

Q Julia Bishop (researcher)
A Rebecca R (F2 teacher at Meadow Banks Primary School)

Q But thanks again ever so much for agreeing to do this. So, I've got some set questions but just before we start I just want to make sure that, we tend to use the word technology in this study as a bit of a shorthand for, we don't just mean devices, we mean just about everything. And also not just toys but we are really interested in anything that's informed by technology, so media content and apps and websites and all the rest of it.

So anything really is fair game for what we're interested in, so it doesn't have to be the actual iPad or whatever. And obviously these questions they are just a set of questions we've been asked to ask everyone. So, please don't think that if you say no, we don't do that or no, we haven't got those, this isn't in any way a comment on your resources and what you do here. It's just we're putting those questions to everybody.

That's lovely. So, the first one fairly obviously is we just wondered if you could tell us a bit about how technologies and media might feature in your own planned curriculum with the reception class that you have?

A Well, usually what we find is that we put it through our day to day running of the class. We always use a visual timetable that I usually put on the board and often if the visual timetable changes then we might change the icons and change the pictures. And I do usually do that in front of the children to say, "oh, there is going to be a change today", so then instead of having it prepared sometimes I deliberately change it in front of them so they can see which new picture is coming in.

For instance, we had the Christmas play, so we had a new picture for the Christmas play and we used the Communication In Print pictures which run throughout school which help our SEND children. But also I think all the children benefit from having those really clear images. And we put photos on there as well and letters that were really focusing on learning and we also use our skills for learning pictures on the interactive white board to refer to Eyes Watching, Ears Listening, Voice Quiet and Body Calm.

So, really we use that main page which I'd have on in the background during the lesson if I didn't need anything particular up, just as a reference. But then we use the GoNoodle app which you saw, which we use several times a day, which I think it really helps also understanding of instructions as well. Which then we sometimes later on in the year link to when we'd be using Bee-Bots and other technology too.

Because we find that following the instructions, following the movements on the board in a particular order, that's the beginning in our curriculum of starting to use technology. And the children really enjoy it, they see the number of dancers go up and how many more do we need to get to ten, so we bring the maths in through that as well to get to the next level. And also we haven't set it up yet but usually a bit later on in the year we can send the link to parents so then they can have their own little Monster Champ which they use at home. And that's a good way to link technology but also to movement, as well.

So, it's an app that they don't need to be sitting there looking at, at home, they can be moving and active at the same time. So that's really a big thing that we do, but then also we have things in the roleplay area, we've had spare keyboards in there, fake mobile phones. When we set up particular role play, we had construction last week so then we had the office as well as the building area with the tools. So then we also had the office and put some paper there as well, sometimes we have headphones in there.

So, they can use that in their roleplay as well. Yes, and then we use, all the time I've got my iPad with me and we're taking photos of the children. This is part of our reporting system to parents mostly, because we take photographs, write up observations of the children and send that via an app. And then if adults at home send a response or a phot from home, then again we show that on the big board, this is your file, this has got your pictures in it and here you are at home with the class elf, for instance this week [overtalking].

So, they're seeing that at home because the children are showing the parents the pictures we've taken at home, they'll talk about that. But also they see us taking the photos and they know the reason why we're taking the photos is to send it home to parents, so they'll pose. And then sometimes as well we'll get the children involved in taking the photos, so they've made a wonderful construction. First I'll get a picture with them in, then do you want to take a photo of your construction or your play?

Q So, would that be like a LEGO model or something...?

A A LEGO model or something in the sand, something that they can't take home.

Q Okay. So, you wouldn't do that necessarily with a drawing but something that is temporary or...?

A No. Or I sometimes do for a drawing if I want to record it for me assessment purposes or some writing. Because then they want to take it home and then it gets stuck on the fridge, whereas I need to keep it as evidence for me. But I think I do involve the children sometimes in taking their own photos when it's something that they feel they can't take home and they want to get involved in taking the right shot and so they do use my iPad as well. And we do use the timer on the iPad and we use a timer quite a lot on the interactive whiteboard, which is helping children understand when it's time to get ready to tidy up.

Because we have tidy up music that we play, which helps and we have sitting on the carpet music that we play but it helps some children get ready for that because sometimes that emotion regulation of having to stop play and do something else, so that understanding of time we use with timers. And we do have sand timers as well but also I do show the timer on the iPad or on the board to show the numbers counting down and we'll listen out for the ding.

And then as I said, later on in the year we always plan in a project around transition where the children who are getting ready to move into Year One and then this is when we get our tablets out and we use PicCollage, which the app where they can just put photos together. So, we take photos of around school and the new classrooms and then we help them just move the pictures into a collage.

So, you can get a couple of pictures on a page, you choose a coloured background and then we show them to the rest of the class. Oh look, this little group have been out on an adventure around school and taken some photos for us, so that's usually a little project we put into the summer term.

Q And that's a small group working together?

A Yes, well they work together and they might have one between two. We judge the children and their capabilities and depending on how they are. And then we've just had our new cars which are our Bee-Bots which are instructional toys which we've just started bringing in. We've needed to perhaps introduce that to the children very gradually and also we've got some children at the moment who find it very difficult to look after that kind of resource. So this year we've not been able to leave things out in provision as much, just because we know that they are precious and expensive and we do want them to use them properly. But we're trying to introduce that a bit at a time.

Q So, I'm not exactly familiar with what you're talking about so if you could tell me a little bit more about those?

A The Bee-Bots? Yes, the Bee-Bots, they look like big plastic bees and they have the arrows forward and backward and left and right and a go button in the middle. And this early coding because the children then tap in the direction buttons and then the Bee-Bot is programmed to go forward one, forward two, right turn, forward one and then they press go and then it will follow the pattern that they've created.

At first we just let them explore to see what happens, but then we also have a mat with some cartoon characters that they recognise and we put the Bee-Bot on a start square in a grid and then it's "can you get to Elsa?" So then they've got to think about in the grid how many forward presses do I need to do? And then do I need to turn right or do I need to turn left? And then they've got to really think about how they're programming it.

And then obviously it's a bit trial and error to begin with, right, you've got this far, okay do we need to put some more in the program to change it. So, it starts very much exploring using the buttons, what do they do? What happens if I do this? And then it's more, right, I understand the program now that the Bee-Bots making so now how can I make the Bee-Bot go in a particular direction?

Yes, and then it's also right, okay, it hasn't quite got there, what can I do next to change it. Yes, where did it go wrong, what do I need to change? Yes, sometimes we have cards as well with the arrows on so then they can record what instructions that they've given.

Q Oh, that's great. That's fascinating. Are there other things that are a little bit like the Bee-Bot that you use?

A Yes, it's very much like it but it looks like a remote control car which is a very similar idea, but it just looks like a car so it's more familiar to the toys that the children have at home, so it draws a different crowd of children in.

Q That's great, so I was just thinking about the provision as well, I noticed you're quite responsive to popular culture, I think the day I came in you had some *Frozen*

2 characters and things. So you try and keep them relevant or refreshed?

- A Yes, oh absolutely The good thing is because we're very focused on adults being in play and learning through play, we don't take groups out during choosing time to do maths and English. We have all our adults or most of our adults in play with the children, so we do get to know and talk to the children about what their interests are, including what tv programmes they like, what games they like to play on their iPads or Xboxes and that way we get a collection of characters which will spark their interest and then we use those characters to hook them in to other activities such as reading cards and writing messages for Elsa, and writing messages for the Evil Pea.

And speech bubbles and also another activity that we do at the beginning of the year is we have sheets of paper but with a blank iPad, it looks like an iPad screen so it has the familiar background and the little picture of the button. But it's blank and then we have little cut and stick pictures of apps that they like, CBeebies app and they stick the apps on. First of all it's mostly a cutting skills, we're wanting them to practice their cutting skills but at the same time this is what interests them.

And we have other ones which have mobile phones and then later on in the year we get them to write, they write a little text message in the phone and they'll have a character's picture at the bottom so they'll go, hello. Hold the phone up to their ear and talk and see what message, what have you written to mummy? What did you want to text mummy about? Yes, so we find that's a real hook into learning for them.

- Q Yes, and where do these ideas come from? Is this reflecting management, obviously presumably leadership wanting you to do this sort of thing? And how much is it yourself bringing in these ideas?

- A Our leadership team have always been really supportive of us being in play and being responsive to what the children's interests are, because the rest of the school really use a project-based learning system and although the children are involved in creating the project, that project might last for a whole half-term. What we found is when we tried that in reception was that the children really couldn't maintain an interest in one topic on its own for all that length of time.

And often something would come up, a child would bring something in or have an experience and the other children would want to know all about it and then you feel that we couldn't be responsive to that if we had a particular topic to work to. Oh no, we have to out that way because now we're learning about bears and you've brought in some PJ Mask thing that you've watched on TV. But no, we're learning about bears. So, I think it's more the sort of philosophy has come from leadership team but at the same time what we actually use is more our own ideas and what they're interested in.

- Q Yes, so obviously what you're finding effective, [overtalking].

- A Yes, we usually will just think, right, what's a skill we want to do. We want children to be involved in cutting skills but they're not going to come to the table and cut if they're not feeling confident to cut, unless it's something they really want to do.

- Q Just going right back to the timetable, is that a particular app that you're using there

or how does that...?

A I use the Active Inspire software which is what we use to make all our soft look [?] charts on the interactive whiteboard. But then what we've done is we've cut and pasted the Communication In Print pictures onto there and written it ourselves. And the skills for learning pictures, that's what we made ourselves with our photos of staff and children. So, yes, that's something we've concocted.

Q And when you say we, is this the reception team?

A Yes, the reception team and nursery as well, we borrow things from each other. Because we have quite a lot of children that come to our reception from our nursery so at the beginning of the year in particular we try and keep things, there's a continuity there and they used these particular pictures for our skills for learning. I was watching these Listening, Voice Quiet and Body Calm, so we just cut and pasted our staff pictures onto there and then the...

Q So, it's a familiar... New faces but [overtalking].

A Yes, new faces but familiar sort of look to it. And as I say, all classes use a visual timetable running through school.

Q I hadn't realised that. Yes, fascinating, thank you. So, how does this relate to the national curriculum, learning about technologies? Is it something that you, it just diffuses everything so it's relating to the curriculum. Is there more to add there that you feel...?

A Well, we feel in general for the early years ages, when you look at the early learning goal, we feel it's now perhaps a little bit dated, but obviously the new framework is coming in. But it was a little bit dated because we feel that actually children in these times could achieve that goal either coming into reception, it wasn't really providing enough challenge.

Because really all it was asking children to be able to do is work some kind of software from a device. Which now you find even the children who perhaps don't have so much exposure at home very quickly when we've played a maths game on the board, they pick that up and use that and now that we can use the pen sometimes on the board it makes it a little bit easier. I do show them the mouse and show them the keys just so they can see the way of using that, but we find that it was a little bit easy, but we are looking now more... Our new tracker suggests assessment around children understanding how they can use technology to learn more or find out about the world.

So, now we're thinking of ways to model how to use a search engine to find out an answer and it's a bit difficult because obviously we can't really do that in front of the children completely because you can't always predict what's going to come up in a search engine. But that's what we're looking at now and we do rely more on children coming and showing and telling things they're doing at home and talking to parents to get that information.

Q So, will you almost give them the challenge of maybe finding out something using technology at home with parents?

- A Yes, we often ask them, we suggest particular games and apps for them to use sometimes or to learn. So, for instance we always send out a link to counting in twos songs and counting in ten songs and then...
- Q On YouTube?
- A Yes, on YouTube, so they can find those and practice. So, it's that idea that you're learning but through a song on [overtalking].
- Q Yes, found it online. Yes, that's fascinating. So, do you use YouTube in the classroom at all?
- A Yes, yes. Yes, we use YouTube. Every time we come in from the afternoon we always have a song that we play on YouTube, it's different songs each day but sometimes we choose very calming, relaxing music to cool us after we've been out for a long time. Need to have that calming environment, so we usually talk about the calming music we're putting on or we'll have a song that we can join in with. And we always use YouTube for that.
- Q And there's visuals with that presumably as well?
- A Visuals, yes. Yes, sometimes though it will just be a still picture if it's a relaxing picture. But often there's visuals or even just like Disney songs they like as well, so we put on a Disney song that they're into and they'll sing along and sit down and it just helps create that mood. So yes, we often use YouTube and we've even done this year throughout school and advent calendar, a video advent calendar where each class sends a video of their class performing a song or telling some jokes.
- Q That's lovely, what a super idea.
- A Well yes, I'm personally waiting until after we've finished our Christmas production to learn a new song, but yes.
- Q So, how does that work exactly? Will be on the website or...?
- A Yes, well I think we usually get email. I get an email link from the class that's sent it and then I go into my emails. We often use emails as well because I do show, obviously not letting them rifle through my email but I do show if somebody has sent a photo in, I will go to my email and find that photo. And also I've often screenshotted an email and then blanked it out and pretended that a character has sent us an email, that we've been learning about and they're setting us a challenge.
- So, we've got to do some number learning or we've got to do some writing and a character has sent us an email to give us that challenge. So, it'll be like "oh, hang on a minute, I've got a message" and pull it up. But it's a screenshot, so it looks like my email, it looks like my inbox but I've doctored it with print that is big enough for them to read. So, sometimes that, again, they want to read the message then because it's a real communication and they need to know what it says because we need to understand the challenge.
- Q Oh, that's really lovely. So, yes we talked about different websites, apps, games and films. Could you give us some examples, you said maths games for example, what sort of things? Do you direct them to them or...?

A Yes, we go to a website that we use quite often, ICT Games and that has some maths games, ordering numbers, selecting numbers, recognising numbers. We use that as well for some phonics learning, making CVC three letter words. There are a few games on there that we use. We also have used, I'm trying to think now, there is a website education.com but it's one of those where you do have to pay, but then you get so many free go's a month so I sometimes eke out my free go's a month.

Q So the school doesn't subscribe, you do it by other means.

A It's one of these things where I sign up personally but then I get locked out after a little while. But we use YouTube a lot for number songs as well, so we use that and, I can't think of any more off the top of my head. We used to have a subscription to Education City but we no longer can afford that, so that used to have lots of games for maths on but we're trying to find little alternatives. And to be honest sometimes we just use the ones that we've used in the previous year, so I can't always remember off the top of my head which website it is but we've got a link.

Q You started to build a set of resources.

A Yes, so it's not always one website that we use, but Top Marks, ICT Games, they're popular ones that we go to.

Q Thank you. Yes, that's really interesting. And so, this seems to segue into the question but supposing you had all the money in the world and all the support that you needed, is there anything you would like to...?

A Well, I think obviously having more tablets available and any adults to support that would be really useful so that we could have groups of children playing a game we've introduced or an activity we've introduced and then having that follow-up activity which would help our other learning. But also I think just having an array of different ways of taking photos and videos that the children could use.

Q Different devices or different apps within...

A Yes, different devices, different apps to collate that together. But I think it's more to do with the adults support. If we had more adult support then we'd be able to facilitate that, then we'd be able to do that more. And I think just again different things to out in the roleplay area that they could actually use. We've had in the past, it's things like old laptops but then it's making them safe and the keys fall out.

Q Yes, because most of us have got, I've got about three laptops at home I was thinking I could donate.

A Yes. And then they have to be checked for health and safety.

Q Oh, is that a bit of a barrier?

A Sometimes and I think again, it's just having that supervision around because even old appliances we can't use because of the wires. But again, just things like real life, even things that you'd normally plug into the walls like kettles.

Q Yes, you think it's likely to be safer having the actual thing. Yes.

A We try and do that because I think children are very used to a lot of plastic toys and

we sometimes, it's a bit off-topic but this is why we brought in a lot of natural materials because again this is something that they're not used to. And it's the similar thing, is if we can get a real life toy, well a real life representation of what they want to do then it's a more worthwhile roleplaying experience than just the plastic little kettle that they're used to which is part of a tea set. Which they do play with and it is useful but when we've always brought out the old keyboards and old mobile phones, they're always really popular.

Q That's interesting, yes. One of the questions here actually is more about do you feel there are any barriers at the moment with regard to your use of technologies in your classroom?

A I think it's budget, in terms of being able to have enough resources for a class to have and to be able to update. And we have the trouble that even if we've got tablets they need updating and not everything functions properly. And it's mostly the adult support really because our adult support is spread and is more looking at the safety of children and we can't really afford for things to be broken, although we want children to use them but then it's they need that support to just guide them for what to do a little bit so they'll play with them and [overtalking].

What we're finding more and more is children, perhaps some children coming into our school not knowing how to play with toys and...

Q Yes, treating them with respect sort of thing to keep them nice for another child.

A Well this is it, it's a shame when something breaks and you can't replace it.

Q I see. So, one of the aims of the project is to understand a little bit more about the role of adults in facilitating children with technology and media. And you've talked a lot about that and I wondered how you saw your role and what the aims are and what's the thought behind that? How do you see your role? How do you work with? Is it as a co-player? What's the, or is it a match [?] for them?

A It's usually the same sort of philosophy we have with all the children in play, which is that we are modelling language, modelling how to use things, modelling the function of things. And that's just in play and technology and language, but it's also being that like you said, co-playing with them. So yes, we are playing together and what we like to have is what we call quality interactions, so it's not just me telling you what to do. It is, oh, I wonder what would happen if we did this, what do you think?

And it's having that two-way conversation and oh, what do you think we could do next? So, sometimes it's more channelling children's thinking, encouraging them to solve problems. But sometimes it takes that posing the problem, posing questions and oh, I'm going to try this, are you going to join me? So sometimes I might not say anything at all but trying something out and then, oh, are you interested? Right, do you want to come and join me?

And then it's just, again, focusing a task. Often children get distracted by something. Oh right, focus your attention, what are we going to do next? First we can do this, then we can do that. But I think mostly it's that quality interactions, it's that two-way conversation and to pose questions and to help children think in a new way.

- Q Yes. And do you find that's effective?
- A Oh yes. And I think because then they feel they're more learning themselves. It's not just me telling you what to do, first do this, then do that. It's more, oh, I wonder if...?
- Q Yes. You've talked about problem-solving but do you think there's other things coming in there as well like creativity and other modes of thought and skills?
- A Yes, because I think sometimes we find children go to repetitive play out of comfort, this is where they feel comfortable, this is what they feel confident in. And it's about perhaps stretching those boundaries a little bit with creativity and like you said, problem-solving.
- Q And do you tend to do it on a one to one basis or are you doing this with a small group of children [overtalking]?
- A Well, often because we're in play it can start with one child but then we're always looking for ways to bring a group in because then everybody's getting that shared experience.
- Q Yes. And do they collaborate with each other or even share with each other?
- A Yes. And it just sort of moves through [overtalking] play. And I think this is sometimes where it's a little difficult with the technology because we're having to share and having to timetable. And it can become a bit more structured when we look at the way we work with children in their general play we can be a bit more fluid. Because pens and crayons and things we've got lots of so everybody can join in, whereas it feels a bit more like we have to take turns if we've got one, if we've got the iPad or we've got the Bee-Bots, then it has to be right, we've got a sand timer and you have to wait your turn and then it's your turn. So, then you can't always get that free flow play.
- Q No, there sounds like there's a spontaneity that's lost because of that. So, what's the ratio of the iPads or how many have you got to...?
- A No, we've got about 12 tablets but then we usually charge, sometimes we have some charging and then charge the other ones up. They take quite a long time. We haven't been able to update the apps on there at the moment, we have to send those away to be updated because it's all through an administrator so we can't upload personally apps onto there. It has to be run through the administrator and then they get updated.
- Q And then they all school [?]?
- A Well, usually they come in on Monday and then we have a list of problems or a list of things, jobs that need doing and then he gets on with the jobs.
- Q So is that someone shared with the rest of the federation, is that it?
- A Yes, so that's how it works.
- Q Oh, that's really interesting. I have questions about the actual focus children and questions about negative effects and questions about wellbeing and I want to make sure I cover those. So, I'm just going to jump to the two children in your class who

[overtalking]. That's right.

A Essa and Chloe.

Q And thinking about both of them in relation to each question is probably the quickest way to go through this and the most efficient. So, I just wondered if you could comment on the way that they use digital technology in the classroom and if you notice anything in particular in terms of the way they play with it?

A Yes, I feel they're both capable and enthusiastic and want to have a turn. Also, I can tell that they have a good understanding because if I'm using the board they'll perhaps give me some instructions. Or they'll say, its loading or oh no, it has the cross on. So, I can tell that they have a good understanding of what to do and even if it's something that's unfamiliar to them they'll have a go at trying to use it.

And again, I think because we've used lots of games on the board they're familiar with the idea of do I tap it, do I drag it? So they'll try, sometimes they'll have a tap and if that doesn't work they might try and move it. But then we've had drawing programs on before and...

Q Do you find they respond to them? Both of them? Yes? Chloe I think particularly...

A Yes, Chloe particularly likes [overtalking].

Q Lovely. And what do you feel about the use of technology for creativity? I suppose this is the drawing question, isn't it, really? Would you say that they might use the resources that you have in a creative way?

A Yes. And I find some children who perhaps struggle with fine motor skills, putting pressure on the page find using the whiteboard, larger scale, to do with their muscle development, a little bit easier. Also you can just wipe it clean, go onto a new page. Often I find that the children like a lot of exploration with the drawing, so they might not draw anything specific but they like changing the colours and changing the pen and using different colours. I find they get very excited about using it.

Q Would they collaborate in that process, so obviously one person at a time can be doing this but are the others... [Overtalking]?

A Yes, they usually have a crowds and they're usually giving instructions or making comments or waiting their turn.

Q Yes, so they're drawing on each other's skills and knowledge. Yes, that's really interesting.

A I find though, particularly with Essa, we find that I don't often see his interest, I know from speaking to his mum, I don't often see his interest in technology because at school he's very much into being outside. And the construction play with his friends, so he's not always drawn to technology in the same way. Chloe is a little but more, she will choose her own activity regardless sometimes of what her friends are doing. She's a bit more independent in choosing her activities, so will come and ask to go on the board.

Or she also really loves roleplay, so again when we've had things in the roleplay area she's been drawn to those. But I know that Essa has a lot of capabilities with

using technology but I don't always see it because it's just not always following his interests when he's in school.

Q Yes. Does he ever bring he's football interest or his interests in horses to the classroom?

A I find Essa is a bit more, he likes to fall in with the children he's playing with and so he doesn't always voice his personal opinions. So, he does really like football and we have a lot of football play outside, but he hasn't really mentioned horses much. But he does really like construction at school so this is something that really comes out.

Q Yes, he was playing with the Frozen [overtalking] the other day and [overtalking].

A Yes. And he likes that small world, construction play which I think we hear a lot about.

Q And I noticed while observing him he's actually very helpful to his classmates in terms of helping them with something technological, I thought. You do this or you do that.

A Yes, he'll give very clear, detailed instructions from that point of view. And he does have a really good thought process so he can put a sequence of instructions in order, which I think relates again to that application you can use in technology.

Q Oh, that's brilliant, Rebecca. Thank you. Is there anything that you feel that we haven't covered that you would like to mention? We've not really talked about negative effects, we've not talked about wellbeing, [overtalking] concerns?

A Yes, I think this is a major thing. Not with these two children but in general throughout the past few cohorts in general that we've had, we're finding that playing on rated 18 games or seeing older siblings playing on those games is having a real effect. Children who are quite nervous and have been affected by what they've seen. Then also children roleplaying outside, we had a lot of Fortnite play which came in a lot of violent gunplay that came in.

Q Even in reception?

A Yes. And they're saying that there are a lot of children who are up at night playing on iPads and Xboxes, not getting enough sleep. We're finding there are more children having not very good bedtime routines because they're falling asleep with the iPad. And this is not all families at all, but this is a rising trend. And on the plus side we're having children who, like I said, are coming with the skills to meet their early learning goal when they arrive. And they're quite aware on sharing photos and things.

But I think it's those games, gaming and late at night and spending a lot of time on their own with the iPad to entertain them. We find there's some children that won't sit for a story but will sit and watch the board, so they're needing that amount of stimulation to keep calm.

Q Yes. And you'll try and counter that with calming...

A Yes. But then a lot of them do a lot of dancing, do music videos and singing. So,

all that creativity comes through but I would say I think it's worth highlighting that we're finding this is quite a growing trend.

Q It's what you're picking up on actually at the moment. It's very interesting. It's because things change so quickly, so that's very interesting. Rebecca, thank you so much. I must let you go but that's been marvellous.