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Features



Career interview: maths teacher

by Marianne Freiberger



Those who can, teach

When Adrian Dow left his native Trinidad in 1992 and came to the UK to do a degree, he was firmly set on going into banking. "Bank director was very high on the list. Working with money and helping people make decisions about money really appealed to me at the time. It's a highly regarded job and my parents were very much up for the idea." Maths is essential in banking and Adrian had liked it at school, so a maths degree seemed the right way forward.

Career interview: maths teacher

The idea was to do the degree in the UK and then go back to Trinidad and possibly re-join a bank where he'd previously worked as a clerk. "But during the course of my degree [at Queen Mary, University of London] a lot of ideas about teaching started bouncing around in my head. During the lectures I tried to think of better ways of putting mathematical concepts across. Also, the idea of having a positive impact on the world around me suddenly became really important to me, and I wondered where I could put my energies to make a difference. I'd always liked the idea of working with young people, and at school I was good at explaining things to others. With these kinds of thoughts pecking away inside my head, I eventually I decided to try and go into teaching."

A stint on the East London Voluntary Teaching Scheme turned Adrian's interest into a passion. Working in a school in Newham, he helped to look after a "sink group", the lowest ability stream. He says he absolutely loved working with the kids, but it was not all positive. "Talking to kids about how they felt they were being taught and the methodology behind the teaching raised a lot of questions. The course was built on a matrix of subject areas and it was all about 'take a worksheet, get to the end, and then on your bike, on to the next'. The teacher wasn't terribly confident about the mathematical content of the course, and most questions were answered with 'well, read your worksheet'. The kids felt they were not getting their due and the teacher didn't manage to infect them with any kind of enthusiasm. Talking to the kids, it became clear to me that there had to be better ways than that."

"Wherever you look, you get a hint of maths."

But was Adrian himself enthusiastic about maths at school? "No, it really came about when I was doing my degree. I thought 'here's this thing, how do we use it, how can we explain it, look how universal it is as a language!' There were lots of discussions with fellow students about whether maths should be taught purely as a tool, or also as an abstract concept that is beautiful in its own right. In time, I came to love maths for what it is, for its beauty. And now I want to show the kids these ideas, how they connect everything, be it music, philosophy, nature, wherever you look you get a hint of maths. I think this is what's lacking in a lot of maths teaching."

During his PGCE (Postgraduate Certificate of Education) course at the Institute of Education in London, Adrian worked at two schools that were at opposite ends of the spectrum in terms of the teachers' enthusiasm and the children's discipline. The contrast convinced him that better, more inspiring, teaching methods can have an impact. "With these experiences my interest evolved from maths in the business world, into maths in the classroom, how to bring across ideas and inspire, but also into a passion for teaching as a whole. After my PGCE I was sure I wanted to continue teaching."

His first school was a comprehensive in Enfield, North London, with about 800 students, where he spent four years putting his theories into practice. He greatly enjoyed his time there and felt that his teaching method was successful. So much so that, by his own admission, he started suffering delusions of grandeur. "I started thinking about where else I could put my energies and share with the kids on that level. I had always said that if I could teach for free, I would. It's a very rewarding job in its own right, and there are many places in the world where the education systems suffers severe lack of funding. So teaching with the Voluntary Service Overseas (VSO) really appealed to me."

The big wide world



The VSO is an international development charity which sends skilled volunteers to countries where their help is needed. To join Adrian had to pass a series of interviews and do some research into possible destinations. He finally settled on Guyana in South America. "This was a good choice in many ways. They adhere to the Caribbean Examination Council, which I was familiar with from Trinidad. But also, I was interested for reasons of adventure. I had already been to some places in Europe and to India, but nothing as huge as working and living in a little known South American country."

Adrian started at a school in a remote village called Bartica. Surrounded by unspoilt nature, this was a far cry from busy London, but that was not the only difference: "in the school, everything was upside down from what you'd expect in England. There wasn't enough chalk, there weren't enough blackboards, and the existing ones had big holes in them. The roofs were leaking, there were no window panes, and kids were sitting four or five to benches that were designed for two. And there were no complaints!" In fact, the kids' attitude was the opposite of that of many European students. "I think they knew that if they didn't get it in school, they weren't going to get it anywhere. There isn't a social system out there that looks after people, and school is their only ticket to success. Of course, that's not necessarily a good thing, but it has the advantage that the students take their education far more seriously than some European kids do. It takes a lot to stand throughout all your lessons because there are not enough chairs available, but the kids all made that sacrifice. Other teachers whom I met through the Guyana Basic Education Teacher Training Program soon taught me how to make do without all the things I was used to. It was a real learning curve and later on I often talked about it to kids and teachers back here in England."



Adrian at the school in Guyana

Career interview: maths teacher

But despite the enthusiasm, school had to compete with families' more pressing, economical, concerns. "Amongst the older students, girls often outstripped boys by three to one, because the boys had to go out to work. Guyana is rich in gold and the big mining companies employ "pork knockers" people who go out into the remote areas and sift river beds for specks of gold. It's a quick buck, but a hard and even dangerous one, as malaria is rife in some parts of Guyana. We had a lot of conversations with boys and paid home visits to parents, trying to get them not to sacrifice their sons' education. It's hard to break the cycles that generations have gone through, but sometimes we were successful."

On a personal level, Adrian had no problems fitting in. As much as Guyana belongs to South America geographically, it's Caribbean in mentality, so he didn't suffer culture shock. "The students didn't really know how to take me at first: I look like a local, but I was clearly a VSO teacher. They were familiar with those, especially in maths."

So, there is a shortage of maths teachers in Guyana? "Yes, it's not a very popular job. I think it's the same old vicious circle: people succeed in maths through learning by rote mastering the art of doing exam papers and this is how they pass it on to their own students. So the real love for maths doesn't germinate in many kids, and that's what you need to go into teaching. You've got to love the kids, but you've got to love the ideas, too."

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Two of the classes that Adrian taught were due to do their final examinations at the end of his stay in Guyana, and he became particularly fond of them. To prepare them for their exams, Adrian set up voluntary Saturday lessons. The turnout was overwhelming. "On the first day, 75 kids turned up, and we had to use the school hall! We kept on going like that for 62 Saturdays. Rain or shine, the kids would come, often arriving before me. That really spurred me on to wanting to work with them, and sometimes we'd organise cricket games for after the lesson and turned the maths lesson into a full day's event."

Having made such a strong connection with the students, Adrian couldn't very well just disappear unceremoniously. He extended his stay until graduation in September, filling the summertime with a trip through Peru, Bolivia and Brazil. The hard work of 62 Saturdays proved to have payed off: that year saw the highest maths grades that were ever achieved in the school.



Adrian with students in Guyana – he's the one in the middle.

Gear change

But what next? Having caught the travel bug, Adrian decided to stick with the VSO and pick another country. Meanwhile, he came back to London and looked for a job to bridge the gap. He went along to his old school in Enfield to see if they needed anyone, and indeed they did. In fact, the Head had a proposition that kept

Career interview: maths teacher

Adrian in the country for another four years.

"The Head in Enfield told me about a new initiative, called the Behaviour Improvement Programme that was just starting. The government wanted to effect change surrounding behaviour in class. Truancy, lack of discipline and even violence was, and still is, a big problem in some schools. So the government had decided to give money to select schools in different London boroughs to find a way of addressing the problem. There was a lot of talk of zero tolerance, but also of trying to understand why the kids were behaving the way they did."

Having been assured that he could leave anytime he wanted, Adrian accepted a job as a "Behaviour Improvement Project Manager". A lot of his time was spent doing on-the-spot troubleshooting. Every time a kid was misbehaving in class, the teacher would call Adrian in, he'd take the kid out of class ... and then what? "I started by looking at the structures that were already in place: the various sanctions for students, talking them through behavioral issues, but especially restorative justice. This is about getting the kid and the teacher, or the kid and the kid, to talk about the problem they have with each other. That very quickly proved to be a successful strategy. It gave kids a hole in the wall that they often just wouldn't have. A lot of kids get backed into a corner: they misbehave, they are having a bad day, or the teacher is having a bad day, and then they get lumped in with the more serious offenders. Restorative justice injects a human element into the whole process and gives students and teachers the opportunity to identify the problem themselves, to explain their behaviour or to apologise. I think these interactions helped a lot of kids to get a better angle on their own emotions, learn how to control themselves, how to react appropriately to difficult situations, and learn how to communicate."

"Questioning the world around you is at the heart of maths. There are a lot of life lessons in that." And it wasn't only the kids who had something to learn. Adrian organised a few sessions with teachers, centred around how to create positive rapport with students. "What we talked about a lot was the fact that the children mirror *you*. So if you are going to shout to communicate, don't be surprised if they shout back at you. If you never show yourself to be human, for fear of being vulnerable, then that's exactly what you get back."

Of the existing punishments, internal exclusions proved to be successful. Rather than sending a disruptive student home for a certain length of time, he or she would be kept in school, but away from the others. The student would have to do the same amount of work as everyone else, but they'd be on their own. "The space in which the excluded students would work was a corridor right outside the senior staff's offices a daunting place and not one to mock about in! I'd oversee their work and at some point spend 20 minutes discussing the problem that got them excluded. It was interesting, at the start of the exclusion session the kid would often be argumentative and aggressive, but as the day wore on you could almost see how calm descended on them. And eventually many of them would ask 'well, what has gone wrong, what can *I* do to resolve the problem?' *Then* you can work with them."



Back in London

On the whole, Adrian feels that the behaviour improvement project is on the road to success. "Of course we didn't manage to solve all the problems or eliminate permanent or fixed-term exclusions, but what our strategies do very well is to differentiate those students that present a permanent problem from those that have the odd bad day. Our exclusions now are much more professional, much more clinical, and we can prove to governors and parents that we tried everything we possibly can before a child gets excluded.

We also got all the other factions within the school involved – the ethnic minority access grants, the special needs facility, the welfare officer, the on-site community police and the youth offending team. In weekly meetings involving all of these, names of kids who had issues be it family difficulties, bereavement, or drug problems would be thrown on the table, and we could work out who can help, and how."

But in a world where many kids face the most distressing family problems, and in which drug abuse and youth offending is rife, is there still any virtue in learning maths? Is it really a life skill? "Well, many philosophers have also been mathematicians and vice versa, and that's no coincidence. Questioning the world around you, questioning life, is at the heart of maths. Maths is about questioning everything, but also about being able to express things, making them as universally understandable as possible. There are a lot of life lessons in maths, apart from the obvious 'it'll help you understand your bank statements' ones. How much of that is actually expanded upon in a classroom is another question. The sad thing about maths teaching is that the syllabus is a command list, the teachers judge their own skill by it. If it hasn't been covered, the teacher thinks that they've not done their job. I wish we had a slower system in which there was time to expand on the background of things, to talk about their beauty and meaning, but there just isn't enough time."

Sun, sea and more school



A Trinidad beach

Rounding up disruptive kids and thinking about what to do with them is an exhausting job, and now Adrian feels it's time to leave it to someone else and do something he's been talking about for the last fourteen years: return to Trinidad. Ultimately, he wants to set up his own school. "I'm not sure how exactly this will transpire. First, I have to get into the education system over there, and then see whether the state would support me in my plans, or whether I'd have to go private and, in that case, see how I can make it affordable for people."

But why his own school, why not work with what's already there? "I'd like to set up a teaching environment in which there is time and flexibility, in which you can explore things and delve into the children's questions rather than rush through a syllabus. There will always be problems in a classroom, they can't be eliminated, but I'd like to create an environment that is as stress-free as possible for both teachers and students. Most of all, I'd like to teach the kids to be inquisitive, to nurture their interest in the world. I often say to them 'well, this is Pythagoras' Theorem, what's yours going to be?'. I'd like to have the best of both worlds, in which the teaching is enjoyable for the teacher, and the work load manageable, and where the kids are not necessarily angles, that would be boring but inquisitive and keen to interact. It's a really idyllic vision. Many teachers have told me that it just doesn't exist, but I think it does, I think you have to go out there and create it."

About the author

Marianne Freiberger is editor of Plus.

Career interview: maths teacher



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