

Alison Hardy: UCET Travel Scholarship report

When I applied for the UCET Travel Scholarship I set out three activities I aimed to undertake during my proposed visit to Philadelphia and Baltimore:

- Meet with university colleagues, primarily from USA, but also around the world, to discuss their training programmes for technology teachers
- Outline some joint research projects building on small scale projects carried out with our students and partnership schools
- Share my PhD research about the purpose and value of design and technology education in England at the international Pupils Attitude Towards Technology conference (PATT2017) in Philadelphia

The trip was planned around the timing of a conference, which meant I travelled five days after submitting my PhD thesis – not ideal but it certainly focused my mind to submit as I didn't want to be editing my thesis whilst travelling.

Before the conference began I spent 2 days with Dr Len Litowitz, chair of the Applied Engineering, Safety & Technology department, and his Evanna at their home. I had a delightful stay with Len and Evanna, who made me feel welcome and gave me time to adjust to the time difference.

Len took me into the university where I saw the extensive facilities for engineering and technology, which included courses for technology teacher education. In America there is an increasing focus on STEM education, positively including technology education, unlike England where the focus is more on the bookend subjects of science and mathematics.

Len and I also compared expectations and experiences of USA and UK HE institution and teacher education. The Millersville ITE programme gave greater emphases to engineering and manufacturing knowledge than our courses at NTU, but there were many similarities particularly in the different 3D printing, and workshop equipment. It made me smile to see posters from the Design and Technology Association (D&TA is the UK subject association for D&T based in Warwickshire) magazines on the walls. When back home I sent some more recent copies over to refresh their wall displays! In return I came away with resources from ITEEA, America's equivalence to D&TA.

I travelled to Philadelphia with Len, Evanna and colleagues from Millersville for the PATT conference on Monday 10th July. The Pupils Attitude Towards Technology (PATT) conference is aimed at teachers and university lecturers involved in design and technology education. It promotes research in the field of technology education and the theme for 2017 was 'Fostering the Creativity of Youth Around the Globe'.

Almost forty papers were presented over four days, and with no parallel sessions there was plenty to absorb. My paper was drawn from my PhD study and entitled *Rhetoric and interpretation: the values pupils and special interest groups attribute to D&T*. I presented in the penultimate session on the final day,

and received valuable feedback and questions that helped me prepare for my impending viva.

During the conference I caught up with Dr Greg Strimel from Purdue University, who I had first met in Christchurch, New Zealand at the PATT2013 conference. Subsequently, Greg had visited NTU in November 2016 with his colleague Dr Todd Kelley and given a fascinating talk to our students about Purdue's biomimicry education project. We exchanged news and ideas about using some of my PhD research together for a future project.

The next stage of my trip was to Baltimore. I was collected by Dr Michael Grubbs and his family who I had the pleasure of staying with for six days. I had first met Michael at PATT2013, then again in Marseille at PATT2015. In 2013 I presented my first paper linked to my PhD *Starting the journey: discovering the point of D&T* and in 2015 a second paper *What do others think is the point of design and technology education?* In the Q&A after I had presented my paper in 2015 Michael asked me a question that led me to rethink part of my study's conceptual framework (never underestimate the benefit of presenting at a conference or of asking questions!). So it was great to spend time with Michael discussing the outcome of my study and the rippling impact of his (at the time) seemingly innocuous question.

During my stay, I joined a small group of technology teachers from Baltimore City who had come together for a Curriculum Writing Week. The teachers were being paid to write new technology education curricula for all the Baltimore Schools. A new idea to me and I could see the potential for groups of teachers to use this idea to design and write new curricula – something teachers in the UK rarely have time and space to do. Michael found time during their writing time for me to share my research and give a seminar to a larger group of teachers about D&T education in England.

Each day Michael and I travelled from his home outside Baltimore into the city centre. During these journeys we shared ideas about the challenges of state education in the UK and US, the sidelining of D&T education and what we thought was the purpose of D&T. It was from these conversations that I was able to plan the next publications from my thesis. Coincidentally during my visit a call for papers for a special edition of a new education journal, Prism, came out. The journal was to focus on 'Values and education', and given that my PhD title is 'The value of a school subject: Investigating the values attributed to design and technology by different stakeholders' Michael encouraged me to write and submit a paper. So during my stay, I drafted a paper which I completed, submitted and was published in March 2018.

In summary, the UCET travel scholarship enabled me to meet up with colleagues and learn about teacher education in the USA. Additionally, it gave me extended time with colleagues who I had only met fleetingly at previous conferences. This time meant we could talk in depth about our research, our challenges and values, laying foundations for future research together.