Editorial

In early June the editors held their annual meeting, also this time online. The editors are very content with the submissions of manuscripts and happy with the commitment from all reviewers engaged in the work. There will be no thematic issue this autumn, which means more regular articles can be published. There are many manuscripts in the "pipeline" and the editors are sure to maintain the high quality of the published articles. As ususal, changes in the editorial group were discussed. NOMAD follows the practice of replacing editors one at a time after some years of service, in order to maintain continuity in the editorial work. This time however, no more than three new editors were welcomed. This means that the group of editors is growing. Jonas Bergman Ärlebäck, University of Linköping will replace Yvonne Liljeqvist. We wish to thank Yvonne for her good work and, as is usual, welcome her as a member of the editorial committee. In addition to Jonas we also welcome Cecilia Kilhamn, University of Gothenburg, and Jake McMullen, University of Turku. The plan is that Jake will replace Heidi Krzywacki after next year, so until then NOMAD will have the benefit of two editors from Finland.

No workshop for doctoral students

In the previous editorial the editors were happy to announce the return of the annual workshop for doctoral students. The purpose of the workshop is to discuss what it means to write an article for NOMAD. The workshop will give the participating students an opportunity to get feedback on their draft articles from the editors. Regretfully, the workshop had to be cancelled due to few participants. We hope to make a come back next year.

Thematic issues

For many years, the last issue of NOMAD, has been a thematic issue. The intention is to bring together researchers with a certain interest from all Nordic and Baltic countries. A thematic isssue is proposed and organised by a group of guest editors. The work with the thematic issue for 2023 started already last year. The theme for 2023 is *Digital resources in mathematics education* and the editors are looking forward to an

interesting double issue presenting Nordic research activity in this field. As the work with a thematic issue spans over two years, it is now time to begin planning for the upcoming thematic issues. The editors would like to *invite our readers to propose a theme* for the year 2024, as well as for the year 2025. Please contact the editors for more information.

In this issue

This issue contains three articles. In the first article, *Scrutinizing Norwegian kindergarten teachers' considerations about talk moves*, Camilla Normann Justnes and Reidar Mosvold explore the potential for using talk moves in the Norwegian kindergarten context. Talk moves are conversational moves that teachers can apply to stimulate reasoning and attention to others' thinking in mathematical discussions. Talk moves are used to disrupt commonly used patterns like initiation-response-evaluation (IRE) in order to stimulate more productive forms of communication. The authors invited experienced kindergarten teachers to participate in the study. The study contains both observations of teachers' networking meeting, where they worked with the concept of talk moves, as well as observations of their teaching, where they applied talk moves into their communication with the children. In the article, the outlined results show what aspects of talk moves kindergarten teachers considered to be in harmony or not with the Norwegian kindergarten culture, and the rationales for their considerations. Integrating talk moves in a professional practice of mathematics teaching in kindergarten requires development of a shared professional language and routines. The authors theorize their findings and present some ideas for how talk moves can be tested in future studies.

In the next article, *Full-body interaction in young children's modelling of counting-based addition*, Morten Bjørnebye explores characteristics of children's talk, use of tools, and full-body interaction in the modelling of counting-based addition from the perspective of embodied cognition. In this study arithmetic is understood in terms of embodied experiences, and mental simulations of such experiences, reflecting cardinal and ordinal properties of numbers. Ten kindergartners took part in a five-weeks intervention consisting of one-hour sessions for learning the main strategy (e.g. count on from the largest addend "four, five, six" in 2 + 4). These sessions were guided by a pedagogue and a researcher.

The analysis is based on data collected after the intervention in a video-recorded individual testing situation. Eight of the ten children showed proficiency in coherent strategy modelling, while preference in mental retrieval, or offloading the additive thinking in visual- or visuo-tactile

interactions reflected main modes of simulating the main strategy. The study reveals the potential of integrating expressive body movements (e.g. force, tempo, rhythm, rotations and shifts in movement pattern) to the strategy modelling, since this adds a subjective layer of meaning to the experience. Bjørnebye's study contributes to our understanding of how children develop strategies, specifically, his study contributes to research focusing on how full-body interactions can help young children develop skills in arithmetic.

The third article, *Videreutdanningsstudenters undervisningskunnskap relatert til likhetstegnets betydning i algebra* [Mathematical knowledge for teaching related to the concept of the equal sign in algebra], by Aleksandra Hara Fadum and Helga Kufaas Tellefsen is in Norwegian. The topic of the article concerns teachers' understanding of the equal sign and their knowledge of students' understanding of the same. The data is produced within a professional development course in mathematics education for grade 5–10 teachers. The teachers in the study first solved an algebraic task and was then asked to analyse and comment on a given pupils' solutions to the same task. This was done in the examination of the course. The answers to these two parts were analysed by thematic analysis. The results show that many teachers did not identify misconceptions of the equal sign as an obstacle in the students' solutions.

The Editors