



## **Video of Siegfried (Zig) Engelmann working with Children Who Attended the Bereiter-Engelmann Preschool, University of Illinois, 1966.**

The clip contains an uncut demonstration of at-risk children who were taught mathematics by Siegfried "Zig" Engelmann (creator of Direct Instruction and Senior Author of the Direct Instruction programs) as four-year olds and five-year olds at the Institute for Research on Exceptional Children at the University of Illinois. Some of the children attended the preschool for two years; others were in the preschool for only one year.

The session does not involve teaching. It simply provides the children a chance to "show-off" what they have learned — and to demonstrate the power of the approach used by Dr. Engelmann, which he used with the children for only 20 minutes per day. During the session, the children work addition, subtraction, multiplication, division problems, basic algebra problems, fraction problems and area problems. Not seen in this clip: students working factoring and simple simultaneous equations. See [Zigsite.com](http://Zigsite.com) for the full video.

### **In this video watch for and be able to discuss:**

1. The children's knowledge of specific mathematics concepts, rules and processes.
2. The children's ability to solve a wide range of mathematical problems.
3. The self-confidence and independence the children demonstrate.
4. The children's ability to focus their attention for long periods of time.

### **After viewing, discuss and answer these questions:**

1. Direct Instruction often gets the label of being a "rote teaching" curriculum. Which mathematics problem-solving skills did the children demonstrate? In your opinion, which of these problem-solving skills are particularly impressive for children their age?
2. A common myth in education is that students will always experience a regression of their skills during time off (the summer "decline" or summer "slide"). This session

was filmed in August with no rehearsal after months without instruction of any kind. How well did the children retain their knowledge despite the time off?

3. Some critics of Direct Instruction have expressed concern that the method has negative effects on students' self concept, independence and self-confidence. How would you characterize the self-image and independence of the children who appeared in the video?
4. A prerequisite for successful academic work in the upper elementary grades is the ability to focus on an activity for an extended period of time. Discuss the ability of the students in the film to focus on the mathematics activities depicted.

