

University of Agder
Nordic Graduate School
Barbro Grevholm
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Seminar for supervisors in didactics of mathematics, April 23-24, 2009

Critical reviewing of research methodologies in mathematics education

In this eleventh NoGSME-seminar for supervisors or prospective supervisors we again especially welcome those who have finished their doctorate recently.

In an earlier seminar we focussed on the outcomes of research in mathematics education. Some of the questions we asked were: What are we producing? What are the results? Does the outcome have any implications? How is the new knowledge from research disseminated to mathematics teachers in school, to teacher educators, to academic teachers and to society in large? Where do the research questions come from? Are there significant areas where nothing is going on?

Now we want to turn to the methodologies that are present in mathematics education research and make a critical review of them. Many questions can be raised in relation to this theme and we want to open for a broad discussion about at least some of them in the seminar.

Practical information:

The seminar will take place at University of Agder in Kristiansand in Nils Henrik Abel's building in room J1064 (first floor).

For those from outside Kristiansand we will book room at hotel Norge in Dronningensgate. Everyone is expected to have lunch on their own before we start. Dinner in the evening of the 23rd will be organised together at University of Agder. Lunch on the 24th will also be organised at University of Agder. Participants organise and pay for their own travel.

The airport bus stops at UiA and takes about 15 minutes from the airport. From the city-center all the M-buses pass UiA.

Draft Programme

Critical reviewing of research methodologies in mathematics education

Thursday April 23

13.00 Welcome, introduction and information. Barbro Grevholm

13.15 Making Mathematics Education Research More Effective: Philosophical, Theoretical & Methodological Considerations, lecture by Frank Lester

Abstract

The basic argument I will present in this presentation is that the choice of research methods must be made in view of: (1) the researcher's philosophical and theoretical stance, and (2) what the research community considers the purpose of doing research to be. I will also argue that the purpose of our research should be to make lasting changes in both practice and policy; that is, it should be transformative in nature. Furthermore, I will argue that there often are forces – both political and ideological – at work that influence the methods we use and, consequently, the sorts of questions we seek to answer. Finally, I will argue that some research methods are more likely to lead to the sorts of transformative change that I think are needed.

14.15 Discussion of the presentation

15.00 Break

15.30 Three short presentations related to research methodologies in mathematics education and linking to the presentation by Frank Lester by Mogens Niss, Eva Jablonka and Simon Goodchild.

16.30 Discussion

17.30 Break and smalltalk

18.00 Dinner in the kantina at UiA

Friday April 24

9.00 Preparing Future Researchers: What Methods Should They Learn and How Should They Learn Them? Lecture by Frank Lester

Abstract

Over the past 40 years, a numerous research methods, both qualitative and quantitative in nature, have been developed having particular promise for studying questions related to teaching and learning. Many of these have been “borrowed” from other fields – anthropology, sociology, and psychology come readily to mind. Indeed, there are so many research methods to choose from that it can seem nearly impossible to decide which ones to emphasize and which to ignore. Then, there is the matter of how to go about developing expertise in the use of the methods that are selected. In this presentation I will address these issues with the intent of generating discussion that may be useful in the continuing development of graduate programs in mathematics education.

10.00 Discussion

10.30 Break

11.00 Discussion in smaller groups

12.30 Lunch in the kantina at UiA

13.30 The way forward for research in mathematics education? What are the challenges for the mathematics education research community? A few NoGSME board members Christer, Gudny, Ole, Trygve and Barbro give short presentations, followed by a common discussion.

15.00 End of the seminar

15.30-17.30 NoGSME board meeting

For those board members who stay until the 25th dinner together in the evening