



## **Cognitively Guided Instruction (CGI)**

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### **Description**

*Cognitively Guided Instruction (CGI)* provides a framework for teachers to understand the development of children's computational fluency. Teachers deepen their knowledge of number and basic operations as they understand how to elicit and build on children's strategies for problem solving. There is a strong research base that supports the effectiveness of using CGI to guide instruction with children from diverse ethnic, language, and social class backgrounds (Carpenter et al., 1989; Carpenter et al., 1999; Fennema et al., 1996; Villaseñor & Kepner, 1993).

### **Participants**

Targeted participants are elementary school teachers.

### **Facilitators**

Facilitators must be familiar with the frameworks used in CGI, and with the development of students' mathematical thinking around number and basic operations.

### **Format**

Both of the available texts from this group of CGI researchers include a CD-ROM with video of student interviews and classroom instruction. The chapters highlight both various problem types as well as students' problem solving strategies.

### **Materials**

Children's mathematics: Cognitively Guided Instruction (1999) Heinemann, ISBN: 0325001375

Thinking Mathematically: Integrating Arithmetic & Algebra in Elementary School (2003) Heinemann, ISBN: 0325005656

More information can be found at: <http://ccvi.wceruw.org/ccvi/cgispider/>