Traps and Tweets from Britain to Brazil

Bringing relevance and cutting edge research to the curriculum

Universities/schools/organisations involved

The Lancaster University partnership with Queen Elizabeth Teaching School has provided an Early Career Researcher (ECR) from Lancaster Environment Centre to respond to requests for Researcher in Residence (RinR) to enhance the Biology curriculum for 33 year 13 students and provide informal CPD for three teachers.

Summary of activity

During this pilot the RinR has undertaken fortnightly visits to the school and been able to participate in lessons in a number of ways including presentation of their own research, facilitating other PhD researchers to visit and present their research, providing access to additional resources to enhance the learning experience, participating in lessons by working alongside the teachers and having time to discuss research developments and ways in which the current curriculum can make more use of cutting edge research. The RinR has been able to act as a bridge between the university and the school facilitating further access to resources and other researchers in Britain and Brazil. As the teacher involved explained: *'the researchers have stimulated interest in research work from year 13 students who are able to access the information as it is linked strongly to our specification. The loan equipment such as the 30 Longworth mammal traps which enabled me to run a practical session in the school grounds'* There have also been benefits for the RinR and other ECRs who have been involved, '*It's given me insight into how the curriculum works in school, … I have become more aware of the need for this sort of engagement*"

Aims

The aim of the Researcher in Residence project was to pilot the use of Early Career Researchers working collaboratively with teachers in schools to *'expand how they see Biology, to move beyond the [stereotypical] views of its use in medicine, veterinary science, teaching, and offer up to date research examples'*. The intention was to build on previous university experience of researchers with teaching experience, working collaboratively with teaching colleagues. We wanted to explore the range of ways ECR RinR could inspire the next generation by contributing to teaching and learning, providing a bridge between university and school that gave teachers access to new research, resources and built RinR capacity for public engagement with schools.

Target audience

Teachers, university staff interested in researcher in residence projects

• What did you do? What did your activity involve?

The project consisted of a number of activities including:

- Presentation of own PhD research into the British Dung Beetle
- Identifying other ECRs whose research would enhance the curriculum and help illustrate the breadth of research opportunities
- Participation and joint delivery of field work lessons using animal traps, this was greatly enhanced by being able to arrange for an extra 30 Longworth mammal traps to be loaned to the school, giving a total of 34 which clearly increased the chances of successfully trapping the animals.
- An opportunity to follow via a Twitter feed as the RinR undertakes a fieldtrip to Brazil to develop their research into dung beetles. The RinR has agreed to Tweet during the visit to enable students to follow the trip and gain an insight into one of the aspects of a researchers work.

- Discussion between the teachers and RinR about future teaching and learning developments including activities to inspire year 9 students where it is hoped they will spend time supporting the students to prepare for the Society of Biology's 'Biology Challenge'.
- Informal discussion between teachers and RinR that is providing informal professional development opportunities.
  As the RinR explained: *'the teachers says she is learning more upto date things, and has asked me about doing a PhD, ... I plan to have a future career in academia but have an interest in Science communication, so this has given me more experience with a different age group who are more difficult to interact with, it's important to inspire and now I have some idea that this is possible'*.

Evaluation and Lessons learnt

Although the pilot is still in progress interviews and feedback with the school and university staff have allowed us to begin to evaluate what works and how we can build on the pilot as we recruit and deploy future RinR. The key messages for success are:

- To respond to a genuine interest and need from the school – the request came from the school who had a very clear idea of what they needed and how a RinR could help to inspire the next generation
- To integrate the contribution of the RinR into the curriculum so that their work is embedded and enriching the curriculum rather than disconnected
- To taking advantage of the unexpected, as with the opportunity to follow RinR via Twitter on their Brazil field trip
- To consider the benefits of using technology as a way of expanding and extending the level of interaction and to convey other aspects of the research process as with the Brazilian Tweets
- To use the regular contact to build links with other researchers in the university and planning activities for the future

Is there anything that you would change if you ran this activity again?

There are also other lessons and issues we still need to think about as we move to deploy future RinR, for instance: taking account of the needs of the ECR and their Principal Investigators, which may involve changing plans as we have to accommodate the trip to Brazil; providing additional guidance for ECR of relevant university expectations, and continuing to explore how to use technology to support interaction with rural schools.

As this was a pilot the university was open to how the project evolved and was happy for the RinR to respond to requests from school. From other SUPI evaluation and feedback from ECR and Principal Investigators it is probable that in the future there may need to be more discussion about what the university staff wished to gain from the project and clearer guidance about university expectations.

In the Lancaster SUPI the schools are all at a distance which increases the importance of exploring flexibly the use of technology. For example, the original plan was to use SKYPE for Brazilian fieldtrip updates, however, initial challenges with firewalls resulted in our use of Twitter which we will be closely following, meanwhile we are tackling the firewall trap as we tweet about the size of dungbeetles!