Prevent Fadeout

Sustaining the academic gains that children make in preschool

By Deborah Stipek

The evidence for the value of high-quality preschool is mounting, and states and districts are increasingly investing in preschool programs. But along with evidence for the value of preschool is evidence that its academic benefits often fade during the first few years of elementary school. A common explanation is that elementary schools do not provide the follow-through necessary to sustain early academic gains.

What can elementary schools do to make sure the investment in preschool pays off in the long term? Many strategies have been recommended, including full-day kindergarten, more parental involvement, and additional resources and support. Without discounting these strategies, research indicates that one key to sustaining the benefits of preschool is to target instruction to build upon the skills children bring to kindergarten.

Playing Catch-Up

Evidence suggests that kindergartens across the country repeat much of what children have already mastered in preschool. A nationally representative sample of kindergarten classrooms cited in “Teaching Students What They Already Know? The (Mis)alignment Between Mathematics Instructional Content and Student Knowledge in Kindergarten” shows that children entering kindergarten had already mastered most of the mathematics skills kindergartens teach. For example, although the vast majority of children began kindergarten having mastered basic counting and were able to recognize simple geometric shapes, teachers reported spending a great deal of instructional time on such content.

Similarly, a 2018 “Kindergarten Follow-Up” report from Vanderbilt University’s Peabody Research Institute found no relationship between the literacy and math skills that children had at the beginning of kindergarten and the amount of instructional time teachers spent on those skills. Teachers seemed not to adjust instruction to the skill levels of the students in their classrooms whatsoever.

Another study, published by Mimi Engel and her colleagues in 2016, revealed that the more time children spent on instruction on basic content many had already mastered, the fewer academic gains they made in kindergarten. The skills of children who benefit academically from preschool do not fade, but because they aren’t given a chance to progress, other children simply catch up.

Building on What Children Know

For children to continue to make achievement gains, instruction needs to build strategically on what they know from the day they enter school. Some repetition is often appropriate, but it needs to be tailored directly to students’ needs, and it should ideally involve using previously developed skills in new and different contexts to deepen understanding.

The most effective instruction is at the outer edge of children’s current skill level—it pushes them to move to the next level in learning but is manageable with modest guidance. Instruction that is well within their current skills does not produce learning gains, and instruction that is beyond their grasp, even with assistance, creates frustration.

Elementary schools can avoid repetition and, by doing so, help ensure that children who have benefited from preschool will continue to make learning gains through the early elementary grades. Below are some suggestions for reducing fade-out and, more generally, ensuring that all children continue to make achievement gains:
Know children’s skills. Many districts and schools make a kindergarten readiness assessment at the beginning of the school year. The assessment instrument should outline specific understandings that can be used to inform instruction: Which letters can children identify? Do they understand cardinality? Formative assessments aligned with the standards can be used to inform instruction within and across grades.

A 2013 examination of the Union City, New Jersey, school district found that it had made considerable progress in creating continuity between preschool and elementary school by implementing an assessment system benchmarked to the New Jersey Core Curriculum Content Standards. The system included multiple progress indicators aligned from preschool through third grade, which allowed teachers to plan instruction that would help individual children achieve the standards and continue to advance their skills.

Giving assessments is not sufficient. Teachers need time to examine and analyze the information assessments provide. Dedicating time to “drawing up instructional plans, preparing materials with their co-teachers or other teachers, discussing individual children’s progress, and brainstorming barriers and how to address them” is a hallmark of effective pre-K–3 instruction, according to “Preschool Curricula and Professional Development Features for Getting to High-Quality Implementation at Scale: A Comparative Review Across Five Trials.”

Use a common, flexibly implemented curriculum. Evidence suggests that schools should use the same curriculum across grades—one that builds on skills as they develop and gives students opportunities to apply skills in an expanding set of contexts. Rigid adherence to a curriculum and its pacing guidelines will invariably result in instruction that repeats already mastered material for some children, however, denying them the opportunity to continue to develop their skills.

Invest in professional development. Teaching a curriculum is easier than teaching children. Instruction needs to be adapted to ensure that each child has opportunities to grow from wherever he or she is on the learning trajectory. Few teachers enter the profession with this level of skill.

One strategy to promote instructional continuity across grades is to offer professional development that provides pre-K–3 teachers with knowledge of the standards and instruction children receive before and after their grades. Another strategy is to use the same master teachers or coaches to support preschool and early elementary-grade teachers.

Fadeout of gains children make in preschool is not inevitable. But if we are going to invest in preschool, we need to invest equal effort in sustaining or amplifying the benefits of preschool. The most powerful strategy for doing this is making sure that the early elementary grades continuously build on children’s skills as they develop.

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