

Early Intervention Is Effective

Success of Head Start-type programs is due mostly to parent involvement, not to any particular curriculum.

IRVING LAZAR

Can those who do poorly in school improve their performance significantly with the help of some form of intervention? The debate over this question is perhaps the oldest in the history of American education and concerns the malleability of intellectual ability.

Today we label the opposing sides in this debate as "genetic" versus "environmental"; during colonial days it was the "damned" versus the "chosen." At the heart of the controversy is the conflict between the elitist and the populist traditions of our country. Since *Brown v. Board of Education* in 1954, federal policy has gradually moved toward the populist position. Poor performance in school is seen as the result of the child's social, ethnic, economic, or physical condition, and changes in the child's environment, coupled with an enriched education, should, in this view, enable most if not all children to perform competently in our schools and colleges.

Three principal groups oppose this policy: those who believe that intelligence is primarily determined by the individual's heredity; those who believe that only intrafamilial intervention (usually maternal) at a very early age has any significant influence on learning; and those who believe that only macropolitical and economic change can influence individual intellectual development. The question of which of these views is valid is one of considerable policy concern.

Early Intervention

Early intervention programs for children from low-income families were built on the premise that appropriate services from outside the family could compensate for the disadvantages

which, it was believed, were responsible for the generally poor performance of these youngsters in school. The programs always included an educational focus; some had other services as well. Head Start, for example, included health services, and some Head Start grantees also provided psychological and/or social services.

If the critics of public intervention were correct, Head Start's 1970 annual budget of \$320 million was being wasted. The Nixon administration, eager to cut expenditures for the poor, publicized an evaluation of Head Start that was designed by government employees and contracted to a private firm by a previous administration. The agency that designed the study had lost its bid to control Head Start, and, in fairness to the contractors, it should be said that they simply carried out their instructions.

The problems of the Westinghouse-Ohio University evaluation of Head Start were numerous. There was no random assignment of a control group, no baseline measures, no data on or control of the content of the programs studied, nor any control for the length of intervention. Further, Head Start was not designed to change IQ. It was intended to help children do better in school. The correlation between IQ and school performance is about .40—hardly enough to crow about, much less to use as a predictor. Yet the Westinghouse-Ohio report that the difference between the IQs of Head Start graduates and their classmates was insignificant at the end of the first grade was used as justification to try to close down the program. While the Nixon administration failed in that effort, they did freeze the Head Start budget at its 1970 level where it stayed throughout the Nixon and Ford years.

Irving Lazar is Professor and Chairman, Department of Human Service Studies, Cornell University, Ithaca, New York.

How can one evaluate an early intervention program such as Head Start? Obviously, if a program is intended to enable children to perform at their age/grade level in public schools, then the legitimate measure of program success is the performance of those children in school as compared to an *originally* randomly selected control group for whom the same baseline measures are available.

One cannot conduct that kind of evaluation with Head Start. Its structure and operations have made it impossible to meet the requirements of a decent design. But there were alternatives. Head Start was inspired by a clutch of independent experiments in early intervention conducted at research institutions in the late 1950s and early 1960s. It occurred to me early in 1975 that if a sufficient number of these original experimental and control subjects could be found, that each of those studies could provide an independent test of the hypothesis that early education could affect later school performance. Because at least ten years had passed since the original experiments were concluded, the actual school performance could be ascertained without resort to predictions from test scores. With help from the Office of Child Development, Ruth Hubbell and I identified 15 of the early experiments that were large enough to survive heavy attrition. The investigators were able to locate, on the average, three quarters of the original experimental and control subjects, and comparisons of the baseline data of those who were located with those who were not found demonstrate no important attrition effects.

Fortunately, all but one of the original investigators agreed to give us copies of their original data for re-analysis, agreed to a common format for a follow-up of their subjects, and agreed to provide the follow-up data to us for pooled and cross-study analysis.

With barebones budgets, help from their own institutions, and enormous ingenuity and hard work, the investigators found their subjects, had less than 2 percent refuse to participate, and enabled us to demonstrate quantitatively that if you provide high quality education to even the poorest of children they will learn and that the earlier education begins



the longer its effects will be obvious. Our very conservative analysis of our findings demonstrated that children in these programs are more successful in school than are the control groups. Specifically, program children were far less likely to have been assigned to special education classes or to be retained in one or more grades than were the control-group children. Program children were also less likely to drop out of school before graduation from high school than were the controls.

The differences in assignment to special classes are particularly significant for school administrators. These differences held up even after controlling for pre- and post-intervention IQ and for a variety of background and familial variables. There

is little doubt that the differences were due to the effects of the preschool programs. These effects were so marked as to be cost effective. In one of the studies, the Ypsilanti-Perry Preschool Program, a formal cost-benefit analysis was carried out by a pair of economists. They demonstrated that the savings to the school district from reduced need for special education more than paid for the costs of the preschool program! Various individual studies uncovered even finer-grained differences: female program participants who became pregnant during their high school years were more likely to return to school and graduate after having their babies than were the control subjects who became pregnant during their high school years.

They All Worked

Altogether these studies included 27 different "treatments" or curriculums. Several of the studies were originally designed to compare the effectiveness of various curriculums. On these outcome criteria we found no differences between curriculums. They all worked. This finding alone should be of particular interest to educators. Our findings suggest that the hunt for the best curriculum is a futile, or at least, a commercial search. Any reasonably designed, age-appropriate set of learning goals can be achieved in a number of ways. There are many roads to Allah.

Similarly, we found that while in-service training of teachers was positively related to successful outcomes for children, the prior training of the teacher was not. Professionals did well, as did paraprofessionals, as did parents serving as teachers of their own children. Nor did the site make a difference. Home-based, center-based, and combination programs did equally well. Children from different family structures did well as did rural and urban children, black and white children, only children, youngest, oldest, and middle children.

We found a cluster of five interrelated program characteristics related to positive outcomes:

1. Age of intervention—the earlier the better
2. Adult-child ratio—the fewer children the better
3. Number of home visits—the more the better
4. Direct participation of parents—the more the better
5. Services for families, not just the child—the more, the better.

These studies do not let us take this cluster apart, but current work in an experiment at 48 sites, conducted by the New York State Department of Education, has demonstrated clearly that direct parent participation in preschool is related to academic achievement in the elementary grades. Their subjects aren't old enough yet to see how long that relationship will hold.

The current follow-up of the oldest subjects in the Consortium studies is nearing completion and will compare various indices of life success in early adulthood of the original experimental and control subjects. It is clear already that those youngsters who

participated in infant and preschool education programs are doing better than the controls.

What do these findings mean for educational theory and educational policy? Obviously it means that early education, whether in or out of the home, whether by a teacher or a parent, can enable poor minority children to meet the requirements of public schools. These studies also suggest that the search for "the best" curriculum is like looking for a perfect procrustean bed. They suggest, further, that, given good in-service training and supervision, paraprofessionals can do a fine job—and so can parents.

It is my belief that the basic reason these early programs had such long-lasting effects is *not* curricular, but rather is a result of changes in the parents' values and anticipations for their children. A single shot of preschool seems hardly enough to produce a life-long change. I believe that the increased participation of parents provided the value change that led them to encourage and reward their children's learning activities. When the professionalization of education drove parents out of their children's learning, an essential condition for learning may have been severely damaged. Perhaps we can prevent that loss in the future by bringing parents back into partnership in the educational enterprise. ■

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