

DTiF

Digital Technologies in focus

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Transcript of teacher reflection interview

Deanne Poole with Nicole Pestell of South Kalgoorlie Primary School, WA

Deanne Poole: I'm here with Nicole Pestell from South Kalgoorlie Primary School. She is a current Year 6 – Year 5 teacher and also the head of Digital Technologies and she gets to go into classrooms and assist the teachers.

What do you perceive is the main aim of the DTiF project in your school?

Nicole Pestell: The main aim was using it as a tool to encourage our teachers that it's not scary – to build that confidence of learning the curriculum and being able to apply it in the class. So, our goal was to build teachers' confidence and capacity in delivering the curriculum and having just that backing of ACARA that encouraged them to be more involved.

Dee: So what strategies have been used that have been effective in working towards that aim?

Nicole: So 2017, I was the Digital Technologies specialist teacher full-time and then last year, I did the role for a couple classes and there was another teacher that did it full-time and we had three classes that had to teach it in their class. I was given time last year to go into all the classes but starting off with those three classes to help those teachers feel comfortable with programming for it, teaching for it.

Dee: So have there been any challenges and, if so, can you provide some details?

Nicole: The biggest challenges have been teachers, not students, and it's more the confidence about starting something new. Coding still scares most of them, but most of them, particularly of the younger years, are more than happy to have a go with it. The challenges of the timeframe in the curriculum, because the kids don't have strong prior knowledge in the area, some of the teachers are still finding it hard to integrate it into other learning areas.

Dee: Have there been any surprises or interesting insights? If so, please describe.

Nicole: So, the biggest surprises have been the couple of teachers that were not so much scared of technology because they used it but weren't willing to let the children use it in case they broke it or damaged [it] or whatnot. They've now taken the attitude of, if they're going to do it, they're going to do it properly and they're going to do it well. So, they are doing it very in-depth and focusing on the knowledge and understanding component, because they're more

comfortable with that than the programming aspects at this stage, but they are doing a very good job with it. It's been surprising – I was half hoping that there would have been more getting involved with the robotics side of it, of the programming. We're having more focusing on paper programming, like your unplugged rather than the robotics, which I would have thought it would have been the other way round. But I think that's teachers' choice not kids' choice.

Dee: So what changes in student or teacher capacity can you identify, and do you have any evidence that could demonstrate that change?

Nicole: We have every class teaching Digital Technologies this year in their own classroom. They are actually teaching it; there are some classes teaching it more frequently than others, but they have all covered bits and pieces. Everybody is fairly competent with the cyber safety aspect, and that's where they all started. Then they moved on to the components, the physical components of a computer, because they felt comfortable doing that. So that's been good to see that they are seeing they need to teach that part as well; it's not just expected that every child knows what a keyboard is and what a mouse does, that they have to actually teach that. The students definitely prefer the programming side and our kids who struggle with resiliency, they don't have those issues with programming. They know that everybody is learning it; they know that they're going to make mistakes with it; and they know that they've just got to keep trying and trying and trying. And to this day we've still never had a child walk out of a classroom because their code didn't work, yet they will walk out because their maths sum wasn't right. So that's been really good to see.

Dee: What a great and interesting side effect. Isn't it cool?!

Nicole: That's it! You'd expect, you know, iPads to be thrown across the room.

Dee: Yeah, because that's what we feel like doing!

Nicole: Yeah, because their code didn't work. But they understand that it's not going to work and it's not them – it's the code that's not working.

Dee: That's it.

Nicole: And they don't see that as, well, the code's only doing what they put in. They solely blame the code.

Dee: That's it.

Nicole: Whatever works.

Dee: It's almost like a reverse here, so however it is that you're teaching coding to these students that have built that resiliency, is we need to now do that in our other areas as well. Isn't it?

Nicole: I think because we're not teaching the coding as such, you're just letting the kids experiment with it. So there is no right and wrong; it's, we'll do this and see what happens.

Okay, you know that if you do that then this is going to happen – you have that bit of knowledge now – get that, apply that with something else, and experiment with another bit of code with it. And just keep experimenting and bringing in the questions of, ‘Well, if I wanted to do that, can you explain to me how I would be doing that?’ and then linking that to the language, ‘Oh, you’ve done that, well we call that branching,’ you know, ‘So I’ve used the branching for this’, ‘My branching isn’t working, can you have a look at it and can you help me try and get my branching to work?’ or ‘What user interaction do you think I should be using for this? Do you think I should be asking a question?’ or, ‘We’re using Scratch, should I be using the arrow keys?’, ‘What do you think is going to be more interesting for someone to play my game or work through my program?’

Dee: Love it!

Nicole: And the kids will just sit there and have full conversations with each other about it.

Dee: That’s great. How have your perceptions of the Digital Technologies subject changed?

Nicole: More so with the level of information the kids need to know with the knowledge and understanding and what you’re trying to get them to understand and why. So, I tell my kids that if they go down to Harvey Norman to buy a computer and they’ve got someone standing there saying to them, ‘Oh well, it has this RAM, this gigabyte, this, this, rararara’, they don’t want to stand there and looking like a fool and not have any idea what this person is talking about, because they could be selling them anything. So they need to know the ins and outs of what the different components are, what sort of sizes for things they should be expecting now, and it’s not just, ‘this is a monitor, can we say the word “monitor”?’ This is what a monitor does’, they’re looking at well, why would you choose this different-sized monitor? Why would you choose one that’s more rectangular than square? What are the benefits of that? And I hadn’t thought of it in that part. When I first started looking at the curriculum I was focused more on the coding and just the physical components that you could see of a computer more than the why they need to know that information. I was focusing more on the what it is. But the why is more beneficial to the kids. That’s going to help them retain the information. They’ll see a purpose for it.