EDUCATION AND HEALTH STANDING COMMITTEE

AN INQUIRY INTO IMPROVING EDUCATIONAL OUTCOMES FOR WESTERN AUSTRALIANS OF ALL AGES

TRANSCRIPT OF EVIDENCE
TAKEN AT PERTH
MONDAY, 9 JULY 2012

SESSION FOUR

Members

Dr J.M. Woollard (Chairman)
Mr P.B. Watson (Deputy Chairman)
Dr G.G. Jacobs
Ms L.L. Baker
Mr P. Abetz

Hearing commenced at 1.13 pm

NEWHOUSE, DR CHRISTOPHER PAUL
Educational Researcher, Edith Cowan University, examined:

PAGRAM, DR JEREMY
University Lecturer, Edith Cowan University, examined:

The CHAIR: On behalf of the Education and Health Standing Committee, I thank you for your interest and your appearance before us today. The purpose of this hearing is to assist the committee in gathering evidence for its inquiry into improving educational outcomes for Western Australians of all ages. At this stage I would like to introduce myself, Janet Woollard, and other members of the committee Peter Abetz and Lisa Baker; and also our secretariat, Brian Gordon and Loraine Abernethie; and from Hansard we have Judith Baverstock.

The Education and Health Standing Committee is a committee of the Legislative Assembly of the Parliament of Western Australia. This hearing is a formal procedure of Parliament and therefore commands the same respect given to proceedings in the house. As a public hearing, Hansard will be making a transcript of the proceedings for the public record. If you refer to any document or documents during your evidence, it would assist Hansard if you could provide the full title for the record. Before we proceed to the questions we have for you today, I need to ask have you completed the "Details of Witness" form?

The Witnesses: Yes.

The CHAIR: Do you understand the notes at the bottom of the form about giving evidence to a parliamentary committee?

The Witnesses: Yes.

The CHAIR: Did you receive and read the information for witnesses briefing sheet provided with the "Details of Witness" form?

The Witnesses: Yes.

The CHAIR: Do you have any questions in relation to being a witness at today's hearing?

The Witnesses: No.

The CHAIR: Thank you both very much for joining us today. Dr Gordon will have sent you a copy of this inquiry's terms of reference. For many of us IT is one of our weaker areas because there have been so many changes over the past few years and it is very hard to keep up with all those changes. We have gone out to the schools, and some schools appear to be taking on technology faster than other schools. There does not seem to be an awful lot of support across the board for either the new technology or funding to run that new technology. Maybe, as part of our terms of reference, you could you tell us what you see as the advantages in using technology and where the strengths lie in the new technology. I think some of the new devices are fantastic, but from one of our meetings here this morning, one of the things is that schools have a limited budget for new technology on an annual basis, so maybe you could also address that limited budget. Maybe that budget needs to be increased, but how do we ensure they get, as Lisa so nicely puts it, the best bang for the buck? Did Dr Gordon send you some questions?

Dr Newhouse: We got the five questions for the inquiry.

The CHAIR: We had a few more.

Dr Pagram: We have not got the secret questions!

Dr Newhouse: That was the terms of reference.

The CHAIR: If we do not get through all the questions we have for you today, hopefully you will not mind if we submit some to you after this hearing.

Dr Newhouse: There have always been two reasons we want digital technologies in the schools for students to use. Firstly, so that they have adequate digital capability so they can live and work in our society. Secondly —

The CHAIR: So digital is just electronic?

The Witnesses: Yes.

The CHAIR: Why do you say digital rather than electronic?

Dr Newhouse: Because it is the term that tends to be used now. It is the term that will be used in the Australian Curriculum. Digital just means devices that handle zeros and ones, basically, so they have a central processing unit that responds to instructions and data that are in zeros and ones. That is why it is called digital.

The CHAIR: So the whiteboard, the iPhone and the iPad are digital technology?

Dr Newhouse: Yes, anything that has a central processing unit chip. The term "information communication technology", ICT, is often still used. One could say that it is not quite as accurate in that, really, that should encompass non-digital technology as well, although it does not usually in the way that it is used. I tend now to use the term "digital technologies".

The CHAIR: Please give us the building blocks, because it is a new area. Do not think you will be going too low!

Mr P. ABETZ: You cannot go too basic for us!

Dr Newhouse: The first reason is so that they have that digital capability to be able to live and work in our complex society now. The other reason has been to support teachers and students in teaching and learning programs to provide a great array of types of activities and to be able to support engagement of students with their learning at a deeper level and in a greater variety of ways. In that way we aim to get better educational outcomes than we would have if we did not use that. That is true of any technologies that we have used; it is just that digital technology provides a much wider range of opportunities than, say, when I started teaching when the overhead projector was revolutionary.

Mr P. ABETZ: I remember those days too!

Dr Newhouse: That was a technology that did help a lot of teachers and students; it is just that now the options are so much broader and more sophisticated. Fundamentally, digital technologies are a personal type of technology, so it is something an individual has that they relate to. Therefore, in terms of using them for supporting teaching and learning, they have been shown to be best used where they support what we call student centred pedagogical strategies—ones which are centred on students doing things and interacting with other students, teacher and technology.

The CHAIR: Before you get to the students interacting with other students, what about getting it to the teachers first and making sure the teachers master the new digital technology?

Dr Newhouse: Yes; it needs to become a personal teaching technology for them.

The CHAIR: How are you training and skilling the teachers? What is going on? It is all very well having new technology, but if the people meant to be using that technology are not skilled how does it get down to our students?

Dr Newhouse: At the university, in our courses, we do have units of study and across non-specific IT-type units students use computer technology. For beginning teachers there certainly is training in the use of the technology, and at the moment we are working towards encouraging all our students

to have their own device that they carry around with them that they use in their teaching. It is these sorts of devices now that are really the forefront of digital technologies.

The CHAIR: Are you telling them which tablet—an Apple—or which phone? Which one are you saying?

Dr Newhouse: Perhaps Jeremy could answer that one.

Dr Pagram: We are grappling with this ourselves, because the big new move around the world is this thing called "bring your own digital device". You might have seen the acronym floating around. It comes from business where people have ownership of technology and they choose technology that suits them. Rather than everyone having to use this IBM PC or this Mac or whatever, they choose what works with them and it is the use of that as a tool in whatever they are doing. From a teacher's point of view it does not really matter as long as they are comfortable with the technology and they can see its potential in education, rather than, "We have to train you up on this and next year it will be something else", or whatever. What we want to do, particularly at the university in education—we are only looking at education—is to support student teachers in becoming comfortable and seeing a digital device as a necessary part of their study, because some of our earlier research showed that things in schools remain very traditional. If you go to a school, it would feel like it was when you went to school yourself because the school environment is really set up very traditionally. Teachers will be using technology in their private lives—Facebook and email et cetera—but they do not see it as part of the teacher job. If we make sure it is integrated into their study and they are used to using it for everything, not just, "We leave it at home", but something that they use all the time then that flow-on effect is part of teaching and also modelling in getting our staff to make use of technology in their teaching. So it has modelled the use of technology as well. What happens in school is that quite often schools feel very traditional. They are very conservative places, so change is hard to bring in unless you get the teachers, generation by generation, seeing this technology as just being something that is background. You would not go anywhere without a pen; so now you do not go anywhere without some kind of digital device and you do not teach unless you have got one. I do not want to hog this, but one thing it also allows is some equality. One of the terms of reference relates to remote areas, which is something I have some interest in. The digital technology allows teachers in those areas to have some equality with those in the city with resources and teaching with things that they can bring into their classrooms. Quality is another thing that the digital device allows.

The CHAIR: Maybe equality with the teachers, but not the students, because students in some of those areas just cannot afford the technology, can they?

Dr Pagram: That is not quite true, because a lot of the remote schools are very well resourced; in fact, better resourced per child than city schools. The problem is a different one that is to do with the people—we are probably getting ahead of ourselves. The people we send to those remote areas are often our most inexperienced teachers. Often they are grappling with doing the teacher job, and those people do not stay in those remote areas for long. So it is hit and miss whether we get people who can make best use of the technology. That teacher might leave and somebody comes in who does not have those skills and we end up with a situation where the kids are brought up to a level and then it just drops: "All right, put those computers away. Now we will do some proper learning." That kind of attitude comes in.

The CHAIR. We know that you are involved in the One Laptop Per Child Australia organisation which rolls out devices to remote schools. How is that going, first, in terms of the rollout and then where it has been rolled out and an evaluation of how effective that is?

Dr Pagram: I should say that while we are connected with the organisation, we do not represent it. We actually give help where we can. In Western Australia, this was rolled out to some schools in the Pilbara a year or two ago. I visited some of those schools to find, six months later, very little sign of much going on at all because of staff changes and that kind of thing. We sort of knew from

our previous research in the north that that kind of thing happened. One Laptop Per Child is going to be moved out into lots of schools, but it is school motivated. The way that they get schools involved is if the school approaches One Laptop Per Child saying it will train some of its staff using the online materials, and then it can get them. That leaves groups of schools that are not interested or are quite happy without technology missing out. I do not know that they will change that model now that they have some big money to play with. They may do. It involves training staff in using e-learning in the schools. Again, you have the problem of transition when staff move on and that kind of stuff.

The CHAIR: Who has the big money? Who is running that?

Dr Pagram: It is run as an NGO out of Sydney. Originally, it was set up as an NGO by MIT from the United States and it was funded largely by the Commonwealth Bank and by Telstra. The federal government has recently promised them —

The CHAIR: I did not realise the program over east was the same program as here.

Dr Pagram: Yes, it is. Unfortunately, like a lot of things from over east, we are a long way for them to try and do things. That is why we became involved. We said that we have experience.

[1.30 pm]

We were involved in the initial rollouts. But some of the things in WA were more problematic for them but working between the systems here; whereas in the Northern Territory and Queensland they had a lot of support from their state governments as well. They had better connections. Some those worked a little bit better but the tyranny of distance made it quite difficult.

The CHAIR: Are you the coordinator for WA?

Dr Pagram: That would be a very good question.

Dr Newhouse: Not officially, no.

The CHAIR: Who is the official coordinator.

Dr Pagram: There is not one.

The CHAIR: If we want to know, for that program, where they have gone, how many have gone, whether they have been evaluated, do we have to contact someone over east?

Dr Pagram: You probably should, officially. I know the schools that have been done in this state, yes. No; they have not been officially evaluated. They have been unofficially evaluated by me.

The CHAIR: Can we get, first, a list of the schools from you it has been rolled out to and, second, can we get the name of whoever is responsible for that over east, so we can follow up on that. It sounds like WA might be the poor relation once again.

Dr Pagram: It is a poor relation because some local funding had to be found. The initial funding came from some Pilbara grant, I think, in WA, which was enough to roll out to select schools there. Yes, poor relation will probably change now there is commonwealth money, so that will help.

The CHAIR: Where it was Telstra and someone else, it is now commonwealth money as well.

Dr Pagram: Largely, yes; as well.

The CHAIR: We need to make sure we find out who it is to make sure it is rolled out in WA.

Dr Pagram: Absolutely, yes. I have all the contacts of the organisations.

The CHAIR: Thank you. Please keep going, Paul.

Dr Newhouse: I think earlier on you were asking whether schools had sufficient infrastructure and digital devices and all that sort of thing. Obviously, for it to work you need good networking; you need flexible digital devices; you need relevant software; you need online services and you need well-trained teachers, which we have already alluded to. On the whole, our schools, I think, are

getting those things. I do not think they are now the things that are holding back us realising the opportunities that are there.

The CHAIR: We got told this morning for a primary school of, I think they, said 200 students, the state government funding —

Ms L.L. BAKER: Two hundred to one.

Mr P. ABETZ: For an IT person to support it; there is no support in the schools.

The CHAIR: No; that was a different figure. For a primary school that had about 200 students, the money they got from the state government on an annual basis for the IT support was about $16 000. They were also asking for every 200 computers to have an IT person. I am asking about the funding that is going to our schools because we were told $16 500 for a primary school of about 200 students and the requirements put on that school were that they had to change the school sever every three or four years and the computers every three or four years. Now, for 200 students $16 000 over three or four years, to me, will not be enough money. Other than that money, where else are they getting money to bring in the new IT?

Dr Newhouse: I guess what I am saying is that on the technology side I do not think that is holding us back and it is cheaper. IT support is a different matter. I would agree that if you compare education with other businesses, the personnel to support the IT infrastructure is nowhere near what you would expect in most businesses. We found a lot of our —

The CHAIR: The personnel to support?

Dr Newhouse: The technicians, the IT managers; those sorts of people. We found in quite a lot of our research in schools a lot of IT support is done by teachers, who are enthusiastic, but which is not really a very good use of their expertise, or schools divert some of their budget from other things so they have to make those decisions and perhaps contract outside. Particularly in primary schools it is difficult. Because high schools are a little bit bigger and have a little more flexibility in their funding, they can sometimes have full-time people, whereas a primary school can almost never afford to do that, so they have to work out other arrangements.

The CHAIR: Have you looked at what kind of formula can be used in primary schools and high schools to ensure both teachers and students are getting adequate IT support?

Dr Newhouse: No; we do not have a formula, but we do know that, because we have looked in a lot of schools, what is there is not adequate. It means a lot of equipment is not fixed; it cannot work properly. It means that a lot of teacher time is wasted in trying to get software to work properly—all that type of stuff. For sure, IT support is one area that does hold us back, particularly as we get more and more devices in schools and different types of devices. From research we have done, probably more significant things like leadership capability in schools; the way the curriculum is organised—that is somewhat being addressed in the Australian curriculum—and, particularly in our state, the way we assess students. This is really highlighted when you get to the end of year 12. It seems to me a bit strange that you want students to use this digital technology all the way through their schooling —

The CHAIR: And then they have to write their paper.

Dr Newhouse: — and at the end they say, "Now we're going to assess what you know, and here's a bit of paper and pen; you've got three hours." We have been working with the organisation that used to be called the Curriculum Council for quite a few years now—probably about five years—on a couple of major projects looking at ways you can make assessment more authentic, particularly using digital technology to be able to do that, particularly in curriculum areas that have a major component that is practical. It is something that students have to be able to do and demonstrate they can do. I think our research has shown that the technology is there; it is capable of doing; it and it is not that expensive to do.

The CHAIR: Tell us—I am sure we are all aware and have all had complaints in relation to this issue—how you envisage it can be done. Would it be a case of the education department leasing computers for the end-of-year examinations or would it be a case of plugging in a device that allows them to use only X number of programs for a particular exam and stops them going onto the internet and sharing information? How do you envisage computers being used for those final year examinations?

Dr Newhouse: I think there are a lot of ways it can be done. Our research is focused on trying to see what can be done at a typical school. That is normally where students get assessed. We have used everything from video-type technology through to laptop computers, desktop computers, USB flash drives. Other places in the world are doing this sort of thing. A student in Norway has a laptop computer through their secondary schooling and they are expected to use it in their final assessment. It is similar in Denmark, Holland and some places in the US. It could be other places in the US where they do that online. And there have been trials of that also in New South Wales and Victoria and small trials in WA.

The CHAIR: Where have the trials gone on in WA with this?

Dr Newhouse: Through what used to be called the Curriculum Council. One of the courses we looked at was assessing oral language in Italian. One of the ways we did that was through getting students to record themselves speaking to stimulus that was given through an online system, so it was recorded and then the markers could assess that by listening to what had been recorded through the online system. There are lots of different ways it can be done. I would not imagine that it would be the same for every course. I think it should be different, depending on what sort of performance you expect students to do.

The CHAIR: How many years before you think we will have something ready for WA?

Dr Newhouse: I am really disappointed that we do not have something now. There is no reason there could not be something now.

The CHAIR: You said it is not the Curriculum Council now; who do we ask how far they have got and before they —

Dr Newhouse: It is now called the School Curriculum and Standards Authority; it is just the Curriculum Council with a different name. We have a current project where we are working with them on getting students to digitise their practical work in a design course and a visual arts course and represent that in digital form to be able to be marked online.

Dr Pagram: For certain subjects, the traditional exam sort of hijacks the curriculum—or for the assessor—a proportion of the curriculum. It might be a practical subject like engineering where you are given a written exam. With the digital technology you can get them to do a practical task that really reflects what is in the curriculum as opposed to a subset. Teachers tend to focus on exams. They say, "Well, we've got through the exam", and focus on that aspect that is most easily assessed by a written exam more than other parts. We focus a lot on subjects like phys-ed and art—things that traditionally do have a written exam, but perhaps are not best examined that way. Because we have taken the hard ones, we know the easy ones that could be assessed quite well by an examiner, but would be easy to do because we have taken things that are quite difficult to examine in any other way properly other than digitally. They are projects we are quite focussed on.

Dr Newhouse: One course that really highlights it is the applied information technology course. By its name, you would understand its aim is to get students to apply IT skills in practical ways. However, that is assessed only by a three-hour written exam. An outcome of that is that in year 12, students doing stage three in particular, tend not to use a computer for anything practical other than for looking up information to answer theoretical questions. That was one of the courses we looked at. We looked at having a practical exam, sitting at a computer doing particular tasks and that can be run off a USB drive that can limit access to other features of the computer or you can have some

sort of digital portfolio of a project they have done. That is an extreme case but there are plenty of other courses like that. Engineering studies was another course we looked at. That only has a theory exam, yet it is a very practical course. Yes; we see that as one major thing that is limiting teacher and student use and getting value out of digital technologies in their learning programs.

The CHAIR: Jeremy would you like to add. We are giving you both a chance to present before we ask you questions.

Dr Pagram: I tend to go off on a tangent. One of the advantages of the digital assessment is that sometimes it can actually make assessment fairer because you can have more examiners looking at a particular piece. One of the things we have been particularly careful with is if you are assessing something that is, by its very nature tangible, such as artwork or whatever, that the student is not disadvantaged by having a digital representation marked rather than the real thing. So far we have identified that they are not in any way disadvantaged by that and there was actually some greater consistency between markers when they were looking at the same thing. Another side to digital examinations is how you actually mark. Markers can be anywhere in the world. You can be an expert; you are not limited to a very small pool, and you always have that record for future reference.

[1.45 pm]

The CHAIR: Apart from marking, can I ask you in relation to the information technology—or do you want to carry on with the marking?

Dr Newhouse: No, that is fine.

The CHAIR: Can we move on, then, to what you are covering with your students in terms of the new iCloud servers and the new servers, whereby, say, the maths teacher or the physics teacher can link in to the equipment elsewhere to do their assessments and whatever it is they want to do. Maybe if we discuss the use of the iCloud and other servers for schools, because school servers are a big problem with our schools, particularly in remote areas where they break down waiting for someone to fix them. How do you see those American, Canadian or whatever—those servers in the sky—helping us in WA? Maybe you would like to answer that one first.

Dr Newhouse: Are you interested in our students at ECU?

The CHAIR: Yes. Are you encouraging your students, first off, to use those servers? How do you see those servers maybe being used in schools?

Dr Newhouse: Yes, I am involved in our first-year unit for our students. That does get them to use things like Google Docs and Google Groups and that sort of thing. Also, we have of course our own blackboard and management system that they have to use to get information and put information into. And also we have an agreement with Microsoft, where they have access to a thing called SkyDrive, which is a cloud technology. We get them to access that and see how they can put things there and share documents and all that.

The CHAIR: They share documents.

Dr Newhouse: Yes.

The CHAIR: Do they have their own server with that? What did you call it—iSky?

Dr Newhouse: It is called SkyDrive. It is Microsoft.

The CHAIR: So they can purchase so much space for sharing their own —

Dr Newhouse: They get it free from an agreement with the university and Microsoft. Microsoft give us our student emails, and that is part of the deal; they get a certain amount of gigabytes of SkyDrive for keeping their stuff on.

The CHAIR: And then they can purchase more if they want more than they have.

Dr Newhouse: Yes. There is a free part of it anyway for anybody in society. But yes, they can purchase more if they want to.

The CHAIR: There is a free part for anyone who uses Microsoft, is there?

Dr Pagram: Anyone with a Hotmail account has that system.

Mr P. ABETZ: If you have a Hotmail email account.

The CHAIR: I did not think Hotmail was Microsoft.

Dr Newhouse: It is; yes.

The CHAIR: I told you: go back to the basics.

Mr P. ABETZ: How do you see all this improving education? I am concerned about the fact that there is significant evidence that a lot of people, when they finish school, go to university, they can hardly spell, their grammar is poor—all that sort of thing. The basics have not been learnt going through school. We have all this you-beaut technology that is going to revolutionise education, but if kids still cannot spell, cannot express themselves properly, how do you see this sort of thing actually helping improve the quality of education in the sense of a greater percentage of our kids will actually be able to read and write properly?

Dr Newhouse: It is entirely up to how it is used within the teaching program by teachers. Of itself, it does not do anything. But what it does do is provide a lot more range of opportunities for teachers to choose from. Yes, there is plenty of research that shows that if it is used this way and this way, then yes, it does improve reading, it does improve spelling even. There was an interesting little bit of research done in the UK—just one study at the moment—that even showed that if you used text messaging on your mobile, that can be used to improve your spelling. It seems counterproductive, but it is actually correct. Because of the way that we use mobile texting, we tend to use phonetically sounding shortened words, so it actually increases your ability to be able to think phonetically.

The CHAIR: I only use mine occasionally.

Ms L.L. BAKER: I would not have thought that. How amazing!

Dr Newhouse: Yes, it surprised me.

Ms L.L. BAKER: Because you kind of think it is going to erode language.

The CHAIR: Because they put "thx" for "thanks".

Dr Newhouse: Yes, that sort of thing.

The CHAIR: How is that helping when they are using the wrong spelling?

Dr Newhouse: What this research showed—it was with some groups of upper primary students—was that when they went through a spelling learning program. They do not learn it just because they use texting, but when they went through a spelling program, students who did a lot of texting did better on their spelling program. Yes, it is how you use it that is important. I do not think either using it or not using it is going to mean necessarily that you get a better set of skills at the end. It is the skill of the teacher in being able to combine it with other things within their teaching and learning programs.

Dr Pagram: Perhaps also one of the problems we have with children who get identified as having problems of learning is they often become very disengaged, because they just cannot participate, they cannot do it. The technology allows them quite often to participate and remain engaged. While we cannot say that it makes them spell better, it allows them to actually still be productive in the classroom and to be part of things and to go on. During their life, if they still have a problem there, it helps them to be in society and be good members of society without having to always be hiding under a bushel—"I can't spell properly"—because every time they write something, they can use the technology to correct that and not have total blindness of that.

The flipside of the technology is that nobody can say it is going to make you a better speller, but who knows, if you are using and engaged in education rather than switched off and avoiding school and perhaps not even going to school, because all the time you go there you get told, "You can do it". Perhaps being there they will learn more—not to do with the technology, but the technology might allow them to do that.

The CHAIR: I am sorry to repeat the question; however, we were told that there is limited funding for IT in the schools, and that for a primary school of maybe 200 students, they might only get $16 500 per year and that they have to change their server every three or four years. I am very pleased you teach the first years. Can we go back to digital technology 101, and can you tell me how in a school they could use iCloud or another server? As a new teacher going out, what can I say to the schools? Rather than you having this monster server here that links into the education department, what could we use?

Dr Pagram: One of the reasons we have had the monster servers is because we have had pathetic internet access. If you do not have good internet, you need to have local resources. In remote areas, yes, supporting that server is always going to be problematic. In perhaps a future world with a much faster internet everywhere, which we may or may not get everywhere, there is no reason why those resources are not available as long as we have got consistent and good internet, that they are available somewhere else. We will call it "cloud", but they could be on a server here in Perth; it could be somewhere else. As long as they can be accessed, the server can be anywhere.

The CHAIR: So with the rollout of NBN, can we say to some schools in areas where it is being rolled out that they should start looking now at maybe not using that server and using an iCloud or other type of server that could save them a lot of money in the future?

Dr Pagram: They could; yes. There is no reason why not. One of the things that all of this highlights is that everything changes. As a committee, you recognise that technology is going uphill. Teachers are in the same boat. One thing that we talked about was technical support. One thing the teachers dearly need—the education department, to its credit, had a project for a long while called initially 100 Schools Project, which we actually evaluated. One key thing that was really useful in that project was they had a curriculum support person. That one person in the school had part of their role—they were given time to this—was to up-skill themselves, and they were given support to be the person on top of technology. It was not about keeping your email going and the server gone, but knowing what resources were out there, what would fit into different classes and be appropriate educationally. Otherwise, it tends to be down to the individual teacher. Some teachers love technology and will be very much into that and know everything that is available. Some will know little. Some will just know what they are exposed to at university. Without that continual knowledge of what changes, they just will not know what new things are about in the cloud or anywhere else for that matter.

The CHAIR: Can you now or by way of supplementary information provide us with some more information about that role? Whilst I know the schools and some of the school unions are pushing for so many hours for information technology resource person, I think that what you are saying, it is curriculum. Personally, I would have thought it would have been at the vice principal level that you would want someone working at that area.

Dr Pagram: Absolutely right.

The CHAIR: Can you give us more information in relation to that 100 Schools Project? Who were the teachers? At what level were the teachers, and what was the evaluation of the program? I think that is something that, now that we are looking at IT, possibly the committee would want to consider recommending be reintroduced.

Dr Pagram: We certainly have that information, and you are quite right; the person who does that needs to be a reasonably senior role. The need to have street cred in the school, because they are going to direct other teachers.

The CHAIR: So you will provide us with who it was, how it was evaluated—who it was in school, which schools they were, when it was evaluated, when it stopped and why it stopped.

Dr Newhouse: I have written a couple of papers that I can provide you with that are on that role of the curriculum ICT leader. Because there was an evaluation done for the education department that they paid for, anything that we publish has to be agreed to by them. And they have agreed to those papers, so they are in the public domain. Unfortunately we cannot give you our actual evaluation reports, because they do not allow us to.

The CHAIR: Because it went to the education department?

Dr Pagram: Yes.

The CHAIR: Are you able to tell us what it was called?

Dr Newhouse: Yes, it was the evaluation of the 100 Schools Project.

The CHAIR: Because we can follow up with the education department and ask them for a copy. They will properly say, "No, it is with somewhere," but we can certainly try.

Dr Newhouse: Other people have been able to get copies of the report by via freedom of information.

The CHAIR: You would not happen to know who has. That may save us two months.

Dr Newhouse: I do not think they are allowed to pass it on.

The CHAIR: If you get something under freedom of information, you are. I get things under freedom of information for community groups. They all come in and have a look at them. I think you can.

Dr Pagram: There are a lot of reports—about nine volumes.

The CHAIR: Just because I might be doing something a bit naughty in my office, I would hate to give you the wrong information. Brian will check on that and let you know, so that hopefully by way of supplementary information you are then able to, with your hand on your heart, knowing you are not something wrong, maybe give us —

Mr P. ABETZ: It is public, because journalists write about it. They get FOI and they write about it in the paper.

The CHAIR: That is right. In which case, if you have any names of people who have obtained that under FOI, we would appreciate your forwarding on their names, because it may be quicker for us to get that report through them than putting in a separate FOI ourselves, if the education department say no.

Dr Newhouse: Okay.

The CHAIR: And we would also, yes, like the two papers that you have written on that as well, because that sounds —

Dr Pagram: The papers are probably more useful because there were nine volumes of evaluation—it takes you a while!

Dr Newhouse: In those papers I have just highlighted the leadership aspect.

Mr P. ABETZ: An executive summary will do!

Dr Pagram: Yes, the papers probably contain a lot of —

The CHAIR: That is really good, because I do not know if we thought about that type of role before. But it does sound in today's age like it should be a requirement for all schools to have.

Dr Newhouse: Yes, and our schools are very different in that regard. You will find that position does exist in one name or another in quite a lot of schools, but in the majority it does not. Most independent schools would tend to have someone like that, and some of the government schools.

Dr Pagram: It may well be a shared role between small schools, because it compounded itself in small—it was, I think, 0.2 of a person or something. Of course, 0.2 of a person where there are only four staff is a bit of a problem. Whereas other schools would put more time to it and they would get 0.5 a person or something like that. It is compounded in remote areas.

The CHAIR: The other national project that I believe that you are facilitating is Teaching Teachers for the Future. Could you tell us a little bit about that one?

Dr Newhouse: This was a project where all the universities that have teacher education joined together and put up a proposal to the commonwealth government for one of their innovative digital technologies grants or something. It got about $6 million. It meant that over an 18-month period, each of those universities could employ the equivalent of 1.5 persons to support their staff but also develop a plan for how they were going to better incorporate digital technologies into their own teaching programs so that students coming out at the end would be able to better use it in their own teaching. At the same time, it worked with Education Services Australia to develop some resources that our students and also teachers could access to show them what this might look like. So there were 12 case studies basically that were video-based of teachers in different teaching situations using digital technologies in different ways. Then at the same time there was the project work with AITSL to develop some graduate teacher standards in the digital technology area. All of that has now been completed and reported on.

The CHAIR: And that report is where?

Dr Newhouse: It went to the commonwealth government. I do not think that it is so tightly controlled. I can find out.

The CHAIR: That would be lovely; and, if not, we would like to obviously have a look at that as well.

If you can remember our terms of reference, one of the things that we are looking at is literacy. For each of the years in schools, is there in WA something that the college puts out for the teachers that says, "Kindie, you might want to look at the following programs for the computer or the iPad"? We looked last week at a computing centre that showed us the story of the three bears. We could not believe how this was being done with the three bears moving about! It made it very interactive and fun for the children. Is there something for teachers—I guess maybe we should go back a step, for parents first and then for teachers, at kindie and preschool and going up that kind of says, "For this age, if you are using digital technology, these are the type of things that might help with literacy and numeracy"? Where are the recommended spots so that we could maybe put in our report something saying that this is the framework and these are addresses that people can go to, to find support for the following years?

Dr Newhouse: We have a member of staff in our centre who over the last year has been working on a project to look at using iPads in particular in a sample of schools from early childhood up to senior secondary to look at that sort of question. With this sort of new more flexible technology, how can it be best used in those different sorts of school environments? Out of that—it is only partway through—she has already developed quite a comprehensive website that has that type of information on it. That is getting a lot of connections throughout the world.

The CHAIR: So by way of supplementary information, you will send us the website address —

Dr Newhouse: Yes, I definitely can.

The CHAIR: — so that we can go on and have a look at that. Brian could then check if we were going to use that further; he could check with her once we have looked at that website.

Dr Newhouse: Her name is Dr Jenny Lane.

Dr Pagram: In learning objects, was any literacy in there? I am trying to think.

Dr Newhouse: There is heaps.

Dr Pagram: The commonwealth government produced a lot of "learning objects" as they are called; they are little bits of software that were to teach particular little micro things. There is a huge range of them; a lot of money was put into it. That is available to all teachers as well, plus systems—some commonwealth servers and —

The CHAIR: But that is using digital technology again?

Dr Pagram: Yes.

Dr Newhouse: Yes, so it now resides with Education Services Australia. It still comes under the banner of The Learning Federation but, yes, there are tens of thousands of resources that range from bits of software to videos to photos, documents and that type of thing.

Dr Pagram: There is just so much material; it is knowing what is out there that comes back to that sort of person again and whether it is advising parents or teachers.

Mr P. ABETZ: It is infinite out there.

Dr Pagram: Yes, that is right.

Dr Newhouse: Yes.

Ms L.L. BAKER: What do you think about the open-source stuff that is out there? Should schools be pursuing open source or has that got a finite line? Paul, what do you reckon?

Dr Newhouse: I think a lot of them already do and I think that will continue to be the case. We will have both open source and proprietary.

Ms L.L. BAKER: Any problems?

Dr Newhouse: With open-source?

Ms L.L. BAKER: With schools that use open source particularly.

Dr Newhouse: I guess if you took one example—that is, a learning management system—a lot of schools will use an open source learning management system called Moodle. That seems to be working very successfully and has been around for 15 or more years, I think. Other schools will buy proprietary systems. Of course, the education department has their own. So I imagine that will not really change.

Ms L.L. BAKER: That 40 per cent is what you expect the market to continue with in schools. If you are thinking about schools as a market group, do you think about 40 per cent of them would? That is what you said, did you not?

Dr Newhouse: No, I would not put a figure on it because I think it varies with different types of systems. Some schools do not allow access to particular types of systems for various reasons.

The CHAIR: And the open source, it is all Linux, is it not? When did children at school start learning Linux?

Dr Newhouse: No, definitely not. For example, you can download a Windows version, a Linux version and a Macintosh version of Moodle.

The CHAIR: Oh, right! So people are doing open source in all the different programming languages?

Dr Pagram: It just means software that is produced and nobody is making money out of it. UNESCO recommends that schools in the Third World use open source, so throughout Africa and parts of Asia—anywhere that UNESCO is in education—they recommend open source. One of the reasons is there is such a large support community because people are writing software often for the love of writing it, and people are using it and helping improve it for the love of it. So it is not commercial. One of the problems with education, of course, is that often there is money to be made—big money—whereas open source will fill in those niches. The One Laptop Per Child machines we spoke about are all open source. All the software on it and the operating system are all open source, and they are packed with little educational games and things. It is supported by the planet really; it is not locally supported. The one problem with open source is you cannot phone in to Microsoft and say it is not working, but you can send off to a blog or something around the world and have people all around the world helping you to solve the problem. So there is no disadvantage with it necessarily, particularly if you see education as education and not training. Some people say, "Hang on, they won't know how to use Windows or whatever they use." So what? But if that is important, then, yes, that is true.

The CHAIR: In that case, if open source is all of those things, most of the schools I know are using Windows and they get their—I do not know if they get it at a reduced rate but one of the things then that happens is because the school is using it, the families tend to purchase it. You said that there are all these programs, but what do you feel in education? Is it going to be Windows in the future, is it going to be Macs, is it going to be Linux, or are you recommending that they all try a bit of both because you never know which one is going to have the next —

Dr Newhouse: Yes, it is probably a bit hard to predict, but the likelihood is that there will still be a range and schools will make decisions on a different basis. A lot of secondary schools at the moment have Apple Macintosh MacBooks because of the good deal they managed to get and they needed to buy one per student, so that turned out actually to be a better deal for them, whereas other schools do not. What suits a primary school might be different.

[Holds up tablet computer.]

This might be much better for an early childhood student than a Windows desktop. I do not think that is really a major issue because it will change all the time, so we stress with our students that they need to be able to learn to develop skills that are transferable to different types of systems. Whether they are using this or they are using a laptop or they are using a desktop computer or their mobile phone, they need to be able to move from one to the other and understand what they are doing and how they are doing it.

Mr P. ABETZ: The technologies continue to evolve so rapidly. Keeping teachers up to date—perhaps not up to date; they do not have to be at the very cutting edge—but in terms of being able to use the technologies that are available, there will have to be a lot of professional development happening. Is there much happening in that field for teachers? I know that in my area when they got the interactive whiteboards they ended up getting somebody in to do a PD day for all the teachers so they would hopefully figure out how to use them. That kind of thing needs to be happening all the time. Is there a proper structure within education to deal with that type of work?

Dr Newhouse: Yes, I think so, on the whole. It is a combination of resources provided by systems. Catholic education has a team that does that sort of thing and AISWA does and the education department does. Some, like the interactive whiteboards, is probably supplied by the company they bought the interactive whiteboards off. I think that sort of teacher support is available. What needs to go with it is what we were talking about before—the curriculum leadership position that provides ongoing support, because teachers often need in the classroom shoulder-to-shoulder type of support at various times, although not all the time, just to begin with perhaps so that they can use it themselves. Yes, there are those sorts of formal professional development things in place, but I think it needs to go with some in-school leadership support.

Dr Pagram: A lot of the background support we used to traditionally think about for operating systems—if people are using devices they are comfortable with, and they are used for their personal use and those sorts of things, a lot of those support things disappear, to a degree. What it is, is getting access, as you say, to resources. It does not matter whether you are using an iPad or a Samsung tablet or a PC; you are looking at the same thing within your device, because it is on the web or whatever.

The training that people need, I think, is about the best way to use these tools for teaching and learning, rather than how to get the edit menus or whatever. That stuff changes too fast. If people are using their own devices or devices they are comfortable with—it does not just stay at the office; it is something they take home and use personally—they will learn all the nitty-gritty because they want to. They can support themselves in that respect. They do not know what is out there, how that fits into my classroom or what I am doing.

The CHAIR: I thank you both very much for your evidence before the committee today. A transcript of this hearing will be forwarded to you for correction of minor errors. Any such corrections must be made and the transcript returned within 10 days from the date of the letter attached to it. If the transcript is not returned within this period, it will be deemed to be correct. New material cannot be added via these corrections and the sense of your evidence cannot be altered. Should you wish to provide additional information or elaborate on particular points, please include a supplementary submission for the committee's consideration when you return your corrected transcript of evidence.

Hearing concluded at 2.16 pm