The Nordic graduate school in mathematics education

Supervisors' seminar in Riga

The Nordic Graduate School in Mathematics Education has as one of its aims to support and develop the competence of supervisors in mathematics education. In connection to the 8th international conference on mathematics education that took place in Riga on May 10–11, the Latvian University offered an opportunity to NoGSME to organise a supervisors' seminar there. Thus on May 12, fifteen supervisors were gathered and listened to the presentation by one of the editors in chief of NOMAD, Morten Blomhøj. He discussed the mission of NOMAD, the policy and review process, the editors' work and guidelines for authors and reviewers. After a presentation about the writing process the participants worked in groups on drafts or ideas for papers suitable for NOMAD. A number of realistic ideas were elaborated and we hope to see these papers take form and be published in NOMAD later on. This was the first time NoGSME could carry out an activity in one of the Baltic countries and we hope to be able to do so on later occasions also.

European educationalists introduced to NoGSME

The National Centre for Mathematics Education in Göteborg organised a four-day programme for government representatives from ten European countries in May. This was done on the initiative of the Swedish Government. One of the sessions were about the Nordic Graduate School in Mathematics Education and the interested participants asked a number of questions. They were eager to hear how the researcher education could complement teacher education and offer qualified persons to the profession of mathematics teaching. The labour market for new doctors was also discussed. In some of the countries there was an interest to get qualified mathematics teachers, who can take on more advanced and developed tasks in school as responsible for the mathematics teaching. Curriculum development and implementations are in focus in many countries and a search for new ways to work with this is going on.

New doctors in mathematics education in the Nordic countries

In February Elin K. Lie Reikerrås defended her thesis *Aspects of arithmetical performance related to reading performance: a comparison of children with different levels of achievement in mathematics and reading at different age levels*. Her dissertation was the first one in a new doctoral program in special education at Stavanger University in Norway. The performance of pupils on different kinds of tasks was studied: word problems, counting facts, multi-step tasks and mental calculation tasks. Three studies were carried out using quantitative methods with 941 pupils in ages 8 to 15. Results show that the ability to solve word problems is not related so strongly to reading abilities as to general level of mathematics. In tasks with counting facts the level of reading ability did not influence mathematics performance. In tasks with several steps the findings show that weak reading ability influences in early ages. In mental calculation when pupils had no visual support the level of reading ability was strongly related to the level of mathematics performance, while general level of mathematics was not of crucial importance.

Bodil Kleve's dissertation *Mathematics Teachers' interpretation of the curriculum reform, L97, in Norway* was presented at Agder University College in May. It is a qualitative study of mathematics teachers in compulsory school and how they interpret and implement the curriculum reform, L97. In the case study both the individual and the social perspectives in teaching and learning are illuminated. Data consist of classroom observations, focus group interviews, conversation with teachers, self-estimation and questionnaires. The results indicate that teachers have interpreted the plan very differently and had different teaching practices. The study shows that the introduction of a new curriculum does not necessarily lead to change in teaching practices in mathematics and it takes a long time to carry out reforms in school. It is teachers' mathematical and didactical competence that is decisive for what kind of mathematics teaching pupils will meet in school.

At Ålborg University Sikunder Ali Baber defended his thesis on May 3: *Interplay of citizenship, education and mathematics: Formation of foregrounds of Pakistani immigrants in Denmark*. The project aims at making a contribution to the debate around multiculturalism while bringing attention to the foregrounds and backgrounds of immigrants. The research study presents an investigation into the foregrounds and backgrounds of three Pakistani immigrant families in Denmark. How have they been engaged in perceiving and making their living within the Danish nation-state context and how are their lives being transformed as an effect of 9/11 scenario and the globalization processes? Attention is given to factors that are responsible for the formation of the foregrounds of Pakistani

immigrants as part of conditions of their citizenship in the Danish welfare state. Here immigrants' access to and experiences with education and mathematics have been recognized as ways to secure their rightful place within Danish welfare society.

The importance of mathemacy has been recognised as a tool to deal with the complex interplay of numbers within the transformation of modern society.

A few more dissertations are going to take place in June both in Norway and Sweden and we hope that thesis from other places will also be made known to us so they can be included among these short reports here and visible to all Nordic doctoral students and supervisors. It is a lively activity going on at the moment and more doctoral students are taken up in the programmes.

Is there a future for Nordic cooperation after NoGSME in 2009?

One of the questions that NordForsk is posing in the evaluation of NoGSME is what is going to happen after the funding from NordForsk finishes in 2009. In the conference Norma05 we started to discuss the creation of a Nordic umbrella organisation, the Nordic Society in Mathematics Education, NSME. Such an organisation could assist in coordinating the activities that are going on in all the Nordic countries. It could also be the host organisation of the Norma-conferences that at the moment do not have a real home.

Even NOMAD could profit from an active, formal organisation that could help in searching for funding for the journal. A group was formed in the Norma05-conference to prepare a document about a Nordic Society that can be presented at Norma08 and discussed there. This group has investigated the national societies and their statutes in order to get some inspiration for the new society.

Now the question is of course if such a society will be enough to carry on the activities from NoGSME. It is probably also necessary that the institutions that are involved at the moment have a wish to share activities with participants from other universities and offer courses, seminars and workshops to people from all participating departments in NoGSME. So far we have experienced a great willingness to take on the organisation of such activities locally and we can hope that this will continue. This question about the future of the Nordic collaboration in mathematics education should be a concern of all involved and we hope it will be discussed widely and that all creative solutions will be shared. The Nordic cooperation builds on long-standing traditions from common conferences both for mathematics teachers and researchers and common projects.

As a region in EU the Nordic and Baltic countries can profit much from collaboration and bridging activities.

Please contact us if you have wishes for the activities or suggestions for themes for workshops or seminars organised by NoGSME.

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