



FaSMEd NEWSLETTER

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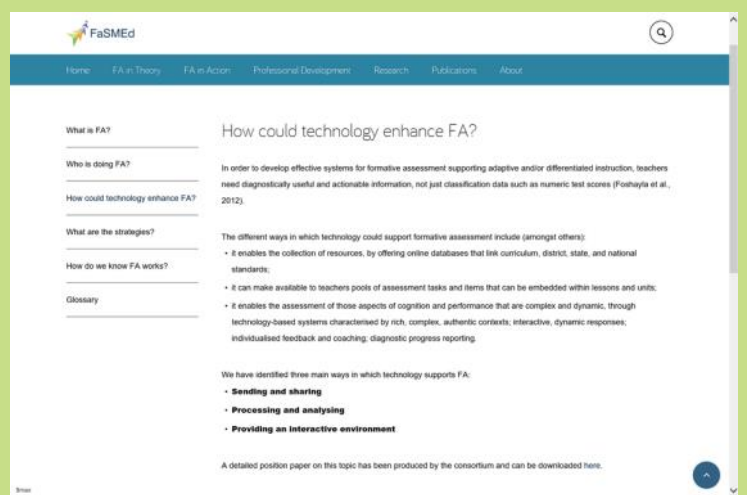


Welcome to our tenth issue of the FaSMEd newsletter. This issue includes news and updates from across the project

This issue was produced by Newcastle University, UK.

The new FaSMEd project website

A major strand in the dissemination of the outcomes of FaSMEd will be our website. It will provide a legacy of the story of the project, resources for teachers and information for researchers. The final structure for the website was agreed by a working party at our conference in South Africa. Newcastle University have arranged for it to be hosted on its servers, provided the template for the website in collaboration with the design team at 'ReadySalted' and registered the new name for it: www.fasmed.eu.



Our colleagues in Essen, South Africa and Utrecht will be focusing on the development of the website and collecting the materials which will go to make up the most important feature of it – **the teachers' toolkit**.

The website is adapted to work equally well on PCs, tablets and phones. There are still 'dummy' pages without any content, but we aim to ensure that it will be finished for the final FaSMEd conference in November in Maynooth, Ireland. Please do have a look and tell us what you think of it so far– any feedback would be very welcome.

David Wright, Jill Clark and Ulrike Thomas,
The Newcastle University Team

The Role of technology in promoting formative assessment practices in science classes

Gilles Aldon École Normale Supérieure de Lyon, France and and Majella Dempsey Maynooth University, Ireland

Gilles and Majella presented findings from the FaSMEd project in France and Ireland at the New Perspectives in Science Education Conference 2016.

The paper reported on two case studies, one in France and one in Ireland carried out as part of FaSMEd, on the use of technology in formative assessment (FA) classroom practices in mathematics and science. The paper focuses on the role and impact of technology in supporting FA practices in science teaching and learning. The process in this research consisted of a cycle of design, implementation and analysis with teachers, where activities were planned in professional development sessions, carried out by teachers in classrooms and reviewed in meetings both with other teachers and individually. Work with teachers and students centred on exploring and modifying FA practices. Data for the research were collected using the following methods: semi-structured interviews with all teachers (before and after the implementation of a lesson); semi-structured interviews with students with an emphasis on a Q-Sort activity; analysis of video data and field notes from classroom observations; and questionnaires distributed to all students participating in the study regarding their views of science teaching, learning and assessment.



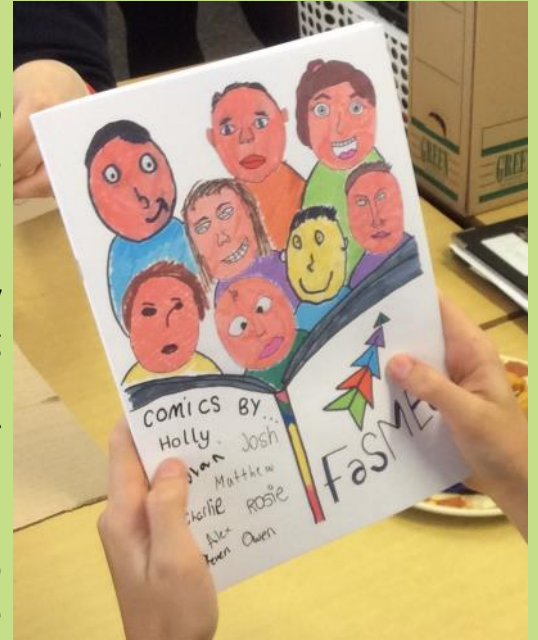
The research work within the project has led to the elaboration of a three-dimensional model taking into account the FA strategies, the properties of technologies and the role of actors. This model has been used for lesson analysis and completes the variety of viewpoints coming from qualitative interviews analysed using MAXQDA software. Q-Sort data was analysed using PQMethod software, video data using a whole-to-part inductive approach and the questionnaire data analysed using SPSS. Technology helped teachers to enrol in a complete FA process instead of considering some moments, enhancing their understanding of the process. The model used in this research highlights not only the role of the teacher in FA but also the role of peers and the students. Several of the class activities resulted in shifting ownership and agency towards students thereby activating them as the owners of their own learning.

Conference paper available here:

<http://conference.pixel-online.net/NPSE/files/npse/ed0005/FP/2334-NTST1488-FP-NPSE5.pdf>

The team at Newcastle University trial an innovative research method in order to find out what the students thought of FaSMEd: Comics

Research at its very best is all about trying out new ideas and the team at Newcastle University have been trialling an innovative approach to eliciting the views of students who take part in research projects. Over a period of 4 months eight students, who had taken part in FaSMEd maths lessons, worked with the Newcastle team and Lydia Wysocki, researcher, and founder of Applied Comics etc. During weekly lunchtime sessions the students learnt about comic making and then used this knowledge to create their own individual comic strip. They were asked to choose an aspect of their FaSMEd maths lessons that they had found interesting and enjoyable and use this as the focus for their work. The final comic strips were then put together in one comic which also included contextualising information i.e. examples of the maths activities, images of the comic making process as well as quotes from the students about their views of the FaSMEd activities.



On Tuesday 21st June 2016 the printed comics were presented to the students, their maths teacher Jen Heslop and the Deputy Head Teacher Tracey Anderson. The delight and pride of the students at seeing their work published was clear to see and they all took the opportunity to take home several copies to show their families.



Lydia has already been busy considering the efficacy of using comic making as a research method and used evidence from the FaSMEd project in her presentation at a recent conference organised by the British Consortium of Comics Scholars, which took place at the University of Sussex on 4th June 2016. Her presentation had the title:

Setting boundaries, communicating, and reflecting: 3 projects using comics as a method'

Slides and photos are linked online here:

<http://www.appliedcomicsetc.com/we-should-talk/pastfuture-talksevents/>

FaSMEd Project Developments ...

News from the team at **École Normale Supérieure de Lyon, France**

The ENSL team is working with all the teachers involved in the project to find out some general results on formative assessment practices with technology, decontextualising them from the specific implemented experiments. Teachers and researchers are formulating together some general advice, suggestions, recommendations for effectively doing formative assessment in the classroom and using technology to this purpose. Throughout this phase of the work the professional development of the teachers involved in the project is emerging along with their awareness of the introspective reflection and deep modifications that implementing FA with technology has triggered on their practices. Some insights into this evolution of practices are present in the article titled "How teachers evolve their formative assessment practice when digital tools are involved in the classroom" that has been recently published by the journal "Digital Experiences in Mathematics Education". Teachers and researchers' reflections at this meta-level will constitute an important part of the French website (<https://ife.ens-lyon.fr/fasmed>) which is still in progress but already full of material coming from the teaching experiences. The French FaSMEd experience will be presented this summer in Hamburg at the ICME conference.

FaSMEd partner news from South Africa

The South African team has been working on revising some of the materials they developed for the classroom interventions. We have asked some of the teachers to trial these revised materials and will be

publishing about the design process. We offered all the schools which had been involved in the interventions a workshop on FaSMEd and formative assessment, tailored to their interests and needs. A number of schools have already taken up the offer, and others are still to let us know. In terms of further dissemination, we have been writing about our research and contributing to local AIMS and AIMSSEC newsletters. We gave a seminar at the University of Bristol and have plans for seminars at a number of South African Universities. We have presented FaSMEd workshops at the conference for the Association for Mathematics Education of South Africa which took place in June 2016. Early in July one of our researchers, Ingrid Mostert, will be visiting Essen in Germany to work on the toolkit with our German partners. Later in July we will be taking part in the CTRAS and ICME conferences in Hamburg.



Exploring a FaSMEd activity at Vuyiseka Secondary School



Ingrid working with the teachers at Vedendal College

For further information please see: <http://research.ncl.ac.uk/fasmed>

Our Facebook page: <https://www.facebook.com/fasmedproject>

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Or email: fasmed@ncl.ac.uk

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