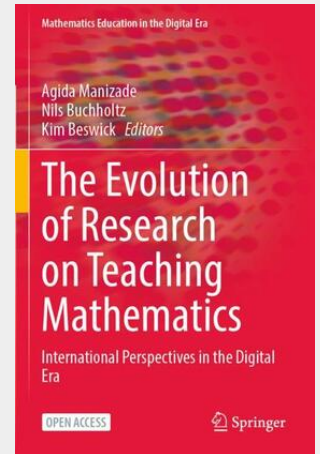


# The Evolution of Research on Teaching Mathematics

International Perspectives in the Digital Era

This open access book investigates current issues related to the evolution of research on teaching mathematics and examines up to thirty years of presage-process-product research (PPPR) in mathematics with respect to conceptualization, instrumentation, and design. The book discusses the theoretical and methodological challenges associated with PPPR, critically reviews current research, and explores the likely direction of further developments to identify future paths for research on high-quality mathematics teaching in the digital era. Subjects that are covered in this work focus on the relationships between 1) student learning outcomes measured upon completion of the mathematics teaching; 2) student learning activities in the classroom; 3) interactive mathematics teacher activities, and best practices in mathematics classrooms conducted in the presence of students; 4) pre-post-active mathematics teacher activities such as planning, assessment, and other teaching-related activities outside of the classroom; 5) mathematics teachers' competencies, knowledge, and skills; and 6) mathematics teachers' characteristics, including beliefs, attitudes, and motivation. This book discusses the evolution of such research in mathematics teaching and teacher education in the digital era and is of interest to researchers exploring the field of mathematics teaching and mathematics teacher education as well as educators.

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