

## GHANA: Can training change preprimary teachers' practices & improve children's skills?

To ensure that children arrive in primary school ready to learn, policymakers around the world are increasingly focusing on what happens in preprimary education programs and whether children are developing the skills needed for primary school. But properly structuring preprimary programs and ensuring teachers are prepared requires the right training and curricula development.

In some cases, it also may be necessary to help parents understand how preprimary programs, such as preschools, can best improve learning in a developmentally appropriate way.

This is the challenge in Ghana, where preprimary programs focus on reading, writing, rote memorization, homework, and teachers and sometimes use physically and verbally harsh discipline. Most teachers in preprimary programs in Ghana have little or no training, and parents expect their young children to get homework rather than learn through play and activities. To test how to successfully restructure early education in private and government programs, researchers worked with government and other partners on a training program to encourage teachers to use a play-based, child-centered curriculum and create a positive classroom environment.

With support from the World Bank's Strategic Impact Evaluation Fund (SIEF), a randomized control trial measured the impact of the teacher training on its own and of twinning it with an educational component for parents to inform them about what's developmentally appropriate in preprimary education. After one year, classroom quality increased and there was a drop in teachers' feelings of being burned out. But only teacher training, on its own, decreased teacher turnover and improved children's school readiness skills; adding the parental awareness intervention counteracted these positive effects. A year later, teachers in both groups still were implementing some of what they learned in the classroom, and children in the group that only received teacher training still had higher social-emotional skills, one of the school readiness skills measured, than the control group. Ghana's National Nursery Teacher Training Center, which worked with researchers on the evaluation and is the main teacher training center in Accra, now offers training for teachers using the new curriculum. However, children whose parents were illiterate and who received the educational awareness program actually scored lower than the other children in all school readiness skills after two years. Researchers are now following all the children as they progress to primary school to test longer-term impacts, while adjusting the parental awareness program to see if they can improve it.

### Context

A growing body of evidence points to the importance of investing in early education to ensure that children acquire important learning skills before a crucial development window closes. In 2007, the Government of Ghana expanded two years of preprimary education, which combines preschool and kindergarten, to be covered under the country's universal basic education. As a result, about 75 percent of children aged four and five are enrolled in a preprimary program, one of the highest rates in the region. Nevertheless, quality remains low. Prior to the study,

one survey found that only about half of preprimary teachers had formal training, and a large share had only a primary education. Additionally, the curriculum in both the public and private school systems is often developmentally inappropriate. Teacher-directed instruction often focuses on writing and memorization. Harsh discipline isn't uncommon.

In 2012, the Government of Ghana wrote an implementation plan for the two years of preprimary education prior to primary school, which adopted a phased approach to changing



the style of instruction in preprimary classrooms. Training teachers in the curriculum and pedagogy was outlined as a priority, but the plan had not been implemented effectively, in part because of a lack of teacher training programs that were scalable and affordable. The Quality Preschool for Ghana project, known as QP4G, sought to provide an affordable training program for teachers. It consisted of a five-day course at the start of the school year, followed by two refresher sessions—two days at the start of the second term and one day at the start of the third term, for a total of eight days of training. The program was developed with and delivered by the National Nursery Teacher Training Center, the primary training center that certifies early education centers. The training program focused on age-appropriate educational techniques, play-based learning, and encouraging a positive classroom environment. Teachers also were provided with ongoing monitoring and support from district education officers. Overall,

the cost was \$842 per school, or \$404 per teacher trained, or \$16 per child in the preprimary school.

Some schools also received a parental awareness component so that parents could better understand the child-based curriculum. Because parents in Ghana are used to preprimary programs that assign homework and exclusively teach reading and mathematics, the researchers included informational sessions to reduce the possibility that parents might oppose the changes and push teachers to operate as usual. The parental campaign consisted of three meetings—one per term—in which district coordinators screened a short film on the importance of play-based learning, parents' role in children's learning, and parent-teacher and parent-school communication. The videos were followed by group discussions.

A steering committee, which included representatives from the Ghana Education Service and the Ministry of Education, provided feedback and guidance throughout the development of the program.

## Evaluation

A randomized control trial was used to determine the programs' effects on teacher practice and children's school readiness. Researchers, who were working in the poorest districts of the Greater Accra region, randomly assigned 240 public and private schools with preprimary programs for children ages four to six to one of three groups. The first group of 82 schools received only the teacher training component. The second group, which consisted of 79 schools, received both the teacher training and the parental awareness meetings, while the third group of 79 schools served as a control group and received neither intervention.

Data were collected through classroom observations, child assessments, in-person interviews with teachers, and phone interviews with parents and caregivers. Baseline data were collected beginning in September 2015 before the programs began, midline data in June 2016 at the end of the first school year when the programs were implemented, and endline data in June 2017 in the following academic year when the interventions were not implemented. This is one of the first studies in Sub-Saharan Africa to assess the impacts of preprimary school teacher training on classroom quality and school readiness, including social-emotional and executive function outcomes.

## Results

### **After one year, the teacher training program significantly improved teaching practices, making them more child-centered.**

Using a checklist of 15 classroom practices that were promoted during the training, researchers found that teachers in both treatment groups—training with and without the corresponding program for parents—implemented 4.7 to 4.8 activities, as

compared to the 3.1 activities in the control group. Teachers did better at providing emotional support and behavior management, but it was only teachers in the group without the parental component that showed improved support for student expression. In neither group did teachers show an improvement in use of techniques to facilitate deeper learning—for example, the use of scaffolding, which is building on children's knowledge to take them to the next step of understanding.

### **The program also improved teachers' professional well-being.**

Whether combined with the parental awareness program or not, teacher training reduced burnout, as measured by the Maslach Burnout Inventory, but didn't have an impact on teachers' reported motivation or job satisfaction. However, on its own, teacher training also had a big impact on reducing teacher turnover—the probability that a teacher would leave his or her position by the last term of the year—to 26.8 percent from 44.3 percent, a more than 40-percent drop. This effect was concentrated among private school teachers and effectively closed the gap in turnover observed in the control group between private and public schools.

### **On its own, the teacher training also significantly improved children's school readiness.**

Children in classrooms where teachers had received the training showed improved early numeracy, early literacy, and social-emotional development. This is noteworthy because the training didn't increase teacher practices that should facilitate deeper learning, like scaffolding, but rather improved teacher practices related to providing emotional support and support for student expression.

### **Adding a parental awareness component, however, was not effective and might have had negative effects on children's skills.**

There were no impacts on children's school readiness when the parental awareness component was added to the training program. In fact, compared to the group whose teachers received only the training, children whose parents also received the awareness program showed marginally statistically lower scores on overall school readiness and significantly lower early numeracy scores. This suggests that the positive impacts of the training component on children's school readiness were counteracted by the parental awareness program.

While this finding doesn't indicate that involving parents is harmful for children, this particular approach didn't successfully engage parents, and the researchers are trying to understand the program's negative effects. One possibility is that parents disagreed with the program's emphasis on play-based learning and tried to counter the teacher's messages with more structured learning at home that was counter-productive. Some teachers, in fact, told researchers that parents who received the awareness campaign complained more about their child's behavior and academic problems. Another possibility

is that the videos screened to parents seemed irrelevant—and as a result, caused caregivers to distance themselves from the school. Researchers concluded that awareness campaigns have the potential to be an important tool but that they need to be executed carefully and accurately to convey the advantages of a child-centered pedagogy, particularly in a context where more traditional learning methods are more familiar to parents.

### **After two years, many improvements observed at the end of the first year had faded out or even reversed.**

Teachers still employed some of the practices they learned during the training, but teachers in both groups were significantly less likely to support student expression compared to teachers in the control group, in contrast to the midline improvement in this dimension of teaching practices. Teachers in the group



that received both the teacher training and the parental awareness program still showed lower levels of burnout compared to control teachers. Teacher turnover didn't continue to drop after the first year, when the programs had ended.

After two years, there were only marginally statistically significant impacts on children's overall school readiness in the group whose teachers had received training the year before, with only persistent statistically significant impacts on social-emotional development. Children whose parents also received the awareness classes had statistically lower scores on overall school readiness at endline compared with children in the group that received only the teacher training, but this was concentrated among children with illiterate parents. It's unclear what would have happened had the teachers and parents continued to receive the training in the second year since the program only lasted one year.

## Conclusion

As policymakers around the country look to prepare their youngest citizens for success, this training program could be one approach considered to help teachers effectively support child development and learning. The results show it's possible to use in-service teacher training to change the style of instruction in preprimary classrooms and make it more child-centered, benefitting children's school readiness for primary school. The results are particularly promising because the Quality Preschool for Ghana training was built into existing structures: The National Nursery Teacher Training Center offered the course at their center, and its coaches and monitors who visited the teachers in their classrooms were education coordinators from the district government.

Nevertheless, more work needs to be done to determine the best way to engage parents so that they can be full partners in their children's education. The research team is working closely with the government, public sector partners, and donors, as well as the rapidly expanding private school network, on ways to incorporate these findings—and lessons learned—to improve the quality of preprimary education in Ghana. Looking forward, researchers are looking to test the program in rural areas, to see whether the model—which was tested in urban and semi-urban areas only—would be applicable to other parts of the country. They also plan an additional round of data collection to follow children into primary school and examine the program's long-term impacts.

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