Editorial

The last two years all editorial work has been conducted without any physical meetings. This year, however, we hope to hold the annual editorial meeting in situ in Gothenburg and, to meet also doctoral students in the workshop. The editors are happy with the steady inflow of manuscripts and the commitment from all reviewers engaged in the work with the articles. There are several manuscripts in the process of review and the editors look forward with confidence to maintaining a high quality in the forthcoming publication. There will be some changes in the editorial group later this year. NOMAD follows the practice of replacing editors after some years of service, while maintaining the representation of different countries in the editorial group. We will later come back with more information regarding these changes.

Workshop for doctoral students 2022

The current plan is to organise the NOMAD workshop for doctoral students in Gothenburg, June 2, 2022. The arrangements are dependent on the development of the pandemic but the intention is to have the workshop face-to-face. The deadline for registration is March 31. More information and an invitation to take part is published on the NOMAD web, http://ncm.gu.se/nomad-workshop

Thematic issue 2024

The last issue, in a volume of NOMAD, has for many years been a thematic issue with invited guest editors. The theme for 2023 is *Digital resources in mathematics education* and the work is in progress. The editors are looking forward to an interesting double issue in the autumn next year, displaying the research activity in this field. The intention of a thematic issue is to bring together researchers with a certain interest from all Nordic and Baltic countries.

The work with a thematic issue takes place over almost two years, and therefore the editors would like to *invite our readers to propose a theme* for 2024. Please contact the editors for more information.

In this issue

The first issue of Volume 27 contains three articles and a text in memory of Gérard Vergnaud. The first article, *Creative and algorithmic reasoning – the role of stra-tegy choices in practice and test*, written by Tomas Bergqvist and Mathias Norqvist focuses on understanding better university students' mathematical reasoning by characterizing students' strategy choices in both practice and test sessions, analyzing the relation between these choices, and discussing students' experiences from practice and test. According to Bergqvist and Norqvist, two types of mathematical reasoning, Algorithmic Reasoning (AR) and Creative Mathematically founded Reasoning (CMR), are central for the the study. The data consists of practice and test scores, students' written solutions, videorecordings of practice and test sessions and an interview at the end of the recorded sessions with all 10 student participants. The analysis focused on identifying strategy choices in both practice and test and investigating student experiences when working on tasks. Berqvist and Norqvist notice that there was no substantial difference among used solution strategies in terms approach in practice phase. The same solution strategies were used in the test situa-tion regardless of practice condition. Berqvist and Norqvist bring about the importance of productive struggle in CMR practice, that was noted also by some students.

The next article, *Students' reasoning and feedback from a teacher*, by Jan Olsson and Denice D'Arcy focuses on how to support students' creative reasoning when these are in need of assistance in non-routine task solving. The study, similar to the study of Bergqvist and Norqvist, draws on two types of mathematical reasoning, algorithmic reasoning and creative mathematical reasoning. The authors study two groups of 11–12-year-old students who both solved the same mathematics tasks. Data emerge from these groups' collective task solving and conversations with one of the authors. However, one group received feedback directed at their task solutions and the other group received feedback directed at their thinking processes with respect to the tasks. One of the authors acted as the provider of feedback in both situations. The analyses show that feedback on thinking processes resulted in students expressing their reasoning with respect to their task solving while those students who received feedback on their tasks solving often just repeated the researcher's suggestions for solutions. However, there were also instances in which feedback on task level entailed students engaging in creative reasoning.

In Norway, modelling is a central part of the mathematics curriculum, and has been for a long time. In the article, *Mathematical modelling in textbook tasks and national examination in Norwegian upper secondary school*, Ingeborg Katrin Lid Berget examines how this is reflected in textbook tasks and exam tasks. Tasks from textbooks and exams are analysed

through the lens of a modelling cycle with seven steps. The results show different starting points of the modelling process in the curriculum compared to the tasks from textbooks and exam. The findings indicate different perspectives on mathematical modelling in the curriculum, on one side, and the textbook tasks and the national exam, on the other side. In the latter only parts of the modelling process are included.

Thanks to authors and reviewers

We wish to thank all authors for submitting papers to Nomad. We also wish to thank our reviewers, without whom the production of NOMAD would have been possible at all. We are sincerely grateful to all for their continued engagement, especially in this period of a pandemic which has increased the workload for many of us. Below we present a list of all reviewers of manuscripts for which a decision was made during 2021.

The editors

List of reviewers

Ana Kuzle
Andreas Lindenskov Tamborg
Andreas Ryve
Anette Bagger
Anna Ida Säfström
Anna-Maija Partanen
Anu Laine
Barbro Grevholm
Bodil Kleve
Dave Hewitt
David Reid
Eeva Haataja
Elin Reikerås
Ewa Bergqvist
Frode Rønning
Hanna Palmér
Hanna Viitala
Helena Roos
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Jan Roksvold
Jeppe Skott
Johan Sidenwall
Jonas Bergman Ärlebäck
John Mason
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Leila Pehkonen
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Ola Helenius
Oliver Thiel
Ove Gunnar Drageset
Pasi Nieminen
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Svanhild Breive
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