# Exploring Finnish and Swedish teachers’ emerged classroom practice

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This presentation reports on a case study that examines four Finnish and four Swedish primary school teachers’ practices, utilizing the same original Finnish curriculum materials. Data consists of three video-recorded mathematics lessons, of which one per teacher is analysed in this presentation. The analyses uncover notable differences in classroom practices between the teachers in the two countries. The Finnish teachers utilize a more comprehensive range of questioning techniques, fostering active student participation, whereas the Swedish teachers deploy a more limited set of questions. This research contributes to the ongoing discussions about the nature and quality of instructional approaches in mathematics education from the implementation in two Nordic contexts.

Curriculum materials are essential tools for teachers, and research emphasizes the importance of curriculum materials in shaping mathematics education (Fan et al., 2013). However, only a few studies have explored how teachers in different cultural contexts use foreign curriculum materials and how those influence classroom practice. This study examines the classroom practices in Finnish and Swedish mathematics lessons framed by cultural norms. These norms, embodying acceptable social interactions and practices, involve teachers and curriculum materials, reflecting culturally specific educational values (Haggarty & Pepin, 2002). Consequently, they capture the unique essence of classroom teaching and learning activities. Koljonen’s (2020) research contrasted Finnish and Swedish pedagogical approaches in mathematics, revealing consistent, interactive Finnish lessons favouring classwork and diverse Swedish lessons leaning towards direct instruction and seatwork. While Finnish educators employed a broader spectrum of questioning techniques, the impact on student participation remains uncertain. Thus, this study aims to answer the question: How do pupil-teacher interactions manifest in Finnish and Swedish mathematics classroom practices?

This research investigates the utilization of questioning techniques (Boaler & Brodie, 2004) by four Finnish and four Swedish teachers, exploring their approaches to promoting active student participation (Ahl et al., 2022). The participating teachers are regarded as locally competent with formal education in mathematics for Grades 1-6 and are initially using a curriculum material from Finland. The data in this presentation comes from the first of three consecutive recorded mathematics lessons per teacher. In this study, I expand upon the examination of questioning techniques by categorizing each instance of student-teacher interaction as either acknowledged, undertaken, or ignored, per the methodology outlined in Ahl et al. (2022). This is assumed to gain a deeper understanding of how these questioning techniques influence student participation. An interaction could be a single student statement or a short coherent communicational exchange. Interactions where the teacher acknowledged the student’s contribution, but the interaction did not influence the following discussion were classified as *acknowledged*. Interactions are classified as *undertakings*, where the teacher takes the students’ contributions and uses them in the subsequent discussion. An *ignored* interaction is when the teacher gives no feedback on a student’s interaction.

The study investigates how pupil-teacher interactions manifest in Finnish and Swedish mathematics classrooms. Despite using the same Finnish curriculum materials, significant differences were found between the four Finnish and the four Swedish primary school teachers’ classroom practices. Finnish teachers exhibited a greater tendency to ask questions and frequently integrated student input into classroom discussions, encouraging active participation. On the contrary, Swedish teachers employed a narrower range of questioning strategies and were less inclined to incorporate student feedback into discussions. This directive style may potentially limit students’ active involvement and impact their learning process. I will exemplify and discuss these results more in-depth during the presentation.

The study underlines the role and influence of cultural norms and curriculum materials in shaping teaching practices, suggesting a need to consider cultural differences in curriculum design and implementation. It also calls for more research into the effects of different teaching strategies on student participation and learning outcomes in various cultural contexts. These insights could help improve mathematics education and enhance student learning experiences.

## References

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