

Report from the FP7 project:

Assess Inquiry in Science, Technology and Mathematics Education



ASSISTME

Guidelines for partner countries to facilitate collecting national research on assessment

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Introduction

One of the objectives of WP2 in ASSIST-ME is to produce a report on the use of formative and summative assessment with respect to IBE in STM. This report will be based on an extensive literature review. It is supposed to be supplemented, however, with a set of country reports (one for each partner country, respectively) that will pay special emphasis to the situations found in the ASSIST-ME partner countries. Within these reports recent work that has been conducted in your countries on formative and summative assessment in science, technology and mathematics education should be collected.

The reports will form deliverable D2.3 *Reports from partners (one from each participating country) reviewing and synthesizing research results from their country*. The questions provided here are guidelines that should facilitate the collection process for you. If there are questions that do not apply to your country or that you cannot answer, please indicate this or leave the question out. Background information about the educational systems and the role of assessment within these systems in your countries will be collected by WP3.

The reports should not exceed 10-15 pages per country as a maximum. Please include at least 10 publications (published in English or your native language, respectively) that you consider to be the most relevant publications within this field in your country. Please make sure that these publications cover all three areas of science, mathematics and technology! If there is less research in your country in one of the areas, please give reasons for this.

We would then add these publications to the literature database that we are planning to make them accessible to all ASSIST-ME participants via the internal project site.

Please upload your reports to the internal project site no later than June 1st, 2013.

Thanks a lot for your support and collaboration!

Silke Rönnebeck & Olaf Köller, WP2

Questions to guide national collection of research

In answering the following questions, please keep in mind that we are interested in research results and not in information at the level of the educational systems in your country! This information will be collected by WP3!

With respect to the research on assessment in your country, what do the results suggest regarding the following questions (please include citations)?

1. Which role does summative and formative assessment play in and for the teaching and learning of STM in your country?

2. How do teachers approach the need to monitor student learning as it develops? To what extent do they use structured formative assessment and in what formats?
3. What support and tools do teachers need in order to integrate formative assessment of student learning in their classroom practice?
4. How can summative assessment be used to support formative assessment? Are summative assessment methods and results formatively and/or vice versa?
5. What hinders the uptake of more formative assessment? What need to be done to promote formative assessment?
6. Do the assessment methods influence the uptake of IBE in STM in your country? How can summative and formative assessment methods be used to promote learning in inquiry-based STM?
7. Is there evidence that summative or formative assessment methods in your country exist that measure the goals of IBE in STM: understanding of powerful scientific and mathematical ideas, building inquiry competences, developing understanding of scientific and mathematical activity and fostering corresponding attitudes? What results are found? If the assessment methods are not consistent with the learning goals of IBE, how could they be brought into consistency?
8. Do instruments and protocols (including ICT) for formative assessment exist? If yes, which and how are they used?
9. How are research results on assessment used in your country and by whom? Which significance do they have at the student level, classroom level, teacher level (or maybe beyond teacher level)?
10. Which are the 10 most relevant publications on formative and summative assessment of inquiry in science, technology, and mathematics in your country (please make sure that your selection covers all three subject areas)? If there are no publications especially dealing with IBE, please list the 10 most relevant publications in formative and summative assessment in general. What are the main results of these publications?