

Conceptual Understanding: Experts vs. Novices

Conceptual Understanding (I): Quantitative Concepts

Quantitative concepts: Allows to make sense of situations with respect to variables involved and relations among variables. Needed for good problem solving strategies.

- If quantitative concepts are successfully acquired in arithmetic classes, these help in the transition to algebra.
- Experts make greater use of quantitative concepts while in problem solving.

Conceptual Understanding (II): Schemas

Better problem solvers have better conceptual understanding of mathematics - Good Math students:

- Recognise schemas for different types of math problems
- Able to organize their mathematical concepts closer to content knowledge