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**Teachers and their educators – views on contents and their development needs in mathematics teacher education.**

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Summary: Finland has scored well in international assessments (e.g. PISA, TIMSS), and the pressure to attain excellent scores has activated a drive toward even more effective mathematics teacher education. This article presents the results of a qualitative assessment of the mathematics teacher education provided by the University of Eastern Finland. In this study, the views held by practicing teachers ( $N = 101$ ) and teacher educators ( $N = 19$ ) are compared so that the outstanding development needs of mathematics teacher education in terms of their contents can be revealed. The data was gathered via an electronic survey and was mainly analyzed using data-driven methods. In addition, framework provided by Mathematical Knowledge for Teaching (MKT) was used to categorize the respondents' views regarding the contents of mathematics teacher education and to develop general guidelines for the reform of mathematics teacher education. The results indicate that mathematics teacher education should include pure mathematical content (Common Content Knowledge, CCK) and mathematical content that will have been designed only for future teachers (Specialized Content Knowledge, SCK). Teacher educators and practicing teachers both held the view that the relevance of CCK studies depend on the connections between university and school mathematics. Pedagogical studies should also be reformed because practicing teachers have realized that effective teaching (Knowledge of Content and Teaching, KCT) requires knowledge about learning mathematics (Knowledge of Content and Students, KCS) that is not offered in the current educational system on a sufficiently broad basis. In this study, suggestions for developing mathematics teacher education were mostly connected to four domains of MKT: (CCK, SCK, KCT and KCS). Interestingly those domains are the same domains which has been empirically tested and better conceptualized.

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