



## Newsletter November 2012

### Main points of the newsletter

-  **Review of policy for early years science and mathematics education in 11 European countries complete**
-  **Analysis of data from teacher survey almost complete**
-  **Conceptual framework and initial results of research in policy and practice presented in international conferences**
-  **Tentative curriculum design principles released**
-  **Information about the training summer school on Practices Fostering Creativity in Early Years Science and Mathematics Education**



The project CREATIVE LITTLE SCIENTISTS has received funding from the European Union Seventh Framework Programme (FP7/2007-2013) under grant agreement n° 289081.



## Creative Little Scientists

### Review of Policy and Practice

Since the completion of the Conceptual Framework, all project partners have been working on mapping and comparatively assessing existing practice in science and mathematics education in pre-school and first years of primary school. The aim of this mapping is to highlight instances of, or record the absence of, practices combining science and mathematics learning, teaching and assessment with creativity.

To this end, the consortium conducted:

(a) desk research that examined records of policies, curricula, reports and assessments of school practice in the nine sample countries;

and

(b) a questionnaire survey aiming to gain insights into the conditions pertaining in real school life, which was addressed to teachers selected schools reflecting a range of contexts in the nine sample countries.

### Review of Policy

The review of policy contributes to existing work not only by investigating how creativity in science is conceptualised across policy documentation, but through its focus on the early years: both in pre-school and the first years of compulsory education.

This report builds on prior work in the *Creative Little Scientists* project and provides implications for field work in the next stage of the project by drawing attention to possible areas of focus, as well as providing policy recommendations.

### Teacher Survey

In this task the project carried out field research at a first level, by means of a questionnaire

survey addressed to teachers. The aim of the survey was to provide a general view of the conditions pertaining in real school practice. The survey was conducted using an online questionnaire during the period between May 2012 and July 2012.

The main outcomes from both reports will be presented in a separate newsletter following the release of the Comparative Report that will synthesize and provide a more refined framework of analysis for the next project phases, highlighting the areas (e.g. emerging issues, specific context-related aspects etc) that will need deeper investigation in the in-depth field study.

### Directions for Teacher Training

One of the main outcomes of *Creative Little Scientists* is to propose a set of curriculum design principles as concrete guidelines for European initial teacher training and continuous professional development programmes.

In the first phase a set of tentative curriculum design principles for teacher education in science and mathematics teaching and learning was produced, to be used as a framework for the development of curriculum materials at the level of teacher training institutions and continuous professional development providers.

The process from conceptual framework to prototypical design principles was the central topic of deliverable D5.1 - Prototypical guidelines and curriculum design principles for teacher education which were released at the beginning of October 2012.

All public project deliverables are available in the *Creative Little Scientists* website (<http://www.creative-little-scientists.eu/content/deliverables>).

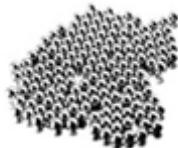


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## Presentations in Conferences

As the first project results are coming out, the partners of *Creative Little Scientists* have begun to disseminate the results of the project in international conferences and national seminars.



**Science**  
LEARNING CENTRES

Partners from the Institute of Education University of London and Bishop Grosseteste University Lincoln attended the UK Science Education Research Conference on 2-4 July 2012 at the National Science Learning Centre, University of York and presented the project's conceptual framework providing an examination of recent developments in early years science and mathematics education and the potential for inquiry-based and creative approaches to enhance science and mathematics learning.  
<https://www.sciencelearningcentres.org.uk/impact-and-research/research/second-uk-science-education-research-conference>



University of Minho led a presentation on the aims and initial results of *Creative Little Scientists* in the European Early Childhood Education Research Association (EECERA) annual conference held in Oporto, Portugal between 29 August and 1 September 2012.

<http://www.eecera2012.ipp.pt/home>



The British Educational Research Association (BERA) 2012 conference held in Manchester, UK from 4 to 6 October 2012 was the host of a symposium ran in collaboration by the three UK partners (Institute of Education University of London, Bishop Grosseteste University Lincoln and the Open University) entitled "*Creative Little Scientists: A review of creativity in science and mathematics in the early years*". Professor Derek Bell from the College of Teachers and Visiting Research Associate at the Institute of Education served as the discussant to the symposium.

<http://www.bera.ac.uk/events/conference-archive/bera-conference-2012>



The first results from the field research of *Creative Little Scientists* were presented in the European Conference on Educational Research (ECER) 2012 held in Cadiz, Spain during 18 to 21 September 2012. The project coordinator, Ellinogermaniki Agogi, along with the Task (Institute of Education University of London) and Work Package (University of Eastern Finland) leaders for the policy and practice reviews presented initial results of the teacher survey across the nine countries, comparing them to the conceptual framework and the policy review and offering a preview of the main points which will be highlighted in the Comparative Report, the main deliverable of Work Package 3.

<http://www.eera.de/ecer2012/>



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All conference presentations can be found in the project website ([www.creative-little-scientists.eu/content/Presentations\\_in\\_Conferences](http://www.creative-little-scientists.eu/content/Presentations_in_Conferences))

### Pri-Sci-Net: Another FP7 project

PRI-SCI-NET is an EU funded FP7 Supporting and coordinating action (Call SiS-2010-2.2.1.1) on innovative methods in science education: teacher training on inquiry based teaching methods on a large scale in Europe. The project is coordinated by the Malta Council for Science and Technology (MCST) and has 17 partners from 14 countries. The project promotes Inquiry-based learning approach among primary teachers teaching science to young children in the age range of 3-11 years. This project is about setting up a Europe-wide network for professionals and academics in the area of Primary Science Education. The aim is to provide training and professional support to teachers to help them use Inquiry based learning in Science in schools. The platform at European level will network professionals as well as support the organisation of training courses.

You can find out more about Pri-Sci-Net in the project website <http://www.prisci.net>.



### Creative Little Scientists Training Summer School in Crete, Greece

*Creative Little Scientists* will organise an international training course in Crete, Greece from 30 June to 5 July 2013. The training course will be based on the teacher education curriculum design principles and guidelines formulated as part of the project and will aim to promote creative approaches to science and

mathematics learning in preschool and the first years of primary school.

More specifically, the objectives of the training course specify that teachers as a result of the course will feel empowered to: use inquiry-based and creative science education approaches; have positive attitudes towards learning and teaching science, mathematics and creativity; act as innovators, researchers and reflective practitioners; and engage in communities and partnerships with other stakeholders (other teachers, parents, professional associations, experts, etc.).

Throughout the course teachers will experience inquiry-based and creative approaches in 3 different modes: a) as learners participating in science and mathematics inquiry-based activities fostering creativity; b) as teachers implementing inquiry-based and creative approaches in their science and mathematics classes; and c) as researchers collecting, examining and interpreting data about their practice and their students' learning. The course will leverage an inquiry-based creative approach through hands-on and reflection sessions to experience the principles of inquiry-based and creative science learning, while introducing the basics of curriculum design research and exploring teacher education curriculum design principles. The latter cover: learning activities, role of teacher educator, materials and resources, grouping, location, time; and assessment.

For more information on the summer school and how to apply can be found at  
<http://ec.europa.eu/education/trainingdatabase/index.cfm?fuseaction=DisplayCourse&cid=35082>  
or visiting the *Creative Little Scientists* website.

[www.creative-little-scientists.eu](http://www.creative-little-scientists.eu)



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