

Classroom Instruction That Works

Research-Based Strategies For
Increasing Student Achievement

Is teaching
an art
or a science?

The Bad News

- ❑ Coleman (1966) discovered that only 10% of student achievement is influenced by what goes on in school.
 - ❑ Other influences include natural ability, socioeconomic status and home environment
 - ❑ Jencks (1972) agreed that schools did not have much control over student achievement
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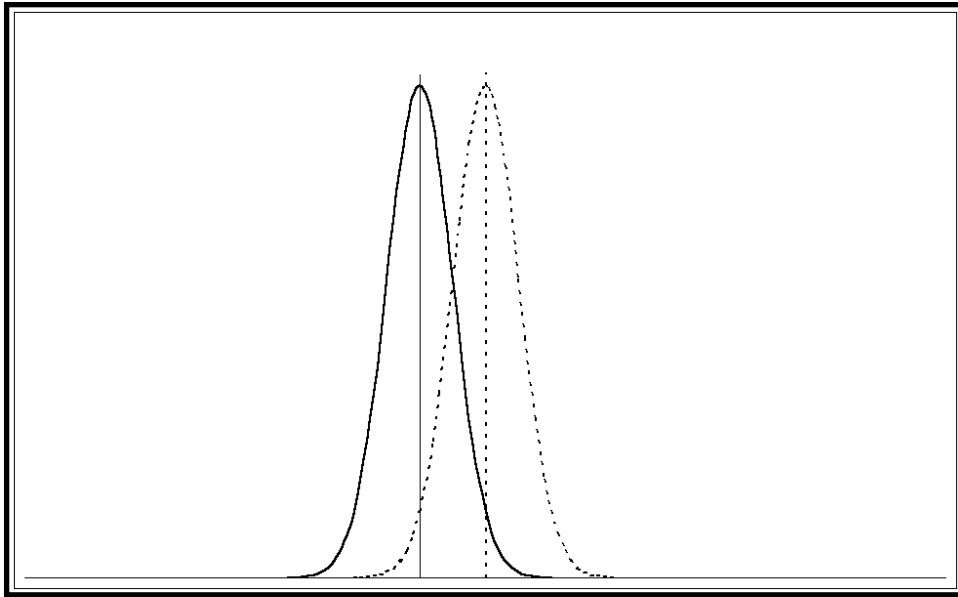
The Good News

- But the 10% influence can result in a 23 percentile gain
 - AND...research shows that even if the school doesn't have much influence, the teacher does!
 - "The myth that teachers do not make a difference in student learning has been refuted" (Brophy and Good, 1986, p. 370)
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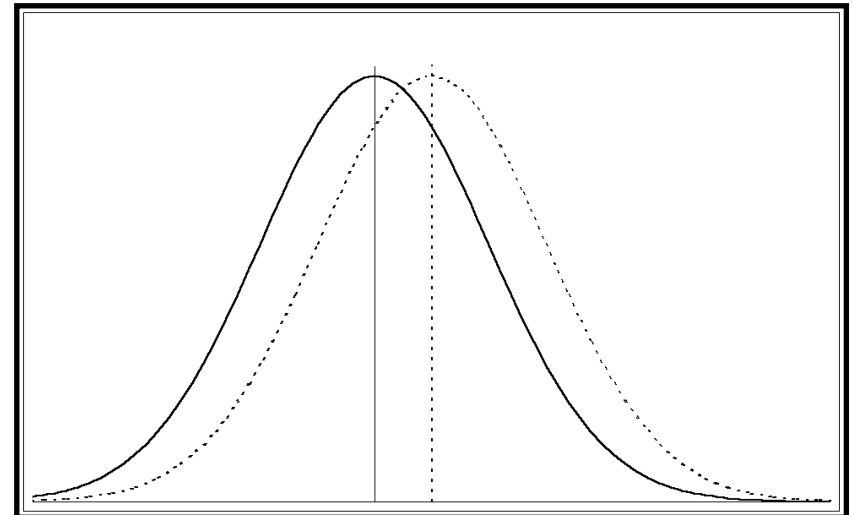
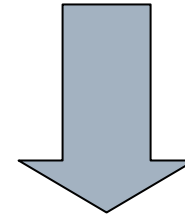
Research

- “Soft” Science versus “Hard” Science
 - Look at general trends
 - Meta-analysis
 - Effect Size: the increase or decrease in achievement of the experimental group expressed in standard deviation units
 - Percentile Gain: the effect size can be translated into a percentile gain
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Why is Effect Size Important?

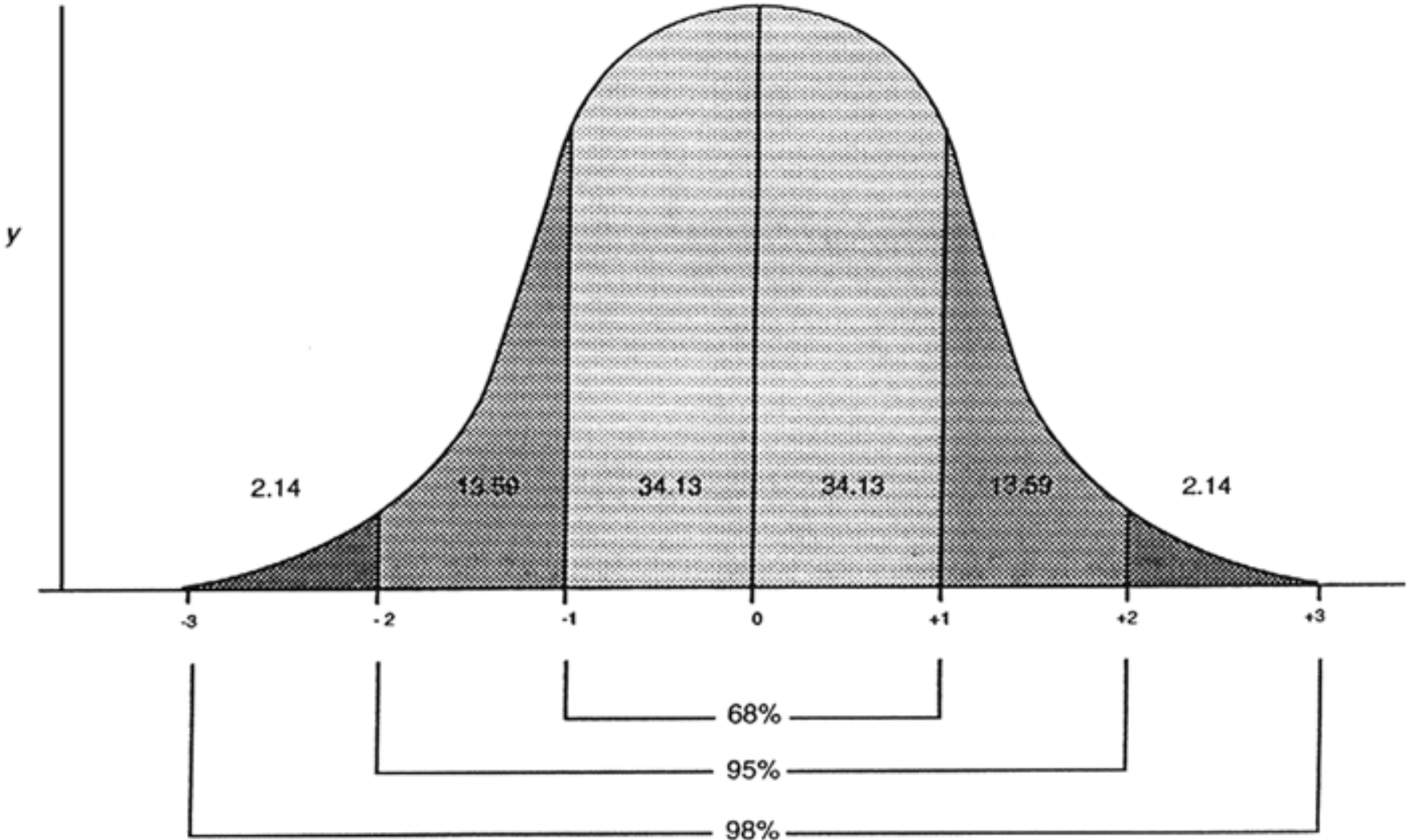


Lots of overlap means there may not be a significant difference



Very little overlap means there may be a significant difference

Standard Deviation



The Easy Way to Think About It

.20	Small Effect	The heights of 15 and 16 year old girls
.50	Medium Effect	The heights of 14 and 18 year old girls
.80	Large Effect	The heights of 13 and 18 year old girls
