

**ZMATH 2014e.00885**

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**Using the software Fathom for learning and teaching statistics in Germany – a review on the research activities of Rolf Biehler’s working group over the past ten years.**

Wassong, Thomas (ed.) et al., Mit Werkzeugen Mathematik und Stochastik lernen. Heidelberg: Springer Spektrum (ISBN 978-3-658-03103-9/pbk; 978-3-658-03104-6/ebook). 283-304 (2014).

Summary: In this paper we want to reflect the research activities of the working group of Rolf Biehler on the use of stochastic simulations with the educational tool software Fathom. Over the past ten years the simulation potential of this tool software for teaching and learning statistics was analyzed. Didactical concepts for the use of simulations with Fathom were developed, implemented and evaluated. Several studies with students at schools and universities were performed to attain an optimization of the didactical approach. In order to tying the results together in a unified whole this article shows the most important studies, outcomes, and implications of the research work with Fathom: a prior analysis of Fathom’s simulation capabilities, a study on using simulations with Fathom at university, a study on a computer-aided stochastic course at school, a study on the learning environment eFathom and a study on using simulation plan schemata and worked examples. Finally, we outline recent developments and activities.

*Classification:* N70 K40 K70 U70 D20 K90

*Keywords:* Fathom; use of technology; teaching statistics; stochastic simulation; modeling; research in mathematics education; competencies; learning environments

doi:10.1007/978-3-658-03104-6\_21