

## Paper session 3A | Teaching quality in mathematics education

Room: Tetra

Discussant: Jennifer M. Luoto, University of Oslo

### Contextualized mathematics in Nordic lower secondary mathematics classrooms

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One of the overarching goals of mathematics education is to prepare students to use mathematics for handling both known and unknown situations in society, occupations, and their everyday life. Thus, making students aware of how mathematics is present in different contexts and providing them with opportunities to engage in contextualized mathematics.

The current study aims to investigate how teachers attend to contexts during mathematics lessons in lower secondary mathematics classrooms in Finland, Norway, and Sweden. The use of contextualization has been discussed for a long time in mathematics education research, and it has been suggested that contextualization can be related to motivation, interest, and conceptual understanding. However, research also indicates that contextualized mathematics in classrooms rarely deal with 'real-world' problems and

data or is overly centered on contexts such as consumerism (e.g., Rubel & McCloskey, 2021).

In the present study, we utilize a sub-sample of video data from 24 classrooms in Finland, Norway, and Sweden, participating in the LISA Nordic study, to investigate how and when teachers utilize contextualized mathematics and what kind of contexts they use. Applying a framework for contextualization, examples brought up by teachers and students in discourse and tasks were analyzed to identify 1) what contexts are used, 2) when contexts are used, and 3) how contexts are used.

Preliminary findings indicate that most contextualization was related to examples brought up in whole-class discourse. Commonly, contexts dealt with issues related to students' personal lives, such as shopping, or intra-mathematical contextualization. Furthermore,