Design Research for assessment: how collaboration has led to the development of both theory and practice in the TAPS project

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https://pstt.org.uk/resources/curriculum-materials/assessment
Teacher Assessment in Primary Science (TAPS) project

Overview

• Brief introduction to TAPS
• The Design Research process
• Developing practice
• Developing theory
• Collaboration and developing roles
• Next steps
Teacher Assessment in Primary Science (TAPS)

- Funded by Primary Science Teaching Trust, based at Bath Spa University
- Aiming to develop support for a valid, reliable and manageable science assessment which will have a positive impact on children’s learning
- Work collaboratively with schools to develop resources: pyramid model and self-evaluation tool; database of freely available focused assessment plans and examples

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The Design Research process

Key features of Design Research:
- Dual goals of theory and products to impact practice
- Iterative cycles of trialling in real contexts
- Sustained collaboration between researchers and practitioners
- External validation at collaboration points

Developing practice

- Shared TAPS pyramid back in school: build on pupil and teacher layers, led to whole school development
- Personal focus on multimodal: modelling, pupil led presentations, use of ICT
- Success story for W
- Led to development of TAPS focused assessment task: in context of soldier

Smart fabric for new soldier uniform

By Paul Rosin
Science editor, BBC News website
1 April 2012 | Technology

British soldiers’ uniforms could soon use electrically conducting yarn woven directly into the clothing, replacing cumbersome batteries and cabling.

The “e-textiles” could provide uniforms with a single, central power source.

This would allow soldiers to recharge one battery instead of many and cut the number of cables required in their kit.

Surrey-based Intelligent Textiles showcased the lightweight uniform at an event organised by the Centre for Defence Enterprise (CDE).

The company has patented a number of techniques for weaving complex conductive fabrics.
Balancing key principles in teacher assessment

- **VALIDITY**: Full breadth of subject focused outcomes summarised from a range of evidence types.
- **RELIABILITY**: Subject focused moderating discussions, supported by criteria and exemplars.

Shared understanding of subject and assessment purposes

Manageability


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Developing theory:
Is assessment doing what we want it to do?

*Is it valid?*

Teachers adapt the pace and challenge of activities

Active pupil involvement and responsive teaching

Assessment to support learning

Pupils assess their own ideas

Pupils assess peers’ ideas and work

Developing theory: Are we assessing consistently?

Is it reliable?

Developing a shared understanding

Moderation discussions to support consistency/reliability

Developing theory:

Key principles pyramid

Whole sch processes

Summative reporting
e.g. based on range of info

Monitoring
e.g. moderation for shared understanding

Responsive teaching
e.g. clear focus, Qs, feedback

Active pupil involvement
e.g. self/peer assessment

Ongoing rich formative assessment can be summarised from a range of contexts

Assessment to support learning

Teacher Assessment in Primary Science (TAPS)
Collaboration and developing roles

- Sustained collaboration: sharing ideas and working together to develop and trial new strategies and resources
- Time: to work with teachers on development days and in school
- Cascading: share resources, support other subject leaders, cluster moderation
- Becoming a co-researcher
- Writing an article

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