Editorial

Before going into the summer, we are happy to present another issue of Nomad with four interesting papers, three from Sweden and one from Finland. The papers show that Nomad continues to be an important outlet for PhD students in the Nordic countries, as well as for more established researchers.

On 21 April the Editorial group arranged the fifth workshop for doctoral students in Gothenburg, which we are certain will lead to submitted papers in the near future. This year we had fewer participants than previous years but this may have to do with the fact that another workshop was arranged at Stockholm University 30–31 May, attracting 12 students. More about this will follow in the next issue of Nomad. The workshop in Stockholm was meant as a preparation for students to write papers for next year's NORMA conference. This will be the eighth Nordic conference on mathematics education, following on from Lahti (1994), Kristiansand (1998), Kristianstad (2001), Trondheim (2005), Copenhagen (2008), Reykjavik (2011) and Turku (2014). The preparations for the conference are progressing and a web page is set up at http://www.mnd.su.se/om-oss/evenemang/norma-17. Please follow this page for updated information.

In this issue

The first paper in this issue is written by Florenda Gallos Cronberg and has the title *Learning linear relationships through independent use of the mathematics textbook*. The final issue of Nomad in 2015 (vol. 20, 3-4) was dedicated to research on textbooks and this paper could be said to follow up on this topic. The paper is motivated from observations that students are often working independently, with the textbook as their main learning resource. Cronberg has followed one 8th grade student in her attempts to learn about linear relationships from the textbook, in order to investigate the role of the textbook in this particular learning situation. Data for the study come from the Swedish Learner's perspective study. In analysing her data Cronberg makes active use of the Tetrahedron model on textbook use, developed by Sebastian Rezat, and described e.g. in the paper by Rezat and Strässer in Nomad, 20 (3-4).

The second paper, by Nonmanut Pongsakdi, Teija Laine, Koen Veermans, Minna M. Hannula-Sormunen and Erno Lehtinen, is called *Improving word problem performance in elementary school students by*

enriching word problems used in mathematics teaching. The paper addresses the issue of using of word problems in mathematics teaching and students' tendencies to use superficial strategies to solve them. A program developed to improve students' abilities in mathematical modelling and problem solving was used in a study of 170 students in fourth and fifth grades in Finland. The results show that the method gives positive results on the students' problem solving abilities of non-routine mathematics word problems and applications.

Ida Bergvall, Jenny Wiksten Folkeryd and Caroline Liberg have written the paper *Linguistic features and their function in different mathematical content areas in TIMSS 2011*. The authors investigate linguistic features characteristic of different content areas in TIMSS 2011 (algebra, statistics, geometry and arithmetic) and what function these linguistic features fill. The theoretical framework used is the so-called *Systemic functional linguistics* (SFL) theory, drawing heavily on the work by Michael Halliday. The authors have collected altogether 217 mathematical tasks from TIMSS 2011, distributed over the four content areas and they perform a statistical analysis of the data employing concepts from the SFL theory. Based on this analysis they are able to give a description of how the language differs between the various content areas and to reveal differences in how language is used to express meaning in the different areas.

The fourth article in this issue, *Finding Erik and Alva: uncovering students who reason additively when multiplying*, is by Kerstin Larsson and concerns students who reason additively when multiplying. It is well known that students who only reason additively will be challenged later in their schooling. Such students of course need to be identified in order to be assisted in developing strategies and methods for performing multiplicative reasoning. Usually these students are identified by means of multiplicative comparison problems, but the current study by Larsson illustrates that a certain group of students slip through "the net", i.e. those students who can discriminate the multiplicative character of a problem, but still solves it by additive calculation strategies. Larsson describes two such students in detail, Eric and Alva, and tells the story of how these students were found in a small-scale study of 22 students.

This issue also contains a review by Barbro Grevholm of *Fra snublesten til byggesten. Matematikdidaktiske muligheder*. The six chapters in the book are written by Danish upper-secondary mathematics teachers and they describe their efforts to make use of results from mathematics education research in their teaching. The book is written in Danish and the review is in Swedish.

This issue concludes with a call for papers to the thematic issue of Nomad on *Learning mathematics in linguistically diverse classrooms* planned to be published in the autumn of 2018.

We wish you all a pleasant summer.

The Editors