



The role of teachers

It is impossible to overestimate the role of teachers in the learning process. The most important factor affecting student learning is the teacher and seemingly more can be done to improve education by improving the effectiveness of teachers than by any other single factor (Sanders et al., 1997). When referring to teachers' qualifications in project MERIA, we accept and emphasize the balance between teacher's subject knowledge and pedagogical knowledge following the academic research and institutional recommendations. To quote the Eurydice report Mathematics Education in Europe Common Challenges and National Policies:

"...concerning highly qualified mathematics teachers, the US National Council of Teachers of Mathematics (NCTM, 2005) states that they must have 'an extensive knowledge of mathematics, including the specialized content knowledge



specific to the work of teaching, as well as a knowledge of the mathematics curriculum and how students learn'. In other words, in addition to a 'profound understanding of fundamental mathematics' (Ma 1999, p. 19), teachers must also have what has been coined by Shulman (1986) as 'pedagogical content knowledge', i.e. the practical understanding of how to apply their knowledge and adapt it to their teaching, as well as 'curriculum knowledge', which refers to the knowledge of the content, materials and resources used for teaching, how they are arranged and ways to use them."

MERIA associated schools

Project MERIA is a meeting point for schools, educational agencies, professional associations and higher education institutions. Along with project partners, MERIA collaborates with associated schools in four project countries in obtaining the following specific goals:

1. To promote student-centered, inquiry-based mathematics education. In selected schools, teachers will try new methods and broaden their set of teaching skills. The project started with an in-depth analysis of teachers' needs and barriers.





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2. To create an interactive repository of mathematical showcase materials for secondary schools. Schools with the status of associated partners of MERIA project will be involved in testing and evaluation of the materials designed during the project's lifecycle.
3. To upgrade teaching skills of in-service teachers, so that they have necessary competences for dealing with diversified groups of learners and to teach using learner-centered approaches and methods. Special workshops for teachers will be designed and realized during the project, taking into account information gathered in associated schools.
4. To strengthen cooperation and flow of ideas between educational and research institutions dealing with mathematics education at different levels. Associated schools have a vital role in the project as the main target audience for all activities, as well as valuable partners providing feedback on the design of teaching materials.

List of all associated schools will be available soon on the project's webpage.

Teachers' professional development

Teachers' continuous improvement is an imperative of the profession:

"Following their initial education, mathematics teachers must continue to update their knowledge and skills. Opportunities for teachers to engage in continuing professional development (CPD) can have a substantial impact on their work, their achievement, skills and attitudes as well as on their performance and job satisfaction (Villegas-Reimers, 2003)."

One of the main aims of MERIA project is to provide systematic and overarching support to mathematics teachers in all partnering countries. To accomplish that MERIA team will design new teaching materials and organize a series of workshops to train teachers in using student-centered methods and new materials, as well as how to design their own innovative materials and upgrade their teaching skills. Workshops will be planned and prepared in detail, which will be described in the MERIA Workshop Guide, one of project's six results.

"Teachers of mathematics must not only deliver the curriculum, but they must be able to adapt their teaching methods to the changing needs of students. They must learn to integrate new materials and technologies, and make use of research results relating to student learning and teaching practices in mathematics (Smith, 2004)."

To make MERIA workshops efficient, project team will focus its activities (module design and workshop themes) according to needs of teachers in the partnering countries.

MERIA workshops

There will be two waves of workshops. The first wave will be held in January 2019 and it will cover the topic of inquiry-based mathematics teaching. The second wave will be organized in April 2019 and it will provide teachers with a hand-on experience with the new teaching materials designed according to MERIA principles.



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