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What is high-quality early education, and can its effects last?



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Nearly everyone <u>agrees</u> that high-quality pre-kindergarten is a worthy investment. Calls to expand it at public expense stem from a handful of well-known (and very costly) <u>intensive models</u> that appeared to deliver long-term positive effects for poor children: improved school readiness, increased graduation rates, and even the mitigation of risk factors like teen pregnancy and incarceration. These oft-cited outcomes are compelling. So is the urge to level the playing field for children who arrive at school with a <u>thirty million word gap</u>. But an actionable definition of "high quality" <u>remains elusive</u>, and studies of large, scaled-up pre-K programs have shown mixed results.

This study from Vanderbilt University's Peabody Research Institute adds valuable evidence to the discussion of whether, when, and how pre-kindergarten is a worthy investment. In 2009, in conjunction with the Tennessee Department of Education, the institute launched a rigorous study of the state's voluntary pre-kindergarten program (TN-VPK). It's a full-day program that targets exceptionally at-risk four-year-olds; researchers tracked two cohorts of children through the end of their third-grade years. Oversubscribed programs enabled a random design whereby children enrolled in TN-VPK were the treatment group and those waitlisted (and ultimately not admitted) became the control group. The study is one of a few randomized control trials of a large-scale pre-K program (most comparable studies employ less rigorous research designs) and the first ever of a *state-funded*, *targeted program*.

Findings reported <u>last month</u> come from a subset of the overall study's sample (specifically the 1,076 children whose parents agreed to annual data collection: 773 participants in TN-VPK and 303 non-participants). Although this leaves something to be desired from a randomization perspective, the authors report that "the consented children...were generally representative of those in the full randomized sample." Researchers sought to answer three questions. First, would TN-VPK prepare children for kindergarten (in both academic and non-cognitive ways)? Second, would certain subgroups benefit more than others? And third, would effects on achievement and behavior last beyond kindergarten?

To gauge the program's immediate impact, children were assessed on several academic indicators (via achievement tests) and non-cognitive behaviors (via teacher ratings), both before and after they took part in the program. At the end of the pre-K year, researchers found that TN-VPK had a significant positive effect on children on six achievement subtests, with especially large effects in two literacy measures. The effect size for the composite achievement score was .32—a figure that, according to researchers, is "larger than average" for the pre-K programs studied in the last three decades. The program had the greatest impact on children who were English language learners and/or whose mothers had attained less than a high school degree.

But don't uncork the champagne. To see if the program's effects persisted, the children were also assessed and received teacher ratings at the end of each school year (through third grade). Not only did the positive effects of TN-VPK wear off by the end of kindergarten, but they had turned negative by the end of second grade—that is, TN-VPK children scored *lower* than non-participants on all achievement measures (with most of those comparisons being statistically significant). This reversal occurred even earlier on behavioral effects: By the end of first grade, TN-VPK participants were rated by teachers as having worse work skills and being less prepared for school. Comparable studies of many pre-K programs have discovered a gradual "fadeout" of positive effects once children enter the K–12 system. But the long-term negative impacts discovered by Vanderbilt's researchers were quite unexpected, and they prompted the authors to urge caution on those who interpret their findings.

So what do we make of this? It's important to note that children in the control group didn't receive *no treatment*—just treatment that wasn't TN-VPK. Twenty-seven percent of the control group attended Head Start or a private childcare center; the rest received care at home (the quality and details of which are impossible to track). Their alternative early learning experiences may not have prepared them as well for kindergarten as TN-VPK, but that ended up not mattering by the start of first grade. One way of looking at it is that Head Start, private preschools, home providers, and families are setting children up for K–3 success at least as well as (and possibly better than) the state-funded program, which costs \$90 million annually.

It's also important to consider that the "fadeout" of pre-K observed in this study and many others may not be the fault entirely of the pre-K programs. It's possible that pre-K participants entering kindergarten ahead of their peers are neglected somewhat by teachers, who focus instead on youngsters in the most dire academic need—an understandable but still damaging method of triage. Teachers must capitalize on and sustain student gains made prior to their entry, and also meet the needs of kids who are kindergarten-ready.

Finally, the study calls into question what constitutes "high quality" pre-K. Responses and reactions (sometimes overreactions) to the report were swift, motivating two of the study's authors to pen a follow-up article. "The virtual ink on our recently released report was barely dry before pre-K advocates were vigorously building a firebreak around these results," they wrote, "contending that they are not representative of the effects of state pre-K programs generally and stem entirely from the unusually poor quality of the Tennessee program." Defending Tennessee, they note that TN-VPK is no different from programs being ramped up in other states. It aligns with nine of the ten benchmarks provided by the National Institute for Early Education Research (NIEER). TN-VPK participating districts had all the right inputs: teachers with licenses in early childhood and education, classrooms with an adult-student ratio of 1:10, maximum class sizes of twenty, and state board-approved curricula. This assertion makes the report's findings even grimmer and adds new urgency for how we reach the most at-risk early learners. If Tennessee's statewide pre-K program aligns to the best consensus we have on what matters in pre-K, and it is comparable to rapidly expanding programs around the country, we need to rethink the benchmarks for quality. Moreover, for a program to be of truly high quality for at-risk children, it must go beyond a one-year effort at age four.

SOURCE: Mark W. Lipsey, Dale C. Farran, Kerry G. Hofer, "A Randomized Control Trial of a Statewide Voluntary Prekindergarten Program on Children's Skills and Behaviors through Third Grade," Peabody Research Institute at Vanderbilt University (September 2015).

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