Research and Policy on STEM Education in Scotland and England: Learning from Our Neighbours

Tuesday, June 25th 2013
St Andrew’s Building, University of Glasgow, 11 Eldon Street, Glasgow, G3 6NH

Programme of events

9.30 am: Arrival and registration

10.00am: Welcome: Prof. Louise Hayward (University of Glasgow)

10.10am: Plenary speakers:
- Prof. Wynne Harlen (Visiting Professor, University of Bristol): “Assessment and Inquiry-Based Science Education: What can we do to raise attainment and participation?”
- Ian Menzies (Senior Education Officer, Science, Education Scotland): “Exploring the third horizon: science for all within Curriculum for Excellence”

Followed by questions and discussion chaired by Prof. Louise Hayward

11.00am: Refreshments

11.15am: Three parallel sessions: “What do we know about improving participation and attainment in science, mathematics and other STEM subjects?”

A. “Increasing and widening participation in science and mathematics: Findings from two longitudinal studies”
   - ASPIRES: Prof. Louise Archer (King’s College London)
   - UPMAP: Prof. Michael Reiss (Institute of Education, University of London)

Respondent: Alison McLure (National Officer, Scotland, Institute of Physics)

B. “Improving pedagogy and raising attainment: Research-based approaches using dialogic teaching and formative assessment”
   - EPISTEME: Prof. Ken Ruthven (Cambridge University)
   - ICCAMS: Prof. Jeremy Hodgen (King’s College London)

Respondent: Karen Prophet (Senior Education Manager, City of Edinburgh Council)

C. “Enhancing policy implementation: What happens when more emphasis is placed on applied science and socio-scientific issues? What happens when researchers, policy makers and practitioners collaborate?”
   - EISER: Prof. Jim Ryder (University of Leeds)
   - Engineering the Future: Prof. Louise Hayward, Ernie Spencer and George MacBride (University of Glasgow)

Respondent: Calum Maxwell (Senior Education Manager, East Ayrshire Council)
12.15pm: Lunch

12.45pm: “Can research be designed to inform policy and practice?”

In this session, we will reflect on the TISME programme:

· What are the main successes and challenges of TISME?
· What have funders, policy-makers and other users learnt from TISME?
· What are the implications of TISME for future funding initiatives, particularly in Scotland?

Panel members:

· Fiona Robertson (Her Majesty’s Inspector: Mathematics: Education Scotland, TISME Advisory Committee)
· Prof. Derek Bell (College of Teachers, independent consultant, TISME Advisory Committee)
· Peter Main (Institute of Physics, TISME Advisory Committee)
· Adrian Alsop (Director for research, partnerships and international, Economic and Social Research Council)

1.15 pm: Breakout groups: “Constructing a research agenda on STEM participation and attainment in science in Scotland and across the two nations”

2.00pm: Plenary speaker followed by questions and discussion: Prof. Graham Donaldson (Honorary Professor, University of Glasgow and author of The Donaldson Report) "Teaching Scotland’s Future: Implications for Science, Mathematics and other STEM subjects"
Followed by questions and discussion

2.35pm: Reflections on the day: Carolyn Yates (Association for Science Education Scotland)

2.45pm: Finish