School is an essential part of giving children the chance to acquire the skills they need to reach their potential, raise healthy families and live a life free of poverty. But what's the right time to start school? A growing body of evidence shows that children who first enter a classroom at age five or six don't always have the necessary basic learning skills, putting them at a disadvantage that can lead to failure later on. In North America and Europe, research has found that preschools can have a positive impact on getting children ready for the demands of primary school, especially among low-income children. But in the developing world, preschools haven't been as widely implemented or evaluated. Pilots that have been implemented in several countries in Latin America, Africa and Asia have resulted in improved skills for children, but it’s still unclear how to replicate these at scale.

The World Bank is committed to ending extreme poverty and building shared prosperity and ensuring that children are healthy and ready to learn is a critical part of this. Recently, researchers worked with the Government of Cambodia to evaluate the impact of three pilot early childhood development programs that were being scaled up with assistance from the World Bank. The evaluation found that expanding programs can lead to new challenges that might not be apparent when working on smaller pilots. In this case, unforeseen implementation problems—some related to delays in building schools or problems paying teachers—limited the program’s reach and effectiveness. Parents who worked all day, or worked far from the village center, also found the part-time hours of the preschools difficult to manage, contributing to low use of the preschool services. The results of the evaluation highlight challenges governments can face as they move from pilot to scale up. Building on the lessons learned from this evaluation, the government of Cambodia is planning a revised approach in its 2014-2018 strategic education plan to strengthen the quality of preschools and ensure demand for these services.

Context

With assistance from the World Bank and the Education Fast Track Initiative Catalytic Fund (now the Global Partnership for Education), the Government of Cambodia sought to improve early childhood programs for the rural poor by expanding and evaluating three early childhood development options: formal preschools, run by the Ministry of Education, informal community-based preschools, and home-based programs. The latter two were being piloted by UNICEF and Save the Children Norway in a few provinces.

To scale up the program, the government decided that communities with an existing primary school that needed to be upgraded and/or expanded would receive a formal preschool as part of the renovations; and communities that didn’t qualify for renovation work, but had a high poverty rate and a large number of under age five children, would get a community-based preschool or a home-based program aimed at improving parenting practices. The formal preschools, staffed by government teachers, were for children aged three to five years old and operated four hours a day. The community-based pre-
Findings

The scale-up failed to enroll the majority of children in either the formal preschools or the informal programs.

In villages where a formal preschool was built, 40 percent of children participated. Villages with a community-based preschools had a 34 percent enrollment rate and villages with home-based program had a 12 percent participation rate.

Reasons for the low enrollment varied. In interviews, parents cited the cost of buying supplies—such as pencils, pens, notebooks, and also clothes as a reason for not sending their children to the formal preschools or the community-based ones. Families that normally took their young children schools, covering the same age, operated for three hours a day in a space chosen by the community and were staffed by community members who received training and a small stipend. The home-based program targeted parents of children from birth to five and were run by trained women from the community. The women were supposed to hold monthly group meetings to discuss good parenting and developmentally appropriate activities to do at home.

The expansion was implemented between 2009 and 2011, with the goal of doubling access to early childhood development services by: building 650 new formal preschool classrooms in the same number of newly renovated primary schools; creating 480 new community preschools; and creating 450 new home-based programs. The scale-up occurred throughout the country.

Evaluation

The impact evaluation was designed to help the government determine which preschool model worked best and researchers relied on randomization to identify impact. Randomization was implemented separately for the formal and informal preschool programs because the criteria used to select participating communities differed. In practice, the experimental design included five groups: three treatment groups (for each of the three interventions) and two control groups (one for the formal sample and one for the informal sample). Randomization made it possible to compare outcomes in the different communities to determine the impact of each intervention.

To create a control group for the formal preschools, researchers relied on the program’s phase-in timeline. Not all schools could be renovated at the same time, so 19 were picked to be upgraded in the third year of the program, allowing them to be used as a control group. Baseline surveys in December 2008 and endline surveys in June 2011 were conducted in 26 treatment villages and the 19 control villages for a total of 1,553 households. To evaluate the informal preschool models, 450 villages were randomly selected in 10 provinces and were equally divided between the control group and the two informal models. Researchers surveyed 32 randomly-selected villages in each group, for a total of 3,807 households. The baseline was collected in May 2008, with an endline in January 2011.

For the data, researchers conducted a household survey, a mother/caregiver survey and tests that measure a child’s cognitive, socio-emotional, linguistic, gross motor and fine motor skills. These were done at baseline and then repeated for the follow-up two and a half years later.
with them when they went to work outside the village said the early ending times for preschool was an obstacle because they couldn’t come to get their children. Insufficient public outreach was also part of the problem. Some parents thought their children were too young to qualify for preschool, while others didn’t even know a preschool was available.

Teacher retention in the community-based preschools also emerged as a key obstacle to running the program. During the first year, many teachers in community preschools didn’t receive promised stipends and many left their jobs. Villages had a hard time finding replacements because stipends were so low—about $8 a month—and not paid regularly. Without teachers, the community-based preschools couldn’t enroll students. Because the programs needed to find a structure, space was often also an issue and some families believed their child could not enroll as a result.

Home-based programs, which had the lowest enrollment, didn’t appear to have been implemented in most areas. Among four villages visited in May 2012, only one seemed to have a home-based program. In addition, even when there was a program, parents confused it with other community programs related to education and health.

The scale-up also faced other implementation problems, which affected the evaluation itself.

Construction teams didn’t always follow plans when it came to the schedule for renovating primary schools. In some cases, communities that weren’t supposed to receive schools until the last year got them earlier, while schools that were supposed to be at least partly ready by the 2009-2010 school year weren’t ready until the next school year. As a result, many students in the formal sample were evaluated after having been in the program for an average of just nine months instead of the anticipated two years.

Overall, only 56 percent of villages that were slated to receive a community-based program actually had a working program. The home-based program, which consisted of monthly meetings, was also not implemented according to plan. While monitoring data based on answers provided by village chiefs showed that 70 percent of villages in the home-based group implemented a program, the true number appeared to be much lower. In fact, in several of these villages, not a single parent interviewed had even heard of the program—despite the fact that the village chief (who was responsible for implementation) said it existed.

Treatment and control groups were also mixed up when implementing the community-based preschool program, which “contaminated” the samples.

Thirteen percent of control students lived in a village with access to a formal preschool program. The same happened in the informal sample: 11 percent of households in the control villages had access to a community-based program, while 28 percent had access to a home-based program.

Still, some results that could be measured were noteworthy: For example, children in communities with a formal preschool registered for primary school closer to the required age, as opposed to the others who signed up a little earlier.

On average, children in villages with formal preschools were 71 months old when they enrolled in primary school (officially, children should be enrolled at 70 months of age,). But children in villages without preschools enrolled earlier, at an average of 68 months.

Researchers discovered that formal preschool led families to comply more closely with formal school registration age requirements. It seemed that children without access to preschool often were enrolled earlier in primary school. In villages where there wasn’t a preschool, more than half of children registered before the official age of 70 months; in villages where a preschool was available, only 40 percent of children were younger than the official age when they enrolled in primary school. It may be that in villages with preschools, school administrators are stricter in enforcing the minimum age requirement.

Researchers found that test scores of children with access to the formal preschools were for the most part unaffected. However, those between 66 and 78 months at endline did worse than the control group when it came to cognitive skills important for school readiness.

Because much of the treatment group either did not participate in the preschool program or participated for just a few short months, researchers expected to see little impact. School readiness outcomes—cognitive, socio-emotional, linguistic and physical—remained unchanged. Nevertheless, there was a negative impact on these school readiness skills for children between 66 and 78 months at endline. This seemed to
be because of delayed enrollment: Instead of attending primary school like many in the control group, children in the treatment enrolled in preschool instead. This may have put them at a disadvantage if preschool teachers were not as prepared and motivated as primary school teachers or if the preschool curriculum was geared towards the youngest children in the classroom. For this specific age group, being in the control group and attending primary school (instead of going to preschool) appears to have been better.

The informal programs, meanwhile, had almost no impact on participants’ development or school readiness.

Researchers tested students’ cognitive, socio-emotional, linguistics, and physical development, but these indicators remained largely unchanged as a result of the intervention, likely due to implementation problems and low participation.

Conclusion

Early learning opportunities for children in the developing world are key to ensuring they have the tools they need to learn and succeed. Several programs and pilots across the developing world have had encouraging results, but more evidence is needed to determine not just what works—but how to make the programs work on a large scale. As this impact evaluation shows, what works on a small scale does not always work on a larger one. When scaling up such programs, policymakers should consider working closely with communities to ensure parents enroll their children and take advantage of the opportunities available. Some possibilities include communications campaigns that target parents, so that they better understand the potential benefits of early childhood development programs. Conditional cash transfers may also help families offset financial constraints. At the same time substantial effort needs to be made to ensure that the services delivered are at high quality and effective.

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