

High quality preschools make good sense (cents): A response to Farran ^[1]

Blog

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EXCERPTS

In her February 25 Brookings report, Dr. Dale Farran questions the scientific case for endorsing widespread policy in preschool education. Indeed, she argues that enthusiasm for public preschool and its promise is “premature.” Her argument is founded on three points—that the data on impact is mixed, that we do not have scientific direction with respect to the key quality constructs, and that our measurement of these constructs lack empirical validity. There is a grain of truth in each of these statements. Yet, a closer look reveals that when the data are focused on high quality preschools, the weight of the evidence for effectiveness is compelling. The early childhood science is at least evidence informed on the skill sets that will promote later school and life success and valid measures exist for many of the important outcomes. While there is always more to be learned, the bulk of the scientific community contends that high quality preschool programs will play a role in preparing young children for success in school and beyond.

A look at the evidence

There is no doubt that the literature looking for relationships between preschool access and school readiness outcomes in literacy, mathematics, and other domains are mixed. Both the Head Start Impact Study and recent findings from Farran’s own Tennessee pre-k study (Lipsey et al., 2015) indicate that preschool of less than high quality produce only modest short-term gains.

The data do not look bleak, however, when we look across preschool outcomes in the aggregate. And when high quality programs are investigated, whether in well-controlled studies of intensive models (e.g., Perry and Abecedarian) or in studies of strong public programs in Boston (Weiland & Yoshikawa, 2013), Cincinnati (Karoly & Auger, 2016), New Jersey (Barnett et al., 2013), North Carolina (Peisner-Feinberg et al., 2015), and Tulsa (Hill et al., 2015), the results are downright promising (Yoshikawa et al., 2013; Minervino, 2014). Society reaps benefits from fostering early skill development, as children participating in high quality preschool programs had lower rates of grade retention, less need for special education, decreased antisocial behavior, and greater productivity as adults (Reynolds & Temple, 2015; Cunha & Heckman, 2006). In 2014, over 1,200 scientists who work in the area of early education signed the ECE Consensus Letter for Researchers, attesting to the mountains of data in support of the role of preschool education in improving child outcomes in social development, language, pre-literacy, and mathematics.

Though Farran’s brief reviews only data from the United States, a growing literature suggests that preschool education has long and lasting and causal effects on outcomes around the globe (Atinc & Gustafsson-Wright, 2013). For example, an impact evaluation of a preschool program in Mozambique found that the program increased on-time enrollment into primary school among beneficiaries by 22 percent relative to the children in the control group. Enrolled children also experienced a 6 percent increase in fine motor development, and an 87 percent increase in cognitive development. More importantly, this is not just a story of “everything is bleak in the developing world so the program is bound to have an impact.”

With compelling data in the United States and across the globe, one might ask why there is such a great divide between Farran’s interpretation and that of the wider academic community? One reason appears to be that Farran discounts any data that did not emerge from random assignment longitudinal studies. While correlational studies are not the gold standard, they are informative. Surely practitioners and policymakers would not dismiss data on parenting practices because children were not randomly assigned to parents. Further, in the area of preschool education, there is no difference in findings between randomized trials and other methodologies with respect to targeted cognitive, achievement-related outcomes when other study and program features are taken into account (Duncan & Magnuson, 2013; Camilli et al., 2010).

Farran also discounts many of the randomized trials because she says they do not tell us enough about cause and effect. She writes of the famous Abecedarian and Perry Preschool studies:

The primary difficulty with this approach as a basis for designing interventions is that there is no way to identify what specifically changed about children’s abilities that enabled them to perform better in school or to link those changes to any particular set of active ingredients in

the treatment. Neither Perry nor Abecedarian explicitly describes beyond the broadest level the “treatment” that brought about their positive effects.

But the children did improve, and at some level—while it would be wonderful to isolate the exact recipe for preschool success—we need not deny children the benefits of preschool while scientists probe for the precise combinations of active ingredients that yield the best results. Consider an analogy: the impact of storybook reading on children. While numerous studies document that reading storybooks with children in a joint way improves vocabulary and early literacy, we have yet to isolate the exact causal factors that matter in book reading. Perhaps it is the cuddling that occurs between child and parent; perhaps this crucial unstudied variable is the key that has not yet been turned. But no one would argue that we should stop book reading as a way to foster young children’s interest in reading. So it is with preschool. A quality preschool can heighten young children’s desire to attend school and prepare them for learning—even if all the ingredients in the magic sauce have not yet been identified.

In short, the evidence does provide models of high quality preschool that effectively prepare children for entrée into school and that change a child’s trajectory toward success. Not knowing the exact mechanisms by which preschool exerts its impact is secondary to the fact that poor children need good preschools now and we know how to provide them.

But which skills should we support?

Farran raises the very important point that a narrow focus on only reading and math outcomes would be misplaced in our quest to build high quality preschool curricula. We could not agree more. She goes on to write, however, that “premature as well is the presumption that solid research exists to guide the content and structure of pre-K programs.”

Here we beg to differ. There are thousands of studies that speak to the skill sets children need to achieve success in the changing world. Reading and math are among these skills—collectively bundled under what Golinkoff and Hirsh-Pasek (2016) call “content skills.” But there is overwhelming evidence that children need to master skills that move beyond just reading and math. Content knowledge has, at its base, language and executive function skills. Language is the medium of instruction and executive function skills empower children with the ability to control their impulses and attend. Flexibility and working memory (Galinsky, 2010; Blair, 2016), also part of executive function, enable children to shift gears and remember what they have been told. But even language and executive function are not enough. Children must be prepared to participate alongside others (collaboration), to question when they are unclear (critical thinking) (Kuhn, 1999), and to have the persistence needed to stick with difficult problems—grit (Duckworth et al., 2007). These skills have been tested, are predictive of later achievement, have been shown to be malleable and to relate to academic, social, and learning outcomes in school.

Measuring quality

Farran argues that we cannot provide high quality preschool because we lack strong measures of quality. Again, there is some truth in her assertion, but it seems to us somewhat confused. Farran mixes together policy benchmarks, measures of classroom practice, and child outcome measures. All are useful, but for different purposes. The first is meant to set a floor across many domains including health and safety. The second is designed for providing feedback on classroom practice. The last allows us to assess children’s wellbeing and progress. Well-designed continuous improvement systems for pre-K have detailed standards for learning and teaching that align with assessments of classroom practice and systems operation as well as with child assessments. Together with program standards these can provide a clear vision of high quality. They set high expectations for children’s learning and development and for pedagogy. Our ability to specify all of this exceeds our ability to measure it with reasonable investments of time and money. Nevertheless, classroom observation measures and child assessments as elements of a continuous improvement system help inform teachers and administrators about where they are and what steps they need to take next (Hall et al., 2012; Sylva et al., 2006; Williford et al., 2013). None of us would argue that this is easy, or that any single measure of classroom quality or child development is sufficient. Providing guidance for the improvement of learning and teaching is hard work and domain specific, but it is not futile.

Letting science lead the way

Farran closes her report by suggesting that “[the] proposition that expanding pre-K will improve later achievement for children from low-income families is premature.” Perhaps instead it is Farran’s prognosis that is overly pessimistic. Research to date indicates that sustained access to high quality preschool does alter the trajectory of low-income children who are otherwise not exposed to early math and to age-appropriate books. In several now classic studies, the effects of a quality preschool education has far reaching consequences linked to not only reading and math, but to fewer incarcerations, teen pregnancies, and higher employment well into adulthood. As economists have shown, high quality early learning programs save money for society—a finding that has been replicated in different programs across the globe—in the United States, Canada, the U.K., and Mozambique.

Do we need to know more about what constitutes high quality and how to harness this reliably? Absolutely. But science offers evidence-based and evidence-informed advice on what has worked and what should work when brought to scale. We have an obligation to use the best science to serve our struggling children. Recent surveys indicate that a majority of the American public—Republican and Democrat—agrees that all children deserve a chance to reach their fullest potential. Let the science progress and let us use what we know at this point in time to meet the promise that all children should have a fighting chance to succeed. Better to light a candle than curse the darkness.

Region: United States ^[3]

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