

The second issue in English

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This issue focuses on mathematics education as a scientific field of research.

Perspective of a Russian researcher

Victor Firsov gives us a Russian perspective on “Mathematics Education as Theoretical Knowledge”. He emphasizes the unique structure, nature and character of mathematics as a school subject and mathematics education as an applied and social science. The article is based on Firsov’s experiences and reflections from many years of successful work as a supervisor for a great number of large projects in general and mathematics education in the Soviet Union and Russia. Working in a closed information space, the Soviet experts were compelled to develop many scientific directions, independent from the progress made in many other countries. It resulted in original scientific ideas and approaches which should be studied carefully. In the article the reader will find some of these ideas and approaches in the methodology of mathematics education. On the other hand, the isolation from much of the work done in other parts of the world, resulted in irrational recurrence of already effected research and very likely reduced the efficiency of the developmental work.

Perspective of an American researcher

In the second article, “Staking Claims”, *Jeremy Kilpatrick* analyzes and discusses criteria for evaluating the quality of research in our field. He draws a parallel between the progress of mathematics education in the US and Sweden and advises us to cooperate more with mathematicians and with classroom teachers. Kilpatrick’s article is based on a lecture he gave in Mölndal, when he was appointed honorary doctor of philosophy at Göteborg university, awarded and recognized for his work in promoting the development of mathematics education as a scholarly field. In his article Jeremy Kilpatrick starts to discuss the list of criteria of scientific quality and relevance he presented at the Gilleleje-conference (Nissen & Blomhøj, 1993) in the light of an alternative list suggested by the editors of JRME. His claims are based on decades of successful scientific work and extensive reviews of research in mathematics education around the world (e.g. Kilpatrick, 1992, 1994).

We would also like to express our gratitude to Jeremy Kilpatrick for all the contributions he has made to our work with *NOMAD*.

Didactics of mathematics. A scientific discipline

Gunnar Gjone reviews the Kluwer book “Didactics of Mathematics as a Scientific Discipline” (Biehler et. al., 1994), a book which gives us an overview of recent research in mathematics education, emphasizing European work and contrasting the understanding of mathematics education expressed by excellent Russian and American reseachers.

Open ended problems

Erkki Pehkonen continues to report from his research on Finnish students’ experiences, beliefs and wishes about mathematics activities and teaching. His students have been working on different open-ended problems. The results indicate some positive effects. But the picture is very complex. Pehkonen’s work has inspired teachers to write a series of textbooks based on open-ended problem fields. We look forward to hearing from the evaluation of the project.

Abstracts in English of all articles in NOMAD from 2(2) to 3(3)

As in every issue in English, we reprint the abstracts of all articles published after the last publication of an English issue. We also inform of forthcoming conferences, courses and new books. For example, we are happy to announce, that the Mid Sweden University in Sundsvall has started a master’s degree program in computing and mathematics education by cooperating with the South Bank University in London and Stephen Lerman. – And of course you are more than welcome to order subscriptions of Nordic studies in Mathematics Education (order form on the next page)!

References

- Kilpatrick, J. (1992). A history of research in mathematics education. In D. A. Grouws (ed.), *Handbook of Research on Mathematics Teaching and Learning*. New York: MacMillan, pp. 3-38.
- Kilpatrick, J. (1994). Vingt ans de didactique française depuis les USA [Twenty years of French didactics viewed from the USA]. In M. Artigue, R. Gras, C. Laborde, & P. Tavnigot (eds.), *Vingt ans de didactique des mathematiques en France. Hommage à Guy Brousseau et Gérard Vergnaud*. Grenoble: La pensée Sauvage. pp. 84-96.
- Nissen, G. & Blomhøj, M. (eds.) (1993). *Criteria for Scientific Quality and Relevance in the Didactics of Mathematics*. Roskilde, Denmark: Roskilde University, IMFUFA.