

Activities in the Nordic graduate school of mathematics education during 2005

At its meeting in January 2005, the board of the Nordic Graduate School planned for a selection of activities during 2005 for both doctoral students and supervisors. We will give some information about these activities here.

Seminar for supervisors in Korsør, Denmark in April, 28-29

The Nordic Graduate School arranged a first seminar for supervisors in Vasa, Finland, September 13-14, 2004. The theme of that seminar was *Supervision and Quality Criteria in Mathematics Education* and we discussed both criteria for scientific papers in mathematics education and quality of research education programmes. The aim of the second seminar, which took place in Korsør, was to continue to work with issues of quality. As many doctoral students are approaching their dissertation we wanted to discuss quality in relation to dissertations this time. Three dissertations were presented by three researchers who were well acquainted with them, without having supervised them. Each presentation contained 1) a general presentation of the content and structure of the thesis, 2) one selected weak feature of that thesis as a representative of a general weakness often encountered in theses, 3) one selected strong feature of the thesis, related to the reasons for its final acceptance. The examples were of generic character, forming a basis for the discussion about quality criteria for dissertations in mathematics education. A panel discussion offered an opportunity to explore strong and weak features in dissertations in general.

A lecture with the title "What does an opponent emphasise and how does (s)he orchestrate a constructive opposition?" was presented by Gunnar Gjone and followed by a discussion about the presentation and possible conclusions from it.

The editor-in-chief of NOMAD led a discussion on issues around NOMAD and the role of NOMAD in mathematics education research in the Nordic countries. Finally there was a panel discussion focussing on the need of future activities for supervisors in mathematics education research in the Nordic countries.

A summer school in mathematics education for doctoral students

In December 2004, the Nordic Graduate School in Mathematics Education sent out an invitation for doctoral students to participate in a summer school in August 2005. We got very positive feedback and many students sent a letter informing us that they would like to participate. Thus the decision to arrange the summer school in Jyväskylä, Finland, was taken.

The programme will start on Monday, August 8 at 16.00, with registration followed by dinner. The summer school will end after lunch at 13.00, Sunday, August 14. The main components of the programme are

- plenary lectures (including discussion) by the group leaders and invited guests
- working groups led by senior researchers, where participating students present their own research and have it discussed in the group (this is the major component of the programme)
- discussion groups where specific themes chosen by the participants are taken up
- informal meetings between senior researchers and /or students to discuss experiences of researcher training in mathematics education
- social events and an excursion

Among the invited researchers you find Gilah Leder, Erkki Pehkonen, Roger Säljö and Tommy Dreyfus. Members of the board of the Nordic Graduate School will also participate, and all of these senior researchers will be available for informal personal discussions. Each working group will have a group leader (one of the senior researchers) that guides the work of the group, gives input to issues about research questions, choice of theory, methods, analysis and results for each student. The participating students are required to write a summary of their research project (about 3-6 pages), which will be made available to all in the same group before the summer school starts. Each doctoral student will get the opportunity to present her/his work and will have it thoroughly discussed by the group. This part of the programme has proved a very useful experience in earlier summer schools. The groups will be formed according to students' interests around a few themes. Such themes are

- Problem-solving
- Curriculum and textbooks
- The role of proofs in mathematics education
- Attitudes and beliefs in mathematics education
- The use of technology in mathematics education
- Teaching and teacher education

The summer school will take place at the University of Jyväskylä, where there will also be a summer school in mathematics later in August. Accommodation will be organised by the university and we will be able to use all the other facilities of the university on campus. Our intention is to create a supportive and stimulating community so that all participants experience good exchange of ideas and creative feedback on their own work. The Nordic Graduate School will pay for the arrangements of summer school, lodging, food and the travel costs for the participants.

The summer school is intended for doctoral students in mathematics education, who are enrolled in a programme at a university or university college in the Nordic or Baltic countries, are studying actively and have a research plan that has been accepted by the university/college. A little more than 30 participants have been accepted.

More offers connected to the Norma05 conference

The Nordic Graduate School will arrange a supervisors' day on September 1, just before the Norma05 conference. The work from the two first seminars on quality in research will continue there. More about the programme will be presented later. During Norma05 the Nordic Graduate School will invite to an afternoon programme about classroom research. This programme will be open to all participants in Norma05.

Continous offers to doctoral students

The offer to get support for travels to courses given by the Nordic Graduate School and to get a mobility stipend for a month's stay at another Nordic University is still standing. A number of students have already taken advantage of this offer and we invite more students to apply. For all kinds of questions about the Nordic Graduate school in Mathematics Education, please contact the director.

On behalf of the board of the Nordic graduate school in mathematics education

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