How a virtual program may help kids get ready for kindergarten

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All kids in the program received a computer tablet preloaded with educational videos. Credit: Andrii Sinenkyi from Pixabay

With pandemic lockdowns still in place last summer, The Ohio State University couldn't host its in-person Summer Success Program to help preschoolers from low-income families prepare for kindergarten.

Staff and teachers quickly pivoted to a fully virtual program, but they were worried: Could this really work with 4- and 5-year-olds who had no previous experience with preschool?

A new study suggested it did.

Researchers found that the reimagined Summer Success at Home program was feasible to operate, was popular with teachers and parents, and had at least modest success in helping the children learn literacy skills, early math skills and emotion understanding.

"The promising evidence is that a virtual problem like this can succeed, despite the challenges," said Rebecca Dore, lead author of the study and senior research associate at Ohio State's Crane Center for Early Childhood Research and Policy.

"We weren't sure at the beginning how well it would work. We never met the families and children in person, and we made everything run remotely."

The study was published online recently in the journal Early Education and Development.

The Schoenbaum Family Center, part of Ohio State's College of Education and Human Ecology, had run the Summer Success Program in person since 2016. It offered four-week sessions for children entering kindergarten in the fall, mostly from low-income families who did not have access to preschool programs.

Previous research had shown that children who participated in these in-person programs made significant gains in their kindergarten readiness skills.

For 2020, the teaching staff and leadership came up with a different type of four-week program. Each of the 91 families enrolled was given storybooks and a computer tablet preloaded with educational videos for parents or caregivers to read and watch with their child.

The program included one or two individualized teacher-child video chats each week and a weekly video or phone meeting between the teacher and parent or caregiver.

Parents were given instructions about how to watch the videos and read the books with their children, including questions to ask them before, during and after reading the books or watching the videos.

The study showed that a virtual program like this was feasible, Dore said. They had no trouble recruiting families to participate and 77% of the families that were recruited finished the program.
One concern was whether 4- and 5-year-olds would be able to participate in video lessons—and the answer was yes.

Teachers rated children's engagement in activities as 2.4 on a scale of 0 to 3 and in 90% of sessions, found the child was engaged for more than half the lesson. In half the sessions, teachers rated the child as being engaged for the whole lesson.

Parents and caregivers gave the program high marks, with average ratings of 4.7 on a 5-point scale.

"The most common comment we got from caregivers was that they wished the program was longer," Dore said.

Children were tested on a variety of measures before and after the program. Results showed there was an upward trend on all the measures, including social-emotional skills, counting, alphabet knowledge and emergent literacy.

Some of the improvements were small, Dore said, and since there was no control group it is not possible to prove the program was responsible for the gains.

"This was a preliminary assessment, and we will need more research," she said.

But the results are especially encouraging because the gains were achieved with much less direct instruction than children would receive during the in-person program, said study co-author Laura Justice, professor of educational studies at Ohio State and executive director of The Crane Center. "Our results suggest virtual intervention may be successful in promoting kindergarten readiness skills even when children cannot be in preschool or in an in-person summer program," Justice said.

While this program was developed in response to the pandemic, the promising results suggest it may be useful for other circumstances, Dore said.

For example, virtual interventions could be used in rural areas where it is difficult for families to participate in in-person programs or for seriously ill
