



Transcript for Staffroom Catch-Up

Episode 4: “It’s the most impactful CPD we’ve ever had in school”

Fran: Hello, and welcome to this first practitioner podcast series from Cambridge Mathematics. I'm Fran Watson and I'm a member of the writing team and school liaison lead at Cambridge Mathematics. Part of my role is talking to teachers about products we design and very excitingly, creating new opportunities like this to have conversations with educational practitioners.

This series is called Staffroom Catch-Up and some of the things we expect to touch on are people's interpretations of the word ‘research’, how they feel about it and how it affects the work that they do in classrooms.

As all these people have been recorded in their settings, I'm going to issue a challenge to listeners to tally the number of interruptions in each episode, and then we'll see if our tallies align at the end.

Today I'm here with John Mortimer. John, could we start with you telling us about your current role?

John: Good morning. Um, yes, er, my current role, I'm a head of school at a two-form entry infant school in Devon, er, and I've been in this role for about two and a half years.

Fran: Lovely. Thank you very much. Okay, so to begin with, um, I'd like to share with you a line from a Sondheim musical, er, which goes, um [sings], ‘Something familiar, something peculiar, something for everyone. A comedy tonight!’ Er, and ask you to share something either peculiar or familiar that you found funny that you've experienced connected with your work.

John: Um, I think, through teaching, the-the thing I've noticed, er, is children's perception of time has always been interesting. Um, so when teaching um, RE, about the story of being, of Jesus being nailed to the cross, I was once asked if I was there at the time to see it [Fran laughs]. Um, and also when teaching about dinosaurs, erm, I've been asked again if I was there to see a dinosaur, if I've seen a particular dinosaur [Fran laughs] in real life. So yeah, children's perception of time is always interesting to me.

Fran: I like it, and I'm sure that will chime with many of our listeners. Thank you very much indeed. Um, so could I begin by asking, um, what the word research means to you?

John: Er, I think the word research, to me it's about um ... for working in the school, for me, it's about taking kind of wider research ideas that you might read about or hear about or-or see, and bringing that into school a-and trying it out. So it, for me, it's about trying out new things, trying out ideas, trying out resources, um, often based on evidence that, that's around at the time.

Fran: Okay. And when you say trying out new things, um, you mentioned there getting ideas from different places, are there particular places that you go to, or does it vary?

John: Er, I think it varies. I think sometimes it's, it's reading that I've done, um, so, not always kind of maths related, but just kind of general teaching related. So kind of, Principles of Instruction by Rosenshine [Fran: Mmm.] er, for kind of general teaching stuff. Um, I think er, the, the. I'm based in Devon, and the Devon maths team um, have been heavily involved in a lot of er, research projects looking at er, teaching in Shanghai and teaching in Japan.

So we've had influences from there coming over and, and um, having an impact on me. Um, so yeah, I think, I think a wide span.

Fran: Okay. And you're saying about um, er, it may be exchange er, projects with other countries. Um, does that involve a chance to talk to other teachers either from those jurisdictions or in your own setting but about those jurisdictions, maybe.

John: Er yeah, occasionally it has. So been lucky enough that um, there was um, a couple of teachers from Shanghai came over a few years ago, prior to Covid, er, and did sort of some demonstration lessons in local schools. And I got to go and watch one of those and talk to those teachers about, you know, how they plan, how they work to structure their lesson.

Um, and also, I was involved in a, a research project um, where a professor from Japan came over for the last part of the project and, and joined us for kind of the live lesson. And, and some a training which was amazing and kind of blew my mind a bit [chuckles] um, as to, as to what was possible and what, what you could do. And, and just their approach to maths was really interesting.

Fran: Fantastic stuff. Well, and when I've been lucky enough to watch um, other people teaching in whatever setting, one of the benefits has been chatting about it afterwards, both with them and with colleagues for the extra, um, er, I'm trying to think of the word the extra value that you get from that

kind of exchange and the being able to dig down into things they noticed, things you noticed, things that reflecting on afterwards you hadn't thought about before. So were there opportunities in those, um, exchanges for doing that sort of thing?

John: Er, it was the-the, the two teachers from Shanghai that was one single event. So watching the lesson and then kind of having a, a conversation with them afterwards, you know, a group conversation – there was quite a few teachers watching at the time. So that was more of a single event.

Um, the professor from Japan, we, we sort of had um, a day or, or half a day of, of kind of training with him beforehand in terms of ... Well, I say training, he was kind of teaching us about, about lesson research, collaborative lesson research, their model, how they do it, er, their approach to maths in Japan. Er, so we kind of had a, a good, I would say, yeah, a full day. And then the following day we watched the live lesson and, and did the kind of debrief afterwards with him and he acted as the, I think it's called the *koshi*, for that lesson. So he kind of led the post-lesson discussion, which was really interesting as well, to kind of get his thoughts on the lesson, because obviously, we'd planned the series of lessons building up to that lesson, um, and then the live lesson took place and then kind of his thoughts on, on the whole process behind it was really interesting.

Fran: Yes, I've been lucky enough to take part in some collaborative lesson research, too. And um, you mentioned his role as the *koshi* afterwards. W-, this is something that happens in Japan, right? [**John:** Mm.] And it's not just that they engage with other countries to do this. This is regularly part of it.

John: This is their model. Yeah, this is how they do their professional development. Yeah, it's, and it's kind of a-a model that we've tried to take on within our school, kind of on a smaller scale. But our um, sort of termly CPD, we, we dedicate some staff meeting time, um, normally kind of three staff meetings and each of those staff meetings is used to plan a lesson collaboratively to the team of teachers.

And then, w- you know, with a kind of a theme or a focus, something we're trying to improve, something we're trying to look at within the-the lessons, um, and then the teachers will go and watch the other teacher teach that lesson, who they've planned it for. Um, and then there's a-a discussion afterwards going around kind of what, what went well? You know, how did the planning decisions that we make affect the outcomes in that lesson, affect the learning?

Er, so it's, it's been a really powerful way of developing teachers. Er, kind of the most – I'd say it's the most impactful CPD that we've, we've ever had in-in school. You know, teachers love it because it's, it's relevant for our school,

um, it's relevant to our pupils, you know, you're not going out to Training Day where, you know, you come in, maybe a year group you don't even teach some of the time.

So it really is specific to our children and what they need. Um, and with the, the kind of the shared planning brings shared responsibility. So, you know, it's a chance to try new things out in the lesson. So, you know, you're taking risks sometimes, um, and if it doesn't work, then it's, it's not the person who's teaching it's fault as such. It's just – that was a planning decision; why didn't it work? And, you know, you g-, that's another brilliant way, kind of stimulus for discussion to talk about why it didn't work just as much as why things do work. Um, so yeah, it's been a really, quite a powerful model that we've, we've been running for probably, er, four years? Three years, something like that.

Fran: Fantastic stuff. And y-you were saying staff really enjoy it for all of the reasons that you've outlined. I guess too there is a sense of, um, safety and collegiate collaboration because you know, if it goes wrong, you're not doing it in front of, you know, strangers. These are children that you know well and a colleague that you know, you are familiar with and that like you say, you planned it together. [**John:** Mm!]

So the focus is on the planning and the learning rather than on the, “Oh, I slipped up!” Or, you know, “Oh yes, this happened”, and that hadn't been anticipated in those sorts of ...

[Intercom: OK, I'm guessing Piper, I think she might be there in the main building]

Fran: [laughs] Excellent stuff! Now, I heard children coming in earlier, which is just delightful and the babble in the background, but I make that [background double beep] number two of the, um, er, the busy head teacher day and the sorts of things that occur. John is smiling on the other end of the screen for listeners at home who can't see this.

Um, were all of the, um, staff that you have taken through with you on this journey of kind of four years – and I'm sure there will be staff turnover to some extent – but were any of those involved in the opportunity to take part in the collaborative lesson study that you mentioned at the beginning with the visiting teacher from Japan, or have they, has that journey been part of it but not, not for everyone?

John: No, it was only me at that time that, that went to um, that, that had that opportunity. I was, I wasn't head teacher at the time. I was maths lead at the time, so that was part of, you know, my development then. So it was only me. Um, [**Fran:** Right] others have been involved in, in other ... Obviously we do it within school, but our current maths lead has been involved in wider projects,

um, mainly with the Devon maths team, rather than, you know, people coming from, from overseas t-to, to join. But yeah we, and um, we've got my maths lead and another member of staff who're involved in um, Sustaining Mastery groups, um [Fran: Mm-mm] and they do a similar kind of thing, you know, shared planning of a lesson and then, and then people watch it. Um, so i-is that, that process is there that people are using.

Fran: Well, and just one example, perhaps of, um, you saying you were the maths lead originally who went on this and then have brought it back, of a seed from somewhere else, becoming something of your own making and development within your setting. So not just taking things wholesale but adapting them and making them fit for what serves you best.

We've talked a bit about you saying, um, er, being involved in an external project and bringing things back and developing those is one avenue where research has had an impact in your setting. Um, I wonder how you come to things like Rosenshine? Um, is that talking with other senior leaders? Is that other channels that are external? What does that look like in terms of how you, um, how you find out about those things?

John: Yeah, I think um, we are, we've recently become part of an Academy. So for me that's opened up a lot of channels with speaking to those school leaders, er, you know, I've now got a network of other heads that I'm in regular contact with. Um, the Academy themselves, have done a lot of work on, er, kind of Rosenshine and using the WalkThru materials, um, to, by Tom Sherrington to kind of support teacher development.

So we've come about it that way, really. But yeah, you know, conversation is really important about, with other senior leaders or whether you're a maths lead and you go to a maths meeting and you talking to other leaders, you know, just networking and picking up people's ideas and sharing good practice and yeah, get, getting out and seeing stuff.

Often, you know, that's been difficult with COVID for the last few years. But, you know, now that we're coming out of that and we can get out there and, and go to other schools and see things in action, it-it, it's really nice and it, it's very positive for the children and staff.

Fran: Right. Not only the impact on the children, as you say, but also on the staff professional learning and widening their experience. And, um, I'm hoping that these podcasts give teachers who might not otherwise have the opportunity a window in to hear the sorts of things that might be happening in staffroom conversations, perhaps.

Okay, we talked a bit about some of the things that you have, um, described so far as the impacts of research in your settings. Is there anything else that you would like to tell us about that you've been involved in?

John: Um, I think ... yeah. I suppose over the years I've, I've done a few of these kind of collaborative lesson projects. Like you say the-the Devon maths team have been a big influence on me. We've got um, Dr. Ruth Trundley kind of leads the maths team who's, who's brilliant, and she knows that as a school we're really into the kind of research and stuff, and so she's always very mindful to in-include us or give us an offer when, when something's coming up.

So we've, we've done some brilliant projects, er, on number lines which I think are really, really important for children to understand. It's a number system and something that's quite often missed. Um, so number lines has been a really good project.

We did a project around, um, multiplicative reasoning, um, in the multiplication/division in year two, um, and for that one we again, it was a kind of a collaborative lesson model. We, we planned it, um, and that happened in COVID, so we couldn't have people coming in to watch the lessons. We ended up filming the lesson. And then that lesson has been used, er, by the Devon maths team and for [**Fran:** Ah!] other projects connected to ... I think the Jurassic Hub have gone and training, um, on that sense. So that was a bit daunting being filmed teaching a-a lesson, [**Fran** chuckles] but it-it worked out okay in the end.

Fran: Good stuff!

John: Um, and then we, you know, my current maths lead has done a similar project last year where again a lesson was filmed, um, and again a collaborative process. So yeah, I think it's the maths in-in Devon I would say is in a particularly good place at the minute. You know, there's, there's a lot of these projects going on either linked to the, the Devon maths team or linked to the, um, maths hubs [**Fran:** Right] um, which are having a really positive impact.

Fran: Well, and you saying you, um, had to film lessons and, um, do that online because of COVID. But, er, those of us who aren't in your area have benefited because of the online-ness of things and being able to access stuff that perhaps we wouldn't have been invited to or wouldn't have been online, and therefore we just wouldn't have had the chance to experience.

So I've heard people talk, um, about the impact of, um, er, professional learning in these kinds of ways that you're saying and the reflective process and what that's meant for them, and the fact that they're embedding things more and being able to take it forward in that it's generating a culture, which I think is what you're describing here; that you're saying it's been hugely impactful for your staff and that what that means going forward is that everybody is involved in a way that develops their professional learning and benefits the children at the same time. So that sounds great.

Um, have there been challenges, um, in any or all of these approaches – either research via the Academy trust that you've joined, or receiving training through the maths hubs or through the collaborative lesson research?

John: Um, I suppose the biggest challenge is often time, er, you know, just having, giving people the time to do these things, um, you know, given over three staff meetings every term for us within school to do our own CPD is quite a lot of staff meeting time, but it-it, it's obviously time well spent. Um, so that, that's probably been the biggest challenge I think.

And ... you know, w-when, if you're involved in a project which is external to your school and there's only one person doing it, then that can be trickier to bring in, bring about new ideas. Um, and it's just a case of, kind of, you can't bring loads of new ideas at once. It's just kind of picking one idea at a time, working that through and again, you know, embedding that through maybe a collaborative lesson model to-to see if it works, if it has impact.

Um, you know, a-a maths lead last year, did a – or two years ago, sorry – did a project involving Rekenrek: trialled that in-in one class in Year One, found it was really good. So the following year it-it's then been introduced into Year Two as well. So, you know, it's just bringing things in gradually, I think, because the curriculum is very busy, um, you know, there's more than just maths in the curriculum. [Fran laughs] Um, and even within maths, you know, the-the maths curriculum is very busy. Um, when you look at kind of, the-the Japanese maths curriculum, there's a lot less there, but they, they go into more depth with it. [Fran: Right!] So, you know, tho-those are some of the kind of wider challenges, I suppose.

Fran: Yes. Well, and you saying, um, of course, the advantage of looking outward and seeing what else is going on in other places, um, to good effect, er, can sometimes bring its own challenges.

Okay. So um, so taking your staff with you has clearly been part of this journey. You talked about, um, originally being the maths lead and now being the head teacher. Um, has that impacted on how you engage with the sorts of research ... You were saying very carefully that, take, bringing one idea at a time and giving it time to embed and providing staff with time to, you know, properly get their heads around it and feel what it means for them. I wondered what the challenge was or whether you now had a different viewpoint, whether that changed what you were looking for, what you were considering?

John: Um, I suppose as a maths lead you-you you're primarily just thinking about maths, um, and how that impacts the school. [Fran: Yeah] And as head of school you're, you know, you might be trying to look, improve in

reading or bringing something into maths and, you know, writing as well and maybe even doing something in music. So it's just balancing those priorities, really, um, and just, just giving things time, um, and you know, giving staff opportunities. I-I really want to make sure my staff are ... um, again, opportunities to professionally develop both within school and out of school.

So, you know, my maths lead is doing um, er, mastery specialist training, which I think is brilliant. You know, it-it's costing us in terms of some time out of class this year and last year. But actually the benefits are the expertise that she's, is bringing back into the school and also sharing within the Trust and sharing within other local schools in the other local learning communities. Um, that's fantastic, you know, that's going to help to improve maths in the area.

Um, one of our reception classes is in, is involved in a Counting Collections project, I think it's called. [Fran: Mm-hm] Um, so again, you know that, that's some research that's going on. They're trying out some different resources and, and to see if that makes a difference.

So, I think, you know, individual, giving individual staff real opportunities to go and develop in that way, um, and then, you know that. But it all kind of ties back in really to, to where we're all, all moving as well. You know, we, we've been working on the Mastery curriculum for the past er, five years in maths and, you know, all of these things are feeding into that. Um, you know, we've got er, er, two teachers on it as part of the Sustaining Mastery group as well.

So, you know, it's just, just making sure that we're all moving in the same direction, um [Fran: Fabulous] and, and building consistency, you know, across the year group. So, just little things like resources, making sure that the resources that we use in Reception flow through to what they use in Year One, to what they use in Year Two. Images as well, um, ways of ... vocabulary that we use. Um, so yeah, just tying everything together, um, and the research makes sure that we're, we're doing that in the, in the best way, I suppose, er.

Fran: Superb and gives you, yes, gives you that support for the, you know, are these messages that we're trying to cohere, you know, tallying with what the latest educational research has to tell us about, you know, the effectiveness of these things.

You talked about that, um, ensuring that progression from, in your case, Reception to Year One and then Year One to Year Two. Um, I wondered if your, um, Academy Trust affords opportunities um, to extend that from Key Stage One into Key Stage Two as your learners progress to their Junior School, I'm guessing is the next stage up.

John: Yeah. So um, so within the Trust there's, there's several schools. Most of them are Primaries right through from Reception to Year Six. But we are an Infant and there is a Junior School which is pretty much next door to us. So, you know, the proximity of them to us means that we can work more closely. Um, the two maths leads work together – so my maths lead works a lot with their maths lead. So we've, we've got kind of a shared calculation policy across the Trust. But again, that builds consistency running through from Infants to Juniors, um, you know, there's consistency in the way things are taught, methods being used, models being used, um, and ... reasonably consistent in terms of kind of the curriculum map that we're following. We're all kind of roughly following the White Rose maths curriculum, um, you know, with some little tweaks here and there. But yeah, that's, that's the general gist of it. So, you know, we know what the children will move on to in Year Three. And the Year Three and Four teachers know where the children have come from, you know, Reception to Year Two.

So yeah, we, we have got that work going on. Er, we've only recently academised, but we have been working together for a couple of years prior to academising. So, there, you know, there is consistency there, but it-it's only going to grow and build as we, as we keep moving forward.

Fran: Fantastic. That sounds really helpful. And the, you talking about, you know, teachers knowing where their pupils have come from as well as where they're going is all part of that lovely joined up ... Particularly building on the work that you're saying, you're so careful about models and images and vocabulary in moving through. It's really nice to know that that's kind of continued and it doesn't, you know, fall off a cliff or that you have no idea where they're going afterwards because they might be going to lots of disparate areas.

Okay. Um, thank you very much. It's, it sounds great. Is there anything else that you might say to the people who are listening that don't find themselves in a similar sort of setting with the sort of opportunities that you've mentioned about the benefits you think you've derived from this, and that, you know, what you'd want to share?

John: I think I would say just, if you can, look for those opportunities, whether it's within your school or within your area. Um, make links with your local maths hub or your, your maths team in, for your local authority um, because the, you know, there's a lot of stuff out there.

Um, I-I think the benefits are huge. You know, I think maths has been really, on a really exciting journey over the last few years. It, it's really kind of changed quite a lot. Um, you know, when, when we talk to parents and when

we, sort of, parents see the maths work that we do, whether that's kind of, we sometimes invite them in for a lesson, or on parents evening they're looking at the books and they just, you know, they say, "Wow!" you know, "Maths is completely different to when I went to school!" Um, you know, "It's much more visual. You use all these resources, it's, it's much ..." And it is, maths is much more about understanding now, understanding the number system and how things link together and making those connections. That's what you've really got to get children to do. So, it's not just following processes to solve a problem, it's about making connections so that you understand why.

Um, so I think any, any kind of research that you can get on is brilliant because if you're, if you can get involved in a project which involves kind of some shared planning, if you've got three, maybe six, eight, ten teachers around the table all pouring their ideas into one lesson, it's such valuable professional development, you can just learn so much.

Um, you know, as a, as a new teacher, you could be just soaking up lots of new ideas. As an experienced teacher, you know, you can be getting some different ideas and different approaches and, you know, it-it challenges your thinking. So um, but it, but it's, but in a very non-threatening way because it's shared planning. You know, it's taught by someone, but it's a shared plan – it's, it's collective responsibility. You've all put into that plan, um and so, you know, you're all kind of responsible for the successes and any little problems that might crop up on the way. But generally, the lessons tend to go very well because when you've got that many brains pouring that much time into planning one lesson, you know, you really think about it. You, you plan for those misconceptions, you plan your questions really carefully. Um, you think about your model.

Um, and I, you know, I do a, a little, we link to a ITT programme as well. And I, I, I lead one session for them on early maths for the ITT students. And you know, the thing that I, the main message to get to them is, is get children talking about maths, get them experiencing maths using those resources but, but picking the right numbers, picking the right examples in the right context and picking the right resource and the right image for what you want to teach is so important. And I think, you know, through all this research and projects and stuff that, that's really become apparent. And you know, you can spend half an hour deciding on a, a context for a, for a problem um, with a group of teachers. Um, but when you get to that final decision, you realise, yeah, we, that was the right context to choose and these were the reasons why.

Um, so yeah, it-it is really valuable and I would just recommend it to people. If you get the opportunity, just, just, just go for it.

Fran: Superb. That sounds like best trailer ever for becoming [John chuckles] part of a wider maths family that I could possibly have imagined.

So er, John, it's been such a fascinating, um, er, conversation. Thank you very much for sharing all of your experiences.

I'd like to invite you, the listeners, to engage with Cambridge Mathematics on X, formerly known as Twitter, er, or in the comments section on our website to share your thoughts about the conversation you've heard today or the ideas that we've been discussing. Perhaps you'd like to share your story too.

We look forward to hearing from you and goodbye until next time.