



FASMED Project - Deliverable WP7.7 Stakeholder meetings

31st March 2015

Annual stakeholder meetings have taken place in each of the partner countries to disseminate progress in the project. The following documents have been submitted to Newcastle detailing the meetings that have happened in each local context:

1. Newcastle University, UK



Formative Assessment in Science and Mathematics Education (FaSMEd)

FaSMEd Schools Cluster Meeting

Tuesday 24th March 2015 4-5.30pm

George Stephenson High School, Killingworth, UK.

Agenda

4pm - Welcome and introductions

4.10pm - Small group sharing activity on 'Distance Time Graphs'

4.30pm - Feedback to whole group

4.40pm Schools present reflections on chosen second activity (Candy Cartons/Security Cameras/Gold Rush) followed by whole group discussion

5.10pm FaSMEd and wider applicability in mathematics teaching

5.20pm Next steps

5.30pm Finish



Newcastle Schools Cluster Meeting - Tuesday 24th March 2015 4-5.30pm

George Stephenson High School, Killingworth, UK.

Meeting notes

- Jill Clark welcomed everyone and introduced Ruth and Michela from mmllearning design who would be filming the meeting for the FaSMEd project. Everyone read and completed information and consent forms for filming.
- Activity 1 – split into three groups to discuss the ‘Distance Time Graphs’ activity, each school represented in all three groups. Teacher comments:
 - Use of Google Drive to link pictures on phone to googledocs, then instantly accessible.
 - Google survey collates responses in spreadsheet so that results can be scanned quickly.
 - Value the opportunity to collaboratively plan with other teachers, doesn’t often happen.
 - Technology focus helpful in using methods might not otherwise have considered.
 - Is the time taken for activities justified – can take a week’s worth of lessons? Yes when you see the progress made.
 - Use of a motion sensor for plotting graphs was very engaging, made concepts more real.
 - Some disappointment in technology used so far, would like to push further.
- Activity 2 – split into school groups to discuss individual activities and then fed back to whole group. Feedback:
 - School 1 – ‘Candy Cartons’:
 - Initially surprised that students got the idea of making a net from the beginning, however, most students stuck with original idea and made little progress.
 - Most students didn’t move from initial cuboid design.
 - Use of reflector to share designs with the class and discuss.
 - Flipchart used to collate responses of where it wasn’t working.
 - School 2 – ‘Gold Rush’:
 - Used google survey for pre-task, very efficient.
 - Students found the maths conceptually easier than comparative activities.
 - School 3 – ‘Security Cameras’:
 - Generally felt that this activity was more accessible for students, more grounded in everyday experience.
 - Younger students had difficulty understanding the plan view concept and also that light can only travel in straight lines.
 - Deliberately manipulating the groups with experts and novices which has proved productive.



- Using Classflow to send worksheets out and share work on the whiteboard which has been useful, although a few technical hitches. Intend to persevere as can see benefits.
- David Wright talked about applicability of FaSMEd methods and approaches for the new GCSE curriculum. Schools discussed implications in small groups.
- Lucy Tiplady reminded schools that after Easter we would like to work more closely with a nominated teacher from each school who will form the focus of a case study. However, the FaSMEd group planning and evaluation sessions will continue with everyone as normal and feed into the case studies.
- Finish.



2. University of Nottingham, UK



Fasmed meeting with schools

Agenda

Date of meeting: 26th November 2014

1. Introductions
2. Project background
3. Ways of working
4. Next steps



Present

Actions

D Dalby (UoN)
D LeBlancq (Trinity)
A Pierson (Trinity)
T Riley (De Ferrers)
M Swan (UoN)
G Wake (UoN).

Apologies were received from Y Pearse (Bagthorpe)

1. Introductions

The FasmEd UoN team was introduced.

Each of the schools representatives briefly described their background and interest in the FasmEd Project.

2. Project background

A PowerPoint presentation by DD was used to explain the overall EU project aims, the research priorities, the EU partners, the main objectives for FasmEd and the research questions. MS then described the meaning of formative assessment and discussed how this might affect the teacher, learner and their peers. The key area of interest were explained:

- Building on student's prior knowledge;
- Identifying and responding to students' conceptual difficulties;
- Using questioning
- Increasing student collaboration
- Students becoming assessors.

These were discussed by using sections of the prototype FasmEd toolkit (on wikispaces).

DD described the local research focus that the UoN team would want to adopt and the specific research questions: how do teachers process formative assessment data from students using a range of technologies; how do teachers inform their future teaching using such data?



3. Ways of working

DD explained how case studies would be developed and the range of data required for these. A proposed way of working, involving a cycle of collaboration in planning, observations, reflections and feedback, was introduced. More specific details of how this might be implemented with each school were then discussed.

Each school to complete their planning form and return this to DD.

4. Next steps

Each school completed a short planning document with the relevant school information, contact information and proposed classes to be involved in the research. The schools present discussed their own objectives as a team, possible topics for FasmEd lessons, available software and ways of moving forward.

DD to arrange follow-up meetings with each school and distribute consent forms.

It was agreed to have a further joint meeting after each school had commenced the research activity to share progress, outcomes and reflections.



Fasmed meeting with schools

Agenda

Date of meeting: 26th March 2015

1. Introductions
2. Feedback from phase one of lesson activity
3. Research questions and discussion points
4. Planning the next steps



Fasmed meeting with schools

26/03/15

Present

Actions

L Aron (Trinity)
D Dalby (UoN)
D LeBlancq (Trinity)
J Middleton (Bagthorpe)
E Parkinson (Bagthorpe)
A Pierson (Trinity)
S Rhine (UoN)
T Riley (De Ferrers)
C Roberts (De Ferrers)
M Swan (UoN).

Apologies were received from Y
Pearse (Bagthorpe) and G Wake
(UoN)

1. Introductions

Each of the teachers present and the
UoN team introduced themselves.
The agenda for the meeting was
introduced.

2. Feedback from phase one of lesson activity

Each of the schools then gave a
short presentation about the lessons
they had developed together and
their reflections on how this had
worked, addressing the questions:

- What did you do?
- How was the technology used?



- What were the opportunities for formative assessment?
- How were the opportunities used?
- What have you learned?

Trinity School described their use of the website

diagnosticquestions.com, the information this provided prior to the lesson on students' understanding of algebraic expressions and how the lessons were adapted. They explained how Nearpod was used to work through questions on iPads in the lesson, display student responses, select responses for discussion and deal with misconceptions.

De Ferrers Academy described their two questions on distance-time graphs used as a diagnostic activity on iPads at the beginning of the lesson, with student answers selected and displayed for discussion to deal with misconceptions. They then explained how 'mirrored' questions were completed by students on iPads and solutions compared, leading to discussions with peers about correct and incorrect answers, particularly where there was some ambiguity in the question so different answers were possible.

Bagthorpe School explained how they tested students' prior knowledge of shapes and asked pairs of students to predict which regular shapes would tessellate before exploring their predictions on laptops.



3. Research questions and discussion points

DD outlined the two main research questions:

- How do teachers **process** formative assessment data from students using a range of technologies?
- How do teachers **inform their future teaching** using such data?

Teachers then discussed in small groups the ways in which they had addressed the key areas of interest regarding formative assessment:

- Building on student's prior knowledge;
- Identifying and responding to students' conceptual difficulties;
- Using questioning
- Increasing student collaboration
- Students becoming assessors.

There was evidence of each of these across the lessons, in different ways and some discussion about the main aspects addressed.

Further discussion followed about what the technology contributed to the lessons and examples of where the technology was:

- A direct replacement for paper-based methods?
- A replacement with benefits?

DD to attend follow-up meetings with Trinity and Bagthorpe to discuss their observed lessons. (A meeting with De Ferrers had already taken place)

Planning meetings to be arranged with each school for the second round of lessons.



- A replacement with disadvantages?
- A method that changes the process of teaching and learning?

Several examples of replacement with benefits were identified.

Finding significant changes to the process was difficult.

4. Planning the next steps

DD outlined the key areas for a particular focus in the next round of lesson planning. Schools were asked to take time in their planning to think about the parts of the lesson where students gave responses and the way in which these could be anticipated and planned for, considering the questions:

- What responses from students may arise?
- What are the common misconceptions underlying these responses?
- What questions will you ask to deal with these?

They were also asked to consider what they expected from students in peer-assessment and commenting on each other's work and how to develop this.



3. Ecole Normale Supérieure de Lyon, France

Organisation du 10 décembre 2014

14h-14h30

Introduction : (Gilles)

- présentation de Monica Panero
- compte rendu des réunions entre partenaires européens : contenu de la boîte à outils, définition de l'évaluation formative

14h30 - 15h10

Présentation par les enseignants des premiers travaux dans les différentes écoles : 7-8 min pour présenter les projets ou les premières réalisations (3 ou 4 diapos maximum)

Objectif : Mettre en évidence dans chacun comment le projet est travaillé, et voir comment les éléments développés peuvent intégrer la boîte à outils : évaluation formative, rôle des technologies, prise en charge des élèves en difficulté.

Format de la présentation

1) Contexte

établissement - disciplines - thèmes - outils à disposition dans l'établissement

2) Quelle a été l'approche choisie pour entrer dans le projet ?

Par exemple, les classes sont équipées, qu'est-ce qu'on fait des outils mis à disposition ? On veut construire des séquences d'enseignement, quand et comment intègre-t-on l'évaluation formative ? On veut travailler à plusieurs disciplines, comment identifie-t-on les croisements disciplinaires ?...

3) Quelles sont les thématiques d'expérimentation dans votre groupe ?

Thématique graphes - Thématique grandeur et mesure - Thématique nombre et opérations - Autre thématique :

4) Que proposez-vous de partager après cette première expérience ?

Ce temps sera l'occasion d'ouvrir à tous les membres de notre projet, les discussions internes à chacun des groupes à partir des expériences de chacun.

Par exemple : vous développez des usages d'outils, vous souhaitez discuter de leur pertinence pour évaluer les élèves : qu'est-ce qui est évalué ? quand ? comment cette évaluation peut infléchir la séquence d'enseignement ensuite ?...

Vous élaborez des séquences intégrant des moments d'évaluation formative. Vous aimeriez que d'autres enseignants testent ces séances pour savoir quelles sont les documents complémentaires à fournir ?

Vous êtes engagés dans des méthodes de travail vous permettant de construire des séquences intégrant des évaluations formatives, vous souhaitez discuter d'une formalisation éventuelle de cette méthode de travail...



15h10 - 16h00

Discussion générale, questions à partir des éléments repérés dans les présentations des enseignants.

- autour de l'évaluation formative ; à quel moment ? pour la classe, pour les élèves individuellement ?
- du rôle des technologies, quels apports spécifiques ?
- de la prise en charge des élèves "en difficulté" et de la manière d'adapter son enseignement en fonction des difficultés qui auraient été repérées.

16h00-17h00

Les expérimentations à venir :

- Eléments de contexte à préciser : contexte établissement, classe, prof.
- Organisation : les données à recueillir, suivi vidéographique de quelques classes
- Les éléments à intégrer à la boîte à outils : quels documents, quel format...
- Croisement d'expériences : retour sur les expérimentations, articulation des expérimentations entre différents sites.



Attendance list

10 décembre 2015

Lycée Parc Chabrières Oullins

Delphine Delorme (SVT), Didier Coince (Physique)

Collège Henri Barbusse, Vaulx en Velin

Sébastien Martinez-Franco (SVT), Cécile Dussine (Physique), Sabrina Mario (Maths), Thomas Vitte (Maths)

Collège Elsa Triolet, Vénissieux

Nicolas Greneche (Sciences physiques)

Collège Fontreyne, Gap

Thomas Garcia (Maths)

Collège Nicolas Conté (Regny)

David Gelas (Sciences physiques)

Collège Honoré d'Urfé (Saint Etienne)

Fabien Alibert

Ecole Parmentier, Saint Fons

Béatrice Le Scour (CM2), Elodie Novel (CM1)

Ecole Simone de Beauvoir, Saint Fons

Vanina Beauchamps (CM2)



Compte rendu de la réunion FaSMEd du 10 décembre 2014

Intro par Gilles Retours de la conférence international FaSMEd qui a eu lieu à Turin (octobre 2014) : structure du toolkit («boîte à outils»). Il s'agira d'une ressource disponible en ligne pour les enseignants. Le focus est soit sur le travail individuel de l'élève soit sur l'activité de classe : l'évaluation formative est individuelle mais elle se fait aussi à travers la discussion collective. Les ressources doivent pouvoir être partagées : il est nécessaire de trouver des principes fondateurs autour desquels la ressource est construite.

Collège Barbusse Thème pluridisciplinaire: grandeurs et mesure.

Etude préalable sur la notion de grandeur et sur différentes façons d'appréhender certaines grandeurs dans les différentes disciplines. Des notions importantes dans toutes les matières scientifiques mais difficile pour les élèves et pas toujours prises en charge par les enseignants.

Questions sur l'évaluation formative: est-elle déjà dans l'évaluation rituelle (individuelle, collaborative, diagnostic). Besoin de quelques exemples.

Questions sur l'outil technologique:

- Besoin d'une formation sur l'utilisation des boîtiers de vote. Installer, tester et utiliser la technologie: ça demande beaucoup de temps. De plus, il y a des problèmes de connexion et de d'installation à gérer.
- Les nouvelles boîtiers n'ont pas d'écran... En math c'est mieux d'avoir l'écran (déjà testé).
- Il faut une possession du matériel (que soit nominatif).
- On voit la réponse mais on ne sait pas ce qui a été tapé. S'il y a une erreur: l'élève s'est trompé ou a mal tapé? Utiliser aussi un brouillon.

Collège Fontfreyne Grande fourniture de tablettes pour toutes les matières. Il y a eu une modification du statut de l'écrit (abandonne du cahier, notes du cours faites par les élèves) et de l'oral (changement du mode de communication). Tout est ouvert (plus d'autonomie et meilleure relation avec le prof).

Considérations de Thomas: le cours de maths semble moins dense, mais il rencontre plus de motivation et d'homogénéité parmi les élèves. Il perd moins d'élèves aussi parce que le rythme est plus lent. Ça change aussi l'évaluation. Du point de vue de l'évaluation formative, la question de la collaboration est importante. Pour l'évaluation formative, le prof a accès à infos individuelles mais aussi de groupe.

Ecoles primaires Simone de Beauvoir et Parmentier Outils technologiques: calculatrice TI-primaire et bientôt les boîtiers de vote. Thème choisi: les fractions, concept difficile pour les élèves. Question que les enseignantes se posent: la calculatrice apporte-t-elle du sens? Elles ne sont pas sûres. Il faut faire attention, parce que ça semble compris avec la calculatrice mais quand on enlève l'instrument il n'y a pas de sens construit. Donc, comment évaluer en utilisant l'outil?

Lycée Parc Chabrières Des tablettes sont utilisées en seconde. Thème: la représentation graphique.

Logiciel: Schoology est plus efficient.

La démarche suivie: test QCM diagnostic + auto-formation avec l'help. QCM1 QCM2 QCM3. A certains élèves qui ont terminé tôt, il a été demandé de proposer des questions similaires. Le prof a enregistré une bonne entrée dans l'activité, mais une démotivation après. Utilisation de GeoGebra aussi.

Echanges SVT et math: lecture du graphique (différentes conceptions et points de vue) et hasard. Utilisation de Labomep.



Collèges Conté / Triolet / d'Urgé (physique) : 3 collèges avec des caractéristiques différentes. Thème: grandeurs, mesure et valeur. Ils ont travaillé sur tension-intensité, distance-vitesse-durée... Deux séquences d'enseignement sur ces thématiques sont en cours d'élaboration. La séquence sur intensité-tension prendra en charge la construction et l'interprétation de graphiques.

La démarche suivie : d'abord construire des séances d'enseignement, prévoir les moments d'évaluation formative et la manière dont elle peut se mettre en place selon les objectifs qu'elle poursuit). Le groupe réfléchit actuellement aux outils à mobiliser en fonction des évaluations formatives mises en œuvre)

Evaluation formative: comment? Quand? Difficultés à distinguer grandeurs et unités de mesure.

Bilan de la réunion

Points de force

- Pluridisciplinarité: l'idée de considérer un thème commun (grandeurs et mesure ou la représentation graphique) est très forte. Les comparaisons entre points de vue différents sont intéressantes.
- Travailler avec la technologie qui existe dans la classe. Ne pas introduire une technologie externe. Ça permet d'habituer les élèves à travailler d'une certaine façon et donc ça rend naturel aussi l'évaluation avec cette technologie dans la classe.
- Utiliser un outil technologique comporte la création d'activités et de ressources nouvelles. Ça veut dire plus de travail pour les profs, mais on espère de gagner en terme d'apprentissage. Mais il faut construire l'activité à nouveau.
- Pre-évaluation avec les cartes et le questionnaire: la prise de données est une première phase de l'évaluation.

Points faibles

- Doutes sur l'utilité de la technologie pour la construction du sens. Ça a influence sur l'évaluation. Est-ce que le retour (feedback) donné par la technologie suffit?
- Questions sur l'évaluation formative: comment, quand? Elle doit être soit individuelle soit de groupe. Mais comment évaluer quand les élèves travaillent en groupe (si les tablettes sont personnalisées)?
- Sur la question de l'évaluation: on voit le produit mais s'il y a une erreur de quoi il dépende? Evaluation par compétences: comment faire?

Réflexions pour la recherche

Vu qu'on parle d'évaluation avec la technologie, il est intéressant le point soulevé par les profs : difficulté de comprendre l'origine d'une erreur (mauvaise utilisation de la technologie ou mauvaise compréhension du concept?)

L'évaluation formative est sur le long temps, est dans l'évolution. Dans la phase d'observation donc on aura besoin d'observer plus qu'une séance.

Le projet est basé sur la conception (design-based research). La ressource mise en ligne comme toolkit n'est pas une version définitive. Ajouter dans le toolkit les difficultés qu'un enseignant pourrait rencontrer avec la technologie. Ça peut vraiment aider qui va prendre à la main la ressource.

Le focus doit être surtout sur les élèves avec difficulté !



PROGRAMME

PRINTEMPS DE L'INNOVATION

Innover pour engager l'élève dans ses apprentissages
et son parcours scolaire : changer de regard et d'approche

Mardi 31 mars 2015, 9h à 17h

9h00 à 9h30 Amphithéâtre Porte E - Rdc	INTRODUCTION DE LA JOURNÉE	
9h30 à 10h30 Amphithéâtre Porte E - Rdc	CONFÉRENCE D'OUVERTURE : Les représentations de la dominance sociale chez l'enfant Jean Baptiste Van der Henst, chercheur au CNRS Laboratoire L2C2 (Laboratoire Langage, Cerveau et Cognition)	
10h30 à 12h15	ATELIERS D'INITIATION ET DE DÉCOUVERTE [Programme détaillé au verso]	SPEED CONSULTING
13h30 à 14h30 Salle B102	MINI CONFÉRENCES « Évaluation formative : le rôle de la technologie » Gilles Aldon, EducTice, IFÉ-ENS de Lyon	
Salle B103	Raisonnement logique et troubles de l'apprentissage des mathématiques Flora Schwarz, Jérôme Prado, Laboratoire Langage, Cerveau et Cognition (L2C2) du CNRS	
Salle B105	Une jeunesse en quête de pouvoir d'agir Rémi Thibert chargé d'études à l'IFé	
Esp. conférences Porte D	Étayer la conception de protocoles expérimentaux en CM2 Michèle Prieur, EducTice-S2HEP, IFE-ENS de Lyon	
14h30 à 16h Esp. conférences	LABORATOIRE D'INTELLIGENCE COLLECTIVE : Lab 1 : passer d'une volonté de changement à des hypothèses d'action Lab 2 : de la problématisation à la mise en oeuvre Lab 3 : mettre un projet en valeur par l'évaluation	SPEED CONSULTING
16h à 16h30	CONFÉRENCE DE CLÔTURE Apprendre autrement : retour d'expériences Olivier Bachelard, professeur affilié responsable du campus de Saint Étienne de l'EM Lyon	
16h30	CLÔTURE PAR MADAME LA RECTRICE ET REMISE DES LABELS DE L'INNOVATION	



PROGRAMME

ATELIERS D'INITIATION ET DE DÉCOUVERTE

INVENTER DES USAGES AVEC LE NUMÉRIQUE - Salle B103 (atelier canopé)

Des usages pédagogiques sur table tactile à partir d'un logiciel de création de corpus documentaires
Collège connecté du Val D'argent - Ste Foy l'Argentière - Joël Moulin
Collège Georges Charpak - Brindas - Monique Sirejols

Les QR Codes, un outil adaptable à intégrer dans les activités pédagogiques
Kedem Ferré - François Lacour, formateurs de la Délégation Académique au numérique éducatif

Oser la classe inversée et l'instruction par les pairs
Lycée Ampère - Lyon - Sarah Roques, enseignante de SVT | Pascal Bellanca-Penel, enseignant de physique/chimie

OUVRIR SON REGARD EN CONFRONTANT LES POINTS DE VUE - Salle B102

Le modèle des nations unies - MUN
Cité scolaire internationale - Lyon - Rob Miller, directeur de la section anglophone - Lycée Blaise Pascal à Charbonnières -
Emmanuelle Larmarand, enseignante d'anglais

Le réseau des écoles associées à l'UNESCO
Collège Honoré de Balzac - Vénissieux - Hélène Léone, professeur de musique

Twitterature avec REFER le rendez-vous des écoles francophones
Caroline Jouneau-Sion, enseignante - Lycée Germaine Tillon

AMPLIFIER L'IMAGINAIRE AU SEIN DE LA CLASSE - Espace Conférences - Porte D

Ateliers Smartmômes
Catinca Dumitrascu, attachée à la médiation et formation - Centre national de création musicale GRAME
Xavier Garcia, compositeur de la partition SmartMômes
Thierry Ollagnier, enseignant de musique - Collège Thomas Riboud - Bourg en Bresse

Theatre-laclasse.com
Compagnie Ariadne et Érasme - Anne Courel, directrice artistique

FACILITER LES APPRENTISSAGES EN CHANGEANT DE DÉMARCHÉ - Salle B105 et I106*

Je participe, nous vivons ensemble
École élémentaire Léon Jouhaux - Villeurbanne - Stéphane Lafont, directeur

MET : la mise en train
Collège Ampère à Lyon - Claire Piolti-Lamorth, enseignante de mathématiques
Sophie Roubin, enseignante de mathématiques

CM2 6^{ème} des chercheurs en mathématiques*
IFÉ-ENS de Lyon - Gilles Aldon Maison des mathématiques et de l'informatique
Réseau Michelet - Aline Pouzet, enseignante 1^{er} degré
Collège Michelet - Olivier Garreau, CPC et Mylène Bouillon, enseignante

SE DÉVELOPPER PROFESSIONNELLEMENT AVEC LES AUTRES - Espace Conférences - Porte D

Se former avec les MOOC : Retour d'expériences
Réseau des GRETA de l'académie de Lyon - Estelle Diziain, conseillère en formation continue et Nicolas Biton, formateur

La collaboration enseignant/enseignant grâce au numérique
Monique Ducroux, formatrice au Réseau départemental du Rhône de ressources informatiques du 1^{er} degré (RDRI)



4. National University of Ireland Maynooth, Ireland

Steering Committee Meeting Agenda



Date/Time: 11-12pm October 9th 2014

Location: Seminar Room 2, Level 2, The Library, Maynooth University

Objective:

Provide an orientation into the FaSMEd project

SCHEDULE

11.00-11.15 General overview of the FaSMEd project including team members

11.15-11.20 Discuss role of the steering committee

11.20-11.45 Run through proposed timeline and toolkit for project.

11.45-12.00 Discussion time for proposed timeline and toolkit

**Steering Committee Meeting 9th October 2014
Attendance**



SURNAME	FORENAME	ORGANISATION	EMAIL	IN ATTENDANCE
Burke	Niamh	FaSMEd	niamh.burke@nuim.ie	Yes
Byrne	Audrey	Project Maths	audreybyrne@projectmaths.ie	Yes
Dempsey	Majella	FaSMEd	majella.dempsey@nuim.ie	Yes
Furlong	Beryl	Director of Education at Wriggle	beryl@typetec.ie	Yes
McEvoy	Dominic	Director, Kildare Education Centre	director@eckildare.ie	Yes
McHale	Caroline	PDST	carolinemchale@pdst.ie	Yes
McLoone	Seamus	Electronic Engineering Dept. Maynooth	seamus.mcloone@eeng.nuim.ie	Yes
O'Shea	Ann	FaSMEd	ann.oshea@nuim.ie	Yes
O'Sullivan	Brendan	Secretary of IMTA	bos_4@hotmail.com	No
Rickard	Angela	FaSMEd	angela.rickard@nuim.ie	Yes
Slattery	Barry	Education Officer NCCA	barry.slattery@ncca.ie	No



Steering Committee Meeting 9th October 2014

Location: Seminar Room 2, Maynooth University Library

Time: 11.00-1.00 pm

Attendees: Niamh Burke, Majella Dempsey, Ann O'Shea, Angela Rickard, Audrey Byrne, Beryl Furlong, Dominic McEvoy, Caroline McHale, Seamus McLoone

- Majella got the meeting underway by introducing the FaSMEd Ireland Team. Steering Committee introduced themselves.
- Majella gave an overview of the FaSMEd project.
- Participating Schools discussed by group.
- Angela explained the rationale for picking schools and explained who would participate in the schools.
- Audrey raised concern about teachers using technology.
- Majella explained about consent forms and that the teachers will understand fully what they are participating in.
- Seamus raised concern about training teachers and students to use tablets.
- Majella explained to the group about design based research.
- Group then discussed different ways of the schools to share information with each other.
- Majella suggested that the steering committee should have a shared space to inform each other about FaSMEd.
- Stakeholders meeting discussed, there may be funding available for a conference.
- Suggested timeline for steering committee meetings discussed.
- Audrey discussed different ideas for FaSMEd maths including the project maths reflection in practice workshops, use of geogebra and integrating
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- teaching through problem solving. She thought that the project would break the divide between leisure and school ICT.
- Dominic noted that support for teachers will be important and raised concern about getting deliverables in May as it is a busy month for teachers.
- Group discussed school Wi-Fi structures; that they need to be checked and equipped for use.
- Seamus demonstrated his app to the group.
- Angela brought up the idea of having a celebration/conference for teachers after their work with us. Majella said that the stakeholders meeting would include teachers and schools.
- Caroline suggested that her science team within the PDST could support teachers in the project.
- Beryl noted that if teachers are connected online in a learning community that would help teachers.
- Dominic suggested that teachers need to visit other teachers in FaSMEd and they will need to know that there may be time needed outside school hours.
- Audrey suggested that principals might be in a position to allocate Croke Park hours to FaSMEd.
- Majella concluded the meeting by thanking everyone for attending and inviting them to a lunch in Pugin Hall.

Follow Up:

- Angela and Beryl will meet to discuss technology.
- Majella will look into using the app Seamus developed.



FaSMEd Stake Holders Meeting

27th March 27 2015

Attendance:

Angela Rickard (Maynooth University), Majella Dempsey (Maynooth University), Niamh Burke (Maynooth University), Ann O'Shea (Maynooth University) Beryl Furlong (Wriggle.ie), Fintan Costello (Wriggle.ie), Dominic McEvoy (Director, Kildare Education Centre), Siobhan McCauley (Principal, Maynooth Community College), Brendan O'Sullivan (Irish Maths Teachers Association)

- 10:30:** Update on the project progress – Majella Dempsey and Niamh Burke
- 11:00:** Overview of Schoology - Fintan Costello from Wriggle.ie
- 11.30:** Update on FaSMEd Schoology Group – Niamh Burke
- 12.00:** Discussion
- 12:30:** Lunch



FaSMEd Stakeholders Meeting

Date: 27th March 2015

Time: 10.30-12.30

Location: Maynooth University Library, Seminar Room 1

Attendance:

Angela Rickard (Maynooth University), Majella Dempsey (Maynooth University), Niamh Burke (Maynooth University), Ann O'Shea (Maynooth University) Beryl Furlong (Wriggle.ie), Fintan Costello (Wriggle.ie), Dominic McEvoy (Director, Kildare Education Centre), Siobhan McCauley (Principal, Maynooth Community College), Brendan O'Sullivan (Irish Maths Teachers Association)

- Angela introduced the group, thanked and welcomed everyone to the meeting.
- Majella and Niamh gave an update on the FaSMEd project work since the last meeting.
- Maths toolkit discussed, Majella explained to group that the maths activities have been adapted from previous research by Malcolm Swan, examples given.
- Science toolkit discussed, Majella explained to group that this is not as advanced as the maths toolkit as it has not been evaluated to the same extent as the other materials. The FaSMEd team are designing a lot of these materials using activities adapted from Discover Sensors activities. Using the DER model will strengthen these materials.
- Niamh explained how the teachers are developing as a professional community through the work on the project, helping



each other with lessons and giving feedback to each other around the FaSMEd activities.

- Technology from the project was discussed. A variety of examples were discussed in the context of formative assessment. Teachers have been sharing iPad apps for the project.
- An update on schoology was given around how the teachers are using it in the project, using examples of student and teacher work.
- Angela suggested that we could use triptico to incorporate technology into the maths card sorting activities. Niamh will look into this.
- The culture around classroom observations was discussed and concerns were raised around the willingness for teachers to allow others into their classrooms and around sharing resources and ideas with each other.
- Fintan from Wriggle presented to the group about schoology and how it works.
- He gave a demonstration about how the website works and how teachers, students and parents can use it.
- He explained the different sections on the website and what comes with the free version and the professional version.
- Niamh then showed the group the FaSMEd schoology group page and demonstrated how it was being used for teachers to stay in contact with FaSMEd and each other and also how it is being used to share resources among teachers and to give feedback on FaSMEd activities.



- Examples were shown of how teachers are using the VLE to give focused feedback to students. One school has students reflecting on their learning (in science class) using schoology, this has enabled the teacher to provide more focused feedback and allowed different groups of students to see what peers are doing in investigations.
- The use of data from sensors to evaluate investigations was discussed and in particular how one teacher used incorrect data graphs to explore possible misconceptions with how the investigation was set up and carried out.
- It was felt that the opportunities presented by generating quick data sets using sensor technology, facilitated deeper engagement with the material and more in-depth formative, focused, individual and group feedback.
- It was noted that the 40 minute classes for maths in Ireland present teachers with unique challenges around using many of the card sorting activities. Some schools are looking at using one hour classes and this will be interesting for the next phase of the work in schools, Sept to Dec.
- The group then discussed the uses of virtual learning communities and what would work best in schools.



5. Università Delgi Studi di Torino, Italy



Dipartimento di Filosofia e Scienze dell'Educazione
Università di Torino

FaSMEd Stakeholder Meeting

*La valutazione formativa attraverso l'uso di nuove tecnologie
per supportare i low achievers: il Progetto FaSMEd*

19 Marzo 2015, ore 14.30

USCOT, Corso San Maurizio 31/A - Torino

14.30: *Introduzione*

14.40: *Promuovere le competenze argomentative nel primo ciclo di istruzione*

Francesca Morselli, DFE Università degli Studi di Torino

15.00: *Argomentazione e valutazione: un binomio possibile?*

Cristina Sabena, DFE Università degli Studi di Torino

15.20: *La valutazione formativa, le nuove tecnologie e i low achievers: le tre polarità del progetto FaSMEd*

Annalisa Cusi, DFE Università degli Studi di Torino

16.15: *Discussione*



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FaSMEd Stakeholder Meeting - UNITO

Title of the Meeting:

*La valutazione formativa attraverso l'uso di nuove tecnologie
per supportare i low achievers: il Progetto FaSMEd
(Formative assessment through the use of new technologies
to support low achiever: the FaSMEd Project)*

Meeting date:

19th March 2015

Meeting place:

USCOT (acronym for “Office for Supervision and Coordination of Students’ training”), Corso San Maurizio 31/A – Torino

Meeting agenda (see also the poster in attach):

14.30-14.40: Introduction

14.40-15.00: Promoting argumentative competencies in the first cycle of instruction (Francesca Morselli)

15.00-15.20: Argumentation and assessment: a possible combination? (Cristina Sabena)

15.20-16.15: Formative assessment, new technologies and low achievers: the three polarities of the FaSMEd Project (Annalisa Cusi)

16.15-16.30: Discussion

Attendance list (see also the attendance list with signatures in attach):

Flavia Franco – Teacher – Istituto Comprensivo Papa Giovanni XXIII di Savigliano (Cuneo)

Tiziana Bonasso – Teacher – Istituto Comprensivo di Cherasco (Cuneo)



Maura Montanaro – Teacher - Istituto Comprensivo di Cherasco (Cuneo)

Sugliano Graziella – Teacher - Istituto Comprensivo di Cherasco (Cuneo)

Tiziana Grossi – Teacher – Direzione Didattica “Salgari” (Torino)

Marina Gilardi – Teacher – Direzione Didattica “D’Azeglio” (Torino)

Veronica T.R. Sole – Headmaster - Direzione Didattica “D’Azeglio” (Torino)

Valeria Di Martino – Phd student – DFE, Università di Torino

Eugenia Taranto – Phd student – Mathematics Department, Università di Torino

Paola Carante - Phd student – Mathematics Department, Università di Torino

Giuseppe Longo – Teacher – Istituto Comprensivo di Vinovo (Torino)

Tiziana Gazzano - Teacher – Istituto Comprensivo di Vinovo (Torino)

Alessandra Capitano – USR Piemonte (Regional Scholastic Office) – DGR (Direzione generale regionale), Office V (“Politiche formative e rete scolastica. Formazione ed aggiornamento del personale della scuola. Edilizia scolastica”)

Silvana Mosca – AVIMES Coordinator

Elena Scalenghe – Tutor USCOT – Scienze della Formazione Primaria, Università di Torino

Deborah Popolo – Graduating student - Scienze della Formazione Primaria, Università di Torino

Chiara Aimasso – Graduating student - Scienze della Formazione Primaria, Università di Torino

Vittoria Picatto – Graduating student - Scienze della Formazione Primaria, Università di Torino

Martina Carnino - Graduating student - Scienze della Formazione Primaria, Università di Torino

Notes from the Meeting

The following issues were raised and discussed by the audience after our three presentations:

- criteria for the choice of the classes (and schools) involved in the project: are they already equipped with the needed technology or not?
- FaSMEd country situation as regards the technology equipment in school: how much is it different from the Italian situation?
- Possibility of joining the group of schools involved in the FaSMEd project in the future
- Need of long-term experimentations on this kind of innovations



- Focus on processes (instead of products) and argumentative activities as the heart of teaching
- Focus on low achievers: in order to foster the development of an attitude toward argumentation it is fundamental to create a suitable atmosphere in the class
- The future dissemination of the toolkit among teachers: need of an in-depth analysis of the ways in which they will refer to it
- Role of the toolkit in enabling teachers to face surprising events during the lesson
- Interrelation between argumentation and assessment: the incidence of technology
- The difficult task of involving low achievers during class activities: will they be able to face the activities of the toolkit?



6. Universiteit Utrecht, Netherlands

FaSMEd Stakeholder Meetings Utrecht University

FaSMEd Pilot Autumn/Winter 2014

Meetings with schools for piloting the FaSMEd Digital Assessment Environment

Date: 10 October 2014
School: PCBS Prins Florisschool
Boeieraak 1-3
Papendrecht
Teacher: Fokke Akker
Schedule: 10.30h - 10.45h: Instruction to the students of how to work in the Digital Assessment Environment and to use the auxiliary tools
10.45h - 11.30h: Students work individually in the Digital assessment environment and do the mathematical problems with the optional auxiliary tools
12.00h - 13.00h: Teacher evaluates students' performance and strategy and the auxiliary tools the students used to solve the problems to find indications for further instruction in percentages
Output: Audio file of interview with teacher, digital records of student performance in Digital Assessment Environment

Date: 17 October 2014
School: PCBS Prins Florisschool
Boeieraak 1-3
Papendrecht
Teacher: Heidi Leeuwis
Schedule: 10.30h - 10.45h: Instruction to the students of how to work in the Digital Assessment Environment and to use the auxiliary tools
10.45h - 11.30h: Students work individually in the Digital Assessment Environment and do the mathematical problems with the optional auxiliary tools
12.00h - 13.00h: Teacher evaluates students' performance and strategy and the auxiliary tools the students used to solve the problems to find indications for further instruction in percentages
Output: Audio file of interview with teacher, digital records of student performance in Digital Assessment Environment

Date: 3 December 2014
School: PCBS Prins Florisschool
Boeieraak 1-3
Papendrecht



Teachers: Leonard de Jong
Leon van Dalen

Schedule: 10.30h - 10.45h: Instruction to the students in 8A of how to work in the Digital Assessment Environment and to use the auxiliary tools
10.45h - 11.15h: Students work individually in the Digital Assessment Environment and do the mathematical problems with the optional auxiliary tools
11.15h - 11.30h: Instructions to students in class 8B
11.30h - 12.00h: Students in class 8B work individually in Digital Assessment Environment
12.00h - 13.00h: Teacher evaluates students' performance and strategy and the auxiliary tools the students used to solve the problems to find indications for further instruction in percentages

Output: Audio file of interview with teacher, digital records of student performance in Digital Assessment Environment

Date: **10 December 2014**

School: PCBS Prins Florisschool
Boeieraak 1-3
Papendrecht

Teachers: Leonard de Jong
Leon van Dalen

Schedule: 10.30h - 10.45h: Instruction to the students of class 8A of how to work in the Digital assessment environment and to use the auxiliary tools for the mathematical domain of fractions
10.45h - 11.15h: Students in class 8A work individually in the Digital assessment environment and do the mathematical problems with the optional auxiliary tools
11.15h - 11.30h: Instructions to class 8B
11.30h - 12.00h: Students in class 8B work individually in the Digital Assessment Environment
12.00h - 13.00h: Teacher evaluates students' performance and strategy and the auxiliary tools the students used to solve the problems to find indications for further instruction in fractions

Output: Audio file of interview with teacher, digital records of student performance in Digital Assessment Environment



FaSMEd Experiment Spring 2015

Professional Development Meeting 1

- Agenda:
1. Introduction to FaSMEd study
 2. Introduction to formative assessment
 3. Introduction to the Digital Assessment Environment
 4. Didactics of percentages
 5. Didactics of fractions
 6. How to use assessment data in teaching

Date: **7 April 2015**

School: OBS Roald Dahlschool
Deltalaan 204
3363 AH Sliedrecht

Teachers: Ed de Groot, teacher OBS Henri Dunantschool
Sandra Buijs, teacher OBS Henri Dunantschool
Susan Drossaert, teacher OBS Henri Dunantschool
Joyce Blijenberg, teacher OBS Henri Dunantschool
Jan Bot, teacher OBS Roald Dahlschool
Rino Huijzer, teacher OBS Roald Dahlschool
Kayleigh Jansen, teacher OBS Roald Dahlschool

Date: **16 April 2015**

Place: OBS Anne Frankschool
Rozenstraat 36
3353 VH Papendrecht

Invited: Ben Biesheuvel, teacher OBS Anne Frankschool
Andromeda van der Giessen, teacher OBS Anne Frankschool
Esmée, intern OBS Anne Frankschool
Martijn Honkoop, teacher OBS Anne Frankschool

Professional Development Meeting 2

- Agenda:
1. Evaluation of FaSMEd activities thus far
 2. Evaluation of lessons learned
 3. Further instruction on the Digital Assessment Environment
 4. Didactics of measurement and geometry
 5. Didactics of graphs

Date: **19 May 2015**

Place: OBS Henri Dunant
Kerkstraat 15
3361 BP Sliedrecht



Participating schools:

OBS Henri Dunantschool:

Teachers:

Ed de Groot
Sandra Buijs
Susan Drossaert
Joyce Blijenberg

OBS Roald Dahlschool:

Teachers:

Jan Bot
Kayleigh Jansen

OBS Anne Frankschool:

Teachers:

Ben Biesheuvel
Esmée, intern
Martijn Honkoop

Professional Development Meeting 3

Agenda: 1. Evaluation of FaSMEd activities
 2. Evaluation of lessons learned
 3. Discussion on further development of the toolkit

Date: **18 June 2015**

Place: OBS Roald Dahlschool
 Deltalaan 204
 3363 AH Sliedrecht

Participating schools:

OBS Henri Dunantschool:

Teachers:

Ed de Groot
Sandra Buijs
Susan Drossaert
Joyce Blijenberg

OBS Roald Dahlschool:

Teachers:

Jan Bot
Kayleigh Jansen



OBS Anne Frankschool:

Teachers:

Ben Biesheuvel

Esmée, intern

Martijn Honkoop



7. The AIMS Trust, South Africa



FaSMEd meeting 26 March 2015
AIMS 6 Melrose Rd, Muizenberg

Agenda

Welcome (Barry Green, Director of AIMS South Africa)

Introductions

What we've done

Next steps

- Lessons

- Dates

- Cluster meeting

Issues arising this term

- Adapting and adopting

- Starting from scratch

- Recording what's happened

Students' views

Discussion



Attendance

Present:

Aziza Salie – Plumstead High School

Berenice Jardine – South Peninsula School

Biddy Cameron – Rustenburg Girls High School

Greg Hawtrey – Fish Hoek High School

Hanneke de Wet – Vista Nova High School

Helen Keynhans – Rustenburg Girls High School

Jane Behne – Rustenburg Girls High School

Joina Chiomadzi – West Lake College

Jonathan Fischer – Fairmount School

Memory Dizha – Manzomthombo Senior School

Regis Magama – Fairmount School

Severino Sedeya - Vuyiseka Senior School

Shahida Darcy – Hyde Park College

Zukile Sisilana - Vuyiseka Senior School

Ingrid Mostert - AIMSSEC

Marie Joubert - AIMSSEC

Desiree Timmet- STATS SA

Najwah Chellan - AIMSSEC

Macdonald Chapwanya - AIMSSEC

Lindiwe Tshuma - AIMSSEC

Sinobia Kenny - AIMSSEC



Apologies:

Glen Birtles – Vista Nova High School

Adnaan Ederies – South Peninsula School

Rob Douglas – Fish Hoek High School

Notes

Welcome (Barry Green, Director of AIMS South Africa)

Barry Green welcomed all the teachers to AIMS and gave some background about the institute.

Introductions

Marie began by explaining that the main purpose of the meeting was for teachers to get know one another and begin to form a 'cluster'. She said that she and Ingrid had gained a lot of insight into the overall make up of the cluster and that she wanted the teachers to begin to feel part of the whole.

She then showed a slide for each school with pictures of the teachers involved in the project.

What we've done

Marie briefly explained that this term we observed the teachers teaching an ordinary lesson and a research lesson. We wrote a report about each lesson we observed and the teachers received a copy of all these reports.

A short video montage from the lesson observations was shown and the teachers discussed it in pairs before sharing comments with the whole group. Teachers identified strategies they had seen other teachers use which they would like to use in their lessons. Some teachers shared that they had noticed that even though the videos showed classrooms across a very wide range of contexts, 'teaching is still teaching'.

Next steps

Lessons

Ingrid explained that two MAP lessons which align with the pace setter for the second term had been identified. She also explained that each teacher would be asked to teach at least one of these lessons and that if neither of them was applicable then another lesson could be found or created.



The teachers were given a copy of the lesson plans and the card sets and spent a few minutes looking at the lessons.

Dates

Ingrid and Marie are attending a project meeting in the third and fourth weeks of the second term and so most lesson observations will only take place from the fifth week of term. Some observations have been set up in the first two weeks, however.

Cluster meeting

Marie mentioned that it might be possible to have a cluster meeting during the exams at the end of the second term. This might allow for a longer meeting.

Issues arising this term

Adapting and adopting

Marie explained it is well recognised that it is difficult to teach a lesson designed by someone else. She said that many teachers had also commented on this challenge. She explained that in most cases teachers adapt lessons but that this has its own challenges. She talked showed some examples of how teachers in the project had adapted the MAP lessons.

The teachers then discussed what to be aware of when preparing to teach a lesson designed by someone else. Many teachers agreed that there were moments in the lesson when they felt they didn't know what to do next. They agreed that it was important to prepare thoroughly and go through the lesson plan in detail.

Some teachers suggested that it would be helpful to meet with other teachers to discuss the lesson before teaching it. Marie said that it might be possible to arrange such a meeting, especially for teachers who had no other teachers at their school involved in the project.



Starting from scratch

Ingrid explained that Jonathan had finished teaching exponents by the time the research lesson was scheduled. The next topic he was teaching was patterns. Ingrid and Marie had identified a lesson on algebra which they then adapted, with Jonathan's input. Jonathan then shared his experience of being part of the process of redesigning a lesson, explaining what he had done, how the students had responded and how he had felt.

Recording what's happened

Marie explained that some teachers had expressed a desire to have a record of what happened during the research lessons to refer back to in future lessons. She shared some examples of how different teachers had done this and suggested that teachers should think about what to do next term.

Students' views

Marie explained that although the research design did not require data on students' views about the FaSMEd lessons at this stage, both the research team and the teachers had been interested in understanding more about what students thought. This term two ways of collecting information about learners' views had been piloted – interviews and short questionnaires. She showed an analysis of the data from one class' response to the questionnaire and examples of quotes generated from an interview.

Teachers agreed that they would be interested in their students' responses and there was a general consensus that it would be better to use the questionnaire. It was also suggested that a question regarding what students still didn't understand might be added to the questionnaire.



8. Hogskolen I Sor-Trondelag, Norway

Fasmed meeting for stakeholders Norway

December 4 2014

Agenda

1. Presentation of HiST and the participants
2. Introduction to Fasmed
3. Plans, dates, expectations., contracts
4. Primary experiences with formative assessment; and of technology

Attendance list

From HiST: Ragnhild Lyngved Staberg, Birgit Pepin, Jardar Cyvin, Maria Immaculata Febri, Bente Østigård, Svein Arne Sikko

From schools:

Trude Farstad (principal Birrale), Pedro Santos (teacher), Itziar Castanedo (teacher), Elin Hitchman (maths group leader Birrale), Unni Holager (unit leader Tonstad), Jonas Tevik (teacher), Rasmus Strand (subject group leader Tonstad), Lars Petter Eggesbø (principal Strindheim), Eirik Hansen (subject leader Strindheim), Einar Edvardsen (teacher), Brit Drøivoldsmo Lesund (teacher), Anne Gullberg Hansen (subject leader Saupstad), Kristina Skage Olufssen (teacher).

Notes from the meeting

Svein Arne wished everybody welcome. Short presentation of participants: names, institution, position and responsibilities. Ragnhild introduced the Fasmed project and our plan for the PD and classroom interventions. Discussion about the contract; what do we at HiST expect from the participants and what can we offer. Svein Arne gave some examples of available resources, like the web pages and the toolkit. Jardar gave an introduction to formative assessment and use of technology, including both analog and digital resources. Short roundtable discussion about schools previous experiences with digital resources. Introduction to and discussion about lesson study. Details about participation, the expectations and the contract were discussed. Some uncertainty about participation from Tonstad as they are involved in several other projects, but along with the other three schools they are keen to take part if they can find the time.



October 27 2014

Agenda

1. Mathematics and science at Saupstad
2. The Fasmed project

Attendance list

From HiST: Ragnhild Lyngved Staberg, Jardar Cyvin, Maria Immaculata Febri, Svein Arne Sikko

From schools: Ingeborg Ranøyen (Trondheim commune project leader), Inger Sagen Hasselo (principal Saupstad), Erik Amundsen (subject leader Saupstad), Camilla Normann Justnes (subject leader Saupstad)

Notes from the meeting

The principal of Saupstad gave a presentation about their priorities and their participation in several projects, including the EU maths & science project Mascil where they have focused on inquiry based learning. They wish to continue giving priority to maths & science and wish to incorporate more formative assessment in these subjects. Mathematics and science is also given priority by Trondheim commune and the commune wish to support schools who give a long term priority to improve teaching and learning in these subjects. The HiST people gave a presentation of the Fasmed project and pointed out that this project seems to fit well into Saupstad's priorities.



9. Universitaet Duisburg-Essen, Germany

FASMED-Stakeholder meeting (26th of february 2015)

With:

- Dr. Andreas Pallack, Franz-Stock-Gymnasium (FSG), Arnsberg, Germany;
- Josef Klasen, Gymnasium Xanten, NRW
- Kathrin Richter, Seminar Bochum

Andreas Pallack is the principle at FSG and works as an inservice teacher trainer for a long time. He is publishing a well established textbook.

Josef Klasen is the principle at Gymnasium Xanten and leads a group of mathematics and science teachers finding new ways of individualized learning environments. Both headmasters are engaged in the field of integrating technology (TI-Nspire) and are interested in formative assessment and with this in the topics of the FASMED-project

Kathrin Richter is mathematics educator for pre-service-teacher education at a so-called Seminar, an institute running course after the university pre-service education. She is interested in FASMED to show a wide range of possible ways and methods to realize Formative assessment.

All the three teachers are highly engaged using the material which has been developed in the frame of the FASMED-project.

Aims and topic of the meeting:

Mainly we wanted to share experiences with the teachers/schools about the material of the FASMED-project. All teachers agreed that the concept is highly convincing, but that the realization of paper-cards is a demanding challenge for the pupils. We spoke about different possibilities how to structure and realize the technology-driven version of the material.

We exchanged ideas how to foster PD-courses to disseminate the material in the region.