MATHEMATICS TEXTBOOKS RESEARCH CONTINUED

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Textbooks in its widest sense are the most frequent tools in mathematics teaching and must be considered influential. The working session deals with the issue.

The Working Session builds on work in a discussion group at PME 30 and is based on overviews (Fan, 2011; Grevholm, 2012, Rezat & Sträßer, 2012). In the Working Session participants will elaborate on the questions below, using the frameworks mentioned. The overall goal of the Working Session is to outline future directions and to develop a research agenda for textbook research.

Session 1: The focus of session 1 is on different theoretical frameworks and methods that have been used in textbook research. Participants in the Working Session will compare and evaluate some of the most used theoretical frameworks for textbook research in order to produce advice for the use of frameworks. Factors that influence textbooks and factors influenced by textbooks will be explored as well as their links and connections. What factors have been emphasised so far and what factors are missing in research? What are the similarities and differences of the different frameworks and which one should be used in what situation? What are the most characteristic methods used and how can they be developed?

Session 2: The focus of session two is on future directions of textbook research. What reasons are there to believe that textbook research has opportunities to influence the development of new textbooks? What could justify further efforts to make textbook research more efficient and influential?

Further work will be done to synthesize and create meta-analyses of research results on different aspects of textbooks research using the tetrahedron model in Rezat and Sträßer (2012). The research design suggested by DG10 in PME30 will be updated and complemented with research designs for additional investigations to a more complete research agenda for future studies of textbooks.

References

Fan, L. (2011). Textbook research as scientific research: Towards a common ground for research on mathematics textbooks. ICSMT. Shanghai, China.
