

CETL-MSOR Conference 2015

Ros Porter and Hannah Bartholomew: When will I ever use that? Giving students opportunity to see the direct application of modelling techniques in the real world.

Mathematical modelling is an abstract technique that can intimidate young mathematicians. Many of our first year students have never met the concept of mathematical modelling, although they will have used models unthinkingly.

Meeting a problem, making assumptions and developing a model to solve it is an alien concept. This is removed further from the students grasp by the realisation that there is no one right answer; instead there are several plausible ones.

Although students may be happy to use models someone else has developed for given scenarios (e.g. SUVAT) some cannot see why they need to develop models for themselves or how this relates to the real world. In an attempt to help students see that modelling skills and analytical thought processes are valuable tools for a maths graduate we invited 3 speakers to attend a first year modelling lecture to talk about the models they use in their jobs.

The speakers were varied being from banking, research (chemistry) and transport engineering. Each spoke for approximately 10 mins. and gave an outline of their field. There were follow up tutorials in which students were asked to reflect on the speakers and how their own learning was developing. Two of the speakers were also able to attend the tutorials and chat more informally to the students.

Here we discuss the impact these sessions had on the students and their perceptions of modelling and employment.