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Research on and activities for mathematically gifted students.

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Publisher's description: This Topical Survey offers a brief overview of the current state of research on and activities for mathematically gifted students around the world. This is of interest to a broad readership, including educational researchers, research mathematicians, mathematics teachers, teacher educators, curriculum designers, doctoral students, and other stakeholders. It first discusses research concerning the nature of mathematical giftedness, including theoretical frameworks and methodologies that are helpful in identifying and/or creating mathematically gifted students, which is described in this section. It also focuses on research on and the development of mathematical talent and innovation in students, including connections between cognitive, social and affective aspects of mathematically gifted students. Exemplary teaching and learning practices, curricula and a variety of programs that contribute to the development of mathematical talent, gifts, and passion are described as well as the pedagogy and mathematics content suitable for educating pre-service and in-service teachers of mathematically gifted students. The final section provides a brief summary of the paper along with suggestions for the research, activities, and resources that should be available to support mathematically gifted students and their teachers, parents, and other stakeholders.

Classification: C40 C90 D80
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