

Reflections on having participated at the Pre-NORMA workshop

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As PhD students we experienced several advantages in participating in a workshop like pre-NORMA. The local research environments in mathematics education are relatively small in Scandinavian countries, which make our local networks consisting of only a few persons. At the pre-NORMA workshop, we had the opportunity to meet senior researchers who had years of experience in this field. As a prerequisite to participate in this workshop, all of us had to bring "a draft of something" related to our project. This provided us with the opportunity to communicate our ideas, project proposals or draft papers in a clear and understanding way and an audience to write to. This turned out to be a good practice for all the candidates, no matter how new or known they were to the writing procedures. Though it was challenging for many of us being new to the dissemination aspect of our PhD, this exercise helped us realize the importance of communicating our results within a research community.

The discussions of the individual draft papers took place in parallel sessions within a group of 11–12 persons on both days which gave us the opportunity to establish a rapport with the group and to know about each other's projects and field of interest before we had to communicate our own. This created a safe space around us to play with our ideas in a familiar environment; we could interact our ideas freely, ask questions and doubts related to our projects and get involved in a constructive discussion. This principle of constructive discussions in group sessions, instead of direct criticism, gave us a great sense of ease while presenting our ideas or answers to questions.

Some of us brought ideas or tentative project descriptions to the workshop while other brought more or less finished draft papers. For those of us bringing early stage ideas it was valuable to discuss the content and

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different points of view with experienced researchers at a time were the ideas were still tentative. This provided insight in the different paths that were open to follow. Those who brought paper drafts received important and extensive help in tightening up the content – some things were missing out and others were not significant and were perhaps better left out. No matter the stage of the work we presented, we were all met by researchers who evidently took our research seriously and who were willing to share their knowledge of articles, books, studies, and surveys etc. that were relevant for our projects. Comments on other's presentations also provided a deep insight in several important aspects of research. The more general discussions on how to do research, write an article and which activities are currently going on in the field of mathematics education were also very helpful. As novices there are many things we are unaware of and here we were very well supported.

Discussions and conversations with our peer PhD students also proved to be valuable. In the discussion-based sessions, we were highly encouraged to actively engage in discussions of the presented papers. The comments, questions and feedback from other students made us reflect on our own thoughts, concepts and designs. As several of the papers overlapped in terms of object of study, methodological or theoretical approaches, our eyes were opened to the fact that other Nordic PhD students might have academic interests similar to our own. Such overlapping interests among us meant that the discussions did not only take place during the session, but that they naturally carried on in between and after the more formalized workshop sessions. Here we shared preliminary ideas, discussed differences, similarities and trends in mathematics education in our home countries as well as some of the challenges that are involved in doing a PhD project. Engaging in such discussions with our peers planted the seeds for establishing active, collegial relations to our Scandinavian PhD colleagues within mathematics education. We experienced that we, as fellow students, can be valuable assets to each other, and that many benefits are associated with collaborating with our peers. "The journey of a doing PhD project" is often referred to as a lonely one – having participated in the pre-NORMA workshop, new opportunities of collaborating with fellow PhD students have provided us with potential companions on our journey. This joint written text is an example of exactly such a collaboration of which we believe there will be many more.

Consequently, we highly recommend organizing such events in future in order to provide guidance for PhD candidates about how to write and present something for upcoming NORMA. Naturally, we also strongly encourage other PhD students to prioritize attending in such workshops – as from our experience it is definitely worth it.