

National workshops

The national workshops programme has two purposes. Firstly, it will gather information and make contacts concerning the 'state of the art' in inquiry-based science teaching and education (IBST/E) in the 15 consortium countries. Secondly, it will present the principles, modules and techniques of the successful SINUS project in Germany, as a stimulus for discussion of science education issues in the country concerned.

The programme has been running since July, and is now complete except for the meeting in England which will happen in April. There will be one meeting in each partner country plus a summing-up meeting of the National Liaison Partners and others involved in the workshops. This will be held in Nottingham on 10th Jan 2010. Each national meeting will be a small-group discussion to which perhaps 10-12 people will be invited, as representatives of the different stakeholder groups for science education in that country.

For download - [notes from Lithuanian workshop](#). These give an overview of the situation regarding science and teacher education in Lithuania, highlights of presentations by Doris and Matthias and notes from the subsequent discussions.

New - [introductory leaflet](#) from Allan Blake at Strathclyde. The Scottish national workshop took place on September 23rd in Glasgow.

country	date	remarks
Lithuania	1/2 July	Done!
Turkey	18 August	Done!
Scotland	23 September	Done!
Finland	1/2 October	Done!
Israel	12/13 October	Done!
Czech Republic	15/16 October	Done!
France	21/22 October	Done!
Sweden	5/6 November	Done!
Estonia	19 November	Done!
Cyprus	7/8 December	Soon!
England	April 2010	
Spain	14 December	

A message from Doris and Matthias:

* International policy workshops

* National Liaison Partners

6/6/2009

National Workshop for Science-Teacher Education Advanced Methods (The S-TEAM project)

The S-TEAM project was initiated in response to the EU's concern for scientific literacy within the EU as well as issues related to recruiting enough students to Science, Technology, Engineering and Mathematics (STEM) careers. There is wide agreement within the EU that teachers have an important role in shaping young people's perceptions of science. The EU is suggesting that improved methods for teaching STEM subjects is one way to support teachers. Inquiry Based Science Teaching/Education (IBST/E) is proposed as an important way of changing the way we teach STEM subject and thereby to increase the motivation of students to engage in STEM studies and careers.

The three main objectives of the S-TEAM Project are:

To improve motivation, learning and pupil attitudes in European science education resulting in

- increased scientific literacy and

- recruitment to science-based careers, by:

Enabling large numbers of teachers to adopt inquiry-based and other proven methods for more effective science teaching by:

Supporting teachers by providing training in, and access to, innovative methods and research-based knowledge.

The S-TEAM project aims to address the challenges stated above through combining state-of-the-art knowledge about science education with practical experience in teacher education. Framing the problem at a European level provides an opportunity for national expertise in science education curricula, pedagogy and practice to be shared. S-TEAM involves 25 institutions in 15 countries.

The S-TEAM is in the first phase of its three year funding. One of our current goals is to understand how teacher education (including in-service education) is organized and implemented in participating countries. Understanding national contexts is important for understanding how science teaching takes place and for understanding our cultural similarities and differences.

S-TEAM has proposed national workshops to take place for the purpose of collecting information at the policy level in member countries.

Linking to policy in each country is an important step in implementing and understanding change mechanisms.

It is with these ideas in mind that we now are asking that your country plan a national policy workshop in which members of the S-TEAM are invited to share in a dialogue about STEM teacher education and educational practice related to policy. At the same time, the S-TEAM is interested in sharing ideas of IBST/E with participants in the workshop. Finally, the S-TEAM is interested in presenting one model of teacher professional development that has proved to be successful in Germany, called SINUS-transfer. Other types of models will also be discussed as possible dissemination methods of Inquiry Based Science Methods in individual countries.

We are proposing that the national policy workshop be organized to take place over two days if possible. The schedule for day one would include a closer look at what Inquiry Based Science Teaching actually is at different levels of the curriculum and what we know about implementing such ideas in teacher education and classroom practice.

During day 2 we propose looking more closely at national strategies for teacher education and science and math teaching in schools (including national documents, curriculum frameworks, etc). We will present the SINUS model for teacher professional development, and begin a discussion about possible ideas for one's own country.

As members of S-TEAM, we look forward to our visit to your country. It is so important to share policy ideas with each other and begin to understand how we may begin to change the way we present STEM subjects to our students and teachers.

Doris Jorde, Professor in Science Education

University of Oslo

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What sort of information do we want to collect?

Our central purpose is to find out about science education in each partner country. This breaks down into:

1. Pedagogy. We have to work around the theme of inquiry based science teaching & education (IBST/E). In some countries IBST/E is a concept which is well known and widely used. In others, there may be a more traditional approach involving the learning of facts, formulae etc. without any of the characteristics of IBST/E. It is important that this information does not just reflect the official view as presented in policy documents. It is vital that we know how teachers perceive IBST/E and especially what they perceive as constraints on, or disadvantages of, its adoption. This will enable us to address these constraints, either directly through deliverables such as training packages or indirectly by influencing policy.
2. Curriculum. The way that the science curriculum is determined in a particular country will have an effect on the way in which science can be taught. Overcrowded or incoherent curricula may make it difficult to devote sufficient time to inquiry-based science teaching.
3. Assessment. As with the curriculum, assessment methods have a role in determining how science is taught. Even where inquiry is used extensively, excessive rigidity in assessment methods can constrain the usefulness of inquiry in promoting student motivation and interest.
4. Policy. Policy wraps all the above aspects together in different ways from country to country. Who makes policy and what are the drivers of science education policy in specific contexts? We need to know the views of policy makers since, for example, there may be forthcoming initiatives which provide opportunities for S-TEAM involvement. Imagine if we had been around when SINUS was being planned - we could have learned from its development process, suggested or provided materials from other national contexts and begun dissemination of its results.