

Burlington House, Piccadilly, London. Friday 20<sup>th</sup> May 2016

Organised by the Centre for Science Education, University of Edinburgh and *Chemistry Education Research and Practice*, RSC.

11.00 Arrivals and pre-meeting introductions.

11.30 **Welcome.**

Michael Seery (University of Edinburgh) & Karen J Ogilvie (RSC)

**Morning Session: Deriving a Method from Theoretical Frameworks**

*Sponsored by the Chemistry Education Research Group ([www.rsc.org/cerg](http://www.rsc.org/cerg))*

11.45 **Grounded Theory.**

Chris Randles (University of Hull)

12.15 **Phenomenography.**

Claire Mc Donnell (Dublin IT, @clairemcdonndit)

12.45 Lunch and Discussions.

**Afternoon Session: Methods of Data Gathering**

*Sponsored by the Tertiary Education Group ([www.rsc.org/tertiaryeducation](http://www.rsc.org/tertiaryeducation))*

13.45 **What are students thinking?**

Ross Galloway (University of Edinburgh, @RossKGalloway)

14.15 **Using statistical methods.**

Fraser Scott (University of Strathclyde, @Sci\_DrScott)

14.45 Coffee break.

15.15 **Action Research.**

Jane Essex (Brunel University, @jane\_essex)

15.45 Closing Comments.

16.00 Meeting Close.

Those of you waiting for travel connections may like to join us at a local hostelry for a post-meeting drink.



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## Speaker Biographies

**Chris Randles** is based at the University of Hull, where he recently completed a PhD in chemistry education, under the supervision of Prof Tina Overton. He will be discussing methods in the context of his recent CERP paper "Expert vs. novice: approaches used by chemists when solving open-ended problems", which invoked grounded theory.

**Claire Mc Donnell** is based at Dublin Institute of Technology, where she works at the Learning Teaching and Technology Centre. Claire is a member of the editorial board of CERP. She completed an MA (Higher Education) and will present the methods used in her research project which studied students' experience and perception of learning resources, as viewed from a phenomenographic perspective. Claire will also discuss the process of preparing a publication from a dissertation.

**Ross Galloway** is based at the University of Edinburgh, and is a member of the Physics Education Research Group, being part of the substantial amount of innovative practice and educational research completed there. Ross will discuss the methods used in the recent publication from the group in Phys Rev ST, "Analyzing learning during Peer Instruction dialogues". This involved the use of smart pens to collect data and Ross' talk will focus on the use of this method in the context of the research design and how the data could be used to address the research questions.

**Fraser Scott** is based at the University of Strathclyde, where he is a researcher in medicinal chemistry. His education interests are in the area of maths for chemistry. His talk will focus on his recent CERP paper, "A simulated peer-assessment approach to improving student performance in chemical calculations". This used a quantitative approach, and Fraser will discuss the methods used in gathering data, along with the statistical tests employed in his analysis.

**Jane Essex** is based at Brunel University, London where she is a lecturer in science education. She has a long involvement with the Chemistry Education Research Group. She has wide interests covering teacher education, communication, and mentoring. She will speak in this context on the use of action research as a method, and the approaches involved.

\*Author summaries written by Michael Seery. Pre-reading and links to speaker publications are at the website: <https://micer16.wordpress.com/>.

## Location, Signing In, and Queries

**Royal Society of Chemistry, Burlington House, Piccadilly, London, W1J 0BA.**

The easiest way to reach Burlington House once in London is by Underground. Burlington House is located between Green Park (Victoria, Piccadilly, Jubilee lines) and Piccadilly (Piccadilly, Bakerloo lines) stations. Names provided on registration have been lodged with the reception at Burlington House. Please sign in on arrival. For queries or comments, you can send an email to: [michael.seery@ed.ac.uk](mailto:michael.seery@ed.ac.uk).



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