National Careers Week webinar — Careers and student equity: Key influencers and careers advice for students from disadvantaged backgrounds

SARAH O'SHEA: Good morning everyone, my name is Sarah O'Shea. I'm the director of the National Centre for Student Equity in Higher Education. Thank you for joining us today. I'd like to start by acknowledging the Elders. Today I'm located on Whadjuk Noongar Lands and I wish to pay my deep respects to the Elders past, present and emerging and to the Aboriginal community that continue to care for Country. I stand for a future that profoundly respects and acknowledges Aboriginal perspectives, culture, language and history and a continued effort to fight for Aboriginal justice and rights paving the way for a strong future.

Thank you for joining us today. NCSEHE is hosting this webinar and its part of the national careers week. We are a research policy and practice centre funded by the Commonwealth government with a dedicated mission to improving the higher education outcomes access participation retention success and completion rates for marginalised and disadvantaged people through a variety of strategies including research, practice and policy. I'm delighted to be able to bring you this webinar that showcases four large scale projects that were commissioned by the national centre to improve access to information about higher education study options pathways and careers for disadvantaged students and those who influence them. We have a particular focus on low socio economic status students as well as those from regional and remote areas and indigenous students. Each of these projects was a year long and they were conducted under the Australian Government Department of Education, Skills and Employment National Priorities Pool. Each project took a really innovative approach and focussed on a particular need or gap in the sector. As I said we have four presentations today, and each will just present a snap shot of their findings and recommendations. The reports for these grants will be released soon so please ensure you are signed up to the NCSEHE newsletter to receive details of when they come out and please check the website for progress reports and additional resources. Before we begin I just have some housekeeping you can all see the slide, that details these things as well. But this webinar is being live captioned by Bradley Reporting and will be recorded. The recording will be available on the NCSEHE website in the coming days and to activate the closed captions please click on the CC button in the toolbar that is located on the top or the bottom of your screen. We also have captions available via browser. We will add the web link to the chat pod now and if you have technical difficulties please email NCSEHE@curtin.edu.au.

Today each of the presenters will present a 15 minute presentation and then this will be followed by ten minutes for Q & A. As we begin can I ask everyone to go into the chat pod, you'll see it on the bar at the bottom of your screen and just begin by introducing yourself and maybe even telling us what country you are currently on at the moment. We have registrants from all over the country and from a diversity of educational sectors. So looking at the registration list I could see we have representation from universities, from the VET sector and also from the schools so a really diverse audience today. Please choose all panellists and attendees when you post but if you have a question for the panel, because after each of the presentations we will have a few minutes for Q & A. Please can you put that in the Q & A box and if you would like to keep an eye on the Q & A box you are also able to vote for different questions and bump them up in the list.

So without further ado, I'm actually going to start by handing over to our first presentation. Which is entitled "The Impacts of Socio Economic Status on Access to Quality Study Pathways and Career Advice". I'm going to invite Dr Jane Coffey from Curtin University, Professor Dawn Bennett from Bond University and Dr Ian Li from the University of Western Australia to turn on their cameras and to start their presentation. Thank you everyone and please post questions in the Q and A box.

JANE COFFEY: Good morning everyone lovely to be here, thank you for the introduction Sarah. I'll just briefly introduce myself and then team members will introduce themselves as well. Just briefly I'm Dr Jane Coffey from Curtin University.

IAN LI: Good morning everyone I'm Dr Ian Li I'm an economist based at the University of Western Australia.

DAWN BENNETT: Good morning everyone I'm Dawn Bennett I'm an assistant provost with Bond University in Queensland.

JANE: So just briefly just the title of our project, this was conducted last year so it was basically looking at the impact of socio economic status on access to and the quality of study advice regarding future careers and pathways for secondary school students. So I will pass on to Ian to talk because it was a complex study and we looked at information from a range of different sources. So I will hand over to Ian who went in to looking at the LSAY data, then I will hand onto Dawn who was the person who spearheaded the study of career practitioners within the school system and then I'll talk about the findings from our interviews with students and the recommendations.

IAN: Thank you Jane. So as Jane said I'm speaking to the first two research aims of our project which were addressed through quantitative analysis of two large data sets. Just before I start I'd like to acknowledge my colleague Professor Mike Dockery from the Bankwest Curtin Economic Centre who led the analysis of the first objective. Mike wasn't available to present today and so I'm presenting on his behalf. So without further ado I will start on the first aim and first research aim in this project was to look at the sources both formal and informal of careers advice accessed by young Australians in year 11 and 12. The main focus further to that was to look at whether the sources of careers advice actually differed by socio economic status background. So for this aim we use an existing data set known as the Longitudinal Surveys of Australian Youth also known as LSAY. I will abbreviate to LSAY for the rest of the presentation. The LSAY surveyed cohorts of young Australians nationally and we use five survey cohorts initiated over the period from 1998 to 2015 to look at this research question we were particularly interested in looking at the sources of careers information that young Australians in year 11 and 12 had access to, what they engaged with, and how that changed over time. So there were several notable findings from our analysis. First notable finding was over time higher proportions of young Australian's were accessing at least one form of information on careers over time. So that's definitely a good thing and basically by the time young Australians were in year 12 virtually all students engaged in some form of careers advice activity, whether it was formal or informal. Now the most common form of careers advice that young Australians accessed was informal this was through speaking to family or friends about their careers and their careers aspirations and this is a particularly important finding because from previous studies we actually know that there are limitations in effective careers guidance given by parents from lower socio economic status background. This is important to note at this stage and also important to note in the context of the later findings that I'm going to talk about. The second finding was the attendance at university information sessions for young people increased substantially between years 11 and 12. We also noted that more students reported developing a formal plan about their further study or work especially in the more recent years of data that we analysed. So those are what's increased.

What has declined, what sort of careers activities have actually declined in terms of access by young people over time. We noted particularly acute decline in five activities, firstly organised visits to work places, secondly information sessions conducted by TAFE, third completing questionnaires on their interest strengths and abilities, fourth the use of the internet or computer program, and finally talking to someone who is working in a job of interest. When we looked at the types of careers advice that was accessed by SES background there were also very notable differences. Students from higher SES were more likely to access most forms of careers information including the formal ones from careers advisors and also from universities. Those from lower socio economic status background are more likely to look at information and engage with information on nonprofessional pathways, such as TAFE and organised workplace visits. We also observed quite concerningly that the divide in careers information accessed by SES background was becoming more entrenched over time. So the divide actually widened over time even though in the middle of the time period that we looked at in terms of the data, the demands driven system in higher education that should have theoretically provided more access to universities was actually introduced and despite the introduction of the demand driven students system, the divide in terms of university information between SES background actually widened. So it would be useful to note the causes of the divide we weren't able to look at that in this LSAY data but we did look at related issues in this project and my colleagues will address some of this later so it could be due to financial constraints, influence of family and peers, practices and biases that exist in the educational system. As I mentioned my colleagues will address this later. So I'm going to move onto the second quantitative research objective that was using a validated self-assessment tool deployed at four Australian universities and what we wanted to look at here is the confidence and career thinking of students at university and again our focus was on how that defers by social economic status background.

So the tool is called employability survey it was aimed at measuring student's confidence in their ability to manage and complete their students and also secure graduate level work. We linked the survey data to administrative data provided by those four universities which provided very rich data on demographics including socio economic status and for those who entered university through a school lever background we also managed to get information on the type of high school they entered university from. There were eight employABILITY factors that were measured in this survey. I'm going to name them although I'm not going to be able to explain all of them in this short space. So we measured self-awareness, program awareness, commitment, reconsideration with commitment, self-esteem, academic self-advocacy, career exploration and occupational mobility. We were interested in looking at whether the self-report of this eight factors deferred by two items, socio economic status background or the type of high school graduated from, whether it was a government or independent high school. Our analysis controlled for many different types of co-variants such as gender whether they studied online or on campus and I'm just going to go through the highlights of the main findings that we found.

We found that students from low socio economic status backgrounds especially those in government schools have lower self-reported levels of academic self-efficacy, now to dissect that finding a little bit more low socio economic status students tend to report lower levels of academic self- efficacy that is their confidence to actually perform well in their studies but this was compounded especially by low SES students who came from a governmental school. Another finding was that students who were not from low SES, that's is if they came from a medium or high SES background in governmental schools they also had lower levels of program awareness, self-esteem and occupational mobility. Both those findings compared those students to non-low SES students who were in independent schools. So the upshot here is that while lower SES background is associated with lower amounts of confidence coming from governmental schools appear to be really

influential in being associated with lower levels of confidence or careers thinking. The next logical question that we were going to ask was how this employABILITY factors might influence other student outcomes such as performance at university or future employment. We were not able to look at future employment because the students who completed the survey are still moving through their university life and many have not completed their studies yet but we did look at how these factors were associated with academic performance and we did that by using weighted average marks that were linked in from the student administrative data. Our analysis showed three of these employABILITY factors, especially academic self-efficacy, reconsideration with commitment and occupational mobility were all significant and associated with a positive influence on weighted average mark and unsurprisingly, academic self-advocacy had the largest effect. So the main take away from this part of the analysis is that we should look at developing better support for lower SES students especially those from governmental schools both at the school and at the university level. I'm going to hand over to my colleagues next to continue the presentation.

DAWN: Thank you Ian. Hello everyone. So yes, moving to the next part of our study and I think as Jane said at the start we do start to get a better picture of why we are seeing those findings from the LSAY data. So I'd like to highlight five key findings from our survey of career influences and practitioners and you'll see we've put them that way deliberately because the role of influencer which might be students, parents and teachers, rather than practitioners is enormous. So overall the findings support the literature and other aspects of the study in terms of the structural economic social and academic barriers which appear to inhibit the access of low SES students and regional students as well to career and study pathways information. The first highlight there is that lower SES schools and we use that term deliberately we categorised this so these are the 50 percent of schools with the lowest IXIA scores have a greater prevalence of less qualified and less experienced influencers and practitioners who provide that much needed career and study pathway guidance, in fact unqualified staff are far more likely to be responsible for providing those guidance in lower SES schools than in other schools. Second and this was across the board, career practitioners report being undervalued overworked and having insufficient time and resources to meet student's needs. These really low overall satisfaction rates support the need for a national focus on the provision of quality well-resourced career and study information together with adequate advice and support services for students in all context. The third point is practitioners report far too much emphasis on exam performance and grades rather than the discussion of student preparedness for life or work after school or indeed discussions about where interests may lie. We found that career and study decision making is often limited to a single session or very short group sessions and the overwhelming focus of those discussions is whether to take an ATAR or non-ATAR pathway and this decision most people described was almost entirely focussed on academic grade rather than other factors. Once students are funnelled in to one of these pathways they appear to receive few opportunities to learn about the other. That's very concerning because it seems once they're funnelled for instance in year eight or nine into one of those pathways and those discussions about other pathways are pretty much closed to them.

Fourth highlight is that limited financial resources impedes the ability of most lower SES practitioners to do their role that was an overwhelming finding and distinct to lower SES schools. Related to this final highlight is only 31 percent of career practitioners from the lower SES schools reported that study path way support is fit for purpose. I was very shocked to see this was only 55 percent for higher SES schools which is still lower than what we would like it to be. So we really have a problem with the provision of guidance and resourcing that guidance which might be fit for purpose. So to summarise the survey of our careers practitioners and influencers I think what we find is that the role of individual influencers and the disparity between low and high SES settings just

can't be overestimated, the study provides strong evidence that adequate career and study pathway support for Australian students is at the moment contingent on more practitioner time, more financial support more professional training, particularly among non-qualified staff and a cultural shift in that value proposition of what careers and study support is and should be in schools. So amongst our recommendations we suggest we should prioritise study and career pathways advice , that we should adopt collaborative approaches across settings and schools and across different stakeholders, and that we should provide basic school based training for all teachers because their role is important and we also recommend the inclusion of foundation level career development training for pre-service teachers. So on that note I'm going to hand on to Jane for the next part of our presentation.

JANE: Thank you Dawn we found we wanted to give students a voice and it was wonderful because they used that voice although part way through the focus groups we had a sense of dread regarding what they told us. Clearly from what both Dawn and Ian said as you can see there on the slides, overwhelmingly students felt that what they wanted to do was basically pre-empted by the streaming, they were pushed to either ATAR or non-ATAR and irrespective of the type of school their career and study guidance was literally limited to subject selection. This was predominantly based on academic grades and what I've highlighted down the bottom there because I'm conscious of time we have left is that across all socio economic groups across all states, none of the students that we interviewed had received any advice on alternative pathways to secondary education. A number of them when we pose the question to them said, what is that? I think with what Dawn has indicated about the recommendations is that we really need a national approach and for those who are the career influencers in the schools this is very complicated and differs significantly between states so one of the recommendations we have is a national approach to this and that the students also indicated, particularly those on non-ATAR pathways, felt like they were the second class citizens in the school system. That access to study pathways guidance and advice was very much predominantly only for those students on university and ATAR pathways. Most of that career advice was a single interview, short meetings and it was literally on a come and see me if you need to talk to me and most of those students didn't. We do remember from one of the focus groups students said they didn't even know who their career advisor was or where their office was. So this speaks to what Dawn talked about the fact that those career practitioners and career influencers need a lot of support and help in terms of how to reach out to students and to talk to them about more than just study pathways and subject selection on that basis. Now you can go to our report to read about the recommendations, but what we have here is we came up with a model of the five I's of student career thinking and study decision making and you can see overwhelmingly it's really that we need a national approach, but also that the career advisory service and career influence service needs to be part of core business in the school system and needs to be part of the curriculum for pre-service teacher programs. That it needs to be front and centre of what they do and what they cover. So I'm seeing I'm slightly over time here but as I said you can go to our report to have a look at the recommendations and the information in more detail.

DAWN: Thank you Jane that's terrific and apologies for losing a word on the penultimate slide there obviously that was alternative pathways to post-secondary education rather than secondary education. So now Sarah do we have some time still for questions.

SARAH: Yes you do Dawn. Thank you all for a great presentation. I'm going to get all of you. Jane your camera seems to be off, do you want to turn your camera on. So that was absolutely fascinating and I just want to let everyone know if you have questions, I noticed a couple of people raising their hands but we're not running the discussion with raised hands if you have a question please pop it in

to the Q and A not the chat pod and then other people can vote on your question. But we did have a question from Joanna thank you Joanna. Joanna you were asking about whether the study focussed on young people and out of home care at schools and post school. I know Ian did answer that but Ian I wonder if you could just explain the groups that you included in your study and whether that particular cohort was included?

IAN: Thank you Sarah and thanks for the question. Unfortunately we were not able to focus on young people in out of home school care and post school because we were limited to the data that was available in the existing data sets used. So in the longitudinal study of Australian Youth the main focus was on low socio economic status and even that was hard to capture consistently across the years, due to how the survey has changed within 1990s and up to 2015 which was the most recent wave that we used. In terms of the university data that we used that again is limited to what universities capture and beyond the formal equity groups that is using government reporting, no additional information was actually captured and so we weren't able to look at that.

SARAH: Okay thank you. I had some questions if you could indulge me, I was really interested in the low, esteem and academic self-efficacy that you found with the students from government schools. I'm a great believer in state education. So I just wondered if you could, if any of you can comment a bit more on that about what we could do differently in our state system to assist in that building that self-efficacy.

DAWN: It's an interesting one and we were quite surprised to see that it was such a significant finding. I think, the self-assessment tool is obviously a self-assessment of confidence at that point in time. So when we are looking at something like academic self-efficacy or in plain english my confidence that I can pass my studies. We are looking at whether students feel that they, it could be part of being part of that culture and being very comfortable in their tertiary education setting, feeling that they are able to keep up with peers, feeling they have adequate study advice, all those things would contribute to my confidence that I might pass my subjects. I think one of the things, all the things we've done about first year transition I'd like to break this down by year level to see whether this is a first year problem. I suspect there's quite a bit of support in first year but there's a real second year dip and we need to put additional support in to second year, your question about what we can do in state high schools I think we could surface the terms self-efficacy and self-esteem and actually teach students what they are and do really positive education around how we can reinforce those self-beliefs amongst students. I know it happens in pockets all over the place but I'd like to really see a push on that and to help students to unpack that and understand those terms themselves.

SARAH: Thanks Dawn. Does anyone else have anything to add?

IAN: I've got something to add thanks Dawn that was a brilliant answer to the question. I think what I found interesting as well was even though students from lower SES and government schools had lower amounts of self-esteem that didn't actually turn out to be a contributor to their academic performance so in that sense, that confidence aspect might be selling themselves short, it was only those who actually felt not confident in their academic ability that translated in to poorer I guess academic performance. So I think it's the academic support that we should look at and the other thing is, the self-esteem we should try to address that as well but at least not turning out in to adverse outcomes in academics.

DAWN: From an employABILITY perspective of course if a student is less confident in their peers relative to academic performance they're less likely to be able to pitch their abilities and capabilities

to a placement supervisor, to a graduate employer and so it's really important that we start to build this early I think.

SARAH: Thank you Dawn and Ian. We've had a couple of questions that have just come in thank you to Mary, Sarah and Lincoln for posting in the Q&A. Starting with Mary's, it was a question I had as well, so Mary you and I are thinking along the same lines. Any suggestions about how we might include the student voice in policy making?

JANE: Thank you for that Sarah and for that question Mary. I think one of the first suggestions is that obviously we included that student voice to quite a great extent in the report and one of the things we are hoping is as a first step at least is that with this study and with other studies that have been funded is that our findings and what the students have indicated and what they've said is actually considered by policy makers. And actually that we look at policy in, from the student point of view, so that's in there. But the policy makers is also around having national surveys, national focus groups that involve those students. That we involve those career influencers in the schools in that policy decision making because they have such an important role to play, we are saying they need to have a more important role to play but they can actually feed in to policy as well because they're at the forefront of the students making those decisions and talking about what they want to do with their future selves.

SARAH: Thanks Jane. Sarah has asked quite a big question, might have to keep it brief, what is the role that widening participation can play in addressing these findings. Are there any initiatives that maybe aren't currently being done that perhaps the WP agenda could pick-up.

DAWN: Isn't that a great question. As Ian said in his part of our presentation you would think the widening participation agenda would have addressed some of these issues but in fact LSAY data suggests that the gaps are becoming larger not smaller. I have to say given that around half of our young people attend post tertiary education there's an enormous opportunity for those numbers to count and going back to Jane's comment about having students involved I think we should start to look at initiatives and policy, whether it's policy decision making, or how we actually enact some of these supports within schools and within universities and within TAFE's as a multi stakeholder group. Now that would have been much harder when there were few participates but we are now a big sector and we see enormous potential in working across multiple schools within a region or using technology to work across multiple like schools across the country. We see enormous potential for engaging students at the student voice, as in a student as partners model, in a lot of this decision making. Just really practical things like every pre-service teacher needs to have some career development learning training, they simply do because they are at the forefront of that advice giving.

SARAH: Thank you Dawn. I'm going to go one more question and we do have a number who have come in to the Q&A and when we have finished your little session I am going to invite the presenters to respond to those on the Q & A, you are allowed to do it now. And one last question from Lincoln, how were students from low socio economic backgrounds supported to make informed choices, was there anything that stood out as particularly good practice?

JANE: What did stand out was particularly average practice, to be quite honest because from our findings it was purely around or predominantly around academic grades. So a lot of that decision making wasn't informed Lincoln. It was very much based on the academic grades so it could be, and we did have a wonderful quote we've included in the report from a student saying they were strong in maths and science so I think you should go and look at engineering. And the particular student

said I'm not that interested in engineering but they were guided on the basis of their academic grades and unfortunately if they were students where for a number of reasons they academic grades weren't strong then there were no informed choices because they were pushed in to the non-ATAR and one of the things we found is that work integrated learning programs and industry visits which are so important for non-ATAR students was very hit and miss and we found that students from regional areas had less access to those opportunities than students in metropolitan areas, so again those informed decision makings was few and far between.

SARAH: On that note, this research and the other projects you will hear from today are rich in their findings But I would just like to thank you, all three of you for coming today and presenting this snap shot of your work. I'm now going to ask you to turn off your cameras and invite Sue Kilpatrick and Sue is going to present on. Professor Kilpatrick from the University of Tasmania is going to present on jobs of the future and the journey of toast. So a very intriguing title Sue. Just a reminder to everyone please post your questions in the Q & A, and then other people can vote those up so thank you over to you Sue.

SUE KILPATRICK: Thank you Sarah so I hope you can all see my slides, I've tried to make it a bit interesting, before I start I'd like to acknowledge the Palawa people who are the custodians of the land on which I sit, the Launceston campus of the University of Tasmania and I'd like to acknowledge the elders past, present but particularly emerging every time I talk about education I'm very interested in emerging leaders. I'd also like to acknowledge the rest of my research team, Olivia and Kylie are panellists here on other presentations whilst others are just quietly listening in. So this presentation is different from the others in that what we were interested in, is not so much students themselves but we were interested in equipping those people in rural communities who you've just heard about in our first presentation. Equipping those people who support students to make informed education and career pathway choices. Our focus was rural, regional, and remote communities. I'll call them rural from here because it's much easier just to have one word rather than two. Just watch the journey of toast. I chose toast thanks to University of Newcastle and some in Queensland who have used this before to expose jobs. I pose the questions you'd be thinking about in the back of your mind, how many jobs are there in a piece of toast such as our little toast face who you'll see on all of my slides. So without further ado, hopefully I can make the next one happen.

So why do people become interested in this topic? This follows from a previous funded NCSEHE project about rural home community factors and why do people choose what they choose. Back then, we surveyed over 3,000 students who came from rural post codes and made it all the way to university, but the first thing I'd like to point out that's not on the slide is a lot of those people are not school leavers and not young people, in fact about 40 percent of the new domestic undergraduate students on this campus that I'm sitting on are not coming to us directly from school or in the one or two years after that. So we asked people what influenced them to get in to university, firstly what made them aware of the possibility of university and that's the brown coloured bars on the chart, then what was it that actually turned your awareness and aspiration in to actual participation. That's the grey bars. So have a look at the differences. We've heard like first presentation talked about teachers and school staff. Great at making students aware of university, younger students but not so good at actually that next hurdle of what does it take to get there, what does it mean, what's it like living in the city, what's it like working as an engineer compared to something else. I draw your attention particularly to business and industry right down the bottom. They support people to get to university, now it's not just making them aware but it's making it seem practically possible it doesn't mean they're giving out money, it means there's some sort of

support, the other thing you will notice is how many different people are involved, so yes there's good old family, important as we expect but also organisations and groups, other people in my rural communities studied at university and look at the TAFE or adult learning centre lots of rural people have a pathway that isn't straight to university traditionally. Just keep an eye on the friendly toast face how many of those jobs down the side are you aware of that were part of the journey of a piece of toast before it was ready to eat. So we thought well how do we equip some of these people here so how many jobs do you know about and you are probably a pretty well informed lot if you are a mentor driver in a rural community and sitting next to a young person trying to work out what to do what do you know about all the jobs that were available and how to get there. If you're the newsagent in the local rural community would you know how to advise the young person who was working for you after school? So our research aim was to equip people who were called key influencers with the knowledge and confidence to talk to other people not necessarily just young people about education and career pathways. So I think we've got the slide working that's good. So what did we do? So a lot of this project was actually about our method it was researching to is this method going to work. So our method was saying well let's partner with some rural communities so we had funding to do that with three communities in two different states, so we've imaginatively called communities one, two and three to keep them anonymous. We chose the communities because of our prior knowledge of the communities so our teams worked across education, and health and regional development. We had some relationships with rural communities so maybe our sample was a bit biased we contacted not just schools and education providers but regional development Australia committees, local government and our industry contacts and we said to them, do you think these communities and we have a larger set to start with would be places that will be happy to work with us and we identified three. We said to them okay we are going to work with you, this is co-productive knowledge will form what we call a pathway working party of about 12 people, 8 to 12 representatives from industries, schools, parent groups, local government, service clubs, whoever was interested in the community. And we'll fund you with a local pathway broker that's a person on the ground so we were conscious we were from the university one of our communities had a university local campus and in that case a couple of the campus staff share the pathway broker role. In one community the local government said yes we are doing some employment projects can we share a person and we sub-contracted them to provide the pathway broker service and the other community, we employed somebody from the community but paid them reporting to us, so different models so we said to the working groups this is what we know about your community demographics, opportunities industries. Tell us what you know about your community and we put them together so we valued local knowledge equally with our knowledge of the community. Then we said to them we have a bit of money for you each about $5,000 we want you to decide on some programs and events and put them on and your aim is to equip key influencers that's teachers, families employers, businesses and industries etc etc with knowledge and confidence to help young people and other people who are career changing to decide on their education and career pathways. Keep an eye on the toast guy down there, would you like to be a packaging designer, it's a job. So what did the communities choose? Well all of them chose a program that targeted parents and families. Two of our communities decided to divide their budget between a couple of different programs. There was a theme of exposing key influencers to hidden jobs in the community. So actually there's quite a lot of work especially these days with recycling, garbage waste management and the circular economy, have you thought of that. They chose things that demystified post year 12 options and what they really entailed and this isn't for the young people this is for the key influencers. There was also a focus on local people talking to local people so authentic, relevant, information. Then I won't talk about the evaluation yet. Parents matter is a program that team had used before in some communities that trained up some parents to run

events for other parents. Two of our communities did that, one of them ran a career expo one of them trained the parents and they ran a careers expo, in the other they had a Q & A session online. Now COVID happened, I remember COVID, COVID happened while this was going on and there had to be some adjustments. One of our communities had a youth, high youth unemployment rate but also a high general unemployment rate and big job vacancies so they said we want to spend some time with older potential students and work out how to get them in to jobs so we had a program that talked to people in neighbourhood houses and libraries and online access centres. Staff and volunteers in those centres we said to them well look what do you when somebody comes in and they're looking for ways forward and what they can do next, you know training, education, careers, and we provided them with what we call learning first aid. When our report comes out there will be more information in that, or I should say our report is currently being revised thanks to some helpful comments top our reviewers, if you happen to be out there listening. So we evaluated both the overall approach but also those interventions things like the warm connections the parents matter are future talks, which was the program one community chose to demystify post year 12 options for parents in the middle of the COVID pandemic, where they were lost about what the world could be like for their year 12 students. So we did surveys and interviews and we found that the vast majority of the key influencers who came along to their communities intervention so that careers expo, the online Q& A session, the future talk online sessions, reported an increase in their knowledge of pathways, increased confidence in talking to young people employers and or others. Which was great and the working party members increased capacity to support young people. What I'm really thrilled about is sustainability of the program, all three communities have plans or future plans to seek funding or implement things which I think for me that's the best thing to happen. So what did we learn from all of this?

So we were particularly interested in trying as I said the overall methodology we already knew, we had run parents matter before and communities adapted it to their own contexts, we already knew that worked, we ran warm connections before and evaluated it and we knew that future talk was a bit new but that worked too. What we were really interested in was, we had given the communities, we were there as advisors we walked alongside them, we had the local pathway brokers there to hold their hands but were they really able to do this by themselves. So it's an alternative to the coming in from the university, we know best, we know what's best for you. Did that work? So what did we learn basically we learnt that the approach worked, in the communities we chose bearing in mind we worked with them before. We learnt that communities are experts on their own community. They are really good at choosing what will work and when you do it and where you do it and who you target. So how do you publicise events, who do you trust, what's the right communication channel. So the Community Facebook page in one community was the best way to make things happen. Another community the local government was a trusted institution when local government said this is the thing to do and people tend to do it and each community was slightly different, one community we discovered was full of divides and divisions, we also found that there were some things we didn't do so well so the Aboriginal. That one of the communities had a larger than state average Aboriginal population. We failed to engage them. We'll do it differently next time so we've learnt some things too. We found that key influencers are found in unexpected places, driver mentors in unexpected places but as soon as somebody says it's obvious. Sports coaches, local libraries and neighbourhood houses are places that people who have left school will go to for advice, support, one person at one volunteer said somebody came in and wanted to buy a second-hand computer and I said why, because I'm thinking of doing some study started a great conversation the person ended up enrolling in a university associate degree, you never know where it will end up. We also found that it was useful to empower trusted local institutions so the community of the local

government employer of the local pathway broker worked really well. Schools are important but we should be prepared to share the load and the first presentation I think made that point abundantly clear, we learned about flexibility, and COVID tested that, we learnt that interventions needs to be authentic accessible and flexible to be sustainable and our methodology at the final point which is called our community-based participatory research methodology, I think has lots of promise, and by the way, I don't know if anybody has been counting the careers but I don't think I've identified anywhere near the sum of them so that's me done Sarah.

SARAH: Thank you. Sue. You're ahead of your time. So which is good because we have a number of questions for you, everyone is getting very active on the Q & A, I'm going to go straight to Lincoln because he has posted two questions. So the first question is was there any reason my employer rated lower than businesses or industry and he asked does that mean that maybe businesses in general provided more support than direct employers.

SUE: Well lots of businesses, industries in particular have careers development programs so you will find that for example in agriculture there are lots of industry based career development programs that will take students and give them experiences. We've had Josh Frydenberg, the treasurer, down here in Launceston this morning delivering a business breakfast, so I attended and I was sitting with some accountants and they were talking about how hard it is to get accounting students, so they're industry is starting going around to schools not as individual employers but as we are accountants in Launceston we want more accountants and talking to schools. So it's not necessarily your employer, is a bit more personal, but businesses and industries are quite good at exposing whole of careers. University of Tasmania has the Australian maritime college, defence force, navy has a big careers package for example as well and that goes down into schools and maths for naval architecture, are part of that. So these are some of the hidden resources though that I'm wondering how many people listening in think to look in these places for those resources.

SARAH: It's almost like we need something connecting all the dots isn't it.

SUE: That's exactly it and that's a really good point. Education and industry tend to talk different languages and they want to meet in the middle but they really need a translator and work we did here some time ago employed something called the unilink co-ordinators it was thinking they were trying to link industry and schools and employers and they can translate.

SARAH: I think that's really good point, a translator. Danielle would like to know if any communities with regional university centres were included in the data and if you saw, if they were, was there any impact on this space.

SUE: None of them had a regional university centre sorry one of them had a very small campus but that was there before from the regional universities program from my regional development work I'm fairly confident that some are doing really well, some of them probably less well, again I think my informal observation, talking to regional development people not university people, is that the university centres where the community and industry feel empowered on the committee are doing a better job of exposing local jobs and making those careers relevant. I can think of Great Southern in Western Australia for example where I know the regional development authority was, the Regional Development of Australia committee was heavily involved and they were choosing courses from different universities to meet their needs.

SARAH: Okay thank you Sue. Nina is asking about your community based participatory research methodology. Could you tell us a little bit more about that for those who might be interested in using that in their research?

SUE: Yes, that's something that came from health and I mentioned that some of our team had been doing some health research before. So that starts from the premise that communities are experts in their own community. People coming in from the outside have different expertise. So what you're trying to do is work as equal partners so this can be a bit frightening for researcher because you are letting go of control and what us researchers think of as proper knowledge. So that we involve communities at different stages so we involve them early on in first of all in selecting the communities we ask the communities would you be interested, the pathway working group we asked them about their community we got them to choose we provided them with some options to choose from but they could modify them we asked them, when we came to the evaluation, the evaluation tools, we asked them about the evaluation tools. And at the end I perhaps didn't say this because I didn't think we would have time but we had a community forum in the communities where we said look this is what we found what are you going to do next and we invited along a couple of people from government programs that happened to be around at the time. So we're saying to them look this is yours now so in one community it quite interesting the conversation got to the well, we have a chamber of commerce but it doesn't do anything, it's become more orbit we really want to have an impact on the skills in our community, we don't think the schools producing exactly what we want, and so the conversation, well we're not really telling them what we want how can we tell them what we want if we get together maybe a chamber of commerce we might reinvent that then we've got, we can discuss amongst ourselves and present a united voice. So community-based participation research can be empowering and so the wins in this for me weren't I think I said they weren't the interventions worked but more that each community wants to go on with something that came out of the project. And there'll be more there's a book chapter coming out in the book that you Sarah are editing and Olivia and Kylie that will tell you a whole lot more about community-base reaction research so I will put in a plug for that.

SARAH: Thank you Sue I do love a plug. Jackie has an interesting question that's been up voted. Jackie asks reality TV is a great influencer today and she wondered if you knew of any attempts to develop any shows along the lines of Farmer wants a Wife but maybe we call it the Farmers daughter wants a job. What do you think of that idea?

SUE: I don't know I can tell you some years the Victorian government produced a regional atlas and one of the figures was a demographic thing of the proportion of men and women of some particular age group and the take away message was from that was you need a motel with a great community ball in somewhere around about Hamilton in Victoria. Reality shows I don't know but one of the learnings from this was COVID forced a lot of this online and we ended up with a lot of online stuff which we recorded so we have got some shows, reality shows up there. One of our communities Facebook page which had I mentioned had a Q & A session with panellists from local industries so someone from the local aged care facility, you think there are lots of jobs in toast aged care is even more I think. The agriculture industry which is big in that community, hospitality and tourism which we hope will be big again in that community so that had something like 6500 views when we came to do the evaluation report which was earlier this year. So the link will be in the report when it comes out so not a TV show but if anybody is interested in that, in that as our next project.

SARAH: Thank you Sue. There are one or two other questions in the Q & A. Some people have made some comments I'm going to wind up yours now but perhaps you could pop in to the discussion and Q & A to respond to those we didn't get to. Thank you it was fascinating I learned a lot about jobs in toast.

SUE: Good it's just to make you aware of what you don't know.

SARAH: Yeah it's terrific thank you so much. We have built a little comfort break in to the session today because we are aware after an hour people's attention starts to wane so we are going to take a brick for ten minutes, I'm conscious that people are on different time zones so to let you know we will be starting promptly again at either quarter to the hour or quarter past the hour so that might be 10.45 if you are in WA, 12.15 or 12.45 depending on which state you're in. So stretch your legs make yourself a cup of tea, please be here promptly for the next presentation and we will see you in just a few short minutes, thank you.

SARAH: I hope everyone enjoyed their short break, I'm going to invite Olivia Groves and Kylie Austin now to turn on their videos as we move to the next presentation. So this is entitled "Best Practice Principles for Career Development Learning for Diverse Student Groups" and its going to be presented by Kylie Austin from University of Wollongong and Dr Olivia Groves from the National Centre for Student Equity in Higher Education, so over to you both and look forward to hearing your presentation.

KYLIE AUSTIN: Thanks Sarah before we start I would also like to begin our presentation by acknowledging the traditional custodians on the land that Olivia and I are joining you from today both the Dharawal and Abikal Nations. We pay respect to the Aboriginal Elders past and present who are the knowledge holders and teachers. My name is Kylie Austin I'm currently the associate director of student academics success and partnerships at the University of Wollongong and the president of the Equity Practitioners in Higher Education Australasia. I originally trained as a school teacher, Olivia who is presenting with me today is the post-doctoral researcher at the National Centre and she comes from a teaching background and has an interest in supporting student success in to and through higher education. Today we are going to present to you on our NCSEHE funded project where we investigated best practice career education for students from low socioeconomic backgrounds. I'm going to hand over to Olivia to talk through the aims and methods that we undertook in the research.

OLIVIA GROVES: Thank you Kylie. Let me just move forward, there we go. So hello everyone so the inspiration for this project really came out of the experiences of university staff associated with this project. In their work with career advisors in local schools, so for over a decade outreach and widening participation work has meant that universities have been working with career advisors in local schools to support the career development of students seeking a pathway in to university or other post school education. So anecdotally the research teams found the career advisors in these schools were really engaged and committed to the outcomes of their students but they also had concerns about the challenges of their work. In some cases they were under resourced, they felt it wasn't a strategic priority of the school or they felt they solely carried the burden of providing career advice for sometimes as many as over a thousand students and as the presentation from Jane, Ian and Dawn earlier in this webinar highlighted these challenges are real. So this project really sought to further understand the experiences of careers advice in schools better. So what we did is the research team partnered with the career advisors and local schools along with parents and students to fully investigate the challenges for career education in schools and particularly what practices could be implemented to overcome them. Further justification for the research we found in the literature. As you can see in the top point there's changes to the employment market and the future world of work. Things such as globalisation, artificial intelligence, technology, now COVID has really changed the context for the world of work and further education. Students from low SES backgrounds have inequitable outcomes from education and employment for example students from lower SES backgrounds are more likely to leave school early and participate in lower rates than their higher SES peers in further education as well. They also participate in lower rates in the

workforce in terms of overall employment, fulltime employment and those rates are significantly lower than for the rest of the population. Literature review highlighted that traditional approaches to career education in schools can promote disadvantaged and this might occur where career advice isn't equitably delivered, so students in more advantaged schools are getting better career education and advantaging them more. But this project is really important because career education does have the potential to enable individuals to reach their full potential and create fairer societies. So really it is an important area of research. So the research really sought to understand a couple of things. We did want to find out what our best practices in career advice for students from lower SES backgrounds and in order to understand that we needed to also find out how these young people make decisions about their educational and vocational futures. So as I said we started with an international review of the literature and a desk top audit or internet search of current career advice practices. We had a particular eye out for those programs which looked like they were exhibiting best practice, in stage two of the project we conducted qualitative interviews and surveys with current university students and parents or carers as well as stakeholders in this field, during these interviews and surveys we explored their experience of career education, the students experience of it, the parents experience of it and what stakeholder had experienced and seen themselves in their roles. Innovatively we asked students to map their career journeys using some paper and crayons and they did this in focus groups and we got to see them exhibiting their career journeys and educational journeys using this visual method which was quite interesting and fun for the participants as well. So what we did we drew together the literature review desk top audit and the findings from speaking with students' parents and stakeholders and we created a set, came up with a set of best practice principles. Then using this knowledge the wider team designed, implemented and evaluated five pilot programs. As I said the programs were designed according to the best practice principles and sought to understand in a practical sense what programs best support students from low SES backgrounds and in each case each of the universities partnered with schools or enabling education providers or key influencer groups to provide the best practice intervention. And doing this also developed the productive partnerships across the sector. The case studies, four of those pilot programs are available online now to access if you are interested, the fifth one was delayed because of COVID, it was delivered in the last few weeks in local schools and once we do the analysis and write that up then that will be available online as well. As you can see this research is hot off the press and newly emerging which is really exciting. So the final stage of the project involved drawing together all of the project findings to produce a set of recommendations for government as well as a set of best practice principles for practitioners in the sector, for primary school, secondary and tertiary education institutions and these best practice principles are also available online at the moment.

Collaboration and consultation were really critical elements of the project for us, so in addition to the 564 research participants there are another 52 other experts and stakeholders who made direct contributions to the project with their consultation and collaboration. Many of our findings echoed those of Jane, Dawn and Ian, which was exciting to see because their research is also hot off the press so we haven't had too much of a chance to collaborate yet but I can see that happening in the future. Today Kylie is going to focus speaking on what the best practices actually look like, so I'll pass over to Kylie now to continue our presentation.

KYLIE: So as Olivia said as a result of the research we identified a set of best practice principles to guide the future development and implementation of career education programs, interestingly the first best practice principle that we identified as you can see on the slide was around the long-term life cycle approach to career education. A lot of the research participants that we interviewed often talked about career education starting in year 10 and beyond with very little exposure to careers in

their primary school and early high school years and from the research we know how important those formative years are to developing and broadening students aspirations and understanding the pathways of how to achieve them that was a really critical element and the fact that well some of the students also explained that when they moved from school to university or school to TAFE or school to work, that they often had to re-explain or renegotiate that their career pathway so having a life long-term life cycle approach to career education was identified to be really important.

The other element was the other best practice principle we identified was curriculum that explicitly teaches students the hidden discourses to navigate the world of work, as we know from working in the equity space a lot of the navigation required through school and to university and beyond or to vocational education and beyond requires students to navigate really complex institutional systems, and really a hidden discourse and a hidden language and so ensuring that the careers education curriculum teaches students explicitly about that language and about those hidden discourses and pathways. The other element was around increased access to career education a lot of the careers advisors in schools that we talked about, that Olivia identified earlier sometimes were servicing over 1,000 students on their own or they were servicing a small number of students but with a really short amount of time and taking on additional subject loads and things like that in school so that was a really critical component with increased access to career education. A couple of the other best practice principles were around school wide approaches to career education and I'll expand on that when I get to the case study shortly but basically the school wide approaches to career education a lot of careers advisors felt it fell to them to have those discussions with students about their career education and their future pathways however what was identified was the importance of building in career education into the curriculum and I'll expand on that a bit more in a moment. Parents and students as partners in the provision of career education was also seen to be critical as we saw from Sue's earlier research the role of key influencers on student's decision making and working alongside the student rather than telling the student you know what they needed to do was some really critical findings as well. Ensuring professionalised approaches to career education to ensure students are receiving the highest quality career education was also identified there were some really good examples that we identified in our desktop audit where there were some really good training programs available to career education practitioners and ensuring that career education practitioners had a wide range of options as well. Ensuring the programs were evaluative that they were place based in terms of working within specific communities as different communities have different needs and contexts and normalising the fact that school university or school to TAFE work pathway is not always the normal progression through school as well. The other elements were around impartially led partnerships at values or career pathways and fields of study so that it wasn't for example a university leading the partnership and that the university being the sole option for students in terms of transitioning out of school but that we had a separate organisational entity that was impartial in kind of developing and delivering career education and that we clearly defined how those partners would work together so we were undertaking a very strong partnership model. As Olivia identified earlier we then took these best practice principles and applied them to five pilot studies across Australia one was based at the University of Wollongong where we brought together current students, career practitioners, local school careers advisors and widening participation staff to leverage their expertise to design a teacher professional development program that embedded career education in the curriculum and four key learning areas across the school. The goal was not for the university to come in and run something but instead support the careers advisor in the school and continue to position her as the expert in the space and the benefits I guess for the university staff being involved was often we go in as widening participation practitioners and work with this discreet group of students for a very short period of time where this allowed the concept of

career education and aspiration building to continue on in the school even when specific stakeholders weren't necessarily operating in the school environment. In terms of how it was delivered, those stakeholders got together and designed the program in a very collaborative process, they designed three 1hr face to face sessions for teachers from all key learning areas on career decisions and influences and the changing world of work career conversations and careers in the curriculum and they have developed both online and face to face modules around this because obviously last year we were delivering during COVID and so we've actually made a lot of those resources available on our website as well. 19 teacher participates, participated in the research and in the program with one of those actually being the school principal so we actually had really strong buy in from the school principal as a strategic priority to embed career education in school and as a result of all of those teachers and principal being involved in the delivery of the program, we had some really clear outcomes in terms of the classroom teachers having increased knowledge of career terms, career roles and increased confidence in having career conversations with students and increased positivity towards implementing a whole school approach. We know careers education is often delivered one on one and relies on the ability for the careers advisor and the student to make a strong connection by undertaking an approach that really is focussed on the whole school, it allows those existing relationships between students and teachers to transition to career conversations to support the students. That's a really brief snap shot, I guess of our initiative. We took very much a practice based approach to the research and of an applied approach. So hopefully that's useful in terms of taking some of the things that we've learnt and applying them within your own context.

SARAH: Thank you Kylie and thank you Olivia I'm sure that will be very useful for a number of our participants today and just to remind everyone that we will have all the power points available in fact they are available now if you scroll back in the chat pod you will see there's a link to all the power points in case you wanted to get online and have a look at the resources that Olivia and Kylie mentioned. We do have a few questions for you. Probably the first one I'll go to is Nina who has asked, what are universities doing or could they be doing to support this access to career education?

KYLIE: I think that's a really interesting question and being a university staff member myself, I think we need to acknowledge our role as a part of a broader set of stakeholders. So often particularly the way that HEPPP is designed universities have the funding, they design the activities and they work with schools to implement a whole range of different programs to increase access to higher education and vocational education, I think what we need to do is recognise that we're actually one stakeholder in a whole network of stakeholders that provide career education to students and that the role of other stakeholders such as TAFE, private RTO's, community organisations that those pathways and their role is equally as valuable as the university pathway as well and I think sometimes that can get lost in the policy framework that we're operating within. So I guess my advice in terms of universities is probably one is not to position universities as the sole and the primary pathway post school but also to form partnerships within your local region of organisations that are delivering career education and work with the schools to have a holistic approach.

SARAH: Thank you. That's very interesting. Alison has a really interesting question and it's around the embedding of the career education within the curriculum, Alison is interested in how that was done.

OLIVIA: That's a great question Alison. In terms of our research when we were talking to students and parents and stakeholders we found that the embedding is not being done very frequently. And it's one of our best practice principles is that this embedding should be done and embedding means that every subject teacher really has a think about how their subject connects to the world of work, what work opportunities are out there, what skills are needed and how students can start to get

some exposure to the world of work in that particular field and so the pilot program which UoW implemented with the local school was about the teacher professional development and it covered with teachers, how to go about embedding their career education into their subjects. The response from many teachers was a bit of surprise actually, I hadn't, they hadn't realised how important it was for them to do that and what impact that would make on their students, they kind of expressed a bit of an idea that was the career advisors work and they didn't really understand how important and influential they can be and what a difference it could make to their students if they did start to make those connection with the students between what they were studying and potential employment or further educational pathway's.

KYLIE: Just building on what you are saying there Olivia as well I think the other thing they identified the classroom teachers is actually how easy it was. Something as simple as sharing like as a maths teacher sharing your own experience in terms of going to higher education in your lessons, taking the time to sit with students during the lesson to talk about what their aspirations might be or teaching a particular topic, and I think maths was a really good example because I think those maths teachers that we were working with originally came in and couldn't see how they could link their work in career education but providing examples of the types of careers when they were doing a specific topic in the classroom and going on an excursion to see that in practice I think they're probably a few of the tangible examples that the teachers provided us as well.

OLIVIA: Can I add one more thing there you just reminded me one of the principals of a school, a large high school from a low SES area shared that he intentionally hires teachers with varied experiences from different backgrounds not just teachers that did education and gone straight through. He really values hiring teacher's that's have done a bit of this and a bit of that have experienced the workplace intentionally so that those teachers can speak to the students and share their own personal experiences. I think the project highlighted how important it is for everybody to share their own personal experiences with young people and have those career conversations and expose them to the options that are out there.

SARAH: Thank you. We have had a few more questions which I'm going to leave you to have a look at in the Q & A but one that's coming over strongly, I've had a couple of people ask around the approach you took when you were training the teachers and whether there's any resources around that available on the website you've put up, are you putting any of those resources are they available to people?

OLIVIA: Yes, they're up there now, they recently got updated. If you look on the final slide that we shared there's the website there which has all the resources that we have created for the project including the case studies, and some resources there, so the staff that implemented the professional development in the school were very generous and shared their resources with us and so the power points they've used is available, same goes for a few of the other pilot programs, the lesson plans have been provided so duck over and have a look.

SARAH: Olivia I might ask you to put it on when you finish could just put that in the chat, yeah I think that link would be useful for people. Thank you so much both of you for a really interesting presentation. And I know people got an awful lot out of it in the chat and Q & A a number of comments and reflections that your work has generated so thank you so much I'm going to ask you nicely to turn off your cameras now. And invite Mollie as certainly our last but not our least presenter, Mollie thank you so much. So I'd like to welcome Dr Mollie Dollinger from LaTrobe University, Mollie is going to talk about harnessing participatory design towards context specific careers resources. So over to you Mollie.

MOLLIE DOLLINGER: Thanks Sarah and thanks everyone for joining me today my name is Dr Mollie Dollinger and I serve as the academic lead of the student partnerships portfolio at LaTrobe University. I'd also like to acknowledge the indigenous lands upon which I speak and pay my respects to leaders past present and emerging. I'm joining from the land of the Wurundjeri people. Today as Sarah mentioned I want to talk about participatory design or co-design in the context of creating career resources. Co-design which has come up a couple of times already today is an increasingly hot topic with lots of reported benefits such as helping to improve program design or creating innovative resources but there's not a lot of examples on how to take on this approach in your daily work and there's not a lot of examples on what co-created outputs can look like. So today I want to go through a project that I worked on with a few of my colleagues and really unpack what we did for a detailed example for any of you thinking about doing this in your own work. Like some of the other presentations today our research project was aimed to explore the barriers of higher education pathways for regional rural and remote students in particular we wanted to explore this topic through and inclusive lens and collect perspectives of everyone involved from students to school staff and carers. We decided to focus on middle years, so years seven and eight students as previous literature has highlighted that this is quite a critical time in students decision making about their post-secondary pathways and future career choices. I sometimes refer to it as the goldilocks period because it's not too early but also not too late. Using the participatory design methodology we created three separate workshop protocols. One workshop for students, one for school staff and one for carers and the activities were based off what the audience would be appropriate for. In an ideal world we would have loved to have all three cohorts together to facilitate even more knowledge transfer but I'm sure as lots of you here know fitting the workshops in to the school schedule was already a huge win and it was all very tight so we just had to have it as three separate workshops.

We used co-design for a couple of reasons. First none of the research team were from regional rural or remote communities and we didn't want to make assumptions about what their expectations or motivations were and this is really important whenever you are conducting research in an equity group where none of the researchers come from that group and even if they do come from that group it's great to get more authentic opinions. But we also used co-design to help create meaningful relationships with the community as our participants pointed out they get asked to do a lot of surveys and interviews that collect their data but these opportunities don't allow for the researchers and participants to work together to understand the context of the school or the town, so while I think we've all adjusted to the zoom world, there's still something and will always be deeply powerful about visiting community and seeing them first-hand. Finally as Sue mentioned participatory design shifts the idea of who are the experts. I think this is actually what drives my passion for co-design so much because the researchers take on almost like a childlike level of curiosity where we question what it is we thought we knew, we listen, we ask questions, in some ways it's quite pure research and by empowering participants who have never had that kind of control or level of respect before it can be incredibly powerful and enriching. It can also help build ownership of the output and the research itself which can then help with implementation and engagement. However of course 2020 COVID, so we were only able to visit four outer regional schools in Victoria, the original plan was to visit 20 schools across four states QLD, WA, NSW as well, but we did do some additional interviews with principals in Queensland and WA and hopefully we will be making it to WA later in the year to do some workshops there. That's why we used co-design but what is co-design, co-design workshops use a scaffolded approach to get participants reflecting and problem solving they're different to focus groups which typically aim on collecting participants experiences and instead ask participants what are the solutions. So in particular we drew on design

thinking exercises which guide participants through the process of ideation that starts broad and becomes increasingly focussed as the workshops go on so to illustrate I typically like to start things with an activity called the flash thinking exercise something like asking teachers what are the barriers to supporting student career aspirations. To keep everyone broad I ask participants to focus on naming as many barriers as possible rather than focussing on just one or two and everyone likes a bit of competition so we normally have a bit of a prize or something as well. This really warms up the group and gets them thinking and into the research.

The next step in design thinking is about generating empathy. So this stops people from getting in to that trap of thinking that they already know what's best on an individual level to thinking about what would be best for the community, so perhaps asking participants to story board which is drawing on comic strips, students stories that they know or have imagined or falling behind or not getting the career support they needed. So what happened in the story, when did it happen, what were the steps, who was involved things like that and then thinking about how these pitfalls might have been prevented. What was possible, what what's impossible, because in all of this it's important to keep in mind what we can change and what we can't and as the workshop progresses we focus more and more on solutions. Another great activity and a good one to end on is called a life boat exercise it's a fun activity where participates are put into small groups and told a giant flood is coming, a bit like the story of Noah's Ark, but there's only one lifeboat. So the people on this lifeboat should be the best equipped to support the new world that'll happen after the flood. So everyone has to work with their team to pitch and idea and then get chosen for the lifeboat. I know it's a bit dark but I really like this activity because this is the type of thinking that makes co-design workshops unique from your typical focus group, rather than focussing on past experiences participates have to work together to generate an idea nut also think about how they're going to pitch the idea to the wider group by adding this element of the pitch and you see this really frequently in co-design work, participants have to think about why their idea is useful and what the value is also while we do discuss the pitches afterwards I usually finish the activity by saying breaking news, the weather report has changed and everyone is safe that's especially important with the student participants. I'll mention that all of these activities and more are available on our hand book that we created, there's a picture of it there on the slide which is on the NCSEHE website or you can fill out the survey at the end of this presentation, there's a QR code and request it there. So I'll mention now the bad part about co-design is the data is incredibly messy, its work sheets, and butcher paper, and voting tallies, and photographs of white boards and things like that so if you are short on time it's probably not the right research approach for you and certainly not the kind of stuff you can put into an Excel spreadsheet. So if you go the co-design route you have to be prepared for you and your team to read and reread and feel a little bit uncomfortable with all the data that's going to come in. I also like to take my own observational notes during and after sessions because I'm constantly updating what I think I heard and what I know. Frequent team meetings are also really key to make sure everyone is sharing their ideas and that major themes are being highlighted along the way. But the outputs I think are definitely worth it. An example here from the workshops was when we created the Victorian specific tool kit for teachers and carers to support their children or students so we included key topics that were requested from the workshops including transport options, two examples of location independent jobs, we also included a section on debunking myth's about university such as its only for wealthy students as well as age appropriate career guidance for carers to discuss with their children, so all of these things I wouldn't have come up with them on my own or the team. It was really important that we spoke to the participants.

We also, our data helped to create the ten career focussed learning activities that would fit in to the Australian curriculum and the Victorian career curriculum framework. Teachers in particular had a

lot to say about these activities and was already touched on today really stressed the importance of them being really easy to do, everything right in front of them, they fit into the curriculum but they're fun activities that the students would enjoy. So topics included raising awareness on specific jobs or industries that are set to grow in regional areas, or rethinking traditional jobs in regional areas such as farming and emphasizing how post-secondary education can support those jobs and why it's actually quiet useful to pursue post-secondary education even if you are doing a job that traditionally perhaps didn't need it. We also did our best to embed a positive narrative about regional rural and remote communities through these activities, as a lot of participants felt that the current resources available to them didn't properly promote the benefits of living in these communities.

Like I said, this was not just myself but a team effort many hands make light work we also had help from Professor Andrew Harvey, Associate Professor Ryan Naylor, Dr Marian Mahat and Dr Belinda D'Angelo and we also worked closely with the Victorian Child Care Agency, we had career Experts from Deakin, Monash and the University of Southern Queensland help out. All of our amazing participants and of course NCSEHE as well. If anyone is interested in any of the outputs I mentioned including the hand book on co-design activities the learning activities or the Victorian specific tool kit you can either fill out the survey the URL is there I put it in the chat as well, there's also a QR code if you have your phone handy and we will send those to you soon as soon as everything is able to be released.

SARAH: Mollie I think you get the prize for being the most time efficient. Thank you so much. This is a topic very close to my own heart. I really love participatory research like this and particularly using students who are much younger in their careers. Can I ask, can I be so bold as to ask what would be the preferred age bracket for these sorts of co-design activities if I was working in schools or other learning environments what sort of age group should I be looking at.

MOLLIE: What's great about co-design is that increasingly it's included in the Australian curriculum design thinking as one of the key goals for students there's so many applications to how students can use this type of thinking to problem solve even daily problems like how do I get my assignments done or clean my room. So I would recommend starting it pretty early on, obviously the activities themselves have to be catered for the right age cohort so if you haven't worked with that cohort before definitely speak to parents and teachers before you start out and make sure it's going to work for that cohort but it can start quite early on.

SARAH: Yeah. We have a question as well from an anonymous person but how big was your participant pool or sample that you needed for co-design and for those of us who would be really interested in doing this do you have any recruitment ideas?

MOLLIE: So we had 101 participates in the workshops, sorry I should have put that on the slides and we had about ten interviews. Recruitment for us was pretty easy for the students because it was built in to the day so the principals worked with the teachers to decide which cohort would be included, teachers and carers are more difficult, teachers are very busy so asking them to participate either in their lunch break or after the school day had ended is still a big ask to ask them. As well as carers, so unfortunately we did not get the ethics approved to give gift cards, by the department of education, which I think would have really helped but we did do catering, but it is very difficult especially in these communities where a lot of the carers would have to drive a pretty great distance in order to get to the school either after hours, so it is really tricky, hopefully it can be integrated more with other events happening in the school and perhaps part of the larger day or an evening where everyone comes together.

SARAH: I know that your research was particularly impacted by COVID as well. Because of difficulties with getting into schools and of course you're located in Victoria which was another level of complexity for you. Do you have plans maybe to build upon this project and take it somewhere else?

MOLLIE: Yeah we will hopefully be conducting more workshops in Western Australia later this year but I think the hope is also that the project encourages other people to take the same approach and it doesn't have to just be for regional rural and remote students can be for any cohort that you are looking for and you have a research question in. I think the goal is just to encourage people to take on participatory design as a research methodology and really show a hands on example of what it's like because the first time you do it, there's a lot of questions if you're doing it right and is it supposed to be messy and how do I know if you go from a quantitative background like surveys to co-design the shift can be a little bit uncomfortable.

SARAH: I can imagine. What additional resources that you're currently developing as well?

MOLLIE: No we just have the four outputs, the hand book on co-design for teachers and then the Victorian specific tool kit, the learning activities which are technically Victorian related because they relate to the careers framework but they can be used in any state. And then our final report.

SARAH: That's great. I'd like to thank you Mollie for a really interesting presentation. I'm really just thank all of our presenters today because as you can see these projects are quite unique in their focus but there is real commonalities across all the research and indeed a number of the findings. So as I mentioned at the beginning, all of these research projects are now finalised, a number of the reports are currently just awaiting final approval before they can be released. So if you are interested in keeping abreast of where that release process is and when we will be providing the final reports, then please do think about coming and joining in with our NCSEHE newsletter. So if you go to the NCSEHE website which I've put up on the screen now you will be prompted almost immediately to register for our newsletter and the newsletter comes out every four to six weeks and it provides an overview of what's happening in the equity sector and what events are happening and it's relevant not only to the higher education sector but really we try and make it as broad based as possible. If you have any questions or want further information about what we talked about today feel free to email us at the national entre, we will happily respond, please follow us on Twitter or on Facebook.

So thank you again to our presenters and also to our audience who provided quiet a level of engagement even though we are rather limited on this zoom and online medium but I wanted to thank everyone for posting the questions and as I said at the beginning we will make the video available and also all the slides are already available to you, a transcript and a video will also be uploaded to the site next week. On that note I will say thank you very much, thank you for joining us and have a lovely day.