

Learning in COVID Times: Effects of COVID-19 on Students' Learning Inequalities

Today's Panelists



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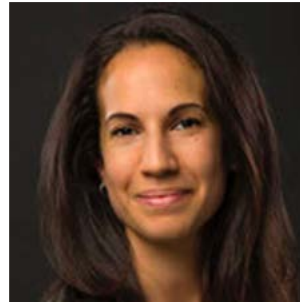
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Research team

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Webinar goal: Promoting data-driven decisions within the Ghana education sector



Share findings from the **Quality Preschool for Ghana COVID-19 survey**



Suggest evidence-based approaches to address key challenges and issues that the survey data highlight



Promote collaboration on data collection and research in the education sector to maximize efficiency and ensure decision makers have timely and reliable data

Agenda

1. Quality Preschool for Ghana sample
2. Engagement in distance learning activities by public and private schools
3. Anticipated learning loss and learning inequalities
4. Examining other determinants of learning and well-being: psychosocial well-being, economic inequality, and food insecurity
5. Informing school reopening with data and evidence
6. Q&A

Overall summary of key findings

1. School closures may have led to **growing learning inequalities**
 - a. **Private schools** were twice as likely to provide individualized learning materials and support to students
 - b. Children in private schools scored higher on literacy and numeracy tests
 - c. **Higher SES households** provided more and better quality support for children's education and learning at home
 - d. **Children with disabilities** did not receive additional support during school closures
2. Key barriers to distance learning included **lack of devices and internet for both teachers and students**

Overall summary of key findings (cont'd)

3. Boys and girls spent similar time on distance learning, but **girls have significant less leisure time** than boys
4. **Job loss and food insecurity** are widespread and likely to be **associated with worsening of learning inequalities**
 - a. Low-SES households and female caregivers reported **more economic insecurity**
 - b. **30 percent of children** reported not having enough to eat
 - c. Economic insecurity is associated with **poorer learning outcomes**



1. Sample

Sample

- Quality Preschool for Ghana sample recruited in 2015 at age 4-5 years from Kindergarten classrooms from most deprived communities of the Greater Accra region
 - (1) Adentan; (2) Ga Central; (3) Ga East; (4) Ga South; (5) La Nkwantanag-Madina; (6) Ledzokuku-Krowor; and (7) Tema Metro
 - Children now also in basic schools in parts of the Central Region
- Building on this sample, we conducted phone surveys in October-December 2020 with caregivers (N = 2,048), their children (N = 1,844), and a subset of their teachers (N= 514)
- Generalizability to other parts of the country that may be more vulnerable may be limited

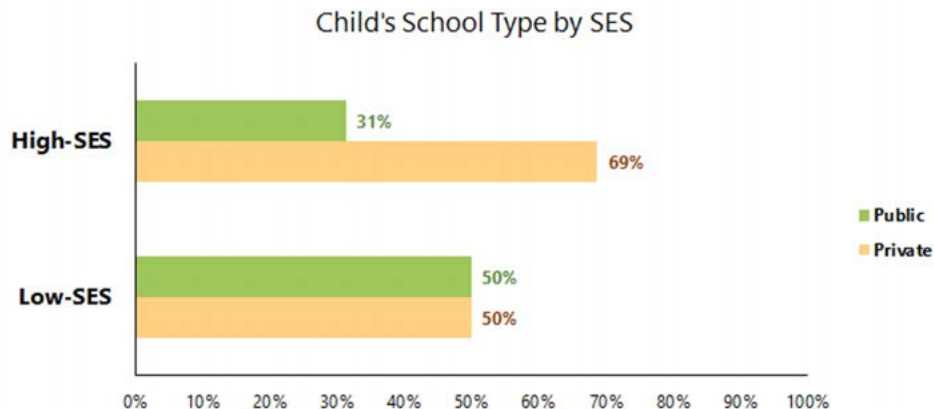
Caregiver and child socio-demographics

Caregivers

- Mean age = 42.2 years
- 62% female
- 88% child's biological parent
- 78% married or partnered
- 90% spoke English and/or Twi at home
- 73% had at least a middle school education

Children

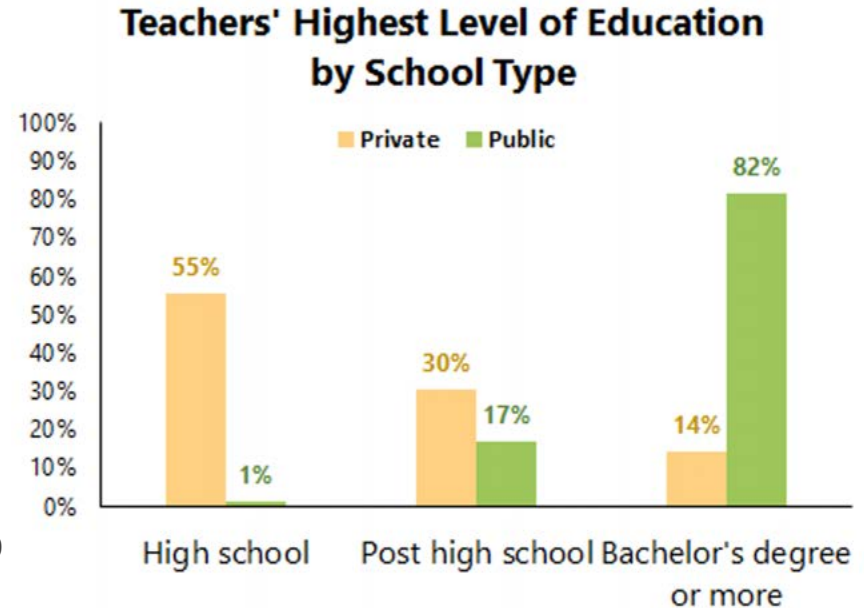
- Mean age = 10.1 years
- 51% girls
- Most children enrolled in P3/P4
- 56% attended private schools




Note: SES is caregiver-reported; low-SES is defined as having a JHS education or less, whereas high-SES is defined as having completed SHS or more

Teacher demographics

- **56%** private schools; **44%** public schools
- Public school teachers had **9 years of additional teaching experience** and **were 12 years older** than private school teachers, on average
- **98%** taught at the primary level
 - 52% KG and lower; 46% upper; 2% other



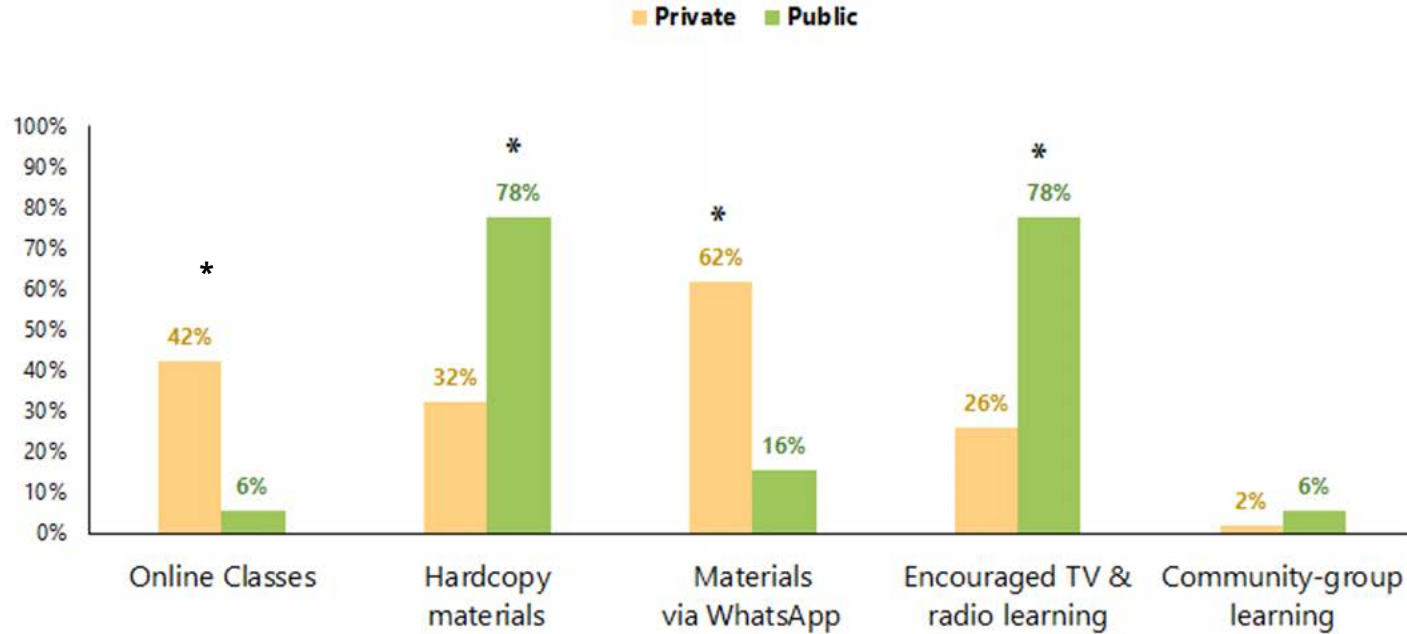
A photograph of a classroom where many students in blue uniforms have their hands raised, indicating active participation. A teacher is standing at the front of the room. The text '2. Engagement in distance learning activities by public and private schools' is overlaid on the image.

2. Engagement in distance learning activities by public and private schools

Only half of the schools offered distance learning activities

- **54%** of all teachers reported that their schools provided some form of distance learning activities **from mid-March to July 2020**
- There was **roughly no difference in the report of distance learning offer** between public and private schools (53% public school teachers vs 56% private school teachers)

Private schools offered more individualized learning opportunities

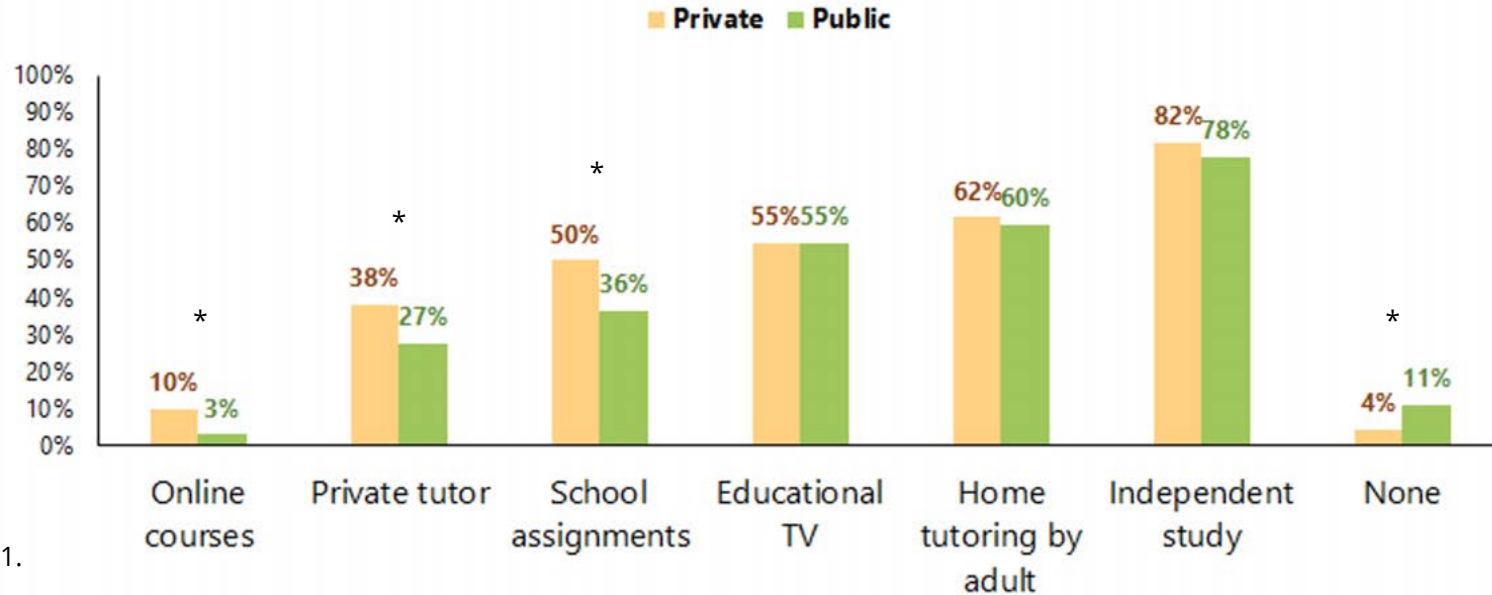


Note: Data reported on this slide are teacher-reported

+ Only teachers who indicated that their schools provided distance learning were asked this question (N=276). 54% of respondents are private school teachers.

** $p < .01$.*

Private school children were more engaged in distance learning



* $p < .01$.

Note: Data on this slide are caregiver-reported

+ Only asked if children engaged in distance learning (N=1,895). 48% of respondents are private school students.

TV and radio distance learning

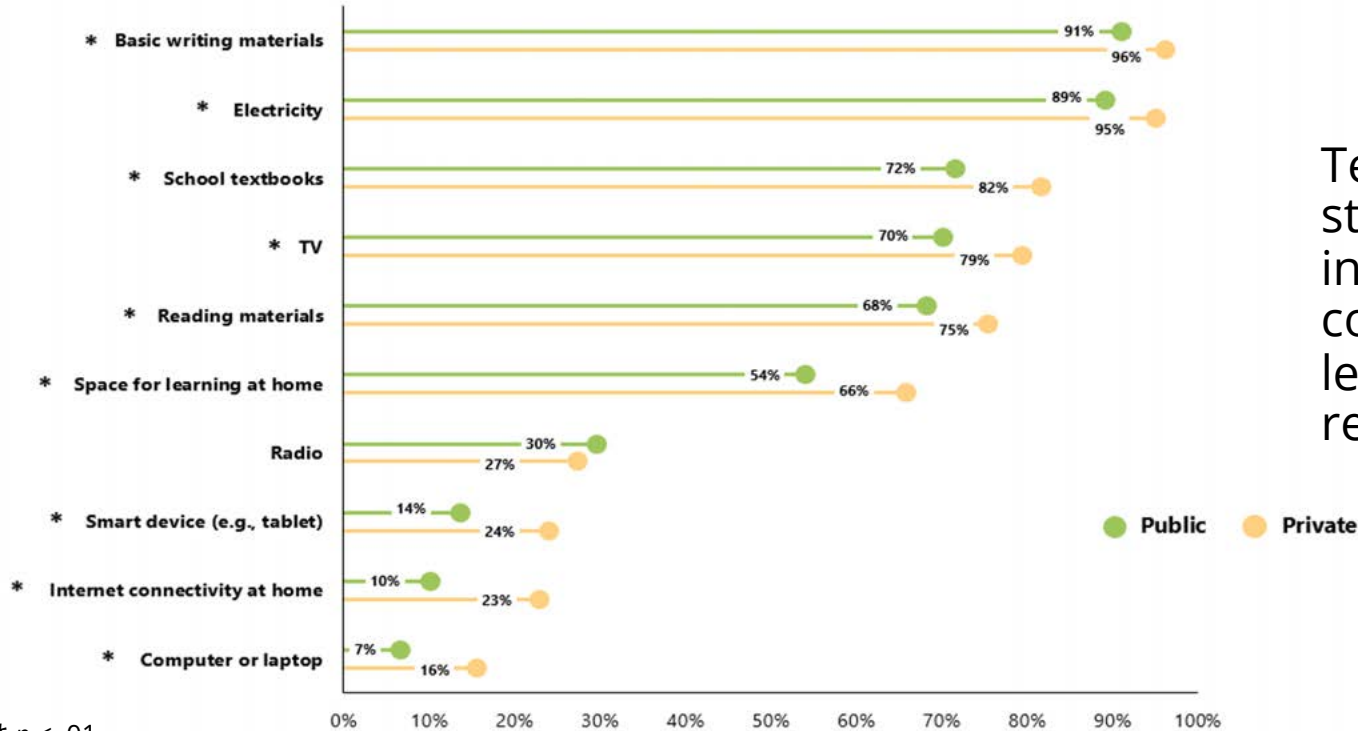
54% of children and
61% of caregivers reported
accessing government
sponsored TV and/or radio
educational programming

- Ghana Learning TV (60%)+ and Joy Prime Learning (14%)+ were the most watched channels
 - Only 2% reported listening to the radio
- Private school students were more likely to watch government channels (63 vs 55%)
- Of children who accessed TV and/or radio programming, **60% reported it to be somewhat or very difficult to pay attention**

Note: Data on this slide are caregiver- and child- reported

+ Only asked if children engaged in TV/radio distance learning (N=1,044)

Private school children had more access to resources

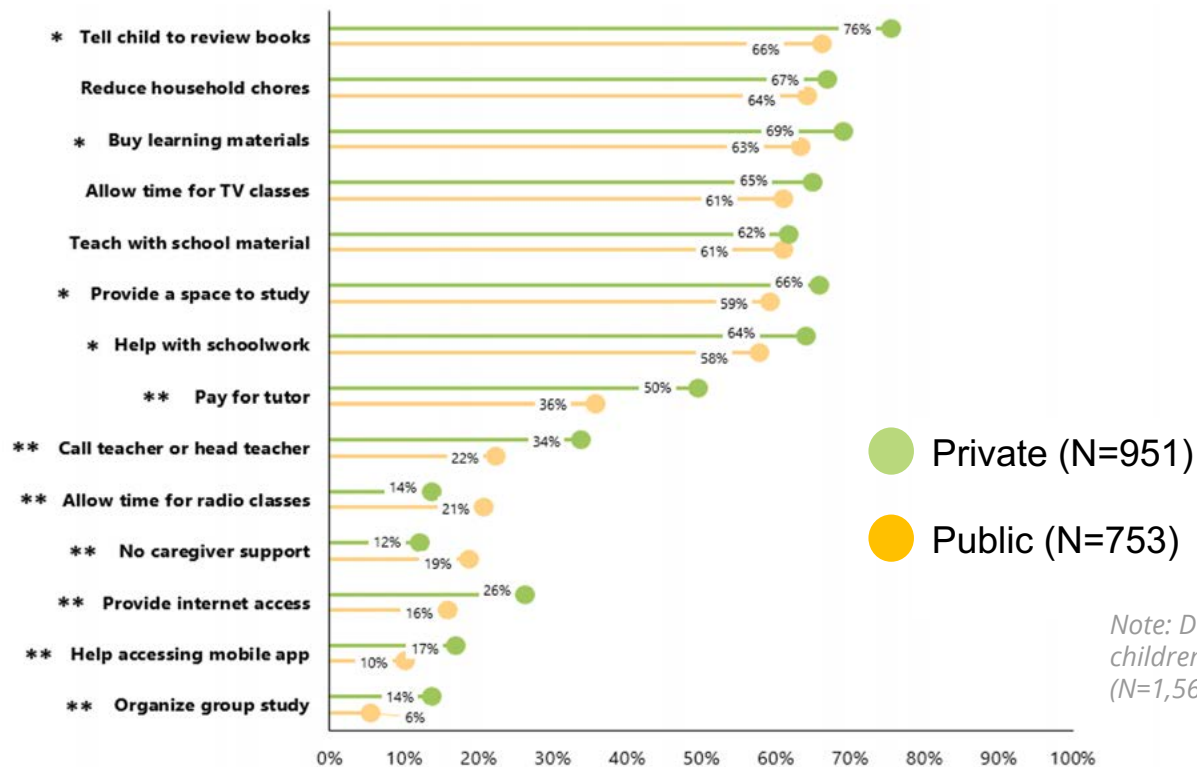


Technology devices, study space, and internet were the most commonly lacked learning-related resources

Note: Data on this slide are child-reported by 1,709 respondents, 57% of which attend private school.

* $p < .01$.

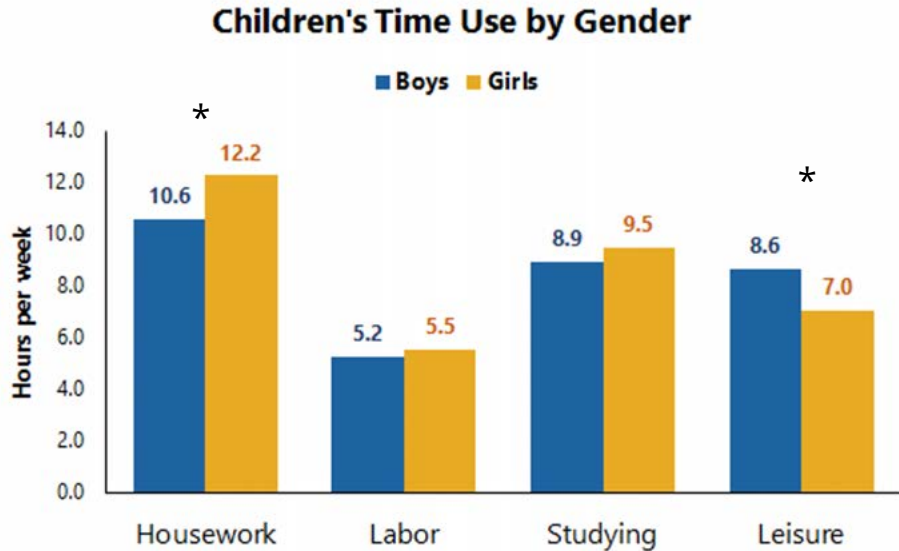
Private school children had more caregiver support at home



Note: Data on this slide are child-reported. Only asked if children reported receiving support from caregiver (N=1,566), 54% of which attend private school

**** $p < .01$, * $p < .05$.**

Engagement in distance learning was similar, but boys and girls spent time outside of distance learning differently



* $p < .01$.

Compared to before the school shutdowns, about 26% of students experienced increases in time spent on housework, studying, and leisure, while 12% spend more time working.

A significantly higher percentage of girls (41%) reported increases in child and elder care over boys (44%).

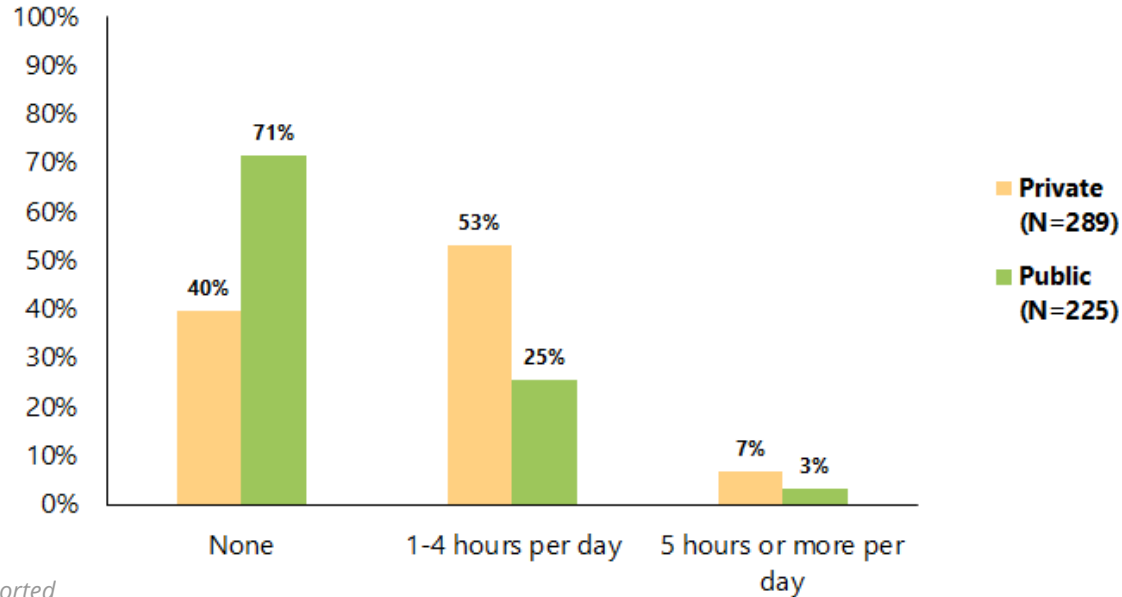
Note: Data on this slide are child-reported

A photograph of a classroom where many students in blue uniforms have their hands raised, indicating an interactive learning session. A teacher is visible at the front of the room. The text '3. Anticipated learning loss and learning inequalities' is overlaid on the image.

3. Anticipated learning loss and learning inequalities

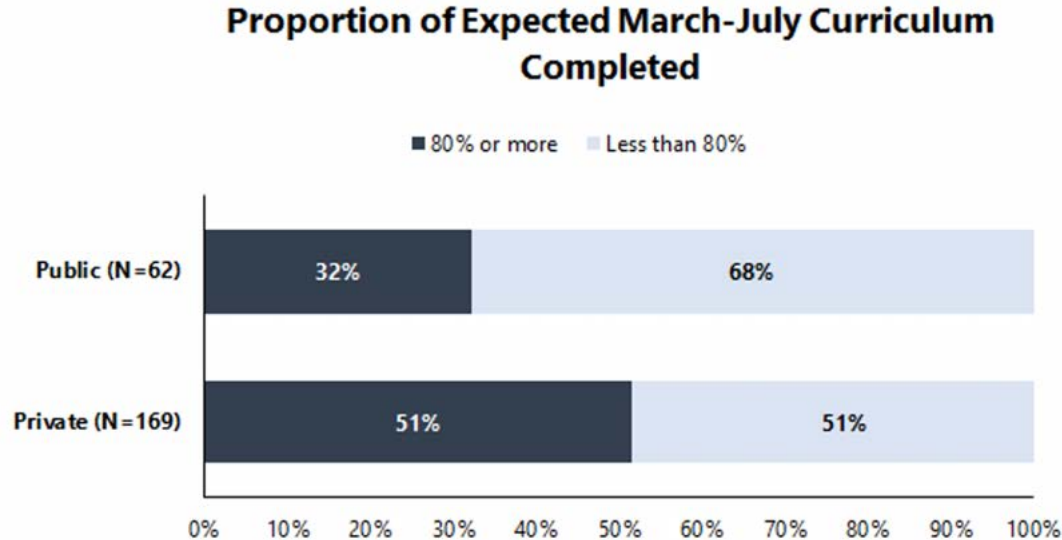
Public school teachers reported spending fewer hours on learning activities

Average Number of Hours per Day Teachers Spent on Learning Activities since mid-March



Note: Data from this slide are teacher-reported

Public school children are at greater risk of falling behind in the curriculum



Note: Data from this slide are teacher-reported. Only includes data from the teachers that reported to spend at least 1 hour per day in distance learning activities

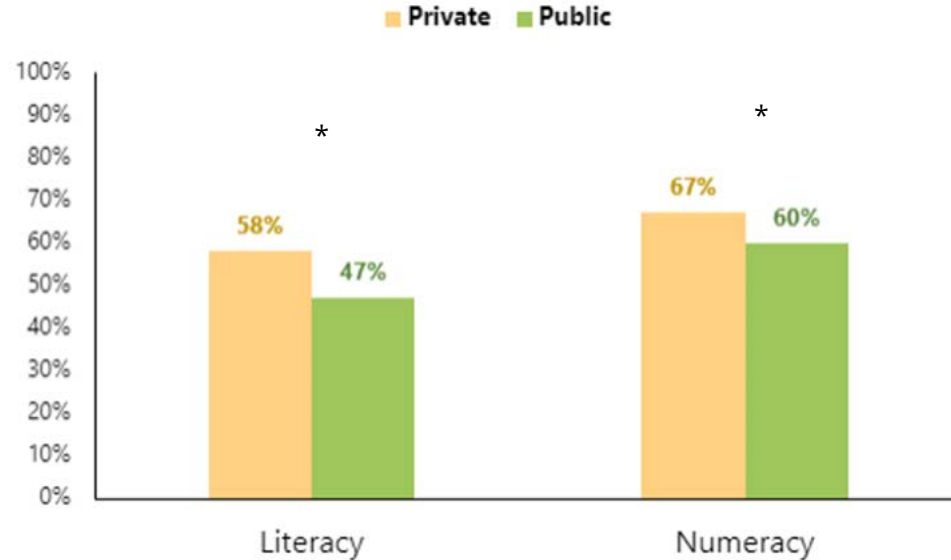
Phone learning assessments

- Children's surveys included some basic learning assessments in **literacy** and **numeracy**
 - Literacy: Vocabulary, spelling, oral comprehension
 - Numeracy: number discrimination, operations
 - 14% of children reported getting help on items because tests were hard
- However, these measures are likely to not fully capture all underlying abilities of children, more a proxy of how children were doing in terms of basic academic skills during the pandemic

Private school students have higher test scores at the end of the school closure period

Literacy scores include: spelling, oral comprehension, and vocabulary

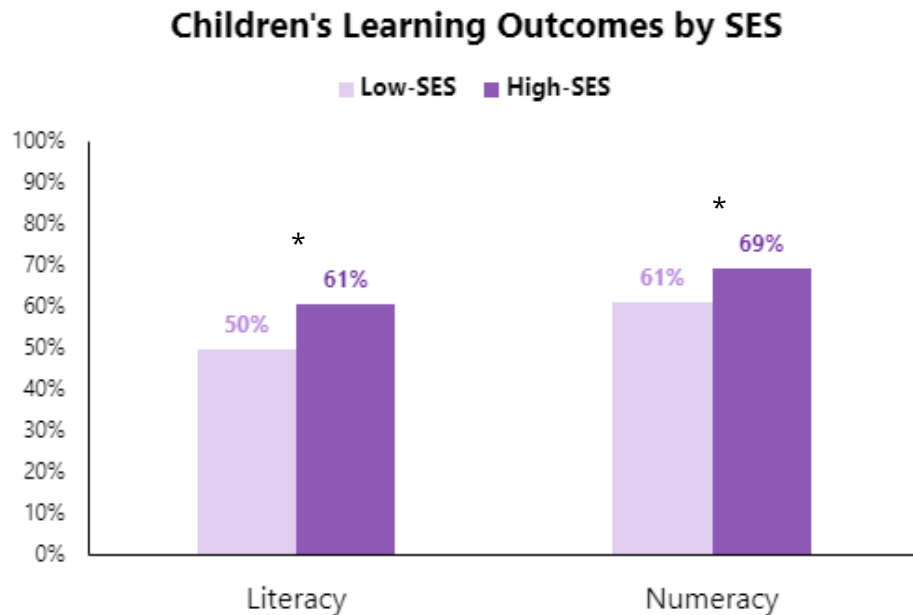
Numeracy scores include: numbers and operations and quantity discrimination



* $p < .01$.

Note: 56% of children overall attend private school

High-SES students have better test scores



Note: The high-SES group is comprised of 69% students who attend private schools and 31% in public schools.

* $p < .01$.

Note: results based on phone-assessments, may not be fully reflective of children's abilities

Inequalities by school type and SES remain even by controlling for prior achievements and children's backgrounds



Results from multivariate statistical analysis that investigates inequalities by school type and SES controlling for age 5 test scores and child and household characteristics confirm the existence of these inequalities at the end of the school closure period

We do not find large differences between boys and girls in learning in this sample



* $p < .01$.

Teachers and caregivers report that DL was inaccessible for children with disabilities

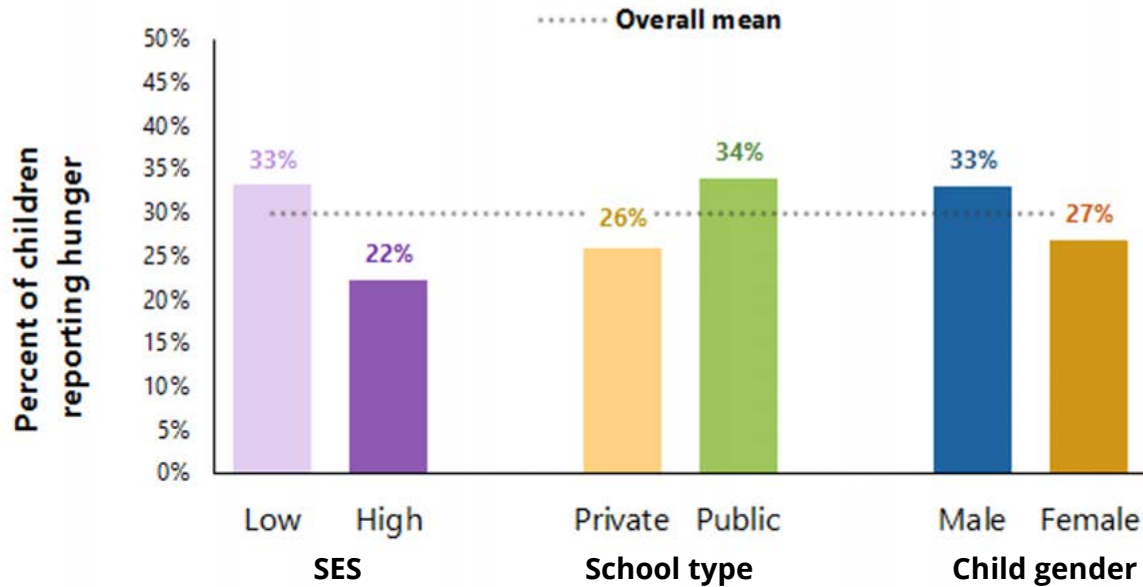
- **74% of teachers were dissatisfied or very dissatisfied with the accessibility** of TV and radio distance learning for children with disabilities
- **65% of caregivers** indicated that either distance learning and/or education resources provided by the school were **not accessible for children with disabilities**
- **74% of teachers** indicated that the government **did not take adequate measures** to support children with disabilities with distance learning

Note: all teachers (N = 514) were asked about the accessibility of DL, whereas only caregivers of children with disabilities (N = 45) were asked these items.

A photograph of a classroom where many students, wearing blue uniforms, have their hands raised in the air. A teacher is standing at the front of the room, and a whiteboard is visible in the background. The scene is brightly lit by natural light from a window on the right.

4. Examining other determinants of learning inequalities: food insecurity and economic challenges

Around a third of children reported hunger in the past 30 days



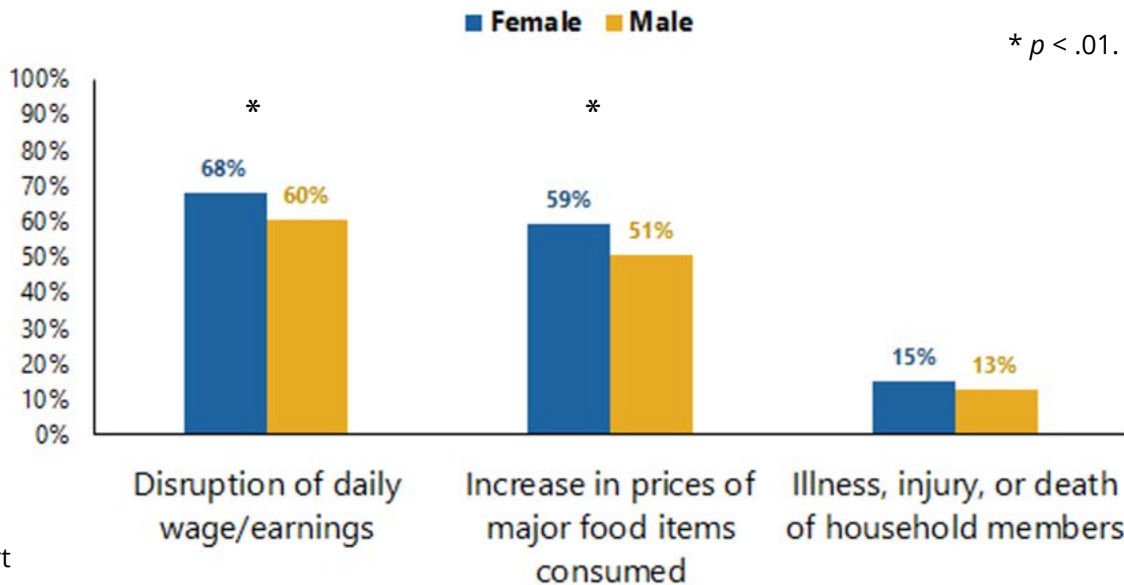
78% of children from government schools participated in the **Ghana School Feeding program** before school closures

Note: Data from this slide are child report
All differences are statistically significant at $p < .01$

Female caregivers and low-SES households were more likely to experience disruption in daily earnings and an increase of major food prices

80% of all households experienced at least one "shock", with 7% experiencing all three

Household Shocks in the Past 15 Days



Note: Data from this slide are from the caregiver-report where 62% of respondents are female

Food insecurity and shocks decrease engagement in DL and test scores



Accounting for school, family, and child characteristics, children in families that experienced more hardships **participated in fewer distance learning activities.**



Children in families that experienced all hardships had literacy and numeracy test score **gaps equivalent in size to the public-private school test score gap.**

A photograph of a classroom where many students in blue uniforms have their hands raised, indicating an interactive lesson. A teacher is visible at the front of the room. The text '5. Informing school reopening with data and evidence' is overlaid in the center.

5. Informing school reopening with data and evidence

Policy Implications

1. **School closures may have led to growing learning inequalities**
(private vs. public schools, high vs. low SES, children with disabilities)
2. Key barriers to distance learning included **lack of devices and internet for both teachers and students**
3. **Job loss and food insecurity** are widespread and are **associated with worsening of learning inequalities**
4. Boys and girls spent similar time on distance learning, but **girls have significant less leisure time than boys**

Meeting students at their learning level as they have returned to school

- Even before school closures, **differing learning levels within the same class** groupings posed a challenge
- School closures may **exacerbate this problem** given children's varying levels of access to education support
- **Targeted instruction**—(differentiated learning) grouping children according to learning level and teaching to that level—may help
- [Rigorous research has shown](#) that targeted instruction improved learning in Ghana, Kenya, India, and elsewhere.
- Especially when focused on **foundational literacy and numeracy**

Supporting the home learning environment

- The **quality of the home learning environment** is widely recognized as a key factor supporting young children's early literacy and numeracy skills
- Research in [Cote d'Ivoire](#) and [Brazil](#) has found that **engaging parents in children's education using SMS messages** can improve learning even while schools are in session. And IPA has just started a similar study in Ghana
- Past interventions include informing parents of their children's [learning levels](#), [progress](#), and [attendance](#)
- If possible, **personalized messages** [may be more effective](#) in strengthening parental engagement than generic messages

Ensuring children have access to nutritious food

- [Research from Ghana](#) has found that children from households that were **food insecure had lower literacy or numeracy abilities**
- Research from Ghana and elsewhere shows **school meals are [scalable and effective](#) and improve [nutrition](#) and [learning](#)**, especially for poorest children and girls
- **School feeding programs are key safety nets**; it is critical to consider strategies that support children's food security if schools close again
- **Take-home food rations to distribute at school or cash transfers focused on families with children** could help mitigate adverse impacts if schools close again

Impact on girls

- Evidence from other countries indicates that older girls are at greater risk of experiencing learning losses or dropping out of school; it is important to ensure communities and schools make **targeted efforts to get girls back into the classroom** as schools reopen
- This was beyond the scope of the current survey, and more research is needed to assess how school closures have impacted girls in rural Ghana
- We do not find gender differences in participation in distance learning, but boys score lower on numeracy test scores
- We are conducting additional research in the Greater Accra Region and in rural regions and will be able to share these results later this year

Key policy implications summarized

- Targeted instruction to meet students at their learning levels
- Supporting the home learning environment through SMS messages or public service campaigns
- School meals and addressing food insecurity (even if schools close again)
- Ensuring an equitable return to school for boys and girls

A photograph of a classroom from a rear perspective. Several young students in yellow uniforms are seated at desks, with two in the foreground clearly raising their hands. In the background, a chalkboard displays a chart of the alphabet in both English and a local script. The room is dimly lit, with light coming from a window on the right.

Q&A

Thank you

