# Transcript

## Joanne Quinn on Activating Deep Learning

Duration: 1:13:39

KATE: Good morning, everyone. Kate Morris here, joining you from the Academy. Can I acknowledge that I'm joining you from Wurundjeri Country and can I pay respects to Elders past, present and emerging, and Aboriginal colleagues who are joining us today. I’m delighted that you’re able to join us. I really want to wish you well for Term 2. I know we're on our third day in. Joanne, it's Wednesday here in Australia.

I know you just said you're on the day before. Fantastic to have Joanne Quinn with us, and to all our colleagues in schools, wishing you all the best from the Academy. Delighted you can join us. We're here to support you with your professional learning, and privileging time today is really representative of the importance you're placing on your leadership and thinking about your school and how you can provide fantastic outcomes for every young person.

So this is the fourth in our Thought Leadership series. John Hattie launched with Samantha Rodgers. Mary Jean Gallagher also joined us, and Aasha Murthy were our three to launch this year. Delighted to have you with us, Joanne. Your incredible experience around new pedagogies for deep learning, and the work that we know so well that you've done with Michael Fullan, certainly has provided really strong perspectives for our people in schools. What really shines for me about you, Joanne, is that you are incredibly practical.

You bring a really strong evidence base. You have worked at all levels of the system into schools and through to advising Ministers around policy reform and then you’ve implemented it. So you've really been able to consider what has the most impact and effect for young people in schools, and learning and wellbeing at the centre as well, as a really very strong equity lens. So we're delighted you're joining us today, Joanne. Every time I hear you speak, I take away three or four or five things that I really want to act on immediately, but what I know is that you always say stick to one or two or three that you can implement. So looking forward to hearing from you today. I know you will be happy to take questions. I encourage people to drop them in the chat and I’m so delighted that you're able to join us. And can I do a shout-out to the Academy team. Thanks, Maria, our Manager of Principal Programs, for leading this work. With Ben Johns, Bella Di Lullo, Lise and Daniela from our Learning, Development and Innovation team.
Thanks, Joanne, and over to you.

JOANNE: Thank you so much for those kind words, Kate. I'm really excited to be able to spend some time with you and all of the participants today. You know, it's been a rough couple of years for all of us in the world, but the last major travel that I did was coming back from Melbourne and spending time with some of our deep learning schools there. I think I flew home on the 28th of February, just before the world seemed to shut down. So very fond memories of my time there and looking forward to coming back again. But, in the meantime, I'm glad we're going to have some time together.

One of the things we know is that we are all different. None of us could ever have predicted what was going to happen over these last two years. But on the plus side, I think we learned a lot about ourselves, we learned a lot about our students, we learned a lot about learning itself and especially we learned about what matters. And I think that with all of that, we realise that we have a once-in-a-lifetime opportunity to make some changes while these ideas are fresh in our minds. During the pandemic, we were asked by UNESCO and Microsoft to collaborate on writing this document called ‘Education Reimagined:

The Future of Learning’. I confess that we published it in June of 2020 and at the time we all thought that the pandemic would be winding down to a close in a few months, and here we are. But the ideas are still quite important.

If you look at the quote that’s on the left-hand side, we used it to guide what we thought about education reimagined, because in 2017, we published our book ‘Deep Learning: Engage The World Change The World’ and this was one of the statements: “If we want learners who can thrive in turbulent and complex times, apply thinking to new situations and change their world, we have to reimagine learning.”

We had no idea at the time what was coming our way when we wrote that but the reality was we knew that we needed to change some things, and that was the business we were in. The truth is, however, that no-one knows precisely what that future is going to look like, so lately we've been thinking about this statement: “Imagine a world that loved its future so much it enabled and entrusted its children to create it.” And with that in mind, let's think about what some of those children might have to say.

CHILD: Imagination is the key because you're using your knowledge but you know to make something that no-one has made before. If you're creative, then other people will be inspired by you and then they will keep pushing forward, so you’ll spread it to your friends and then your friends will spread it to their friends, and then all over the world, everyone will have a happy life.

CHILD: It’s like a whole land of imagination where you feel like you can make anything or invent anything you want and you'll make something that nobody has ever thinked of.

CHILD: When you grow up, you’re gonna be a pro, so you better get creative right now so you can remember those things, what you did from the past, and you can carry those things into the future. You can make anything you want and you can make that change the world. One small thing could change the world, like one person can change the world.

JOANNE: So just imagine. I think that all children, regardless of their country, their race, their circumstance, needs to have that dream that they can make a difference in their own lives and the lives of their community. But when we think about that, what kind of a learning environment do we need to create if we want to unleash that potential of every child? So that's a question that we think about a lot and I'm going to invite you in a moment to move into a breakout room just for five minutes. I'll ask you to do the 10-second hello. “I'm Joanne and I'm from Toronto” or “I'm Joanne and I'm principal of…X school”.

Not the long version. And then have a few minutes to talk about what would learning look like that really unleashed student potential? So what would the environment be like? What kinds of things might they be doing? I'm going to ask someone just to volunteer to jot some ideas down while you're listening and I'm going to ask just a couple of groups to share back those ideas when we join up again. So you have five minutes with some new friends: what would learning that really unleashes student potential look like?

PARTICIPANT: We're talking about - we think the standout for us is student voice. It would be such a powerful thing to be able to unleash student potential. But then we had some wonderings as in how prepared teachers are and how do we as leaders facilitate that opportunity for teachers to be able to let go a little bit and know that it's going to be okay and I guess facilitate their ability to be accountable for what it is that's happening in the classroom. But how do we set them up for success and what roles do universities play in preparing our young teachers for that sort of, I guess, environment.

JOANNE: Two great questions. We’ll touch on the first one. We probably won’t get into universities and how they prepare. I think we need another session to deal with that one. But we’re going to look at a couple of examples and I think from that, we’ll pull out how did

the teachers pull out that student voice, allow that to be unleashed, and then we can step back and say: what do we as leaders need to do to make that more likely to happen? How about one other idea? I think there was another voice I could hear there.

SANDI: Yes, Sandi from Thomastown West. Our group talked about, initially from the children's point of view, them being absolutely absorbed in their learning and being absolutely interested. But then we took it from the teacher angle and talked about that deliberate practice that targets weakness or that area, opportunity, for improvement, feedback; that deliberate and purposeful model of teaching that homes in the specific skills that need developing. So rather than spend five days, for example, on learning a piano piece, if that child only needs half an hour, well, then, they only need half an hour.

And then the final thing we discussed was - and I guess it's similar to the last person who spoke - how do we empower teachers to embrace that change, teachers who've been in the same school for 30 years, who think what they're doing is great. And the data? “There must be something wrong with it. It can't be right.”

JOANNE: Those are really excellent points and we're going to look at all of those as we go through the next little bit of time together, looking at examples from classrooms and from a school of how they are helping people take those steps towards changing their practice and what kind of precision, as we call it, do we need in order to get the kinds of outcomes that we're looking for. So what you've been talking about in your groups is sort of that the how - how we want this learning to look and feel differently with student voice, with that engagement that we want to see. But we're also needing to focus in on the what. How can we be precise about what we're aiming for?

So one of the questions that we often ask is: if you could give just one gift of a skill or an attribute to students to demonstrate, to develop, while they were with us, what might that be? So I'm going to ask you just close your eyes and picture some young person who really means a lot to you. It might be your own child, a neighbour or a relative. For me, it's always Madison, my great-niece. She's just turned four and she has curiosity about every single thing on this planet and I think about what do I want her to have as an ability, as an attribute, when she leaves school? So just drop some of those ideas just one word at a time into the chat box and we'll just see what some of those ideas might be.

MARIA: Lots of great contributions, so thank you, everybody. So we've got Ann, who said imagination. Gillian, curiosity. Natalie said a growth mindset. Carolyn, resilience. Jarrod said passion. Jennifer, creativity. Carly said persistence. Wesley, confidence. Confidence and resilience have come up a number of times, Joanne. Oh, we've got Melissa, who said empathy and curiosity. And curiosity is in the chat a fair amount of times as well. We've got Susanna, who said making sense of the world. I think that sort of gives you a bit of a range of the words that have gone in there.

JOANNE: And, to be honest, this is a question we have asked of parent groups, of educators,
in many, many countries around the world and the answers are fairly similar to the things that you have shared. So there is really a great understanding or a shared understanding amongst humans about the kinds of things we want. And what we don't hear is, “I want them to know phonics.” Now, it doesn't mean we don't want them to know phonics - of course, that's important - but it's not sufficient and it's not going to get them through life. This is an attempt to say: what are some of those essentials, competencies as we call them, that young people are going to need in order to thrive or flourish as they go out into the world? We know that whatever kind of learning system we have, there has to be purpose and meaning for everyone. People have to feel like they belong, that they are connected, and they have to see that they are valued and that they have a contribution that they can make, whether it's within their own classroom, within their own school, their community or even, ultimately, into the broader world.

So, as we think about this, we realise that the students, as we saw in that video, have the potential to be change-makers for themselves and for everyone else. What you've just described in how we would learn with that voice, with that deep engagement and those kinds of resilience and skills and attributes that you mentioned are what we've called ‘deep learning’.

So deep learning encompasses all of those things. And some of you may be a little more familiar with how we use this term. About 10 years ago, we set out to kind of pull together the knowledge that we already had about good teaching practices, about how to utilise the digital world, what we knew about neuroscience, what we knew about change, and to put that together into one place so that we could actually impact learning much more for all children. So we wanted to create an approach, and we think that that new purpose that we talk about is even more important now post-COVID, and we call it sort of the whole child learning and how do we help them to flourish in this very, very complicated world.

I think what happened during COVID is it exposed the inequities in education and in our society as a whole, and now it's our time to do something about that, to move beyond that sort of sort-and-select, as we call it in North America, system that we've had in place that privileges certain kinds of learners by valuing certain kinds of learning outputs to something that values all young people, and we call it, to keep everything simple, as Kate said, “to be good at learning and good at life” because it's not enough to be a good book learner if you can't apply those skills as a human being.

So what we did was we gathered together people to assist us, and we invited seven countries at the beginning, and I'm happy to say that Victoria was at the front of that pack. You joined at the very, very beginning and were a really integral part, with 100 schools from Victoria, of taking a look at building knowledge about what would it take to do things differently, to create those kinds of learning spaces, give children that opportunity to flourish. We created an approach that we believe is integrated, comprehensive and it brings together what we need to know about learning, now so importantly after COVID what we have to pay attention to around wellbeing, and as well what we need to do to be equitable in terms of outcomes for all kids so that they can all flourish in this complex world.

So, with that in mind, I thought we’d do three things because, as leaders, you're asking really good questions: how do we get teachers to shift their thinking, how do we get them to try and be innovative? I believe strongly, having been a teacher and a principal and other kinds of leaders my whole life, that people come in to learning and education because they want to make a difference, and sometimes we get bogged down because there are a lot of challenges. But, at the heart of it, people want children to succeed. And so we need to give them an opportunity to have some powerful conversations like you're going to have tonight to share their thinking about: what are we already doing that's good but how might we ramp that up?

How might we do something a little bit more that will actually allow our students to flourish in new and different ways? So, to do this, we're going to work on three different things and we're going to basically do a simulation, which is an example of how you might go back and have that conversation with your teachers using resources that are appropriate to your context.

So, as we look at this, first we're going to take a look at what's deep about deep learning and we’ll do a couple of little simulations here to wrap our heads around it because it isn't enough to say we should do deep learning. I’m terribly sorry. I seem to have a dry throat suddenly. People need to feel it inside. So how can we build shared understanding and meaning about what we're aiming for, what kind of learning experience we want young people to have?

Secondly, we're going to look at how do we mobilise a deep learning culture for the adults and the students so that we build that precision in pedagogy that really will unleash that potential?
And then, finally, we're going to look at how do we cultivate school capacity for change? Once again, how do we emphasise those kinds of powerful conversations?

Now, you've already done really well in the rooms so you hardly need these slides. In your breakouts, you were highly effective. But because they're going to be short, we're going to have lots of interaction. You might need a facilitator, somebody who can just remember what the task was; a timekeeper, because the times will vary; sometimes a recorder who will put ideas into a tablet on behalf of the group or perhaps be ready to share back. And everyone is a contributor.

So let's jump right in now and take a look at what's deep about deep learning. What is quality learning? What does it look like, what does it sound like, what does it feel like? How do we know it when we see it? And how do we start to have a common and shared understanding about the kind of learning that we're aiming for in our school?

So this is an example of having a shared experience. As you watch this next video, I want you to think about what are the ideas or possibilities that excite you and might excite your teachers, if you were showing this.

NARRATOR: Imagine the awesomest thing you can. Like an automatic grilled cheese maker. Or a time machine. Or a time machine with an automatic grilled cheese maker. Now imagine who's going to invent it. Him? Glasses here? Whoever they are. Or maybe her. But how do kids like these become the types of people that do things like this? Maybe we should ask this guy.

ERNO RUBIK: Knowledge is a habit. Sometimes there’s a limit to having new ideas. That's the problem with the old schooling - because they were teaching answers. I believe questions are probably more important today than the answers.

NARRATOR: Erno’s cube is a question waiting to be answered, and when the right person finds the right question, something amazing happens. They start seeing the world as it truly is - not a place to be memorised, but a place to be figured out, flipped, turned, twisted and, ultimately, made better forever.

Today she may be an octopus, but help kids like her fall in love with problem solving and they will embark on journeys to become scientists, artists, engineers, designers, inventors or something no-one's ever been before but you can bet we're gonna need. That's why moments like this. Go! And this. And this. And especially this…are so important. Companies to found, planets to walk on, time machines to invent, a future to be made amazing. We may not know what it's going to look like…but we know who's going to do it.

JOANNE: Not Google. It’s going to be the young people. I'm going to invite you now just to think about what excited you as you took a look at that, what might be important, and just drop those ideas into the chat box. And in a moment, I'll even invite a couple of people just to share their thinking, since I now know that you’re not shy. Thanks, Jennifer. The questions, not just the answers. The questions are more important. Kids are the future. They need new skills. Authentic and exciting. The world perceived as a place to be figured out. Having students falling in love with learning. Encouraging students to have questions. Playing. Being creative. ‘Joyful’ often comes up. Learning is driven, not given. Being able to share ideas. What excites me is thinking about how we can - and I couldn't see the rest of that.

So I'm just going to take off the content hat now and think about this from a role as a leader. This is a way to get people talking about what's possible. So one way to get people to change is come in and say, “You know, our scores aren't really doing very well and we better do something about it and we need to get moving”. And you all know the kind of reaction that we would get from ourselves and everyone else: that's not energising; that doesn’t value us as human beings. So, as leaders, we are the lead learner and what we need to do is craft experiences that bring people together to share the good thinking that they already have because look at all those ideas that flowed out of there in under two minutes, and this is a simulation so we are not going to pursue all of those ideas, but giving people that opportunity to talk about what's possible and what we like.

And my next question would be: if I was the principal of that school or the leader there, the teacher leader, I might say, “You know what did we already doing that is kind of like that now and is there anything we might want to do more of to help our kids be more like those excited young people that were in the video?”. So we need to have opportunities for people to talk about what they want so we build that clarity of outcomes.

The next thing that we need to do is think about, a little more precisely, what does that kind of learning look like when we put it in practice? So, to do this, we're going to look at another classroom experience, and while you're watching, I'm going to ask you to just mentally or make jot notes: what do you think makes this an example of deep learning? What do you notice is different for students in this example and what do you notice is different for teachers?
Now, for this experience, I often say we're going to travel all the way to Australia, but tonight you're already there! So we're going to visit three schools from Victoria. And the school that is hosting the event is Canterbury and these three schools got together to do an initiative - long-term research on ‘young minds of the future’ it was called. And what they had to do was find a problem and then solve it, and so three schools decided to work together on this and this is the culminating experience. So you're going to have to just imagine what the teachers did to get them to this point in time but, as you listen to the students, think about how do you know or why do you think that this might be an example of deep learning? What do you notice that’s different about the students and what's different about the teachers? Okay, so let's take a trip.

STUDENT: At my primary school today, we’re hosting Young Minds of the Future expo where three schools have come together - Chatham Primary, Ringwood North Primary and Canterbury – to do a project all about the future.

STUDENT: We each have to research a problem and then create something to solve it.

STUDENT: Seeing all these amazing inventions everywhere is awesome. The community has really been great. We've had over 50 people come to our school so far. I've seen so many cool things – from little juice cups, to feeding the homeless, to transportation, lots of ideas.

STUDENT: We’ve even seen around-the-world subways.

STUDENT: So this is the automatic dog feeder. You'd set the timer at 3 o’clock, as you can see with the wires there, and then as the day would go past, you hit that, which would send the current through, and then the dog food will fall down. I thought of it because both my parents go to work and we go to school and my dog's always left outside at home and she usually just sleeps, so at night she’s up. I think it would be really great for the owners’ and also their pets’ lives and their relationships between us each other.

STUDENT: Our idea is a sober sensor, which basically is a steering wheel that will scan for drugs and alcohol through sweat. As to why we want this, it is to contribute towards the XX fund, which is an initiative that will hopefully stop drink-driving on the roads and make sure that less people die on our roads.

STUDENT: I decided to make the light pot because I love plants and water and all the beautiful things in nature, and I don't want it to disappear. This will help people look after their plants better and also save water. It shows when your plant is not watered because there's no energy in the dirt, so the light won't go on. But when it's wet, the light will go on. So this plant is watered. You don’t need to water it anymore.

STUDENT: We decided to make cricket flour cookies because the population growth on earth is really fast. Livestock is just not that sustainable. Cows are one of the largest producers of methane on earth, and methane can contribute to greenhouse gases. However, insects don’t let out any methane, so they can reduce greenhouse gases.

STUDENT: So when we found out that in the United States alone there were 4,000 drownings between 2005 and 2014, we thought we had to do something. So we invented a drone that flies over your head and drops a lifebuoy to save you. So while the lifeguards come and swim out to you, you're floating there, ready for them.

STUDENT: Just walking through this small exhibition, looking at all the new inventions, it really just makes you think, “Oh, that's a good idea and that could help me every day” and, like, some of them are really cool and I could get and find really helpful.

STUDENT: Events like Young Minds of the Future is important because it's a chance to work with other people from other schools and hear other people's ideas.

STUDENT: We believe that most of these ideas will make it into the real world. If not, they will be considered and then people will know about them.

STUDENT: It shows kids’ creativity and it lets people have their own point of view. In Young Minds of the Future, we didn't really have a standard. We didn't have to make a certain thing. We got to do basically anything that we thought would change the world, and I find that really interesting.

JOANNE: So you can see there is a theme starting to emerge and you have to thank the Victorian Government for creating some of these wonderful resources that we've shared all over the world, and there are many, many more. What I'd like you to do now is just add some thinking to a padlet. The bit.ly is there on the screen. It's NPwhatsdeep. And for all the teachers in the room, there is no apostrophe and it's intentional. So what made it deep? What's different for students and what do you notice that's different for teachers in this example? Let's share our thinking.

So there’s a good point about what's changing for teachers and it says there was no mention of the teachers at all. So we have to infer what we think the teachers would have been doing in order for students to be able to be doing this, because you're right, they were not standing at the front leading things. So let's take a look at some of these ideas under ‘What's Deep?’. Their understanding of the issue. Open-ended challenge. Can you scroll a bit more for me?
The students exploring an issue/problem and working together. One thing that always surprises - original thinking; real-world problem-solving - is how articulate those young people are, and we see this over and over and over again.

And people say, “Are you doing this with, like, the gifted and talented children?”. And we said, “No. All the children”. What happens is they’re interested in what they're doing. They know what they're doing and why, and they can articulate that to others. And so it's very empowering for them and we see that right there under ‘What's changing for students?’.

They are empowered, finding out for themselves, self-managing. Can we scroll that column a bit? Ownership. Working on a real-world application, they're motivated. Choosing an area of interest, they're driven. Agency and choice are high. Students feel driven and motivated intrinsically to achieve their goals, because they were thinking about things that might actually help the world. Voice, choice and agency. So you mentioned that in the opening as something that we think we need to create. How do we do that? This was one example where students had some choice in what the problem was. Were they learning about science? Were they learning about communication? All of those things.

And what's changing for teachers? Do we have anything here? They need to let go and be guided by the students. Guide on the side, not sage on the stage. It's so true. Facilitating learning, not driving it. Letting go. But that doesn't mean not having a role because actually the role of a teacher in deep learning is even more important. It's just they’re spending their time doing some different things than we are doing when we're in a stand-and-deliver mode.

So, with this in mind, we’ll just move ahead and think about the students that you saw there were change makers, that the new role for the teacher - it's a more important role as a teacher. You have to take all the skills and knowledge that we already know about pedagogy, but you're the activator.

You're doing that just-in-time motivation, asking just the right question, providing the right resource, crafting the success criteria. You're the culture builder, creating that place where students feel confident to take a risk, to talk about their work, to be passionate about what they're doing, to feel like they belong, and you're a collaborator, in this example, with other teachers, with students, with each other. You're facilitating that to happen with the parents and the community because they were all involved in this particular example as well.

One of the ways we've talked about - and this is how do we help teachers who might feel very threatened by this idea that we need to do something different. Teachers would say, “Does that mean what we were doing was wrong?” and we say absolutely not. We need those skills but we're talking about moving along continuum, from very traditional to what we called ‘deep’, and you see just some examples of how this looks - from totally teacher-driven to teacher-framed and student-led. So we don't overnight switch it, but we think: how can we give up one little bit of control?

Maybe that's by giving students one choice in what they do or how they present their learning but thinking of increasing that. How we move from transmitting knowledge to connecting students to real-world authentic problem solving - they're not going to do what we saw in that video all day long, every day. Of course not. But how could we look at what we're doing in the next two weeks or the next month and think about what's one way we could make that a little more authentic, that we could bring in some real-life problem solving and still achieve the content standards that we have in mind.

How do we move from compliance to building relationships, from students receiving knowledge to being an inquirer, and that's a longer continuum. From student agency that's very unclear, it's more sit and listen, to a desire, I can make a difference. So, once again - and using technology not just to transmit or to consume. You know, let's just move from doing a pencil-paper task to doing a PowerPoint. That's still pretty low level in terms of using technology. How do we use it as a connector to get kids to act like a scientist, to share their knowledge with knowledge-building platforms? So those are the kinds of things that help us move to what we call deep learning.

The second thing is - that's how we want the learning space to function but we need an anchor for it, and we call that anchor ‘the global competencies’. And I know you have your capabilities that are very similar. What we found was that we needed to be able to define ‘deep learning’ and for us we defined it as the process of developing the six global competencies. And we went through a process such as you did at the beginning when I asked you about gifts, only more intensive, to say what are these knowledge, skills and attributes that young people need to thrive in the world? And we came up with six.

Now, four of them have been hanging around since the late '90s, if any of you have been around teaching since then or leading - you know, collaboration, communication, creativity, critical thinking. The problem was we didn't have a common definition for them, so even within a school, we all mean a different thing when we talk about creativity. As well, we had no way to measure them that travelled between classrooms, between schools, that had much heft to it.

We also added two more: character and citizenship. Character are those inward-facing qualities and citizenship, how we interact with the world. If you look at character there, you're going to see a proactive stance towards life and learning to learn. That became so crucial during COVID. Grit, tenacity, perseverance and resilience - so many of you mentioned that in the exercise we did at the beginning. Empathy, compassion and integrity in action.

So remember, we wrote these eight years ago but they seem to be standing the test of time. So these are ways that we can describe what learning we might be aiming for for our students.
So that's that shared understanding, and whether you're using our global competencies or something else, people need to know what we mean by ‘learning’, that we're aiming for, because if we're aiming to do better on a test, we organise learning a certain way, but if we're aiming for students to be engaged, thoughtful change makers, then we create learning in another way altogether. So we need to be very clear about what and we need some sort of anchor so that we have a shared sense of direction.

But just for fun, I'm going to ask you to vote. There is a poll button. And I'm going to ask you to answer that question: which of these competencies do you think best prepares students for their future? Let's just see what you have to say.

Wow. Okay. Well, it looks like by far and away ‘critical thinking’ is the winner, with 40%, and still way out at the lead. Character. Communication. And this was actually a loaded question because I don't think there is a right answer. If we had time to talk it through - and you might want to do that in your school - people then give a reason why, and so sometimes they say, “Well, I like critical thinking because I have to be able to think critically in order to make decisions, to be a good citizen, to have character” and so on, so that they are actually intertwined in practice. What we say is that we want to be more intentional and not just hope that students develop these capacities but that we intentionally construct learning opportunities so that it is more likely that they will. So just a little bit of fun for you.

So, with that in mind about having a common language, it then becomes self-fulfilling. Here's an example from Cardoss Primary in Victoria as well where they sent us these absolutely amazing NPDL superheroes. They were using the six competencies with the students in their primary school. And, you know, the teachers found the kids were just - you know, there was a lot for them to remember, not that they introduced them all at once.

So what they did was they created indigenous characters and then - actually Simon Trembath is the principal and his daughter created these wonderful characters that you see on the screen, and using those words that were in the students' own language, they started to really identify with what it meant to develop their character or to be a good citizen or to communicate. So these ideas are really taking off in many, many places. So that forms an anchor that is a set of outcomes. That's the kind of person that we're hoping our students will become.

We also tied to that - you have to have a way to measure things, so we created what we called ‘learning progressions’, and I think some are under development in Victoria right at this moment. So for each one of our competencies, we identified dimensions, which you see just two of the four down the left-hand side, and across the top we identified levels of growth. What's important here is we've got to measure what matters.

So we're not measuring discrete, minute things. We’re saying: over time is this student better at working interdependently as a team member? And we take a look at many sources of assessment information and then we make a judgment that, more or less, they might be at this emerging stage. But what we're interested in - you see the arrow - is growth. So we look at how that student progresses over time.

This is very much work in progress. This has really helped teachers to assess where students are and to help move them along, but we're also in partnership with the University of Melbourne and the Assessment Centre there to look at refining that even more, using some of our NPDL schools from Australia to work on that.

But that brings us - with our teachers, we want to build that shared clarity of what are we aiming for. Are we aiming for someone who can pass the NAPLAN or are we aiming for students who are good – can be good at learning and good at life. And that is conversations that have to happen. Once we have that, then how do we move forward?

One of the ways we have found really helpful is we created this organiser. We called it simply the ‘Four Elements of Learning Design’ and what they did was they represent the four decision points that teachers interact with when they're designing learning, and I'll talk about each one. You also have an organiser that is going to be put into the chat box for you. It looks like a place mat and it has these four. You might want to make jot notes around the outside or somewhere else. I’m just going to highlight these four aspects that support a deep learning experience that builds those competencies.

So the first one is learning partnerships and we've been talking a lot about student voice, choice, agency, leadership. That won't happen by chance. So, as we're designing learning, we want to say: who needs to work with whom? Do they have the skills to do so? How could I co-design this in some way with my students? Do I want to connect to families or the wider community?

The second one is the learning environment and there are two aspects to learning environment. The first part is about that learning culture where we set the norm so students feel safe, that they belong, that they’re socially-emotionally connected. But the other half of it is the actual physical or now virtual or hybrid learning space that we need to set and determined: will it all happen inside the classroom or will it be happening outside? And you can see here in this photo, this teacher has a ‘C tree’, as they call it, and the students in their own words have created what those different competencies look like in their classroom. And you can see there's little leaves on the tree where they go and if they see someone demonstrating one of these, they put the leaf on the tree.

The third aspects or set of decisions is around leveraging digital. How do we use it, not as the driver but as an accelerator? So how do we use digital so that it amplifies the learning or extends or accentuates the learning by using things like knowledge platforms, not just ways to deliver information? And, finally, pedagogical practices. Those are - that's the place where we always begin as teachers. But that is selecting the best way for students to learn based on their strengths, their needs, their interest and the context and, of course, the standards that we all have to teach.

So this is once again - teachers often say, especially if they're highly experienced, “Does this mean what I was doing was wrong?”. Absolutely not. If you look particularly on the left-hand side: inquiry, problem-based learning, scaffolding, universal design, gradual release of responsibility, cooperative learning, reciprocal teaching - those are all models of teaching or strategies that we have been honing and mastering for a long time, and to do deep learning, we need to use those. But, at the same time, we need to use some emerging innovative practices.

On the right-hand side, they tend to look like a lot of digital because there have been a lot of new ones lately but also self and peer assessment; using design thinking, learning co-design. So those are some of the new practices. So if I was better at drawing, that fusion would be wrapping around itself and they would be twirling on your screen. So it's a matter of, as teachers, selecting the best way. So this is the learning design placemat that you have in front of you. So you see in the centre, we have the six Cs, and as we begin to design, we ask teachers to think about: is there one of these that lends itself to what you were already going to be teaching in this unit or this next chunk of learning? And then with something like this, you can set a team of teachers down and in 10 minutes, I guarantee, give them a theme, a topic, some standards. They can come up with some decision points by brainstorming.

We're going to use it a little differently now. We're going to look at two classroom examples, and while you're watching, I'm going to ask you to think about what kinds of things do you notice about the pedagogical practices? What do you notice about learning partnerships, student voice, choice, perhaps relationships with people inside and outside the classroom? What do you notice about the learning environment? Did students feel safe? Did they feel connected and was that environment all inside the classroom or were there other changes? And, finally, did they make use of the digital world in a way that helped the learning along?

So the first video that we're going to look at - we are actually going to take a field trip now and we're going to travel over to Idaho, which also was one of our very first groups that joined deep learning at the time, and you're going to see a particular unit of work, and once again it's a culminating activity. The videos we use are all generated by our member schools, so they're not professionally made but they capture real-life work, which people find probably more energising because it's more doable. So let's tune in, make some jot notes and eventually you're going to go into a breakout room to share your thinking about what you observed.
This is kindergarten.

ANNE: In kindergarten we've been learning about birds and we just recently finished our celebration of learning with our exhibition. Our celebration is a great opportunity for families to really get an idea of what their kids can do.

CHILD SPEAKS.

ADULT: Wow.

ANNE: To begin our celebration, we took on the role of performer and we sang songs for our friends and family and members of the community. Then we moved into the role of scientists, where we presented our research and scientific drawings to our audience.

CHILD: It eats fish, crayfish, insects…

ANNE: Every student shared their work using a presentation board. The role of the boards for the students became a way for them to be cued for their presentation, to show some of their work and to have an up-close-and-personal interactive experience with their audience.

CHILD SPEAKS.

ADULT: So if it eats fish, I bet it’s got webbed feet.

CHILD: No, you’re not right. It has lobed feet.

ANNE: And then we moved into the role of artist, where we got to have a gallery walk of our work.

ADULT: Look at these drafts. I think that’s amazing.

ANNE: Getting kids ready for a night like this happens all year long. Kindergartners researched an individual bird and they researched that bird with a sixth grade buddy.
They collected information together specifically on one bird. Over the course of the year, we use bird journals. We invite domesticated birds into our classroom that we can handle. We incubate eggs in an incubator. We hatch the chicks. We go into the field, visiting places that are working directly with birds. The kids went through four to five drafts of their bird and we developed a really simple rubric to help them with their scientific drawing. Their research and artwork, they're all going to be put together on a note card and then those are sold to the community, and the money that's collected from those note cards are put towards Idaho rehabilitation conservation efforts.

As we get closer to the evening, we begin to think about specifics, about what does a presenter and a performer look like? What are the skills that are needed for that? We practised presenting to each other, to small groups, to the whole class, and then sometimes to the other class - kids that we don't know very well.

CHILD: Its wingspan is eight inches. I hadn’t been learning a lot about how much it lays.
But, Angela, can you check that?

IMOGEN: I absolutely can. Five to ten.

CHILD: Five to ten eggs.

ANNE: Celebrations are an opportunity for us to invite the people that we've worked with all year - the experts we've worked with, the people that have come into the classroom and the people we've been out to see.

DENIZ: What does she do? She’s on the nest with her…

CHILD: Eggs.

DENIZ: I got involved with Answer because we helped start a program called Bird By Bird where we provide birdwatching equipment and active citizen scientists that take real data and be a part of this global database that tracks birds. We came back to the exhibition tonight to support the 34 kids I've been working with all year. For me to walk around and see all this beautiful watercolour artwork and to see all the kids present their birds, and as real scientists, they did a phenomenal job.

CHILD: … builds its nest on the shore. It builds a ramp up to it with sticks, so it just walks out of the water and goes to its home.

ADULT: A very smart bird.

CHILD: It really is.

ANNE: It’s fun to watch those kids that wouldn't even raise their hand at the beginning of the year. Now they're in front of two families that they don't even know and they're sharing everything in a very proud way.

CHILD: Its wing is 24 centimetres. Its song – I can probably imitate it for you.

ADULT: Okay.

CHILD: It’s like this…

ANNE: This evening of celebration really proves and shows that they can do it and how hard they've worked in all the things that they've learned.

DENIZ: I think that's what that celebration does for them. It really just like solidifies that they can do it and that they can do anything.

PARENT: The fact that they stand up and present in a manner that I did in college for the first time, it's been amazing. It makes a parent really proud.

ANNE: I could tell they felt good and they felt proud and they felt like they knew their stuff.

JOANNE: Okay. I'll just give you 30 seconds now to jot your ideas down. And what we're going to do now is move into a breakout discussion. Take those placemats on your screen with you and just share your thinking about what you observed about the four elements. What did you notice about pedagogical practices, about learning partnerships, about the learning environment and perhaps about the digital? If you have time - the most important thing is that you have the conversation - you can also add your thinking to the bit.ly. There's a padlet there. What we're going to do is leave these padlets available to you for the next short time and we will harvest information that you get out of them, just modelling for you a way in which you can have teachers delve into practices ,and you have so many videos, wonderful ones, on your own Victoria Department website that you can use, but it gets teachers talking about their practice.

So right now we're going to take just six minutes, not eight, and move into breakout rooms and have a conversation about what you observed about those four elements, using the placemat. Let's just take a look at it for a minute and I'm just going to invite two different people to share some of the conversation. Pick perhaps one or two of those elements and what did you notice.

ABHIRAJ: Hi. I'll go. I’m Ab from Warragul College. So in my group, we had a chat about how they implemented the level of integration and planning was very - you know, very extensive level of planning and integration of multiple technologies, and how they had changed the learning spaces, with the pictures and all that, which sort of puts them in the frame to learn and sort of, you know, gets them excited and all those things, which sort of - the small things matter. That's what I sort of learned from it, that those small things, just by looking at those photos, it sort of changes your whole perspective and your mood and everything.

JOANNE: Thank you. Another group?

KIM: Hi, Joanne. Laura and I spoke around the fact that we loved that in order to deepen the learning, it wasn't: this is literacy, this is maths or numeracy, this is science, this is art. It was just so seamlessly – well, it appeared seamlessly - very well embedded around that this is their learning, and it was deepened because it encompassed all of those curriculum areas and that the fact that they had the role of the scientist, the performer, the artist, the presenter certainly encompassed so many different learning areas that we were really, really impressed with with that.

JOANNE: You know, sometimes people say, “Well, do we have to do content or do we do this deep learning?”. What we do is we think of these competencies as a lens for looking at the learning. So that teacher was teaching science concepts and literacy and all of those others but you know your standards or your learning objectives so well that your backward-mapping all the time and you are ensuring that your students are getting them, rather than having to divide them into silos. So that's really a good point.

The purpose of this exercise that we've gone through is just to say we need to help teachers get inside their practice and talk about what they're doing. But I've found as a leader, it's a lot easier to do that around somebody else's work. So that's why videos, I find, are quite powerful rather than trying to say, “Well, what are we doing?”. Eventually, we want to look at how does this apply to our own work in our own classrooms. But this is a softer way inside and, as we start to analyse what's going on, what were the decisions, it's such a rich, professional dialogue that starts to evolve, and this organiser just seems to make it simpler for people to have those conversations. We've had to skip a video because of time.

You know, what we want to do is ignite engagement and meaning, and this is how we have described the relationship between content and deep learning. It isn't either/or, as I've just said. We think when curriculum content is animated through the engagement of those six competencies, the content triggers higher-order thinking, sharpens understanding, reasoning analysis, the building of patterns, relationships and other concepts. The knowledge and skills that are gained stick with learners for life. So in that last one, it isn't that you have to do a unit for a whole year or that has anything at all to do with birds but it's the idea that it was something that allowed the teacher to scaffold the learning around something that was of interest to the students, to build the partnerships, to layer in all of those different content areas.

Now, in the remaining time - and we are getting close on our time - I just want us to spend some time thinking about if we're leading schools, how do we build their capacity? Now, we've modelled four different ways that we can have conversations and I find as a principal and a superintendent with 100 schools, that that was the best way - get people talking about what they see, what they observe, what they like, what they want to do more of or less of. And so having those conversations is critical.

But let's take a look and think about what are the conditions and levers that a school can use to move from that continuum of very traditional to very deep or to move along that continuum. So we're going to visit with a school from Victoria. This is Derrimut School, which was involved with deep learning at the beginning, and in it - as you're watching, just think about what do you think the leaders in that school did? What were some of the levers that they used or some of the conditions that they set or created that allowed deep learning to flourish for the students and for the adults? And I say ‘leaders’ because you're going to meet Bianca and a couple of other teacher leaders who were very instrumental. I had the opportunity to visit this school and see it in action. So with the principal, Teresa Stone, and these other people, they did a number of things that were quite powerful. So let's tune into Derrimut. Be thinking about what were those conditions and levers, and we'll have a quick conversation once we're finished viewing.

TERESA: Derrimut is a public-private partnership school purpose-built around collaboration and having campfires, caves and watering holes for people to come together and learn, so caves for when you need to think deeply about something, a little bit of space; watering holes, when you need to share information; and campfires, when you're telling your learning journey. Where it’s strengthened the most is when we started with the NPDL project and we used those tools to have insight, oversight and foresight of the strategy going forward, with the laser focus on those little faces and what do they need.

BIANCA: Using the six Cs in connection with the Solo, with the deep learning quadrant and the collaborative inquiry cycle, we are able to see a bigger picture of what might be going on for kids. The collaborative inquiry cycle has become an anchor for our whole school. We've had action research models before but I think the difference with this one was that it was anchored in student data and now it's being used at all levels of our school and in all curriculum areas.

TERESA: We used it to design for learning. We use it to assess where our children are. The children are using it. And then as a leadership team, we use it as evidence to say where are our teachers in this? What do we need to learn to actually enable this to happen? Through that then, we were connected to the solo taxonomy.

BIANCA: Everybody could say straightaway that the Solo was an amazing tool that just enabled everybody, no matter whether you were a prep teacher or a 5/6 teacher or a student anywhere in the school, to have a conversation about your own understanding, your own skills, the depth of your thinking.

STUDENT: It helps us really think of where we are and where we can improve and what we should try to do next.

STUDENT: I have ideas but they have not been tested. I have a few questions. I have told some others about my ideas but I haven't heard about their ideas. And I want to show more of my learning.

KATHY: So it's great for student self-efficacy, about progressing themselves along the Solo and for that co-constructed goal setting. It's also great evidence for us to see their self-assessment and their understanding and what evidence do they have to justify that growth.

STUDENT: When the teachers are planning, they look at what we enjoy. If we come up with a burning question which we’re desperate to have answered, it has to be an open-ended question.

KATHY: The direction that it takes will depend on the students’ current understanding. It’s teacher-framed, student-led, but we're making sure that we know our students before we can start designing. Some other tools that have been really valuable at our school have been using the six Cs as a way to develop students' dispositional learning and recognising that we can apply all of these into multiple contexts.

STUDENT: We were focusing on creativity, critical thinking and collaboration. In this task, we had to think outside the box, and that's when our creativity came into place.

BIANCA: We have started putting in place consistent check-ins, where we’re gathering data against the state learning rubric, so the four elements of deep learning. Every single team is analysing themselves to see how they are going against each principle.

JADE: And it just helps us really think about it as a whole, rather than just the concept, so where in the real world would our kids be able to make a connection to this?

BIANCA: Until our whole school had really gone through that process, everybody wasn't on the same page with how to design for deep learning or as the teacher, what you needed to do to be transparent or for students to get that feedback and to be able to self-assess. But we're seeing so much growth in such a short amount of time.

TERESA: Being part of the NPDL community, it's a way of being true to our values and our philosophy of learning, but also a way of being true to being rigorous. The strongest thing for me was the roundedness that NPDL gave us in terms of looking at the whole child, and that's so important. So it privileged other ways of knowing, other ways of learning and other data sets to say that our kids were growing and achieving.

JOANNE: Okay. I'm sad that our time is running out but I do want to give you an opportunity to talk. So we're going to move into breakout groups for just five minutes to talk about what are the conditions or levers - what do you think that school did that helped it shift its teaching and learning process? So into breakout groups, five minutes and then we'll come back and do a quick share.

Thank you. I know that was a short discussion. I'd like to ask just one or two groups to share some of the levers or strategies or conditions that you think that school used. What struck you?

LOUISE: I'm happy to jump in for our group, Group 7. Just a couple of points that we discussed. There’s clearly a shared vision from leadership, and that went right through the school, and it was not just a thing they do, but it was their shared values as a school. They talked about it being a way of being.

There was consistency across learning communities with the language and the tools that were being used to support planning. Clearly, the students had a very good understanding of that language as well and really understood themselves as learners. And what we really liked too was that the decisions being made from leadership and the whole school was seen through the eyes of the student; you know, what is learning like for our students and what do we need to do for the students? So that's what we had our discussions about.

JOANNE: Thank you. That's a great summary. And what we see is the common language is really important in helping to build that deep shared understanding and ownership, as you say. Time for just one more. Is there another group who'd like to share?

COLIN: I'll share. My name's Colin. What I noticed was everything that the previous person talked about, but there was a shared passion. There was a real unanimity and a real passion behind it, which I found really heartening. And I'm trying to think how to sort of replicate that in a large and diverse school.

JOANNE: Yes, and, you know, it grows. It feeds on itself, shall we say. You take the first small step. This is the framework. And I could have started out with, “Here's our framework”, and how boring would that be. And some of you might be thinking, “Well, we didn't spend very long on anything” and that was because we wanted to build this gestalt. As a leader, we have to be mindful of a number of things and how we integrate them simultaneously. So at the centre, you see the 6Cs. That's that shared depth of understanding about what we are aiming for with our students. And you just saw that at Derrimut. Clear vision, values, principles about the kind of students we want, how we're going to help them to be the future that they can be.

But that's not enough. That's just the dream, and that's a good starting spot. And we talked about the six Cs at the beginning but surrounding that are those four elements of design because we need a very simple but comprehensive way for teachers to plan differently, and what we found is these particular four decision points are comprehensive but simple and they allow teachers to have quick but strong discussions and make some decisions that make it more likely we will build the competencies.

We know those first two rings are happening inside the classroom and that's not enough. We have to put in conditions surrounding that to make it more likely, and that's what you saw in the last video - the school conditions and, in our model, sometimes we have larger networks of schools or a whole state system of schools or a system conditions, which would be all of Australia in your case. So looking at what are those conditions that need to be in place.

So what I tried to do today was model with you, in a very short fashion, just different ways that you can, number one, as as a leader in particular, build that clarity of purpose and shared understanding. What do we want for our kids? What do we want them to be like? How would we describe that? What would that learning look like? Secondly, how did we build that precision in pedagogy?

I shared with you one way that we have found works very well to do that, but you need a way to build that common language and common approach. Not prescription. It doesn't mean we all do pacing guides and the same thing every day, but that there is a shared understanding. And then, finally, how do we cultivate those powerful conversations that help us build that momentum for change?

As you walk away, I invite you to think about one action that you're going to take as a result of today and then you may want to think about a person who could support you and a way you will assess your growth. You may want to take that one action you're going to take and just pop it into the chat because we know psychologically that making that commitment even to yourself in the chat box makes it 10 times more likely that you will actually do it.

So I just want to end with the thought that what we're aiming for is children who are good at learning and good at life. We sometimes talk about it as engaging in the world so that we can change the world. I've had questions about the videos and the schools that are involved. I will get a list of the schools involved to the organisers. The videos - not every single one of them is available but many are available on our website deep-learning.global, which you see here on the screen, and there are way more videos that we have used. Also there is a fuse site. I'm not sure if it's still active on the Victorian website, but it has just a tremendous number of absolutely fabulous videos that your Department of Education made about the deep learning process.

So, in closing, you've been a fantastic participant group. I’d love to work with you again. I wish we had more time. I wish you nothing but the best, and let's together be part of a solution that really does unleash the potential of young people.