MULTICULTURALISM IN MATHEMATICS EDUCATION

Andreas Ulovec

University of Vienna

Maths teachers, especially those working in secondary schools, feel the necessity for training and materials which reflect the needs of their classes in terms of linguistic and cultural differences. Their 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 M³EaL investigates the situation regarding maths teaching with respect to these issues, and develop training materials for pre-service and professional development courses.

THEORETICAL BACKGROUND

Several studies (e.g. Barton, Barwell and Setati 2007) show a need of mathematics teachers for input with respect to linguistic and cultural differences in their classrooms. Learning a new language and culture at the same time as you learn mathematics places double burden and challenges on immigrant pupils (Norén, 2010).

RESEARCH TOOLS AND METHODS

We developed a questionnaire to map teachers' experiences and attitudes towards teaching in multicultural settings in six European countries. This Short Oral will present the situation in Austria. The four-part questionnaire intended to find out basic information about the teacher, the school and the social background, the teachers' prior experiences, and the support available for teachers working in multicultural settings. Attention is paid to the situations specific for working in such conditions as well as to support of any kind that such a teacher has and/or would like to have.

RESULTS

About 83% of the teachers taught mathematics to migrant students at some point in time. Almost none of their schools offer a special programme for such pupils. Typical issues that have been reported by teachers were difficulties of such students in understanding complex word problems and in expressing mathematical connections with a satisfying degree of exactness. The majority of teachers with migrant students wished for concrete didactic units from various cultural backgrounds.

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.

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