

## **Deliverable D7.6: International Conference**

### **Introduction**

This deliverable sits within Work Package 7 – Exploitation and Dissemination, which runs throughout the whole life of the FaSMEd project, but culminates in an international conference in Year 3, due in month 35 (November 2016 in our Description of Work). Our Mid-Term Reviewers in month 20 suggested we economised for the remainder of the project and that we should consider limiting or combining the numbers of meetings we held. We therefore proposed at our Phase 3 launch meeting (Deliverable 8.3) that we should merge our two forthcoming events as suggested: our International Conference (D7.6) and our Final Meeting (Deliverable D8.4) which is stated in our DoW to report by month 36.

We agreed to merge these two events into a single two-day event (the joint International Conference and Final Meeting) which took place in November 2016 (month 35) at the University of Maynooth, Ireland. The event drew together the consortium partners, members of the Strategic Advisory Committee, Evaluation team and key invited participants. This represented a significant international academic community of experience, expertise and practice in science and mathematics education with specific knowledge of digital technologies and Formative Assessment. The conference focused on disseminating the outcomes of the project and was more ‘outward’ facing. The final meeting facilitated discussions around raising achievement in mathematics and science education with a focus on implications for future research and policies and our final deliverables due at the end of the project:

D3.3 Final Toolkit

D3.6 Final Professional Development Package;

D6.1 Approaches to raising attainment: Socio-technical approaches to the raising of achievement in Mathematics and Science Education;

D6.2 Policy Guidelines: National, regional and EU policy guidelines for the provision of approaches to the raising of achievement in mathematics and science education;

D6.3 Future research: Recommendations for future research.

This document reports on the first Deliverable (D7.6): the International Conference.

### ***The programme***

Details of the programme for our International Conference can be seen in Annex 1. The event was publicised through a variety of ways to encourage attendance and participants could register for single days or both. We included it in our FaSMEd Newsletter (Issue 11, Deliverable D7.2<sup>1</sup>), it was submitted to the Scientix website (with subsequent social media publicity), it was advertised on our Facebook and Twitter feeds, we invited specific individuals, and each partner circulated invitations through their own networks.

### ***Keynote presentation***

Our event was launched by our Keynote speaker, Dr Alison Clark-Wilson, of University College London, UK. Alison has played a key role in the FaSMEd project from the very beginning, and

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<sup>1</sup> <https://research.ncl.ac.uk/fasmed/newsletters/>

has been an active member of our Strategic Advisory Committee throughout. The presentation by Alison Clark-Wilson can be found in Annex 2.

### ***Case study presentations***

The project partners have carried out 18 case studies and many more interventions in schools working with the teachers to re-design the resources and Professional Development package for the FaSMEd Toolkit<sup>2</sup>. The FaSMEd case studies demonstrate how professional learning was facilitated through courses, direct work with individual teachers and/or teacher learning groups, as exemplified through the Professional Development package (Deliverable D3.6). Our work with teachers has highlighted that where teachers were able to work as learning communities, conditions were effective in enabling teachers to feel safe to experiment, examine the impact of their innovations, to talk openly and to establish principles about effective student learning<sup>3</sup>.

It was important to share our case studies at the conference and all partners presented their case studies in turn, highlighting the common or unique features within their context. All the separate case study presentations can be downloaded from our website<sup>4</sup>, as part of our continued dissemination strategy.

### ***Case study posters***

In addition to our individual case study presentations, each partner prepared a poster displaying key information on the case study. Our Irish partners prepared a template for the poster but the content was decided by each partner. The posters (A1 size) were professionally printed and laminated and then were displayed at the venue on both days. These posters can also be downloaded from our website<sup>4</sup>. The posters were not only to display information, but they served as a stimulus for discussion during a throughout the conference to specifically circulate, view, question and discuss the different case studies.

### ***The FaSMEd film***

The FaSMEd film is a vehicle to share something of the spirit of the project; showing the enthusiasm of its partners and participants to engage in something new and share some of the insights they have gained. Our intended purpose of the FaSMEd film is that it encourages others in the sector to explore and develop the use of technology in supporting formative assessment (in science and mathematics) in their own settings.

We were able to premier the FaSMEd film at the International Conference. The final version of the FaSMEd film is hosted by Newcastle University, and we have committed to a minimum of two years maintenance after the end of the project. The film can be found at:

[www.fasmed.eu](http://www.fasmed.eu)

### ***Cross comparison of case studies and cross-comparative analysis of country studies.***

The case studies were analysed and the outcomes synthesised in a cross comparison report (Deliverable D5.2). We have also produced a cross comparison of country studies framing the results of the FaSMEd project within the policy and practice of the partner countries

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<sup>2</sup> [www.fasmed.eu](http://www.fasmed.eu)

<sup>3</sup> Deliverable D4.3 <https://research.ncl.ac.uk/fasmed/deliverables/>

<sup>4</sup> <https://research.ncl.ac.uk/fasmed/disseminationactivity/>

(Deliverable D5.3). Presentations outlining both of these documents were given at the International Conference, with headlines and highlights emphasised. Both presentations can be downloaded from our website<sup>4</sup>.

***Introduction of the FaSMEd Toolkit website***

Our International Conference ended with a session led by our partners from Germany and South Africa. This gave a detailed history of the development and rationale of the Toolkit, alongside an introduction to the various sections including Professional Development, and teacher tools.

***Conclusions***

Our FaSMEd International Conference was key in disseminating the outcomes of the project both within the consortium and to key invited participants from policy, practice and academia. It provided the basis for the following event, our FaSMEd Final Meeting scheduled for the next day.



# FaSMEd International Conference



**FaSMEd Improving Progress through Formative Assessment in Science and Mathematics Education**  
*A Science in Society Collaborative Project of the European Community*

**1st November 2016**

**Renehan Hall, North Campus, Maynooth University, Ireland.**

8.30	Registration
9.00	Keynote: Dr Alison Clark-Wilson <i>The FaSMEd project and the wider context</i>
9.30	4 Case Study Presentations
10.30	Refreshments and Poster Session
11.00	3 Case Study Presentations
11.45	Comfort break
12.00	2 Case Study Presentations
12.30	Posters and Q & A Session
13.00	Lunch
14.00	FaSMEd Film
14.15	Cross Comparison of Case Studies
15.00	Refreshments
15.15	Cross Comparison of Countries
16.00	Introduction of the FaSMEd Toolkit website
17.00	Finish

**To attend, please register at: <http://bit.ly/2cQdBnV>**

Registration will remain open until all places are allocated. The event is free of charge.

For further information about the event please email: [mairella.dempsey@nuim.ie](mailto:mairella.dempsey@nuim.ie) For further information about the project please see <https://research.ncl.ac.uk/fasmed/> or email [fasmed@ncl.ac.uk](mailto:fasmed@ncl.ac.uk)

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### The FASMEd project and the wider context

Alison Clark-Wilson  
 UCL Knowledge Lab  
 University College London

### some assumptions...

- formative assessment can impact (significantly!) on students' learning processes, outcomes and affect
- technology can support processes of formative assessment in (and beyond) the classroom
- developing (and sustaining) formative assessment practices (with and without technology) takes time
- technology will disrupt the established teaching practices and norms
- the technological tools are continually evolving

### consider this example....

This resulted in 132 data sources for the teacher!

- 100 screenshots
- 25 written responses
- 7 teacher-student(s) conversations

### one snapshot – what do YOU notice?

### what influences our 'noticing'

- existing subject knowledge and teaching experience
- views of mathematics/science – and how it is 'best' learnt
- the nature of the task – the 'richness' of the maths/science that can be noticed
- the affordances of the technology – the representations that can be displayed

### shifts in practice

### ...so where next?

more ears for teachers?

more eyes for teachers?

### technology-enhanced noticing...

"Flexcat"

...of students' discussions

- reaction to tasks
- engagement with tasks
- "natural" use of vocabulary
- nature of talk – is it productive? (Wegerif and Mercer)

## technology-enhanced noticing...

"Group scribbles"



of students' written productions

- static or dynamic?
- nature of representations?

## on (mathematical) representations

The 'work' of the the teacher involves:

- Analyzing representations by identifying correct or misleading representations in a text, talk, written and technological work
- Connecting or matching representations as expressed with the digital tools
- Selecting, creating, or evaluating different representations as expressed by the digital tools
- Verbalising the meaning of representations as expressed by digital tools and how they are connected to key ideas

## Challenges

- The micro **and** macro views of the classroom are greatly enhanced
- the FA technologies need to evolve to enable these views to be filtered – Artificial intelligence techniques to inform 'teacher dashboards'
- Researchers and teachers (us!) need to be engaged with the EdTech developers to support products to develop - in ways that maintain the integrity of the knowledge base