

# Schweinhart and Weikart Reply

Critics' interpretation of the High/Scope study reflects their misunderstanding of its data and procedures; there are good reasons why a child development approach may have more favorable long-term outcomes.

While Gersten and White make token criticisms of our whole article, likening it to a Fourth of July speech (move over, Iacocca), it is clear that the principal object of our critics' scorn in this 49-paragraph article is a 5-paragraph description of our curriculum study, which we summarized as part of our discussion of the child development curriculum. Bereiter fears that this small study might undo the well-documented case for the educational benefits of direct instruction. By itself it obviously will not, but we hope that it does encourage further early childhood curriculum research and widespread thought about the potential consequences of early childhood curriculum choices.

If our critics had uncovered serious flaws, we would revise our interpretations of the study, but most of their criticisms are apparently misunderstandings of the facts. Contrary to their claims, we did use blind procedures in data collection, state that the delinquency findings were based on self-report, find self-reported delinquency among females as well as among males, and use a measure of academic success at age 15; but we did not collect arrest records through age 15.

- Data collection was blind: the person who located, interviewed, and tested curriculum study subjects at age 15 did not know which preschool curriculum they had experienced.

- Our *Educational Leadership* article acknowledges that the delinquency findings were based on self-report: "the youths . . . reported that they committed less than half as many acts of juvenile delinquency" (emphasis added).

- The delinquency scale we used showed no gender bias, with study males reporting an average of nine offenses and study females eight. In the direct-instruction group, males reported engaging in an average of 12 delinquent acts, whereas females reported 14.

- Our measure of academic success at age 15—the Adult Performance Level Survey—found that, while the results were statistically significant for only one subscale, the direct-instruction group scored lower than the other 2 curriculum groups on 8 of its 10 subscales.

- We did not find that curriculum

groups had similar arrest or suspension records; we have not yet collected such data. We did find that half of the curriculum study subjects reported being picked up or arrested by police—that is to say, the average police contact rate was 0.5, as contrasted with an average of 8 delinquent offenses reported.

Our critics cast doubt on the validity of self-reported juvenile delinquency, a procedure that is widely accepted and used by delinquency researchers today (for example, Wilson and Herrnstein 1985). The delinquency scale that we used was developed and used for the past decade by the University of Michigan's Institute for Social Research. The average self-reported delinquency score in the curriculum study was 13 for the direct-instruction group, nearly double the average of 7 for the nursery-school group and 5 for the High/Scope group. The probability of chance occurrence of the direct-instruction/nursery-school difference was .055 (55 chances out of 1,000), while the probability of the direct-instruction/High/Scope difference was .017 (17 chances out of 1,000); the conventional level for claiming statistical significance is .050 (50 chances out of 1,000). For a full accounting of these methodological concerns, we refer the reader to the study report (Schweinhart et al. 1986a) and to our full response to Bereiter and Gersten (Schweinhart et al. 1986b).

Why do our critics, with no direct experience of the High/Scope curriculum we used, insist on viewing it as similar to the direct-instruction curriculum? The systematic observations of the programs (Weikart et al. 1978, pp. 28–47) showed that the High/Scope teachers, as compared with the direct-instruction teachers, spent less time instructing groups of children and more time with individual children and more often asked questions with many right answers rather than one right answer. In both the High/Scope and nursery-school programs, as compared with the direct-instruction program, children were found to be more active, engage in more fantasy play, and interact with each other more often.

The High/Scope model, which requires no special materials, is a widely

used variation of the child development curriculum. Hundreds of teachers throughout the U.S. and around the world have been trained in the High/Scope model and use it in their programs. The High/Scope model was used in the Perry Preschool Program and accounted to some extent for its dramatic long-term findings of greater school success, reduced delinquency and employment difficulties, and a highly favorable financial return on investment.

Several months ago in this magazine, Rosenshine (1986) made the point that research has found direct teaching more useful for teaching well-structured disciplines or skills and less useful for teaching less-structured, "fuzzy" domains such as creative writing. Surely the cognitive and social development of three- and four-year-olds, encompassing skills as diverse as placing objects in categories and getting along with adults, is a less-structured domain. Direct instruction clearly has its uses; early childhood education may not be one of them. □

## References

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