traditional owners of this land, elders past and present. And I'd like to introduce you to Dr. Ryan Naylor, and we're lucky today, we have a number of firsts to celebrate. So Ryan is a visiting fellow to the National Centre, and I'm just checking -- everyone looks very familiar. Are there any people from outside of Curtin? Okay, you all know about the National Centre. If you don't there is some documentation here if you don't know about the National Centre for Student Equity in Higher Education. But he is the first person as our visiting fellow, and he's also the first person to provide a presentation for 2014. And we'll be doing a number of these in collaboration with the John Curtin Institute of Public Policy as a part of Curtin Corner. So look forward to those coming events which will be in this space.

So Dr. Ryan Naylor is visiting fellow. And he's from the Centre of the Study of Higher Education at the University of Melbourne. And today he's going to provide us with an overview of the papers that he co-authored with his colleagues C. Baik and Professor Richard James. And in early 2013 he also was commissioned by the former Department of Industry, Innovation, Climate Change, Science, Research and Tertiary Education - and thank goodness they changed their name now to the Australian Government Department of Education, which is much easier for us to use. But he was able to play a big part in developing the critical interventions framework for student equity in higher education. And the National Centre has been tasked with continuing this work. So we're becoming very good friends with Ryan following on from the work that he and his colleagues did. So there'll be a chance for him to discuss that framework and talk about this as a future tool for being able to assess what we all need to do within achieving our national social inclusion goals. And we're aiming to finish right on one o'clock, so we have about a 40 to 45 minute slot here for Ryan to present and then question time. And you are welcome to stay and go out to the comfy lounges if you would like with Ryan after the event. So thank you everyone, and thank you, Ryan.

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[Applause]

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>> Ryan Naylor: Thank you. I'd also like to acknowledge the Noongar people and their elders past and present. And Sue and everyone else at the National Centre has made me feel so welcome this week already. It's great to have the opportunity to present to you today. I'm quite inarticulate at the best of times, and being recorded as well is making me even more so. But this is quite a small group, and I'd like to keep this kind of conversational. So if you'd like to interrupt for clarification or for discussion points then feel free.

So as is already said the critical interventions framework was a commissioned project for the Department of Innovation. And essentially there was one question that they asked us to kind of investigate which is are we on track in achieving our national social inclusion goals.

Now, in order to answer that question you really need to break it down into two sub questions. So first of all is 'where are we and how are we tracking against those goals?' And, secondly, 'how are we going to get there? How effective are our current initiatives? What appears to work well and what doesn't?' And then in order

to answer that second question we have to break that down into another pair of sub questions. First of all, is it possible to generate a typology of equity initiatives to allow consolidation of research evidence? And is there evidence in the literature or from the HEPPP reports and evaluations to support their efficacy.

[Audience interruption – additional guests arriving]

>> Ryan: Please come in. No problem.

And to kind of give away my own thunder quite early on the answer to the first question is yes, in fact, it's actually a reasonably easy task to do. But the second question is much, much harder.

Now, a couple of words of caution before I proceed: there are some necessary simplifications that we had to make in creating the typology and in fitting the literature to it. Obviously the HEPPP reports were not designed for the sorts of things we were trying to do, and a lot of the literature wasn't as well. So although we have tried to be fair and representative and not summarise too much, there have been some kinds of simplifications.

Second is that in critical interventions framework intervention is a contentious term, and it does have troubling associations for some people. The title was not our idea. So through the course of this talk I'm going to try to refer to them as initiatives and programs instead to try to avoid that term. And, of course, the new coalition government changes the policy context, so how much of this is relevant and where it's going to go and so on and so forth is probably more a matter for Sue and the National Centre than this talk.

So in terms of kind of the terrain that we're operating in obviously there's been great changes to the higher education sector over the last several years. And these will have some effect on equity. Now, you could ask what's been the biggest event on equity, now what are the major landmarks in this terrain. So is it the uncapping and deregulation in the volume of undergraduate places? Is it having national targets for low SES participation and mission based compacts that go with that? Perhaps the existence of funding or the actual expenditure of HEPPP funding? Or, are there the kind of wider societal trends in community beliefs that the value of undertaking higher education, entry requirements, who are the right sort of people university. Because the efficacy of equity initiatives depends on these underlying factors. And there are many variables and they're highly interrelated. And they're probably different for each institution in each context. So how these actually play out is kind of the underlying landscape, and that landscape will vary depending on who you are and what you're trying to do. So I don't mean to insult your intelligence because I know most of you are working in this area already, but to answer the first question we will have a quick look at the numbers. So since 2007 there have been an explosion in domestic student numbers, an increase of 23% or nearly a quarter over the four years between 2007 and 2011 which is with compounding an annual growth rate of 5%. And this level of growth is unprecedented in Australian higher education. Now, against this background we have made gains in participation share for traditional equity groups. So students with a disability for example -- pointer is not very good, is it? So students with a disability have gone up, Indigenous students have gone up so one and so forth. But these gains have been relatively modest and they're not universal. So if you look at Indigenous students, for example, they've gone up .1%. If you look at students from a non-English speaking background they've basically been flat. And if you look at women in non-traditional areas and regional and remote students they're actually are going backwards. So if there is good news it's quite modest good news. Now, an important fact is that it's difficult to

improve equity during growth periods. For those of you who are fans of Alice Through the Looking Glass, when Alice meets the Red Queen they go for a run, and they run as fast as they can and have to run as fast as they can in order to stay in exactly the same place. And this is the kind of situation here. For these groups which are under accessed they not only have to run twice as far, they also have to run twice as fast in order to keep up with the growth in the sector. So this dotted line across the middle of this graph shows the growth in the sector overall, 5%. And each of your favourite groups is along the bottom here. So those that are level with the line like here and here are basically just growing at the same rate as the sector. The good news groups are the ones that are above the line, and they're growing a little bit faster which means their participation share is increasing. But the ones that are below the line on one hand it's good news, their numbers are still growing. There's not negative growth in any of these groups. But their participation share is decreasing because they're not growing at the same rate as the sector as a whole.

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>> Audience question: But, Ryan, what [inaudible]?

>> Ryan: So there are two methods for measuring low SES background. One is the post code that you come from, and the other is the census district.

>> Audience: Okay.

>> Ryan: And census district is meant to be a better measure because they're smaller, more homogenous. Yes, so there's two different measures. Now, is there anything I want to say on this slide? I think there is. So those for above the lines are improving their participation, those who are below the line are starting to fall behind despite their growth. And a bit more good news is that some groups who share this historic [inaudible] have been very stable having increased their participation share in this period. So if you look at the Bradley Review. She mentions that Indigenous students and low SES have been very, very flat in terms of their participation share for years. And then between 2007 and 2011 there's been this sudden up tick so something has changed that means we're getting more of these groups in. And what it is exactly I'm not going to speculate on in this talk. Again, the change in the sector hasn't been uniform. So I have here a table of different institutions which has been anonymised to protect the innocent and the guilty with their access rates for low SES students in 2011. So you can see it's a reasonably represented sample. There are some that are quite low, some that are quite high, and the change that they've seen in this access rate since 2007. And this is a total percentage point change. So you've got A which has basically gone nowhere, D which has a higher access rate but has also basically gone nowhere. B and C one has gone up substantially, one has gone back a bit. F and G started basically at the same point, one's gone up a little bit, one's gone up a lot. B is probably actually a really good case because it's gone up nearly a third again compared to where it was in 2007. So the point is there's absolutely no correlation here between the access rate in 2011 or in 2007 and the amount of change. Now, obviously there are complex factors at work here. There are different geographical contexts or catchments that universities might be drawing their students from, different access policies, different equity programs, all of these sorts of things. But the traditional strong performers didn't do better. So it's a very kind of messy situation for the sector. There's no clear winners and no clear good strategies at least from what is a reasonably superficial analysis like this. Now, to move on from just the participation, the groups once they've been to university appear to be no less likely to succeed. So, again, we have the dotted line across the

top which is the retention and success rates of the sector as a whole and, again, each of the groups. So, again, most of them are on or near the line of doing about as good as kind of mainstream students.

>> Audience question: How many years have [inaudible]?

>> Ryan: This is 2007 to 2011. So basically it's from the data that was used in the Bradley review and up to the most recent set of data that we have, writing this.

>> Audience question: And do we know like what could be contributing reasons to why it's not a big difference or why most groups appear not less likely to succeed? Because those factors can be significant or not.

>> Ryan: There are a number of different explanations. The first may be that educational disadvantage is primarily about getting access. And that once they're here there are enough supports and development and that kind of thing that they will succeed on their own. It may be independent of the supports and that just these are bright people, and given the opportunity they will succeed with no greater or lesser effort than anyone else. And that's probably, again, a number of different factors that will probably vary from individual to individual. Yes, those of you who work in the area may have better ideas than I do on this.

>> Audience question: What is the [inaudible].

>> Ryan: So these are government defined factors. So retention is the number of people that are still enrolled at the end of the year minus graduations, completions, and success is the number of subjects passed compared with the number of subjects enrolled. So the ability to pass your subject, and obviously that is also quite a blunt measure to success. And how many bums on seats stay there.

>> Audience question: [Inaudible] how does that compare to the students that aren't in any of those categories?

>> Ryan: The one on the end, the total? Yes, so I don't have numbers for students that don't fit into any of these groups. The last column is for the entire student body which is a reasonable approximation for that I think.

>> Audience question: It includes [inaudible] of those groups?

>> Ryan: It does include those groups. Anything further? Alright, so as I said most groups up here know they'd like to succeed. But there are two groups that I want to draw your attention to. The first is that there appears to be a problem with, well possibly that's the wrong way to phrase it, but there is a retention issue for students from remote backgrounds that have got substantially less retention, substantially low retention rate than everyone else. And there's obviously something that needs further investigation for Indigenous students. Another caveat on this graph is that we may not have seen the full effects from the demand driven system yet. Obviously with this massive increase in student numbers they have not – we will be drawing less educationally prepared – less academically prepared students from any number of different backgrounds, not just your traditional equity groups. And as they progress through the system these numbers could go down, they could stay the same. We just don't now yet, it's too early to comment.

>> Audience question: Sorry, Ryan, is the definition of [inaudible] students that have moved from remote areas of study or studying externally from our areas?

>> Ryan: Both I believe. So it's again another government point where you are coming from all bases in an area that's defined as being remote.

>> Audience question: Got you, okay. So it doesn't actually differentiate between internal and external students and --

>> Ryan: No, I don't think so. Alright. So to summarise that part of the talk the key problem I think continues to be access. If you look at these tables which is just a

summary of participation, retention and success ratios for each of these groups you can see there is a massive difference between the sort of numbers you're getting in this column and the sort of numbers you're getting in the last two. So participation and access are or perhaps should be the key focal points in student equity and social inclusion. Now, having said that there are the two special cases identified before particularly for Indigenous students. And I don't want to suggest for a minute that this means students don't need support once they're enrolled. As I said before less academically well prepared students will be coming in from every background, and that all these students will need support. So perhaps in terms of retention and success it needs to be moved away from just an equity student, a kind of deficit model and just providing that support for all students. Also, if I can be a little bit provocative before we move on, it might also be time to think about non-English speaking or students from a non-English speaking background as an equity group. Because if you look at these numbers they're actually significantly different from most of the others reasonably close to parity. So is it time to get rid of them as an equity group? Is it time to be a little bit smarter about how you use it? Because this is covering a lot of terrain we're including, say, refugees along with the children of skilled migrants who have been here since they were three. So just something for you to ponder.

>> Audience question: Question. [Inaudible] does that student from a non English speaking background could that being the Indigenous student in a remote region?

>> Ryan: Yes, there is overlap between these categories. Low SES obviously overlaps with a lot of them. But there's no real way to differentiate between them in the kind of blunt tools approach the government stats have. Right, so that's where we are. So now how effective are our current initiatives? So to remind you is it possible to create a typology of equity initiatives? Can we find sufficient evidence in the literature to point to the efficacy of particular types of initiatives? And can we identify the initiatives that are most effective? And the answers are yes, it is possible. Often we can't find that evidence and so, no, there isn't enough evidence to identify effective initiatives.

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Ryan: And I'm sure that this might come as a surprise to a lot of you who work in this area. It's a little bit frustrating to actually write the report. Now, this is a kind of equity initiative train across the notional student life cycle. Again, this is just a notional student life cycle. I don't mean to imply that all students move through this in an orderly fashion or at the same speed or anything like that. This is just a way of graphing it out on page. So we've divided into three main sections, access, participation and completion. And those would be broken down into outreach and recruitment, transition retention and graduate employment again. And then we have the kind of underlying factors that I talked about earlier on here as well. So most initiatives are almost programmed to map onto particular types of initiatives like early outreach, late year outreach and that sort of thing, so they're grouped by both method and kind of purpose as well. And we'll be coming back to this picture a couple of times through the rest of the talk. So appreciate it for its beauty.

[Laughter]

>> Ryan: Now, accompanying the table in the actual document is the critical interventions framework as a table which is where most of the heavy lifting is done. So I've just kind of zoomed in on one small section to kind of walk you through it. So as I said we have identified initiatives which are grouped by having a common method and typically a common purpose. So the purpose of having ultimate

selection criteria, for example, is to increase access for educational disadvantaged students. Then in my reading of the literature we've also tried to summarise what the literature says about the theoretical strengths or the plausibility of these initiatives as an equity tool. So, again, for ultimate selection criteria there's a strong theoretical basis believing that this will be effective. ATAR is known to have a strong relation with SES background, for example, which disadvantages otherwise intellectually able students. And ultimate selection criteria recognised non-academic experience and skills which are often an issue for say mature aged students, students from low SES backgrounds, students coming through VET, that kind of thing. And most of these summaries are from the literature. But then, if you look for the different type of evidence in the literature which is actual concrete evidence of effectiveness, that's often on shaky ground. Now, as luck and poor judgment would have it for the examples I've chosen there's actually strong evidence for most of these. We've also tried to summarise whether these studies are from Australia or from overseas because those kinds of contextual differences in the education system and whatever else may have an effect which means that they're not directly transferrable to here. Similarly it might be worth considering that the studies done before the demand drive system, the Bradley Review, may no longer apply as clearly as they did before. The context has changed. Now, for those of you who have only seen the draft discussion paper rather than the full final report this column on the end will be new to you. And until innovation actually releases the final copy then this is possibly all you're going to see of that. But we've tried to summarise the plausibility and the evidence in order to make a statement about what we believe is the likely utility of this type of intervention as a major equity component. So obviously we all have intuitions about what works. But in making this paper we have tried to base the framework on actual evaluative science rather than our intuitions. Unfortunately because the science isn't there we've had to make our own intuitions or estimations or judgments about this final column. So please feel free to take this final column with a grain of salt. It's our best judgments, but yours may differ, and I'm quite happy to have that on the record and as a matter of discussion.

>> Audience question: Could I ask for clarification?

>> Ryan: Sure.

>> Of the verified priority of the last thing is that then supposed to represent how university's is going to measure inclusive with the diversity or like the value that's added [inaudible].

>> Ryan: We're saying that using this is, has a very high priority of being effective. So if you had to pick a type of initiative these ones are likely to be successful. So we're not saying anything about the valuation or about any institution's equity standing or anything like that. This is just if you want to make this decision this might be a good tool for you to consider. So to summarise that then all things considered what did we rate highly? Now, another point is this is nothing intended to narrow or homogenise anyone's efforts. To kind of go back to what you were saying, we aren't saying that these are the ones that you should use and you shouldn't use any of the others. We're saying that everyone should have a number of arrows in their quiver, and these are the ones that are likely to be most reliable, but we don't think you should narrow down your efforts until you've only got two arrows left. So in terms of you think of highly likely to be effective. We have outreach to students in year 10 to 12, bridging and foundation programs, scholarships, provision of student services and monitoring student completion rates which often actually isn't done enough. And then from the very high we have school curriculum enhancement and support,

pathways and articulation programs, ultimate selection in criteria and tools and first year orientation and transitioning support.

So to go back to the diagram, the red are the ones we rated very high, and the green are the ones we rated high. And you can see that they're kind of clustering around this getting them to the door and then through the door period here, with a little bit of preparation mostly in the later years and then a little bit kind of tracking and supporting on their way through. But as we see it based on those stats I showed you before, most of the action is around this bit, getting them in. Now, to go back to the evidence question some of these have very good evidence, some of them have some evidence, and some of them have quite limited or mixed evidence. The other problem is, as I said, some of it is from the U.S. rather than from Australian context. So that's another kind of grain of salt you need to take with this. So, for example, school curriculum enhancement has very strong evidence for the need for this sort of activity but only some evidence, most of which is from the U.S. for its actual effectiveness. Whereas students services that provision varies depending on the type of service you're talking about, and later year outreach has quite limited evidence in its favour. But we're still rating these high or very high despite the lack of evidence in some cases.

>> Audience question: The end of that sentence is [inaudible] effective at getting students into university? Like what are these things good for, good for access or necessarily --

>> Ryan: Not for access necessarily, although as I said the problem we see it is mostly one of access rather than one of retention and success. These are the types of program initiatives that we think will be likely to be of use in servicing the national equity agenda, right? So there's a lot of hedging in that sentence obviously.

>> Audience question: But your screen did show [inaudible] student journey.

>> Ryan: Yes, yes. So these are mostly about access. So that is the [inaudible]. These are mostly about access, but that's because as I showed you from the stats earlier on the problems seem to be mostly one of access.

>> Audience question: But I think that goes back to what you were saying earlier which is the whole issue of Australian education literature. And how if we're having to look overseas to see what initiatives and even the concepts and the language, and then what's relevant to here. But we're missing this information that would inform us on --

>> Ryan: Yes, the body of literature is not there.

>> Audience question: How to actually measure it. Are we measuring these things in terms of bums on seats because that's not adequate enough. Or, if so, what criteria are we actually measuring for social inclusion that is not monitoring. That's my critique of government policy.

>> Ryan: Sure. Well, the federal works, the Labor government had the bums on seats approach, 20% by 2020.

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>> Ryan: And this was written with that in mind. And as you can see we're talking about the entire student life cycle coming in at a number of different points to get to that level. So it's not just about access. It's these are the sort of things we think will get us to that point. And they're coming in different points, but they are mostly around access and participation.

>> Audience question: That's interesting if you go back to the [inaudible] talked about success and retention, I think it was in terms [inaudible]. I mean the argument is if you do gets the bums on the seat then predominantly they track as well as

[inaudible] bums on the seat measurement [inaudible] suggestion four out of five once you get bums on the seat [inaudible]. Well, that [inaudible] difference.

>> Audience question: But I think what will get lost in thinking about these things is the social in the social inclusion which would for me just conjures up associations with identity and how the uni identifies people in need, as opposed to not in need and how we place the problem in the group of people rather than in the wider conditions that we're trying to respond to. Does that make sense?

>> Ryan: Yes. I mean obviously all of these are being used as proxies for educational disadvantage anyway. So we're treating, we're assuming that everyone from this group will be educationally disadvantaged which may not be true anyway. Now, obviously in an ideal world we would have the time and the resources and everything to have proper individual care, and we wouldn't be relying on approximations like this. But I think realistically we are going to have to make some kind of approximations. And whatever the problems with the bums on seats argument it does seem likely to kind of get to the point in a very kind of number crunching sort of way. And it's not ideal, but if you are setting national policy this is I think the way you have to set it.

>> Audience question: But what I'm saying is that to me is currently framing these two things, bums on seats and social inclusion are mutually exclusive. And what I'm saying is, no, actually that can facilitate.

>> Ryan: Yes.

>> Audience question: If we actually take into account the ways in which we think about who needs help and what kind of help or whatever, and identification process itself and we think about... that can help increase money. So the thing is do we know much about that? I don't think we do because it tends to just do the bums on seats... stuff

>> Ryan: I don't know a lot about it, and I'm not sure I'm willing to speculate. But maybe we can talk about it afterwards. So to go back to here, so again to talk about the evidence base again, the red boxes are the ones for which we have strong evidence in their favour. The green ones have some evidence. And these two blue ones may be potentially impossible to get evidence in their favour. So having a lack of evidence is irritating as a researcher, but it may just be a fact of life. For early outreach particular there are just so many different confounding factors that can occur between, say, year nine and getting to university. But you can't really say that this program led this person to the, to the door. Now, the money slide. So how does this kind of analysis match up against how we're actually spending the HEPPP funding. And, again, two caveat before we launch into it, this is purely descriptive. Not in any way normative. I don't want to suggest, again, that all of the HEPPP funding should be spend on high and very high things. Although interestingly two thirds of HEPPP funding is being spent on things that are high and very high. Secondly, not all the initiatives require the same amount of funding. Obviously ultimate selection criteria costs comparatively little. You might have someone reviewing portfolios and that sort of thing, but it doesn't take any cash at all to say people from this school get five bonus points on their ATAR. Whereas scholarships, for example, by their very nature cost quite a reasonable amount. So having said that two third of HEPPP funding is being spent on things that are high or very high. Most of that is being spent on things we would rank as being high, but that may be for entirely legitimate and reasonable reasons. This is more for interest than to make any kind of statement about where we are and where we should be. Now, yes, the main expenditure is from the very high in terms of first year orientation and transition

and for here, outreach into years 10 to 12 scholarships and student services provisions.

Obviously all of those, you would think intuitively it wouldn't be quite as expensive. So where to next? I have timed this almost perfectly. So just two slides to sum up. This was written primarily for national policy purposes. So it was never meant to function at an institutional level. To go back to your question before these are about the sort of initiatives people get as a sector to where the government wanted us to be. Now, I do hope that the critical intervention framework is being used in the institutional context, and I'm hoping that this typology is helpful for you all in your everyday work or at least of interest. And, again, if anyone has any comments on that I'd be glad to hear them. But the point that institutions really coming is that we need better evidence of program efficacy. We need detailed, rigorous, published evaluations, and we need to have a sector-wide conversation about equity initiatives and what works and what doesn't. And for me personally we have sought funding based on just to look at the process and attitudinal factors affecting program evaluation. So how do equity practitioners themselves think about the valuation and what are the kind of process factors that may be impeding this. And resources, development resources for embedding evaluation into the core business so making it a part of what we do on a day-to-day basis. Then this year is also the year that we are doing the five year first year experience survey. And this year we'll have more of an equity focus so that we can try to get some of the evidence for, say, outreach and that sort of thing. It will only be based on student perceptions obviously, but that's a form of evidence we haven't really had to this point anyway. And obviously part of my role here this week is to find collaborations with the National Centre staff and that's going very well. We already have an OLT idea in the can, and hopefully that through our conversations today and over the rest of the week that I'm here we'll be able to come up with more.

>> Ryan, so

>> Audience question: Ryan - the first year student survey.

>> Ryan: Yes

>> Audience question: When is that in what part of the student's first year to do they get the survey?

>> Ryan: They get it about two thirds of the way through so releasing them out about August.

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[Inaudible Audience Question]

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>> Ryan: Yes. But that's a necessity because none of them will have any idea in March what their experience has been like.

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[Inaudible Audience Question]

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>> Ryan: It's a separate survey. It's done with the help of I think 10 to 12 institutions who have been doing this every five years since 1994. I don't know if Curtin is one of them off the top of my head. But it will be at probably about the same time as a separate device.

>> [Inaudible]

>> Ryan: No, it's a broad brush thing. There would just be more emphasis this year on looking at the sort of response that we get from people in most groups.

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[Inaudible Audience Question]

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>> Ryan: 10 universities are participating. It's actually run by the CSHE. Alright? So very last slide then. Thank you all for your attention. And I hope you found it interesting. And thank you very much for having me at Curtin.

>> Audience: Thank you.

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[Applause]

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>> Professor Sue Trinidad: Thank you very much, Ryan. I'm sure there will be some more questions.

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[Inaudible Audience Question]

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>> Ryan: And that's a really good point because that kind of lens in which how we think about the categories, the concepts that we use. And we need to have more discussion about that.

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[Inaudible Audience Question]

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>> Ryan: ATAR correlates very strongly with SES. And this has been shown effectively all over the world in a number of different studies.

[Inaudible]

>> Ryan: Yes, I understand that could be quite confronting.

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[Inaudible Audience Comments]

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>> Ryan: Well, there are a number of different factors there that in a general sense could be involved. So if you go to an all-girls school then you would want to apply bonus points for the courses that are under-represented like stem subjects for example. I'm not saying this is the specific case, I'm just saying it in a general point. Then there's also the thing that's kind of lost in the low SES story is that it's not just an under representation of students from the bottom 25%. There's also an over representation of the people from the high SES, and there's an almost equal amount of under representation for the people in the lower middle. So obviously if you're going to do this really effectively you'd want a graduated approach so everyone from kind of the bottom 75% is getting a slow incremental increase to represent the increasing disadvantage or under performance on ATAR or however you want to phrase it.

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>> [Inaudible] interesting about the vector [inaudible] such as alternative selection [inaudible] increased access on the student applying to college wanting to go to university. And an interesting phenomenon seems to be emerging. Not evidence yet but it's coming out of a different project. But in year nine students' aspirations towards university for low SES [inaudible]. And [inaudible] subjects that will get them a [inaudible] and not applying to college. So there's something that's happening in the school that's actually driving down aspirations. Because in year nine they're highly represented in terms of wanting to go, see themselves as [inaudible]. And so a lot of pre-testing all universities have done initiatives [inaudible]. So it's not a

matter of raising their aspirations [inaudible]. And what's happened between then and year 11 [inaudible] choosing their subjects [inaudible]. What has happened? What is the change in the day-to-day perceptions of [inaudible]. And it matches a similar finding in the stem subjects that more science the kids -- more science that a kid does in school the more they [inaudible]. So grade two, grade three [inaudible]. [Inaudible] by the time they get to high school they're dropping the science subjects [inaudible]. So there's something else happening within the school or within the [inaudible] of students that actually draws aspirations down. And none of our work really has come to grips with that.

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[Inaudible Audience Question]

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>> Ryan: There is a couple studies on WhereOf that have looked at this. And the way teachers and careers counsellors talk to people in low SES schools is different compare to the way they talk to them in high SES schools. So you can quite easily imagine someone saying I understand that you want to get into engineering, but as a fallback position why don't you think about meat packing or something like that. I think I'm not a fan of raising aspirations as a term. The one that I would prefer to use is informing aspirations because I think part of the point you're getting at is these people often have very realistic expectations about what is available to them. And part of it is that they're given these messages from teachers and so on. Part of it is that they don't have the same kind of I suppose cultural capital, the same exposure to the breadth of professions that higher education might offer. The only professionals I meet are doctors and teachers, that kind of thing. And that I think in terms of the raising part of raising aspirations can sound a little bit patronising when they are very well aware of the sort of circumstances they live in. But it is a complex problem, and I think it's something that really does need a lot more research and thought about.

>> Audience question: Has anyone done any ethnographic studies, socio-cultural studies I think we're reading too much into the schools here. But as you grow into that teenage period your reference group has changed, your values of a trade based family kind of skill set. What is important, what's valued, what's achievable. And then you've got to also look at economic pressures. Why you could make \$150,000 driving trucks on a mine why would you come to university?

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[Inaudible Audience Question]

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>> Audience question: Are there any ethnographic or sociological [inaudible].

>> Ryan: There are some. None that I would be brave enough to name or quote off the top of my head but yes there are.

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[Inaudible Audience Question]

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>> Ryan: There was a paper from the U.S. talking about Black youths getting into higher education. And the thing that they found that was most indicative was the absolute expectation from the parents that their children would go to university. And there was another one which I think was Australia which we were talking about yesterday which is to do with the education level of the mother. So mothers who go to university regardless of whether they finish their studies or not, so even if they take one semester and drop out, are much more likely to have children who go to

university than women who don't have any experience with higher education. So to go back to that kind of debate about success, if you want to look at a kind of generational level then what we're finding is success may be not necessarily the be all and end all.

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[Inaudible Audience Question]

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>> Ryan: If you're going to do outreach to schools it needs to be to the entire school population and not to just the gifted students. Because the gifted students first of all are most likely to be going anyway so you're actually not making much of a difference to their lives. Whereas by doing it to everyone you're kind of making those peer expectations change.

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[Inaudible Audience Question]

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>> Ryan: I think on that note we'll have to vacate.

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[Inaudible Audience Comments]

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>> Ryan: There are couple of longitudinal ones but not very many. And they mostly would be half a dozen students at most. So they're not what I would consider to be really rock solid evidence.

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[Inaudible Audience Question]

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>> Professor Sue Trinidad: Ryan's paper was put together last year, and I was absolutely amazed it was put together in four months. The department said we need this. Mel [Henry] and I went to the forum it was in April 2013, and that's where we were first introduced to this. But basically the government hasn't been as interested in this part because it's been the change of government. They're more interested in the systems or the performance framework at the moment. But we still are very, very interested in this because as you heard from the conversation today this is our whole work at the moment. This is where it's all happening. This is where you can make a difference.

>> Ryan: But it's the government's loss. So thank you very much for your attention.

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[Applause]

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