



PDRI Policy Brief 3: Learning in the Time of a Pandemic: Effects of Covid-19 in Ghana

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Key takeaways:

- Controlling for pre-pandemic learning outcomes, disparities in literacy and numeracy test scores between vulnerable and non-vulnerable children grew over the course of the pandemic and were between 0.2 and 0.3 SD.
- Groups of children that fell further behind were those enrolled in public schools, those from lower-socioeconomic status households, and children who were food insecure.
- Children in private schools received more personalized supports and lessons from their teachers, while children from public schools were mostly encouraged by teachers to engage in the national TV and radio programming.
- Longitudinal survey data on children, families, and teachers provide important insights into educational opportunities and learning during major shocks and crises such as the COVID-19 pandemic.

Background:

The COVID-19 pandemic was a shock that reverberated throughout education systems around the world. Education systems in low- and middle-income countries faced unique challenges, with low learning levels before the pandemic and many children lacking the basic infrastructure needed to engage in remote learning. This brief provides an in-depth look at a sample of children in the Greater Accra Region of Ghana, a lower-middle income country, providing a case study on how pre-existing inequities grew during the pandemic.

The findings speak to disparities in children's experiences of remote learning opportunities and learning outcomes while schools were closed. For example, public and private schools offered vastly different levels of supports to children during the

period of school closures. In this sample, children enrolled in private school were three times as likely to participate in online education than public school children.

The pandemic also led to widespread economic hardship for families around the world. Before the pandemic, about one-quarter of the Ghanaian population lived below the poverty line. The pandemic caused even more economic hardship, with only 41% of households in the sample reporting having worked within the last week in April 2020. In addition to job loss or a reduction in working hours and/or earnings, the school closures in response to the pandemic exacerbated children's food insecurity. Children enrolled in public schools were no longer receiving meals from the Ghana School Feeding Program. Prior scholarship in both the U.S. and African contexts has found a strong connection between economic hardship, food insecurity, and negative schooling outcomes, and the results presented in this brief suggest that the pandemic only exacerbated such gaps.

Research design:

The children, families, and teachers included in this study were sampled from an ongoing longitudinal impact evaluation of a school-randomized trial in 2015-2016 based in the Greater Accra Region of Ghana. Using the Ghana Education Service Management Information System database, 240 schools were randomly sampled, stratified from six districts, in the summer of 2015. The sample is purposively representative of both public and private schools that were registered with the government in 2015. Children were randomly selected from each of the schools when they were in kindergarten (4-5 years of age, on average) and have been followed each year since. For this study during the pandemic, the researchers worked with trained enumerators to conduct phone-based surveys with the child and their primary caregiver in October 2020. Nearly half of the initial 2015 sample of children were reached (N=1844), and their caregivers and teachers were also interviewed via phone-based surveys to provide specific information related to the pandemic.

The main independent variables were household economic hardship, child food insecurity, school-promoted remote learning activities. The main dependent variables were engagement in remote learning activities, literacy and math test scores, children's time use, and children's access to remote learning resources.

Results:

The majority of children reported participating in some sort of remote learning activities. Yet there were major differences between public and private school children's engagement in remote learning. In this sample, 56% of children attended private schools before the school closures. Following the closures, teachers implemented various forms of remote learning support for children. Private schools were more likely to promote individual, online classes. Private school teachers provided materials via WhatsApp, text or email. Public schools were more likely to promote generalized learning through educational TV and radio programming.

Public school teachers provided hard copies of class materials to students. Private school students were significantly more likely to engage in remote learning, have tutors, and receive educational content from teachers.

There are two main barriers for children in participating in remote learning activities: lack of devices (e.g., tablets, laptops) and lack of support at home. Regarding access to devices, 86.2% of children lacked access to devices and 84.4% lacked internet access. Public school students were even less likely to have access to devices. Teachers in both the private and public school settings also lacked access to devices and reliable internet connections. Of teachers whose schools offered distance learning, almost 63% lacked access to devices and 65% did not have internet connections.

Lack of support at home may partly be attributed to family hardships. Three economic shocks were used to evaluate hardship: disruptions in daily earnings, increases in major food prices, and family death or illness. Low-SES households experienced a higher number of hardships as compared to high-SES households. Experiencing economic shocks, as well as food insecurity, were both associated with lower engagement in remote learning activities and lower learning outcomes. The lack of support at home meant that children mostly studied alone and less than half of them participated in organized learning groups.

While other studies reported time use differences between genders as a barrier for engagement with learning activities, the researchers in this study find that time use is not one of the barriers to children's engagement in remote learning activities. Girls and boys reported spending similar amounts of time on both studying and engaging in paid or unpaid labor.

Finally, controlling for pre-pandemic learning outcomes, the researchers documented gaps in children's literacy and numeracy test scores for vulnerable subgroups. High-SES children performed better than their low-SES peers in both math and literacy (0.31 and 0.40 standard deviations (SD), respectively); food secure children scored better than food insecure children (0.21 SD for both), and children in private schools performed better than those in public schools (0.27 and 0.33 SD, respectively).

The researchers note that the sample was drawn from the Greater Accra Region (the fastest growing and most developed region in Ghana) where children and their families lived mostly in urban or peri urban areas. Replicating these findings in rural, poorer parts of Ghana would be critical to provide a fuller picture of how the pandemic and school closures impacted children and their families.

Policy Implications:

The results of this paper show how school closures amid the pandemic exacerbated existing schooling inequalities in Ghana. The study highlighted differences between private and public school children, between boys and girls, and high-SES and low-SES households.

These results have policy relevance for Ghana and other lower middle-income countries as children have now returned to school in most part of the world. First, differential access to remote learning materials and support for remote learning during the pandemic exacerbated

existing differences in learning levels within classrooms. Policymakers could implement targeted instruction, grouping children according to their learning level and teaching to that level, an evidence-based strategy shown to improve learning outcomes in many low- and middle-income countries.

Second, this study highlighted the relationship between household hardship and children's learning engagement and outcomes. Policymakers could consider additional economic relief programs to poor households including cash transfers and food supplements, which could improve children's educational outcomes. Another key intervention that policymakers should consider is increasing access to nutritious food. In this study, around 30% of children reported feeling hungry within the previous month. Much of the hunger children experienced is related to parents having a reduction in their daily earnings. Implementing programs to distribute food rations or cash transfers to families with children could minimize adverse impacts.

Finally, as children return to school, scalable programs to increase parent engagement should be implemented. These programs should focus on supporting parents in bridging school learning activities to home learning activities, as well as giving parents the emotional and mental capacity to be more active in their children's schooling. Recent research in both Ghana and the U.S. have linked economic hardship to lower parental school engagement. One program format that has been successful in similar contexts is the use of SMS text messages to parents that share information and actions related to engagement in children's education and school lives.

[Read full study](#)

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