

INSTEM national workshop at the University of Exeter, 11th of November 2013

Upper Lounge, Reed Hall, University of Exeter on
Monday 11th of November 2013 from 1pm to 4pm

Dr Alun Morgan,
Dr Lindsay Hetherington,
University of Exeter

Dr Martin Dixon,
Bodmin Community
College

Professor Tricia Jenkins,
Michela Insenga
University of Liverpool



AGENDA:

Throughout the afternoon three questions were kept at the forefront of discussion:

- Inquiry Based Learning activities: are these an effective way of teaching science?
- What are the benefits and drawbacks of using Inquiry Based Learning activities in the classroom?
- Do practitioners feel that their opinion is listened to by educational researchers and policy makers?

PROGRAMME: Chair – Dr Martin Dixon

- 1.00 Lunch
- 1.20 Introduction and Ice breaker (Dr Martin Dixon)
- 1.30 Presentations
 - INSTEM state of the art report (Ms Michela Insenga)
 - Synthesis report (Dr Tricia Jenkins M.B.E)
- 2.00 Discussion on INSTEM recommendations and areas for reflection
- 2.45 Coffee break
- 3.00 Presentation (Dr Alun Morgan)
Strategies to implement Inquiry Based Learning activities in the classroom. Evidence from research
- 3.30 Feedback from presentations and discussion on recommendations
- 4.00 Close



Key Contribution of workshop to INSTEM:

- ❖ UK practitioner–policy–research dialogue;
- ❖ intergenerational learning;
- ❖ student voice (particularly girls)

Delegates included representatives from: Higher Education (teacher education & research, community engagement, Inclusive practise); Local Authority Teacher Advisor; Primary school – teachers; Secondary School – students and teachers; regional Informal Science Education providers.



Small discussion 'break-out' groups comprising students, academic researchers, teachers and advisory teacher



Key Workshop Outcomes/ Messages:

The most outstanding aspect of the meeting was been the engagement of **students** in the discussions. They stressed the need to involve children as key players in the education system. They emphasised: their desire for **creative approaches** to learning, especially in STEM subjects; the value of having channels for students to **feedback to teachers** on preferred pedagogies; the desirability of **interdisciplinary approaches** (e.g. art & drama into STEM) as an engagement and motivation strategy for all students; and the value of **visual approaches** to teaching & learning.

Students were also very positive about the notion of **peer learning**; and structures in which some learning is **'teacher-centred/delivered'** and some is **'independent/Inquiry-led'**. Whilst the students confirmed the overall perception that the use of IBL in the classroom was desirable, they did indicate that it would not be appropriate for all STEM teaching to be IBL. They advocated, instead, a **'mixed economy' of approaches**. The particular strength of IBL from their perspective is that it allows much more communication between pupils and teachers.

Teachers were also enthusiastic about IBL activities in the classroom but at the same time expressed concern that it is necessary to ensure that pupils are covering the necessary material and make the required number of levels progress - as these are linked to Ofsted **targets and league table** metrics and also impact on teacher's performance related pay.

The UK national INSTEM workshop confirmed the overall perception that IBL is good in moderation, but **the 'accountability agenda'** in which students still must 'aim for a grade' are significant constraints. This brings to the fore the need to discuss **appropriate assessment methods that can acknowledge and accommodate IBL – an issue that needs to be tackled as a matter of priority.**



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