

# TEACHING MATERIALS FOR TEACHING MATHEMATICS TO NON-FIRST-LANGUAGE LEARNERS IN NON-CLIL SITUATIONS

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*Pupils from minority cultures and/or those with a migrant background encounter even more difficulties than their native classmates in acquiring fundamental maths skills. A team of seven European partners in the EU-funded project M<sup>3</sup>EaL investigates the situation, asks about teachers' needs and strategies, and develops teaching materials.*

## INTRODUCTION AND THEORETICAL BACKGROUND

A number of mathematics teaching and training materials are available for teachers in CLIL courses. In CLIL, students voluntarily choose to have part of their subject teaching in a non-first-language (often by a teacher whose first language is also not the language of instruction). However, many teachers and students are confronted with a different situation when students from minority cultures and/or those with a migrant background are in regular courses where the language of instruction is not the first language for these students. While there is a lot of support for language courses in such situations, there is very little suitable support for mathematics courses, though several studies (e.g. Barton, Barwell and Setati 2007, Norén 2010, Ulovec et al. 2013) show the need for such support. The M<sup>3</sup>EaL-team set out to investigate the situation and come up with teaching and training materials to support teachers and their minority/migrant students in mathematics courses.

## METHODOLOGY AND RESULTS

The team developed a questionnaire to find out experiences and needs of teachers teaching mathematics in multicultural situations. This questionnaire was distributed in six European countries and then analysed (Ulovec et al. 2013). The analysis results were then used to develop suitable teaching materials that are now piloted in classrooms. The Short Oral will briefly discuss the analysis results, present the teaching materials, and summarize the results from the piloting phase.

## References

- Barton, B., Barwell, R. & Setati, M. (2007). Multilingualism in mathematics education. *Special Issue of Educational Studies in Mathematics*, 64(2).
- Norén, E. (2008). Bilingual students' mother tongue: a resource for teaching and learning mathematics. *Nordic Studies in Mathematics Education*, 13(4), 29-50.
- Ulovec, A. et al. (2013). Multiculturalism in theory and teachers' practice. In J. Novotná & H. Moraová (Eds.), *Proc. International Symposium Elementary Maths Teaching* (Vol. 1, pp. 322-330). Prague, Czech Republic.

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