# School B Teacher 3 – 23 Jan 2017

R–: ... class degree. And that were me done with that level of education. But that was a good long time ago now.

Speaker 2: So, before we start, can you just say your name?

R–: Yes.

Speaker 2: And then also your role and what that encompasses a little bit.

R–: I'm R–. I'm the head of Key Stage 4.

Speaker 2: Okay.

R–: So that basically means that the 450 or so students in Year 10 and 11 come under my remit, that's pastoral care, academic progress. In addition to that, I line manage pastorally just for Key Stage 4 and a number of heads of department including W– [inaudible 00:00:36] head of computing and ICT. And then I contribute to all sorts of other aspects to do with the whole school ethos.

Speaker 2: I suppose one of the things about a small-ish school is that people don't just do one thing, I would imagine.

R–: No I think I do everything.

Speaker 2: You actually run the place.

R–: Not quite, but ... I deal with pastoral care, academic progress of students, I teach a number of lessons, but I'm in charge of aspects of behaviour in terms of uniform, I'm responsible for making sure that the choices that students make at Year 9 fit into the timetable for Year 10, that they contribute effectively to the students and their progress for their future, so we're getting them a balanced curriculum, but at the same time making sure that it meets whole school data targets and things like that. I'm also responsible for making sure that Year 11 progress onto the next stage of their education, so whether that's recruiting them into the sixth form or directing them to an appropriate course elsewhere.

Speaker 2: I think one of the things I am particularly looking at is that transition from Year 9 to Year 10.

R–: Right.

Speaker 2: Because in computing terms, that's where computing goes from being compulsory to being non-compulsory.

R–: Yeah.

Speaker 2: And so how we teach computing up to that point really impacts [crosstalk 00:01:55].

R–: We've had a lot of change in the last ... Well, it's all change again for September, so there's a lot of change going on there. Key Stage 3, there is a compulsory ICT element, and it is predominantly ICT rather than computing, there is a small focus on programming, but it's much more on the use of application of software and things like that. Currently, in Year 10, the students are only offered a computing science GCSE. Quite happy with that as a qualification, but it doesn't meet the needs of all the students. We did in the past run a variety of different courses, we used to do some OCR nationals, we've had ICT GCSE up until the point where the government took that away, and so at the moment say Year 10, only a computing GCSE that we offer. And that doesn't meet the needs. The academic nature of the course, and the mathematical problem solving aspects are beyond the abilities of some students, and there is concern that that doesn't necessarily support those that want to be able to use ICT and demonstrate an ICT qualification for their next stages, post 11-16.

So from September next year, we brought in a technical award in IT, which we're offering alongside the computer science GCSE, students have the opportunity to express a preference for either of those two qualifications, but we will then make a professional judgement as well as to which one might suit them best, and you might have said you want to do the IT, but have you thought about that properly and direct the students to one of the two courses as appropriate.

Speaker 2: Do you think because there's so much emphasis on computer science in the compulsory bit, that actually that's not meeting the needs of a broad range of kids either?

R–: Sorry I don't understand what you're-

Speaker 2: So, up to Year 9, there's more of a focus on computer science and programming and that sort of stuff, and-

R–: Less so. The focus, I would say at Key Stage 3 is much more on the use of the software and things rather than computing. They do some programming, little bit of BASIC little bit of Python, but it's ... for the most part it's more IT focused. Which is where [inaudible 00:03:53] computer science GCSE comes from, of course the students have limited experience of what they're actually signing up for.

Speaker 2: For the computer science [crosstalk 00:04:00].

R–: Yeah, that's it. And the perception, I think, was that it was more of what they've been doing in Year 9, when the reality is, no we look at your programming skills in Year 9, we're not seeing the aptitude for this.

Speaker 2: Right, so you look at the programming skills in Year 9 and if they're not showing that aptitude at that point ... Was that a conscious decision, 'cause a lot of schools actually ... I mean for my research and from reading around the subject, are doing more computer science earlier.

R–: Certainly W–'s got more computing going on now than we did, say five years ago. And that partly came in to [inaudible 00:04:28] we could see this IT GCSE qualification coming to the end of its lifespan, and even make sure students were prepared for the computing. But no, it is quite apparent that there are students who mathematically struggle with the programming aspects of computer science GCSE. And with the best will in the world, they may say, "yes that's a qualification I'd like to take," but we need to see them actually ... they need to succeed or it's of little value to them anyhow.

Speaker 2: They're not gonna thrive. Well that's why I'm asking about it, 'cause I know that some schools really feel like there has been a drop in the delivery of ICT, and that the kids just ... I've had teachers say they just don't feel like they're serving the kids with the skills they're gonna need, because the emphasis of the statutory curriculum is so focused on computing, digital, computational thinking, coding a little bit. Those sorts of things, which are quite hard to teach to some kids. Some kids love them, and really fly with them but other kids, it's not relevant and it's not ...

R–: But that's always the problem isn't it, I think with any qualification, not just the computer science [inaudible 00:05:31], the students sit in the relevant of what they're doing. I teach science, and the number of student who will question why they need a science GCSE, I can see where they're coming from to an extent, in terms of ... for a lot of the students their perception is that the idea of what jobs and careers are out there is very limited, because of their own experiences at that age.

Speaker 2: And the location as well.

R–: Absolutely. We're well aware here we've got quite a strong science community, which perhaps does us a lot of good. But nevertheless students don't see that "oh no, I don't want to work at [inaudible 00:06:08] so I don't need science." Similarly, "I don't want to take a language at GCSE 'cause I don't want to work abroad." Education is broader than that but it's making the students aware of that is quite a challenge.

Speaker 2: Those have all been preliminary questions but it's all useful. So the first question is, what do you think of the change of emphasis from ICT to computing, or do you think it's not actually been all that dramatic even though a lot's been made of it.

R–: W– certainly has talked a lot about it.

Speaker 2: People in W–'s position across the country.

R–: Fair enough, not just specifically W–. But the concern I've got is that students, I feel, are relatively IT skilled these days. They're exposed to it from such a young age. My kids are at primary school, but are quite happy to surf the internet, for example. Which is something I remember doing for the first time as part of my teacher training qualification in the early nineties. So there is an aspect of students being more ... less inhibited perhaps by computers than perhaps an older generation would be. To an extent therefore, the need to teach explicit use of IT software I can see how that's diminished. I had to be taught how to use Internet Explorer, I had no idea what was going on and I was a graduate at that point in time, I'd not used it prior to it. Students these days, far less so.

That said there are ... IT has permeated so much into the world now, my phone is linked to my Outlook account, my calendar, everything is synced. I don't fully know how that works, but I can use it myself, and the students are quite surprised by that, so, while they're IT literate, it's obviously with a focus on managing their social media accounts and downloading their music, and their YouTube profile or whatever else it might be. To my mind, increasing the programming for a cohort of students is absolutely right. But we've got a large number of students who are going to be heading off to world of work where they will not require the ability to do programming. So making it statutory at Key Stage 3, exclusive programming, is not a curriculum that's benefiting everybody.

Speaker 2: So you think it's probably gone too far.

R–: I don't think having programming as a statutory element for all students is appropriate.

Speaker 2: Do you think that that change of emphasis in that small area has changed the school more broadly? Or impacted on other teachers.

R–: There's certainly a concern being raised by W– regularly, that other heads of department are seeing her and saying, "you used to teach the students how to use Excel spreadsheets in a particular way, and as result now, they can't." And [inaudible 00:08:45], I've got a sixth form class who were astonished how quickly I could take a very simple form of Excel and simply copy it across to a row of other cells, rather than typing it in multiple times. And admittedly someone had to show me how to do that at one point in the past, but that's how you learn, is by seeing something.

Speaker 2: Somebody shows you, you [crosstalk 00:09:02].

R–: I was quite surprised that 17, 18 year old students did not know how to do that. And for me that's a greater concern.

Speaker 2: It's really interesting 'cause one of the things that there's been real criticism of the ICT curriculum, is that it was only teaching kids how to use Word and Excel and those sorts of programmes. And then doing these sorts of interviews with people, basically I'm having ICT teachers say, "well actually, there's a whole level of really complicated Word and Excel functions that most people don't know, and are really really useful." One teacher was telling me last week that mail merge, where you take a whole database, and merging it-

R–: Yeah, and Word document talks to it, and ... I can't do that.

Speaker 2: I can't do it very well, I can muddle through doing it. She said, "they used to teach that explicitly," and they would put it into a few examples and kids would use it and they would all have experience and now they don't have that. And they'll never know they're missing that, necessarily. But it is something that pretty much anyone can find a use for.

R–: Fortunately I've got an admin team. And they can do that. But it's something I'm well aware that exists, and I cannot do. I'm a scientist, so in the laboratory I'm interested in the students being able to use data, we have data loggers in school, and I expect the students to be able to take the data from the data logger, import it to a computer, copy it to Excel, and use Excel to graph it. And I expect them to do that, really without a great deal of fuss. Because I don't think that's a particularly high level Excel skill. Students have to be shown, in quite a lot of detail, how to make that work.

Speaker 2: I also think one of the things ... and you can tell me if this is your experience ... that's different ... again it's one of those different kids things, so some kids find it fairly easy to figure those sorts of things out, so they maybe need to shown once and then they're fine. And some kids need to be taught it a little bit more explicitly and given a little bit more of a chance to work with those basic skills, rather than being expected to just go and use them right away.

R–: I think that's absolutely right.

Speaker 2: And that's one of those challenges with not teaching ICT explicitly. What do you think is the main purpose of changing from teaching ICT explicitly to the broader topic of computing?

R–: I have no idea. I'm sure somebody in government knows what's going on but I have no idea. I'm aware that the report from the government recently about this digital skills crisis. That may well be the case, but my perception is that for a large number of students, the ability to write programmes, which is what I see happening in a computing science lesson, is something that they are not going to be needing in the later life. That said, you've got to recognise that software has become far more user-friendly in the last twenty years or so ... the need to teach as much ICT as we used to explicitly, maybe that has changed and maybe the focus on programming is appropriate. I am well aware that the world of work is changing endlessly, and-

Speaker 2: It's almost like, from a strategic level, it sounds a bit like, in a way, if the software is more user-friendly, then there are other things you could use that time for, because there's always a demand on young people's time.

R–: This is a conversation W– and I have regularly. And she's very concerned by that. As a school we're accountable for progress measures in all subjects but a particular focus on English and maths. And as a consequence you've got to consider how you share out your curriculum time. You're trying to meet a lot of different needs. We're interested in how the students do. Obviously we want the students to do well for their own benefit, it's the only reason I teach. But at the same time you're aware of the whole school consequences of English and maths in particular, dropping off the wayside, and the impact that has on all staff.

Speaker 2: So, if they don't need to learn coding, could they possibly be using that time ... And I suppose one of those things about ICT, specifically word processing and data management, is those directly impact on their maths and their [crosstalk 00:13:12].

R–: They impact on their maths, their science, they're using charts in geography, so the ability to use Excel spreadsheets to draw pie charts, Word documents to format it all to present their work appropriately and so on. English presentations that they've gotta give see a Powerpoint and what have you. Those are skills that I can see are being useful in many workplaces. There's very few jobs where you don't have to do something involving the use of a computer in some form or another. You sit on a checkout in Sainsbury's, you're still working with a computer and you've gotta be comfortable with a piece of software and so on. Sorry I'm smiling at an image I had last weekend out in the shops with a gentleman who was probably in his late 50s early 60s, who clearly was on his first day working in a shop. And the computerised till was causing him quite a lot of bother. I shouldn't ...

Speaker 2: This wasn't in Penrith was it?

R–: No it wasn't it was in Cheswick. But it's the same sort of idea. IT, it's so prevalent now in everything that we do, that confidence with it is important. And it's not so much necessarily teaching explicit skills, I think there are certain skills that should be taught, but it's making sure all students are confident with the use of unfamiliar pieces of software and prepared to give it a go. Got a lot of colleagues my age and older who are anxious that they can break things, put me in front of a computer I'm going to inadvertently delete everything, or bust it somehow, and are really quite trepidatious about using-

Speaker 2: Do you think they're getting that?

R–: The students, or the-

Speaker 2: Yeah, do you think the students are getting that confidence and ... Do you need to get your phone?

R–: Potentially, I do. Hello?

…

Speaker 1: I'm recording just in case.

Speaker 2: No worries. No worries, no worries. No, that's fine. About 10 minutes, I've got 10-

Speaker 1: 10 minutes, brilliant. Okay. Well, it's all very interesting, so ...

Speaker 2: Yeah, no worries. I just-

Speaker 1: [crosstalk 00:00:09]-

Speaker 2: I don't want to cut out if you've got something you've really got to ask and then suddenly I have to sort of run. I forgot where we were.

Speaker 1: It kind of leads on from that actually.

Speaker 2: Okay.

Speaker 1: Because we were asking if they were getting that from the ...

Speaker 2: Yeah.

Speaker 1: Is there anything you would change, anything you would change about the way the curriculum is written? At a kind of high level statuary curriculum, there's the computing section for Key Stage 3 and a bit for Key Stage 4.

Speaker 2: Yeah, yeah.

Speaker 1: I admit Key Stage 4 is a bit limited, it is a bit.

Speaker 2: Well, I mean Key Stage 4, if the students are interested, they express preference, the same thing they do for almost anything else. I think the focus of Key Stage 4 is probably about right. You've got your maths and your English, which understandably whatever you're going to go into you need those grades, I get that.

Obviously I'm biassed about science, I think that it should be in here, but then after that, if students expressed an interest in a computing type qualification, whatever it might be, they get equal time to geography, history or what have you. Key Stage 3, that's an issue, there may be, and perhaps trying to get a slight shift to increase in the amount of Key Stage 3 computing time would be useful.

Speaker 1: Increasing it, not necessarily changing, but increasing the amount of time available.

Speaker 2: I'm aware as head of department, a few years ago I used to be head of science, and W– would come to us and sort of say, "ICT time is limited. I need you please to make sure that you are teaching these aspects of ICT within science." Depending on the aspects you're asked to deliver, that was sometimes very straightforward, and other times it was a real challenge.

The biggest issue we've always got in schools is money to ensure we've actually got access to resources, computer resources in particular. I don't know if you know our situation, but students are now bringing their own devices and using those on the WiFi, but you can't do Excel, you can't do graphical work.

Speaker 1: Yeah, absolutely.

Speaker 2: It's limiting in that respect, and it requires resourcing and upgrading, and there isn't the money for that side of things. We've spent a lot of money on the WiFi system in school recently, which has improved massively, students are using their devices in school now.

As a science teacher the fact that you've got a data log and a motion sensor in your mobile phone is great, you can use that, and exposing the students to what's going on there is good. It's always, as head of science or head of English, you've always got your focus primarily on the bit you are responsible for, and-

Speaker 1: You think so in some ways scientists, the science teachers, the math teacher and the English teachers had become really reliant on ICT delivering the skills that they needed to-

Speaker 2: Yeah, but you would suddenly notice that students couldn't do something. Perhaps you weren't aware prior that it was happening, and then you'd get to a point where, "Well, I taught this, I did a very similar activity three years ago ... "

Speaker 1: They can't do it.

Speaker 2: "Now they can't, why can't you do this?" When that is taken away.

Speaker 1: "We haven't been taught this."

Speaker 2: Yeah, well that's I mean students are doing it at primary school now. We know they're getting a lot of computing exposure at Key Stage 2, and the idea that there isn't some progression of that.

Speaker 1: Well what's interesting as well is that there's been the shift, I mean I've done a degree research in primary school as well, and there's been the same shift from ICT to computing in primary school. You have teachers who weren't very confident teaching ICT, who are now not very confident teaching the computing, and I'm not saying anything that they haven't said to me.

Speaker 2: No, no. No.

Speaker 1: They are very frightened of teaching computing, but they're not delivering the ICT either, so they've moved away from one thing because they sort of breathed a big sigh of relief.

Speaker 2: Yeah, "I don't have to do that anymore, thank you."

Speaker 1: Then jumped from the frying pan into-

Speaker 2: Into the fire. Yeah, absolutely.

Speaker 1: "Oh, now I have to teach programing and it's so safe." You're scratching, "Do what you can because I don't know what I'm doing." There are some, it's very, very, so there are some excellent primary schools and there are some-

Speaker 2: Yeah, yeah. There are some-

Speaker 1: That are really struggling. You can definitely see them not delivering those ICT skills that they'll then need to, and there's far more of a pressure on saying, "Are my kids secondary ready in terms of the core concepts?" Not, "Do they have the skills they need to really succeed in those core concepts?"

Speaker 2: Yeah. Yeah, as I say, my kids are primary school at the minute, what they can't do with iPods and Bluetooths and things like that, it's a world on obviously from when I was growing up. I'm aware that they are now doing some programming. We've got a book at home, the basic for primary school kids and they're having a go at that. Fundamentally most students, I really do believe most students, at sort of Key Stage 2 and Key Stage 3 enjoy that sort of opportunity.

There's no pressure at that point to associate it with a world of work, there's no awareness that this is hard. Kids, if you give them the opportunity to sit in front of a computer doing something rather than in front of a book with a pen, they will tend to go for that. I think there's an opportunity there perhaps to enrich the curriculum a little bit and move it in that direction, but it does, it takes resourcing.

Speaker 1: Yeah. How do you feel like you're being judged or assessed on your delivery of, on the school's delivery of computing?

Speaker 2: You're talking Ofsted.

Speaker 1: Well, I'm talking about whatever it is where you feel the pressure downwards?

Speaker 2: Obviously I mean one aspect mostly can be the results, GCSE results in computing, GCSE results or it's IT technical award, but the qualifications students are getting that's an issue, but it does permeate to a wider issue than that. We know that students who apply for apprenticeships and things like that are asked about ICT skills.

If you're supporting your students in making progress onto the next step, whatever that might be, A-Levels, university, wherever, you need to equip them, and that equipment invariably involves an English and a maths grade, but also then something maybe less sort of quantified, but definitely IT I think is out there.

Speaker 1: Are you getting feedback from ...

Speaker 2: At this moment in time we're not getting feedback saying that students aren't able to ...

Speaker 1: Right.

Speaker 2: To meet their needs, or not directly.

Speaker 1: Have you had any feedback saying what the needs are in terms of computers, computer use, anything like that?

Speaker 2: No, no, and that's part of it as well. From a very personal point of view, as I said, I did no computing qualifications at all at school. I did a physics degree where I was expected to do some programing [inaudible 00:06:20]. I had no, so self-taught, I had no idea what was going on there, but then all of the skills now that I have are self-taught out of necessity. The day that I was shown how to use the calender on Outlook for example, I was revolutionised.

Speaker 1: [crosstalk 00:06:38].

Speaker 2: It's synced into my phone and the computer at home as well [inaudible 00:06:41]. That syncing is invaluable. Laughably now that I've shown colleagues and taught colleagues how to do that too, which I find hilarious. It is something that, a need drives it I think, and once you're aware that there is something which can make your life easier, that becomes a need.

Speaker 1: Well I suppose one of the issues is that if we think forward five years, five, six years, particularly for job, admin or office jobs, the idea that somebody would be able take time to, it doesn't take long, but-

Speaker 2: Nope.

Speaker 1: That you'll have somebody coming in and saying, "I don't know how to use calendar," it would be really shocking, and you'd sort of, it'd be almost like, "Oh, I don't know how to read, write an agenda."

Speaker 2: It would.

Speaker 1: You know?

Speaker 2: To my mind, if you're now applying for some sort of administration type work and you are not massively familiar with Microsoft Office, bearing in mind you're probably up against other people who are.

Speaker 1: Who are.

Speaker 2: That's where the limitation comes in. You're up against it then and you're going to struggle.

Speaker 1: Well and I think again it's one of those inequalities where in the past the assumption was if you are younger you had better ICT skills, and I think that that very well could change where you have somebody's who is a few years older and has that experience, and so will be very familiar with those office skills. If you're a little bit younger you won't have been taught them, and so you won't be able to compete in an equal way.

Speaker 2: That's the problem I've got with the shift towards the focus on computing. Programming is, it's not niche, but it is definitely a smaller market need to my mind, than competency with a suite of software.

Speaker 1: Yeah. Yeah. To what extent, so last two questions and then, and we're at eight minutes since you said 10 minutes.

Speaker 2: Yeah, no worries. Yeah, yeah. The bell is going to ring, I will have to run the minute the bell goes.

Speaker 1: That's fine. Brilliant. To what extent do you think what the kids are learning either relates to the kids interests or how they use computers?

Speaker 2: I'd like to think it's their interests. That's the message we give them, particularly, you know. That's what I'd like to think, whether that's the reality or not, I don't know. Fundamentally I think you do better in a curriculum where you're enjoying it.

If you have an element of choice, so for example year nine is coming into year 10's, you choose a curriculum that you are going to engage with, and you worry less about the world of work in the future at this time.

Speaker 1: I think that's something I've really seen, the difference. I've worked in three schools and they're all excellent, but one of the things you notice is the kid, the more choice the kids have to enjoy it, and the more they're empowered to enjoy the subject, you can see that it really pays off in the engagement.

Speaker 2: The engagement on a daily basis, and then that has an impact on the outcome at the end of it.

Speaker 1: Exactly. Exactly. How do you think that learning computing is affecting the children's or the pupils decisions and choices about the future, if at all?

Speaker 2: Are we talking computer or talking computer's programming, or ...

Speaker 1: All of it.

Speaker 2: All of it.

Speaker 1: All of it. How is that, how this has shifted and how it's taught now and all of that, changing how they make choices?

Speaker 2: I don't know if it is or not. I just don't know if it's had any impact at all. There are students who come to us aged 14 and, "Oh, yeah, I want to be a computer game [inaudible 00:09:59]," or what have you, and again that's, I think a lot of that is coming from YouTube, the YouTube bloggers and things like that, that they're spending a lot of time watching it, and I think it's there social environment which is driving that.

I don't think that's a curriculum thing that's driving that in that direction at all. Again students knowledge as to what the world of work is like is massively limited by the nature of their age and experience or inexperience.

Speaker 1: Do you think that's even more so with the economy, the broader economy shifting so much where anybody's idea of what's coming up is quite limited?

Speaker 2: Probably. Who knows what jobs, the kids that are in year seven now, what jobs will exist in five, 10 years time? Of course I'm in charge of careers, so I should know. The uncertainty is massive, and it does come back to, "Do what you're enjoying," that's the key driving factor to my mind. Everything else will work out, but fundamentally I think students enjoy working with computers, I really do. It's something they are familiar with, they're comfortable with, they're endlessly on their phone or what have you now.

If they've got a moments down time, and the consequences that you would imagine if you've got a curriculum that offers computing to students, they would buy into it. We've got, as I say, we've got a limited numbers taking computer science, GCSE, in year 10, this academic year, I expect to see a significant increase in the number of students taking computing with the IT technical award coming in from September.

Speaker 1: Yeah. They'll take the IT.

Speaker 2: A bit more diversity, a bit more choice and the relevance of that course, coupled with the-

Speaker 1: You think, so it sounds like, and correct me if I'm putting words in your mouth, in some ways you think that they enjoy the computer use almost as much as if not more than the kind of programming of it. That knowing how to use a computer well is what they enjoy, and it's not that they enjoy programming, because that's quite difficult and quite complicated. Some do.

Speaker 2: Some do.

Speaker 1: Really the majority of students like using their computers and they like knowing how to use them better.

Speaker 2: If you give the students the opportunity to use a computer for a task that you could, or perhaps you would traditionally have used pen and paper, they will take it, I would say a 100% of the time. Yeah, and I think that's exactly why.

Speaker 1: Yeah, so in some ways we have to find ways of it's not about mak-, you have to go. It's not about making it more exciting, computer science more exciting, it's about keying into the ICT skills that they find exciting?

Speaker 2: Yeah, I think so.

Speaker 1: That sounds a good enough place to end I think.

Speaker 2: No worries.

Speaker 1: Thank you very much for your time.

Speaker 2: You're all right, not-