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Descrizione fisica	1 online resource (277 pages)
Disciplina	378.16913094248
Soggetti	Learning, Psychology of Mathematics - Study and teaching - Psychological aspects Ensenyament de la matemàtica Psicologia de l'aprenentatge Llibres electrònics
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Nota di contenuto	Part I The Mystery of Intelligence -- Chapter 1: The Nature of Intelligence -- Chapter 2: The Laws of Intellectual Development and Mathematics Learning -- Chapter 3: Intelligence and Creativity -- Part II Mathematics Is the Gymnastics of Human Thinking -- Chapter 4: The Complete Structure of Mathematical Thinking -- Chapter 5: The Development of Students' Thinking Skills in Arithmetic -- Chapter 6: Differences in the Intellectual Qualities of Students in Arithmetic and Their Development -- Part III The Development of Mathematical Abilities of Children and Adolescents -- Chapter 7: Preschool Children's Algorithm Thinking Ability and the Early Education of Mathematics -- Chapter 8: Mathematics Learning and Intellectual Development of Elementary School Students -- Chapter 9: Mathematics Learning and Intellectual Development of Middle School Students.
Sommario/riassunto	This book introduces the outcomes of author's 40 years of research, especially the theory of "the Triangular Pyramid Structure of Thinking" that he independently proposed, and the application of his development theory in the field of mathematics education. The book firstly explains the substantial character of intelligence, the

development law of intelligence, and the relationship between intelligence development and creativity cultivation. Secondly, it discusses the structure of mathematical thinking of children and adolescents from 0 to 18 years old, and the methods of developing students' thinking ability and the quality of intelligence through arithmetic learning. In the end, this book also demonstrates the characteristics of the development of mathematical thinking ability of children at age 0-6, elementary school students, and secondary school students, and the related latest research in this field. Based on the theory of "the Triangular Pyramid Structure of Thinking", a number of examples are given to illustrate how the theory of intelligence development can be used in mathematics teaching to promote the development of students' thinking abilities and to improve the quality of teaching. This book covers various areas including psychology, mathematics, and education. It has a great reference value for scholars in the field of psychology to study the theory of intelligence and the structure of thinking, providing guidance for parents and mathematics teachers to promote children's quality of intelligence and mathematical thinking abilities, and to enhance their mathematics learning effects. In addition, it provides examples for psychological research to serve specific subject teaching in elementary and secondary schools.

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