

**ZMATH 2007b.00070**

**Hartmann, George W.**

**Gestalt psychology and mathematical insight.**

Math. Teach. (Reston) 100, Spec. Iss., 16-21 (2007).

Summary: In this reprint of his 1937 article, George W. Hartmann challenges the commonly held notion that the best way to teach mathematics was by breaking down learning into discrete parts. This view, he felt, could not account for the many instances of learning mathematics that involved creativity, insight, and seeing the “big picture”. In Gestalt psychology, thinking and reasoning are dependent upon the processes of perceiving; applying this idea to mathematics education, Hartmann explains that the way in which one comes to understand a mathematical object or idea changes with time and that what a mathematical object “is” is not the same as what one “perceives”. Therefore, student or novice thinking should not be seen as copying adult or expert thinking; rather, mathematical ideas must mature with experience and be “created de novo by every learner”. Although Hartmann wrote this article seventy years ago, his ideas on the contribution of Gestalt psychology to mathematics education still resonate today.

*Classification:* C30 A30

*Keywords:* abstract reasoning; holistic approach; history of mathematics education; cognitive psychology; transpositions; mathematical ability