

## The 9<sup>th</sup> Nordic Research Symposium on Science Education in Reykjavik 11<sup>th</sup>-15<sup>th</sup> of June 2008

The 9<sup>th</sup> Nordic Research Symposium on Science Education was held in Reykjavik 11<sup>th</sup>-15<sup>th</sup> of June 2008. This was the first time the symposium was held in Iceland. In the early stages the organizing committee decided to use a theme from a paper published by one of the key note lectures, Phil Scott. The theme was: *Planning science instruction: from insights to learning to pedagogical practices*. Each day the keynote lecture was related in some way to the symposium theme.

Also in accordance with the symposium theme it was decided to organize a pre-symposium for Icelandic science teachers of all levels on the 10<sup>th</sup> June, the day before the Nordic symposium. All in all more than 140 science teachers attended the pre-symposium which included lectures, workshops, poster sessions and paper sessions. Some of the Nordic symposium participants, Brenda Keogh, Stuart Naylor, Doris Jorde and Wenche Erlien contributed to the pre-symposium introducing new ideas to the Icelandic science teacher community. Still others attended parts of the pre-symposium and some Icelandic teachers attended the Nordic symposium.

The registration desk opened on the 11<sup>th</sup> June and was followed by a light dinner.. Earlier on 11<sup>th</sup> June there was a three hour Ph.D, workshop on Teacher-student interactions in the science classroom. In all 23 students participated in the workshop administered by Prof. Phil Scott a professor of science education at the University of Leeds.

All in all 184 people from 12 countries participated in the conference. Most of them were university and college professors and researchers in science education. The authors of accepted proposals came from 14 countries. These are the countries in descending order by the number of accepted proposals (the numbers do not add up to whole numbers because some proposals had multiple authors from more than one country): Sweden (40,92), Denmark (23), Norway (16,08), Iceland (9,75), United Kingdom (4,5), Germany (3,33), Canada (1), Finland (1), Latvia (1), Estonia (0,83), Australia (0,67), Portugal (0,33), Israel (0,17), Greece (0,17).

The symposium itself started with an opening ceremony on Thursday morning on 12<sup>th</sup> June. The Rector of the Iceland University of Education addressed the symposium and the symposium chair Hafthor Gudjonsson introduced the first keynote lecturer Prof. Phil Scott. In his lecture he presented an analysis of the practice of an expert science teacher. In his talk he actively compared different approaches to teaching scientific conceptual knowledge. After the first keynote lecture the first paper sessions started. These included 17 presentations in six parallel strands. After there were another 17 presentations as many strands as the first sessions. The academic program on the first day finished with 17 poster presentations in five parallel strands. The locations of the posters were all within the vicinity of the canteen and the registration desk. This allowed the posters to be viewed frequently for the two remaining conference days. In the evening the participant attended a reception at Reykjavik Energy at the Hellisheidi geothermal power plant.

On Friday morning 13<sup>th</sup> June, Doris Jorde, a professor of science education at the University of Oslo, gave a lecture on the contribution of information technology (ICT) to inquiry based teaching. In her lecture definitions of inquiry-based science teaching (IBST) were explored. Wenche Erlien from the Norwegian Centre for Science Education contributed to the talk and gave examples of how ICT could be used to encourage the use of dialogic processes in IBST. The lecture was followed by the 3<sup>rd</sup> set of paper sessions which included 14 paper presentations in six parallel strands. After lunch the 4<sup>th</sup> paper sessions started with 18 paper presentations in six parallel strands. The last event on the second day were round table sessions where six topics were introduced and discussed. No formal social events were planned for the Friday evening.

On the third day of the symposium Michael Reiss, a professor of science education at the Institute of Education at the University of London gave a lecture that focused on pupil's conceptions of their natural environment. He drew upon research work undertaken by himself together with Carolyn Boulter and Sue Dale Tunnicliffe at the Institute of Education. The lecture contributed to the overarching theme of planning science instruction. Michael argued that schools need to take into account in their planning the diversity in conceptions and stated that many pupils will not be interested in a single, monolithic depiction of the natural world in their school science lessons. After the lecture the 5<sup>th</sup> and last paper sessions started. These sessions included 13 paper presentations in five parallel strands. After lunch the participants met in national groups to review the conference. The Nordic countries elected new representatives to plan the next symposium which will take place in 2011 in Linköping, Sweden. After the national meetings the closing ceremony started. Prof. Gustav Helldén from Kristianstad University addressed the symposium with a few words on how the symposium has developed from the first symposium in Denmark in 1984 to the symposium that was about to end. In the evening busses took the symposium guests to Hotel Valhalla at Thingvellir where they attended a formal dinner followed by a homemade entertainment and dance.

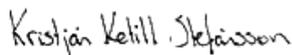
All in all 79 papers, 17 posters and six roundtable topics were presented and discussed during the symposium. In an attempt to ensure the quality of the presentations the organizing committee decided to manage a double-blind review for all the proposals sent to the symposium program. A synopsis of maximum 1500 words was required with each paper proposal. An abstract of maximum 300 words was required with other program proposals. With help from the Nordic symposium committee a review group of 48 science education research specialists was formed. A web-based review system called Easy-chair was used in the managing process. By the use of the system the proposals were submitted to the review group who made bids for papers that they were willing to review. After the bidding round a built-in algorithm distributed the proposals to the reviewers. This was done to maximize the use of the reviewer's individual expertise. Each reviewer reviewed from one to 13 program proposals. After the review process seven proposals were rejected and 104 fully accepted or accepted with some changes. The authors had the possibility to send in a longer version of the synopsis (a maximum of 10 pages) to be published on the symposium web before the conference, eight authors used this possibility. All the accepted synopses were published on the symposium website. During the meeting of the Nordic committee at the symposium it was decided that the accepted synopses should be published in a web book. Authors were again offered to extend their synopsis to 10 pages, another eight authors used this possibility. The web book will be published on the symposium website <http://symposium9.khi.is> in the autumn of 2008.

Each program proposal received two reviews. The 16 program proposals with the best review were reviewed for a third time by members of the Icelandic organizing committee. After that, eight authors were invited to publish an extended version of their paper in this issue of the academic journal *NorDiNa*. All in all 247 reviews were conducted for the symposium. The anonymity of authors was kept until after the review process or until the academic program was published two weeks prior to the symposium. The reviewers of individual proposals have been kept anonymous by the organizing committee. The Icelandic organizing committee decided that all the presentations and

## From the organizing committee

discussions were to be in English. The synopsis could however be in Danish, Swedish, Norwegian or English. This was done to increase the number of Icelanders participating in the symposium as English is the dominant second language in Iceland. This also led to the participation of many international researchers interested in joining Nordic science education research discussions.

The symposium was included in a series of events honoring the 100 year existence of the Iceland University of Education. The 9th Nordic Research Symposium on Science Education was the last symposium to be held in the Iceland University of Education. On 1<sup>st</sup> July 2008 it became the School of Education one of five schools in the University of Iceland. The University of Iceland has a strong research tradition in many disciplines. This will hopefully lead to many new and exciting opportunities in science education research. On behalf of the Icelandic organizing committee I want to thank all the people that helped in making the symposium a joyful and pleasant event. See you all in Linköping in 2011.



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