

Mathematical Association Conference 2016 – Did it ‘Inspire Teachers’?

Introduction

The 2016 MA Conference at the Andrew Wiles Building, Oxford, from April 1st -3rd, had as a conference theme ‘Inspiring Teachers’. Did it succeed in its aim and, more generally, why do new and experienced teachers still benefit by attending these conferences? What follows is a brief report by Lindsey Sharp who attended the MA Conference for the first time and describes what parts of the conference have inspired her. Lindsey is as a maths teacher at Outwood Academy Adwick in Doncaster. Since finishing her PGCE in 2012 she has been a regular attendee at sessions provided by the Yorkshire branch of the MA and in recent years she has progressed to be a part of the Yorkshire Branch committee. What were Lindsey’s views and expectations before the Conference?

She writes:

‘As a new teacher I found these Branch sessions to be exciting and inspiring. For many of the students that I have worked with, they do not see the importance of maths and the impact it will have on their futures. As a secondary school teacher I am passionate about finding innovative ways of engaging my students. I believe that the conference will allow me to develop my knowledge further and give me the opportunity to pass onto my students the realisation that mathematics is an important aspect within the real world. In addition to this I would be able to share my experiences with other colleagues within my department, hopefully inspiring them to develop their own teaching practice. In my role, the opportunity to network with other members of the maths community doesn’t arise very often. I feel that the conference would allow me to benefit from the wealth of experience of not only the speaker but of the attendees.’

So were Lindsey’s expectations met?

Conference Report

When I was told that I had received the branches bursary to attend my first MA conference I was so excited. Having moved schools in September I was keen to impart my knowledge to my new students. As the year progressed I became aware that there was something missing in my teaching. It was the title of the conference that made me consider 'is inspiring what I need'? It turns out yes it was. Having been an active member of the Yorkshire branch for a couple of years I really enjoy the talks given to us periodically and these, when given, do inspire me to implement the skills learnt in my lesson. Here was my first opportunity to immerse myself in sessions for a full weekend. I leapt at the chance.

As this was my first conference I wanted to make sure that I experienced all that the MA conference offered. First off we started with a sundials tour around a sunny Oxford city centre. This was led by Peter Ransom. It was during the tour that I got my first opportunity to meet some of the delegates attending the conference. This for me was a fantastic ice-

breaker and I found a friendly bunch of people. I had heard Peter, the tour's guide, speak before so I was looking forward to an entertaining walk. I was not disappointed. It is clear the passion that he has for his subject.

Anne Watson gave the opening plenary. We were immediately drawn into a dialogue by Plato. We had to consider what was already known and what was needed to be known. The dialogue highlighted the importance of scaffolding for me. I realised that Socrates was giving more guidance than necessary, and sometimes I am a little guilty of this in my own practice. The dialogue demonstrated that even our 'slow graspers' can handle whatever we give them with the correct amount of support. Anne went on to discuss the role of directed number using road signs as a way of introducing this. She stated that directed number is often taught through counting, however this gives rise to ridiculous situations being introduced which confuse pupils further. From this Anne discussed allowing students to begin to use their skills of proof through using existing knowledge. It was highlighted that it is important to allocate the aspects of existing knowledge that the students would be required to use with a particular problem. She expressed the importance of using questioning to bring existing knowledge to the fore. She elaborated that Socrates was able to inspire the slave boy to achieve more through appropriate scaffolding. From Meno we can take from this that lots can learn provided there is correct support and guidance.

I signed up for session 1 as it was a speaker I had seen a few times before. This was a different talk to any I had seen previously. I thought what better way to start off a conference - Peter Ransom and Origami trays. We started with some paper folding to create an origami tray. This in itself was a great task to undertake. From this task we were asked to adapt our tray to fit certain criteria such as fold a sheet of paper to make a tray with a square side, a tray with the maximum volume or a tray with a square base. It was nice to see how the one task can be differentiated in many different ways.

Following this session I attended a talk from Siemens education. This was an interesting talk on bringing maths to the forefront of the STEM subjects. The team from Siemens showcased free resources which can inspire a future in engineering and technology. We were able to have a play with the resources and we had much fun tinkering with the height to change the speed of the car so it stopped safely. It was very addictive.

Dinner that evening was at Sommerville College followed by the Quiz. During the quiz was an excellent opportunity to chat to others, many of whom have a wealth of knowledge and experience.

Saturday morning bright and early brought a plenary by Jane Jones, HMI. Throughout, I was able to reflect on what makes an inspiring teacher and was able to identify characteristics that underpin inspiring teaching. We were asked to think about what the term inspiring teachers meant, e.g. is it teachers who inspire or teachers who are inspired? I found this an interesting play on words as to me it means both of these things. The topics that Jane was

discussing in her session resonated with me as these are areas that I have been working to develop over the last year.

Session 3 - Jenny Gage and David Speigalhalter on teaching probability. Now this is my kind of session, an unexpected dose of statistics. Jenny and David were highly entertaining and had us working from the outset, creating our own spinners, collecting data, representing it in frequency trees, two way tables and eventually making links to tree diagrams and calculating probabilities. A whirlwind tour of the GCSE syllabus in 1 hour. David and Jenny have inspired me to return to school and use this session with my GCSE statistics group.

Session 4 - Debbie Morgan on moving on from mastery. Although I am a secondary teacher I felt that this session would alleviate some of my concerns regarding mastery. My school has been teaching mastery topics to Year 7 and 8. From this session I gained a greater depth of knowledge surrounding the mastery that is being taught in primary school. This allowed me to see how some of the concepts we have been working on this year in lessons are being taught at primary school level.

Refreshments and a first opportunity to browse the many stands.

The afternoon started with the presidential lecture by Peter M Neumann. Again this was a great time to reflect upon my practice and to consider whether inspiring teachers are teachers who inspire or are those who give inspiration to teachers. His talk was constantly referring back to those who had inspired him throughout his career. I was able to reflect on who has inspired me to get to where I am now and who is currently inspiring me to move forward.

Saturday evening -The Annual dinner at Queens College. What a venue! I was a little apprehensive about attending the dinner at such a prestigious college. It was a wonderful event with excellent food and company. David's talk on a mathematician that had inspired him and then Vicky Neale's talk on primes was enlightening.

Ben Sparks, well what can I say?.... His closing plenary was extraordinary. As the title suggested, Moving Mathematical Moments, I was very definitely a mathematician moved by the maths. He stated that there are many feelings and reactions that are provoked by maths and as teachers we should focus on the emotional content of the maths we teach. He discussed how visual aspects of maths can often promote particular feelings. He ended his talk with a look at visual representations of irrational numbers, which in themselves the pictures were very beautiful. The song he ended with whilst the animation was playing on the board was incredibly haunting. I felt very moved by this session and it seemed a very fitting end to an Inspiring Teachers conference. On return to school I was asked if I would go to the conference again and I can say I most definitely would. The conference has allowed me to meet a vast array of people who have, between them, an abundance of knowledge. I have been very much inspired by each of the speakers and by the delegates I met whilst

there.

Conclusion

The MA conference theme of 'inspiring teachers' has certainly appeared to have met Lindsey's expectations and confirmed the accepted view that conference attendance is not only about knowledge (mathematical or educational) learnt but, more significantly, who you meet and listen to within the wider mathematical community. It is clear that many speakers have inspired Lindsey and thanks must go to those inspiring speakers in particular and also to the conference planning committee who put the conference programme together.

Lindsey's students will clearly benefit from her attendance at this year's MA conference and (hopefully) from her attendance at future conferences and involvement with her local Yorkshire MA Branch. Are you now inspired to support your local MA Branch events and to attend MA Conference next year?

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