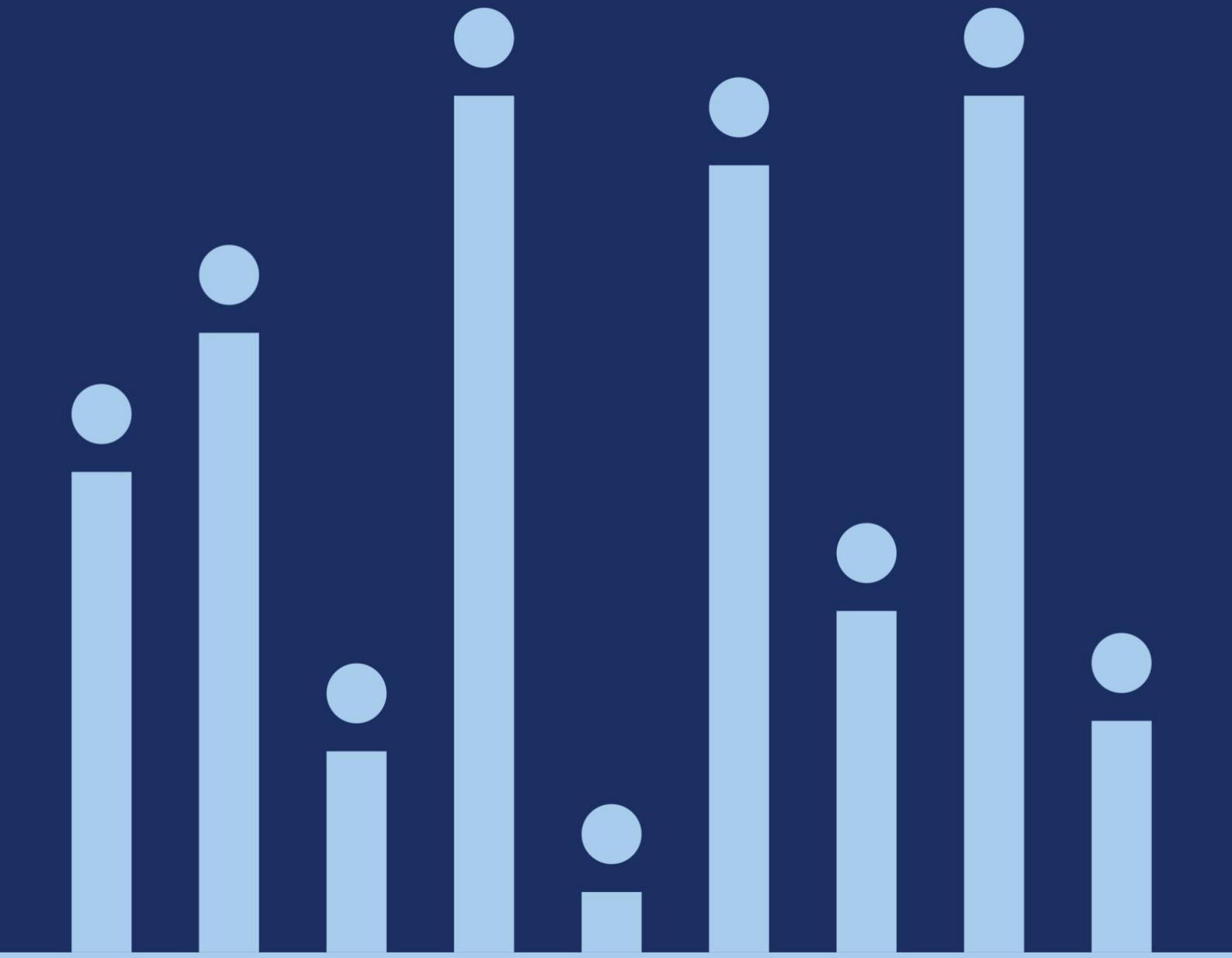

Remote learning during COVID school closures in West Africa:

Evidence across caregiver surveys at Rising Academy Network schools

IDinsight

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Contents

Executive Summary

This report describes the results from the second round of phone interviews with parents and guardians of Rising Academy Network (RAN) students in July-August 2021. The objective of this round was to understand how to adapt educational activities to ongoing and future school disruptions due to COVID-19. We collected data on enrollment, attendance, learning activities during school closures, and preferred remote learning tools from over 3,000 caregivers of students in 149 schools across Ghana, Liberia, and Sierra Leone. Our sample consists of a mix of students from private and public schools, depending on RAN operations in each country. The results from this study can help education providers to better understand the impact of school closures on educational outcomes and to adapt remote learning strategies.

Key Findings

- **Enrollment and attendance:** Dropout rates and irregular attendance remained low in all three countries. Female students and students in rural areas were slightly more likely to drop out of school, in contrast to the results from the first round of data collection which found no differences in dropout rates for different subgroups. COVID-19 was highlighted as the main barrier to re-enrollment.

- **Impact of school closures on education:** The most common type of learning activity during school closures were private classes, which 48.6% of students attended. Few students (12%) did not engage in any learning activities. Besides learning, the majority of students spent their time during school closures doing household chores, with girls being more likely to spend time doing chores than boys.

- **Availability of learning tools:** Most students have basic writing and reading materials at home (papers, pens, pencils, etc.), however, there are greater disparities in access to technology based tools. Only 42.2% of caregivers report having a smartphone, this varies from 87.1% in Sierra Leone private schools to 26.4% in Liberia public schools. Since our sample only includes students who have a phone number listed in RAN's database, the prevalence of technology-based tools, especially phones, is likely overestimated; the true prevalence of smartphone ownership may be closer to one in four caregivers.

- **Remote learning preferences:** Caregivers prefer low-tech options over high-tech options for remote learning, consistent with the variation in technology access across countries. Most caregivers would be willing to send their children to community classes and to private classes when schools are closed.

- **Learning disabilities:** Nearly a quarter of caregivers report that their child has at least some functional limitation to learning, and 5% of caregivers report a significant learning disability.

- **School safety:** Most caregivers perceive their child's school environment to be safe, with improvements in perceptions of safety since RAN took over the school. However, some caregivers report awareness of physical and sexual abuse in schools (6.9% and 1.7%, respectively).

Recommendations

Based on our findings in this round, we make four sets of recommendations:

1. RAN should **communicate the measures being taken in schools to keep children safe during COVID** to boost confidence on re-enrolment among caregivers.

2. Schools should **support home learning activities and engage caregivers in the process** to reduce learning loss.

3. To support learning during school closures, **education providers must adopt a customized, multi-modal approach that accounts for the availability of edtech and low-tech tools in each environment** to reach children with differential access to edtech.

4. **Incorporating safeguarding into school programs** can contribute to making schools a safer environment for children.

Identifying the student population with learning disabilities can facilitate tailoring instruction and materials for learning.

1 Introduction

Rising Academy Network (RAN) provides quality education in 157 government and private schools in Liberia, Ghana Sierra Leone. In 2020, schools, including those operated by RAN, were closed in response to the COVID-19 pandemic. At first, one concern for educational providers was to ensure that children, particularly girls, return to school after the lockdown. Evidence from the Ebola crisis found that 25% of students in Sierra Leone and 13% of students in Liberia did not return to school after the epidemic[1]. Given concerns that school closures due to COVID could have a similar impact as closures due to Ebola on enrollment, RAN partnered with IDinsight to assess the impact of the prolonged school closure on retention of children and particularly girls in school.

We conducted a first round of data collection from January to March 2021, and found that, in contrast to dropout rates after schools reopened following the Ebola crisis, dropout rates after COVID-induced closures were low across Ghana, Liberia, and Sierra Leone. However, COVID-19 severely impacted children's learning during school closures and the socio-economic status of most families in the geographies covered by RAN. We found that minimal time was spent on education as very few households engaged in distance learning. Based on the results of the first round of data collection, we identified the following priorities for the second round of data collection:

1. To measure re-enrollment and attendance rates again to identify the ongoing impact of COVID-19 on the educational choices of households

2. To identify the challenges of and opportunities for remote learning, including the availability of different learning tools

3. Assess student's disabilities to target support.

4. To understand caregivers' perceptions of their children's safety and protection while at school.

RAN aims to use the findings from this exercise to facilitate distance learning, reduce learning loss, and mitigate the effects of school closures. RAN also aims to increase their preparedness and the effectiveness of their programs in case of future school closures due to the ongoing health crisis.

[1] World Bank (2015), **The Socio-Economic Impacts of Ebola in Liberia and Sierra Leone**.

2 Study Design

The data for this study comes from a phone survey of caregivers of students in RAN's schools. Our survey sample comes from RAN's database of over 24,000 phone numbers of caregivers of active students from pre-primary to senior high school. This database includes students and their caregiver's phone number(s) from nearly all schools where RAN operates in Ghana, Liberia, and Sierra Leone.

For this second round of data collection, RAN shared additional caregiver phone numbers for Ghana and Liberia. We combined these numbers with the phone numbers from Round 1, removed duplicate numbers, removed numbers that were attempted but did not connect from Round 1, and selected a new sample for each of these countries. In Ghana we stratified by school, grade category (pre-primary, Grades 1-3, Grades 4-6, JSS 1-3), and gender. In Liberia we stratified by school and gender, since including grade category led to some strata having few or no students.

Since we did not obtain new numbers for Sierra Leone, the same phone numbers that comprised our sample in Round 1 were used.[2] This sample is stratified by school, grade category (Primary, JSS, SSS), and gender. For all three countries, to account for different probabilities of selection in different strata, we calculated and applied sampling weights to recover population-relevant estimates.

Table 1 describes the approximate student population, the number of available phone numbers, and the final surveyed sample per country. While most RAN schools are represented in the sampling frame and in the final sample, ~40% of students' caregivers did not have phone numbers listed in RAN's student database (ranging from ~20% in Sierra Leone private schools to ~50% in Liberia public schools). Since families with phone numbers may differ from families without phone numbers, we advise caution in extrapolating the results in this report to families that were not included in the sampling frame.

Table 1: Caregiver Survey Sampling Design (Round 2)

Country	Population		Sampling frame (available phone numbers)		Sample (students who were surveyed)	
	Schools	*Students*[3]	*Schools*	*Students*	*Schools*	*Students*
Ghana	34	9,172	33	6,269	33	795
Liberia	95	20,811[4]	90	10,622	86	1,332
Sierra Leone (EIC)	25	7,399	25	5,530	25	862
Sierra Leone (Private)	5	2,256	5	1,751	5	400
Total	*159*	*39638*	*153*	*24172*	*149*	*3389*

[2] For all three countries, we provided a list of alternate phone numbers for enumerators to use in case they could not reach the numbers on the original list. If an enumerator could not reach a number on the original list after six attempts, they selected the first number from the alternate list that was in the same stratum. The numbers within each stratum were listed in a random order. If a number from the same stratum was not available, enumerators selected the first number from the same country's list. Sampling weights were recalculated based on the number of students actually surveyed in each stratum.

[3] Student population counts are approximate, based on various databases that were dated at different points in time.

[4] Our estimate of Liberia's student population data comes from the number of students enrolled in 86 of the 95 schools in November 2020 (18,840). We imputed the population of the remaining 9 schools as the average of those 86, i.e. (18,840/86)*95 = 20,811.

Sample description

Half of the students in the survey population are female[5]. Forty-one percent of surveyed students attend schools in urban areas, though this varies by country: 77% of students in Ghana, 59% of students in Sierra Leone public schools, 100% of students in Sierra Leone private schools, and 0% of students in Liberia attend RAN schools in urban areas[6].

Table 2 shows the distribution of the survey population by current grade. The majority of students in the survey population are in primary school, though this varies by country, depending on the grades served in each RAN school. In a few cases, students in the survey population have advanced to grade levels that are not served by a RAN school in their country (e.g. Senior High School students in Ghana and Liberia, or Junior High School students in Sierra Leone public schools). These cases occur when the sampling frame of phone numbers in those schools was a few years old.

Table 2: Grade distribution of survey population

Grade	Ghana	SL_EIC	SL_Priv	Liberia
Nursery	6%	1%	3%	22%
Grade 1	5%	3%	2%	9%
Grade 2	7%	10%	7%	9%
Grade 3	6%	12%	6%	12%
Grade 4	11%	17%	3%	10%
Grade 5	12%	14%	3%	8%
Grade 6	10%	24%	4%	11%
JSS 1	9%	14%	3%	8%
JSS 2	7%	4%	10%	3%
JSS 3	12%	0%	16%	6%
SSS 1	3%	0%	12%	1%
SSS 2	0%	0%	11%	0%
SSS 3	0%	0%	15%	0%
Graduated	13%	1%	6%	0%

Table 3 shows the distribution of the survey population by age. The average age of students is 12.2 years and the median age is 12 years, though this also varies by country and roughly mirrors the distribution of grades served by RAN schools in each country.

[5] The 'survey population' refers to the population that survey estimates represent. The values reported in this section include sampling weight adjustments.
[6] Our definition of 'urban' comes from RAN's assessment of the urban/rural status of each school.

Table 3: Age distribution of survey population

Age	Ghana	SL_EIC	SL_Priv	Liberia
4 or younger	1%	1%	2%	2%
5	4%	1%	2%	3%
6	3%	4%	2%	4%
7	4%	7%	3%	4%
8	7%	9%	3%	5%
9	7%	9%	3%	7%
10	9%	11%	3%	4%
11	11%	13%	2%	8%
12	12%	14%	5%	11%
13	6%	13%	8%	10%
14	11%	9%	12%	9%
15	11%	5%	9%	7%
16	6%	2%	12%	4%
17	5%	0%	14%	8%
18	1%	0%	8%	5%
19 or older	1%	1%	9%	9%

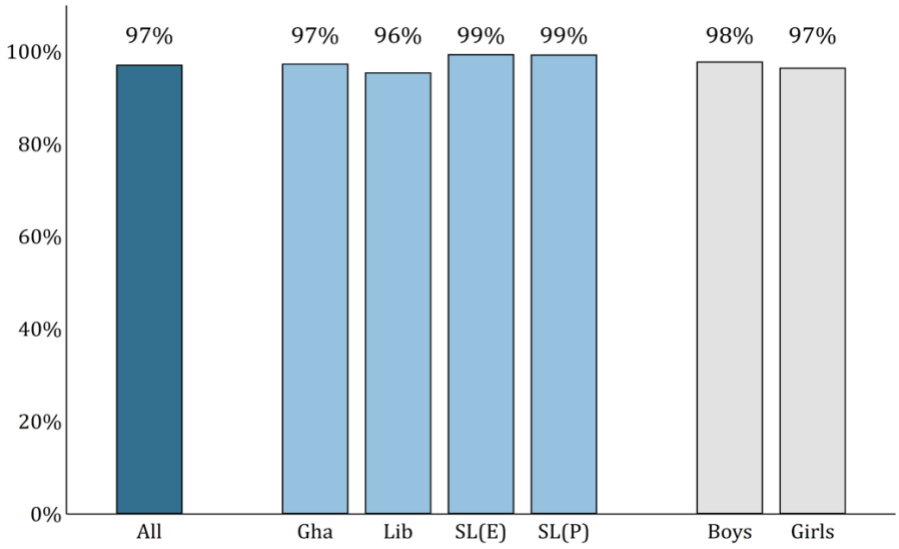
3 Effects of COVID-19 on schooling

3.1 Attendance, Retention and Performance

3.1.1 Dropouts and continued enrollment

In the first round of data collection, conducted in January-February 2021, we found that 97% of students who had been enrolled pre-COVID re-enrolled when schools reopened in late 2020 and early 2021.[7] During this round (July 2021), enrollment rates were similar, with only 2.8% [2.1%, 3.4%][8] of previously-enrolled students failing to re-enroll in school.[9] Since February 2021, enrollment rates increased slightly in Ghana and Sierra Leone, but fell slightly in Liberia, where 4.5% of students were not enrolled in July compared to 2.3% in February.

Figure 1: Enrollment rates after COVID closures, as of July-Aug 2021



In contrast to the first round of data collection, where we found that dropout rates were slightly higher for boys than for girls, dropout rates in Round 2 were slightly though not significantly higher for girls (3.4% vs 2.1% for boys, $p = 0.10$). Students in rural areas also dropped out at higher rates than students in urban areas (3.5% vs 1.7% in urban areas; $p < 0.01$). However, over 99% of caregivers of students who have not yet graduated intend to enroll their child in school next cycle, and so we expect enrollment rates to remain steady or slightly increase.

[7] Schools reoped at the end of December 2020 in Liberia, October 2020 in Sierra Leone, and January 2021 in Ghana.
[8] 95% confidence intervals are reported in brackets after estimates.
[9] 223 students in our sample graduated from Senior High School during COVID. We exclude these students from our calculations of enrollment rates.

3.1.2 Barriers to enrollment

Among the 82 students who did not re-enroll in school this year, the main reasons cited were worries over COVID-19 (25.1%), the child moving to another place (23.6%), health issues (16.3%), and lack of financial resources (18.2%). Worries over COVID-19 have increased in comparison to when caregivers were first interviewed in February (7.1% in February vs. 25.1% in July), driven by caregivers of dropouts in Liberia (33.4%).

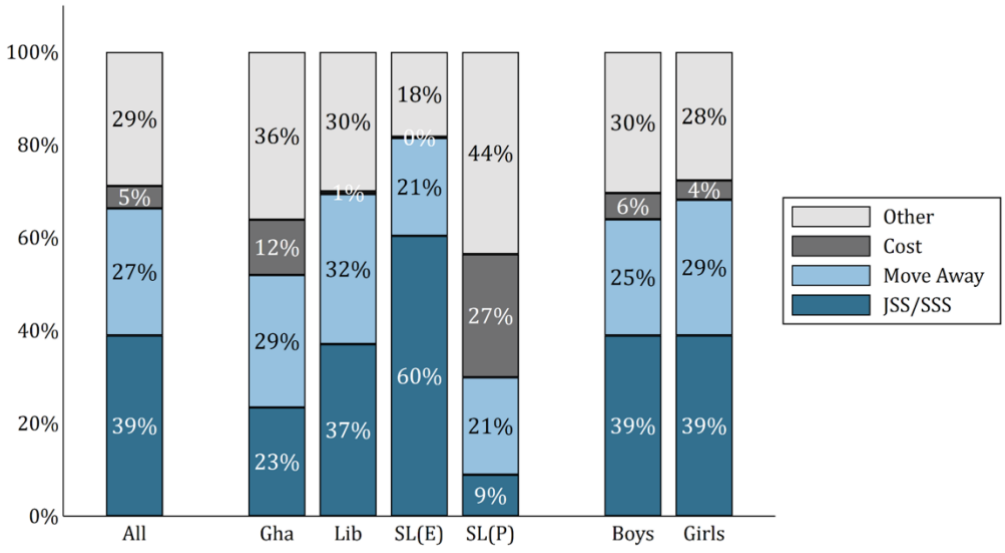
One concern with prolonged school closures is that there could be an increase in teenage pregnancy and child marriage. However, we found that pregnancy and marriage were comparatively rare in our survey population; though girls over 12 years made up 53% of the sample. Four caregivers, representing 7.7% of caregivers of dropouts who are 12 years or older, cited pregnancy or marriage as a reason for their students not re-enrolling in school.

3.1.3 Students switching schools

As schools reopened in late 2020 and early 2021, 19.5% of RAN caregivers decided to enroll their child in a different school than the one that they were attending pre-COVID. For this round of data collection, we asked caregivers about their enrollment plans for the upcoming school cycle. 18.6% [17.0%, 20.2%] of caregivers intend to enroll their child in a different school next cycle. Girls and students in private schools are slightly more likely than boys and students in public schools to plan to switch schools next cycle.

The main reasons that students plan to switch schools include being promoted to higher grades that are not available in the RAN school they were attending (38.9%) and moving away or relocating (27.4%). However, 10% of caregivers planning to switch schools report being dissatisfied with their current school, and 5% report costs being too high. Dissatisfaction is highest in Sierra Leone private schools (16%), as are concerns about cost (26.5%). Cost is not reported as a reason for switching schools by caregivers of students in public schools. Moving away (28.5%) is the main reason for students switching schools in Ghana while students in Liberia and public schools in Sierra Leone change schools to go to JSS or SSS (37.1%, 60.4%).

Figure 2: Reasons for switching schools



3.1.4 Attendance

When asked how often students attend school in the week, only 3.2% of caregivers reported that their children attended school less than 5 days per week. Reasons cited for irregular attendance include financial issues (40%), health issues (15.6%), child's choice[10] (31.7%) and distance (7.4%).

3.1.5 COVID-19's impact on final exams

Considering the disruption of the 2020-21 academic year due to COVID, we asked caregivers of students who were supposed to take their national (end-of-year) exams (those in Grade 6, JSS 3, or SSS 3) if they were able to take them. Most (89.3%) students who expected to take their final exams report having taken them last year despite COVID-19 school closures. Students from private schools were more likely to take their exams than those from public schools (93.8% vs 87.9%; $p < 0.01$). Similarly, students of schools in urban areas had a larger sitting rate (97.5% vs 81.9%; $p< 0.01$).

This year, for students whose exams have not come up yet, 97.4% of caregivers report that their children will be taking the exam. In Sierra Leone, where the National Primary School Examinations (NPSE) and Basic Education Certificate Examination (BECE) dates passed before the survey was conducted (grade 6 and 9), 93.7% of caregivers report that their children have already taken the national exams.

3.1.6 COVID-19's impact on student performance and well-being

Despite school disruptions, caregivers are optimistic about their students' performance and well-being this year. A majority (72.1%) of caregivers believe that children are likely to get better grades this year than they did before schools closed in March 2020 (Ghana: 50.7%; Liberia: 76.9%; SL private: 73.2%; SL public: 78.3%), and only 10.7% expect their children's grades to decline (Ghana: 13.6%; Liberia: 6.5%; SL private: 16.2%; SL public: 14.9%).

Similarly, 80.4% of caregivers believe that children are feeling happier this year than they did last academic year before schools closed (though caregivers are slightly less rosy in Ghana, where only 62.3% believe that children are feeling happier this year). Two thirds (65.0%) of caregivers also report that their children can make friends more easily this year compared to before school closures.

3.2 Student activities during school closures

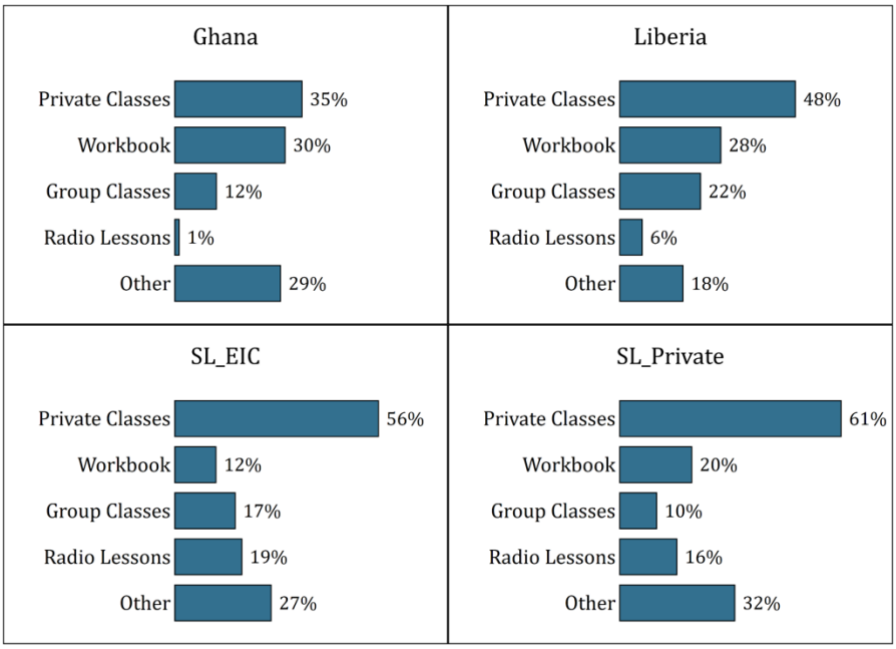
The transition to remote learning in 2020 led to a large decrease in time spent on education. In the first round, we found that the average student spent 5.7 fewer hours per weekday in education-related activities, or nearly the total duration of the school day. In Round 2 we asked caregivers to describe how the limited time allocated to learning during school closures was spent on various educational activities. These results can be used to inform remote learning strategies for future school closures.

[10] Common responses for this category included "the child does not want to go" or the "child refuses to go".

3.2.1 Learning activities during school closures

The most common type of learning activity during school closures in 2020 were private classes (attended by 48.4% of students), followed by using school workbooks (23.7%), community study groups (17.8%) and radio lessons (9.1%). Few students (12.3%) did not engage in any learning activities. Private classes and radio lessons were relatively more common for students in Sierra Leone (both public and private schools), whereas workbooks were more commonly used by students in Ghana and Liberia. Students in Ghana and in private schools in Sierra Leone were more likely to participate in online learning (7.9% and 7.1%) than students in other countries (0.1% in Liberia, 5.0% in public schools in Sierra Leone). Community study groups were more favored in rural areas than urban (21.5% vs 11.7%; $p < 0.01$).

Figure 3: Learning Activities during School Closures



Learning activities during the 2021 school closures in Liberia

As schools were closing again in Liberia due to COVID-19 surges in July 2021, we asked caregivers which learning activities Liberian students would be engaging in. Similar to learning activities during school closures in 2020, private classes are still the most popular (54.4%), while a significant number also have access to workbooks from school (27.7%). Fewer students plan to engage in no educational activities at all (19% in 2020 vs 16.2% now).

3.2.2 Other activities during school closures

Besides learning, caregivers mentioned that students spent their time during school closures doing household chores (70.6%), playing with other children (42.6%), doing nothing (13.8%), and engaging in income generating activities (10.1%). Girls were more likely to spend time doing chores than boys (76.1% vs 65.0% $p < 0.01$), whereas boys were more likely to play with friends (48.8% vs 36.5%, $p < 0.01$) or play by themselves (14.9% vs 10.5%, $p < 0.01$).

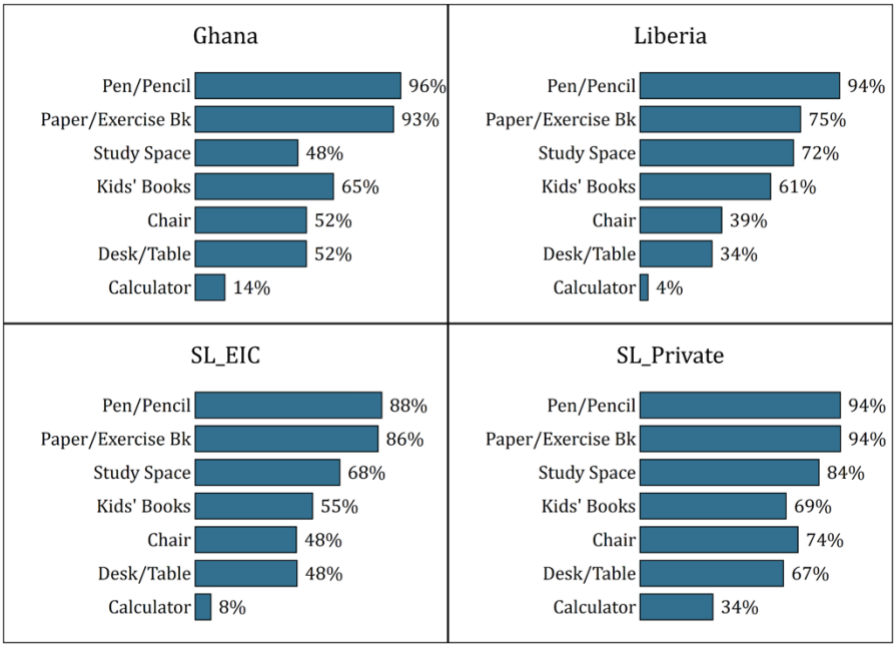
3.3 Learning tools available to students

To inform RAN's distance learning strategy, we asked caregivers what learning materials they have available at home, including inputs that rely on no technology as well as those that rely on phones or other types of technology.

3.3.1 Low-tech learning tools available to students

Most students have basic writing and reading materials at home, including pens or pencils (92.6%) and paper or exercise books (82.7%). Many students have a quiet space to study (67.4%), though this is less common for students in Ghana (48.3%), and some students have a chair (46.5%) and a desk or table (43.9%), though these are less common for students in Liberia (38.5% and 34.0% respectively).

Figure 4: Availability of Low-Tech Learning Tools at Home



3.3.2 Technology-based learning tools available to students

There are greater disparities in access to technology-based learning tools than for low-tech learning tools. While 41.7% of caregivers report having a **smartphone**, this varies from 87.6% in Sierra Leone private schools to 26.4% in Liberia public schools. **Handsets**[11] (or non-smart phones) are relatively more common in Liberia (72.2%) than elsewhere (36.5% in Ghana, 41.9(Priv)-61.8%(EIC) in Sierra Leone). This is consistent with findings from Round I where 45.7% mentioned owning basic handsets and 36% report owning smartphones with data.

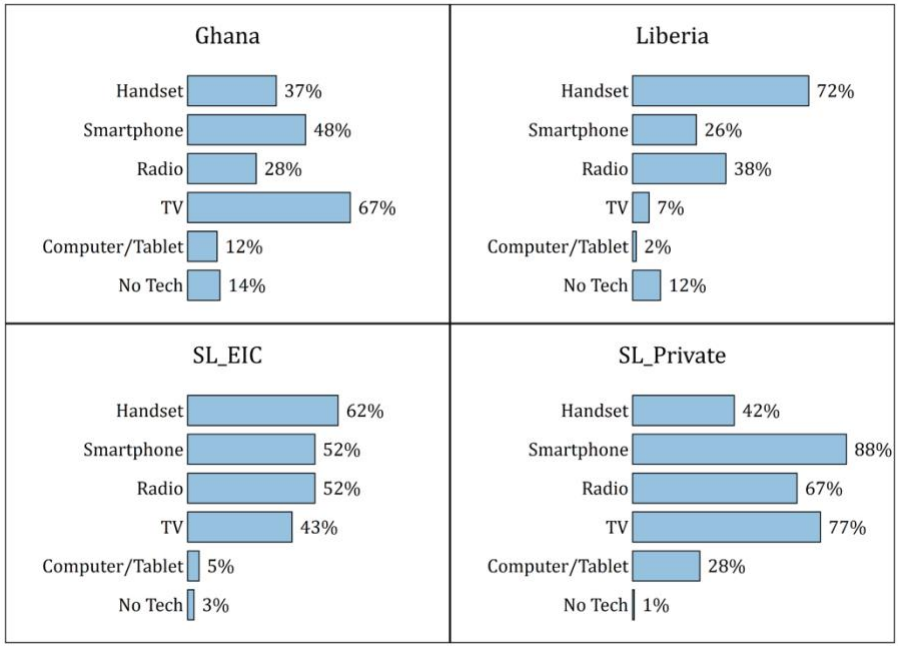
However, these estimates likely overreport the prevalence of phones since our sample only includes students who have a phone number listed in RAN's database. If we assume that all students excluded from the sampling frame do not have phones, then the prevalence of smartphones falls to 25.8% (Ghana: 33.1%;

[11] Handsets (also called button phones) are cell phones without internet capabilities or any connectivity

Liberia 13.5%; SL public 39.0%; SL private 69.3%), while the prevalence of handsets falls to 37.0% (Ghana: 25.0%; Liberia 36.8%; SL public 46.2%; SL private 34.0%).

Radios and **TVs are** common among Ghana and SL private schools students, but less so across all the student population. **Computers or tablets** are relatively less common but availability varies across countries. 9.1% [7.9%; 10.4%] of caregivers reported not having access to any of the 5 technology tools mentioned in the survey (Ghana 13.6%; Liberia 11.8%; SL private: 1.1%; SL public: 3.0%).

Figure 5: Availability of High-Tech Learning Tools at Home



a. Smartphones as a learning tool

Among respondents with a smartphone, 92.9% report that the smartphone is in working condition. Most smartphones have good cell signal (97.0%), and data/ internet connection (95.8%). Whatsapp is currently used by smartphone owners in Ghana (92.0%) and Sierra Leone (Public: 95.1%, Private: 98.7%), but less frequently by smartphone owners in Liberia (51.5%). Instead, Facebook is commonly used by smartphone owners in Liberia (90.5%), and is relatively popular in the other countries as well (Ghana: 71.9%; SL Public: 83.7%; SL Private: 84.5%). Email is less frequently used (< 36% in all countries).

When asked whether the smartphone would be ever available for educational purposes, only 65.4% of caregivers agreed. The main reasons for their refusal range from caregivers not wanting children to use the phone (42.3%), the children not knowing how to use it (30.8%) to them being distracted by the phone (21.9%). On average, caregivers report that the smartphone can be used for learning activities up to 2.8 hours per day, mainly in the evening.

b. Handsets as a learning tool

Among respondents with a handset, 95.1% report that the handsets are in good condition (95.1%); and 86.2% have access to talktime.

Only 54.6% of caregivers report that the handset is available for learning, the main reasons for refusals being that children would not know how to use it (39.4%) or caregivers do not want their children to use

the handset (36.8%). On average, caregivers report that the handset can be used for learning activities up to 3.8 hours per day, mainly in the evening.

c. Radio as a learning tool

In areas where owning radio sets is common (SL public: 52.3%; SL private: 67.4%), most caregivers report that the radio is available to use for educational purposes (74.5%).

Almost all (92.4%) radio owners report that the radio is in good working condition, and 97.1% report that it receives a good signal.

Overall, more caregivers are willing to let children use the radio or the handset, than the smartphone as a learning tool.

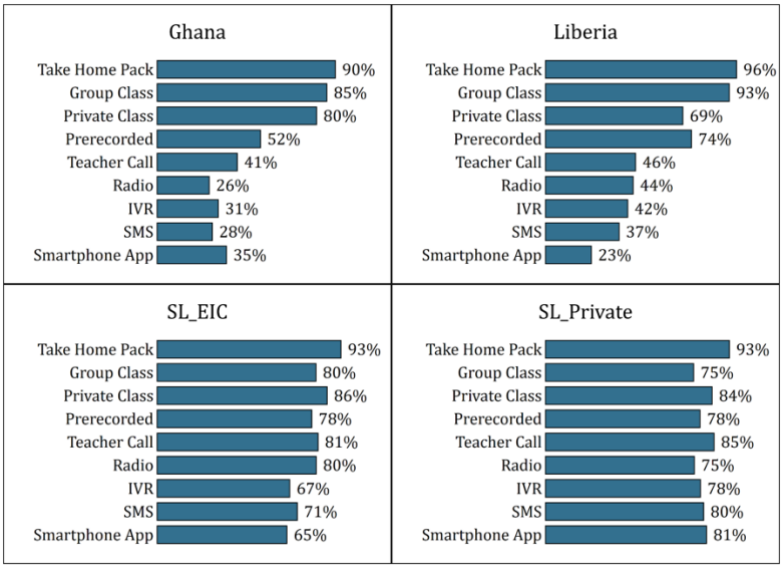
3.3.3 Opportunities for remote learning

We asked caregivers to report their preferences for different remote learning tools. In Ghana and Sierra Leone (private schools only) we also asked caregivers about their willingness to pay for private classes during school closures. In Liberia we asked caregivers about their willingness to send their children to community classes during school closures, as well as their experience with 'take home packs' during school closures in 2020. We report these results below.

a. Preferences for remote learning tools

From a set of 9 remote learning options, we asked caregivers to select whether they find them very appropriate and useful, somewhat appropriate and useful, or not appropriate and useful at all. Caregivers prefer low-tech options over high-tech options, consistent with the variation in technology access across countries. Caregivers rate take-home packs with student workbooks (93.8%), group classes near the child's area (86.8%), and private lessons with a tutor for a fee (76.6%) as the most appropriate and useful modalities. Content shared through smartphone apps like Whatsapp or Facebook (36.5%), SMS from teachers with learning activities (22.7%), IVR lessons and radio lessons (21.7%) were rated as less useful.

Figure 6: Preferences for Remote Learning (% of caregivers rating each modality as 'very appropriate and useful'



We also asked caregivers to select the top 3 among the offered options that they would like their children to participate in. The most popular learning modalities are take home packs (76.3%), free in-person group lessons (58.5%), and private classes with a tutor for a fee (53.4%). These three modalities are the most popular among caregivers from all types of schools, except for Sierra Leone public school students, where radio lessons (53.8%) are preferred over in-person group lessons (36.0%).

b. Willingness to pay for private classes (Ghana and SL Private only)

We asked caregivers in Ghana and in private schools in Sierra Leone whether they would send their children to private classes with a tutor for a fee during future school closures due to COVID. Majority (78.8%) of caregivers in Ghana and Sierra Leone (80.7%) reported that they would be willing to, with 54.7% and 79.9% respectively willing to send their children to lessons every day. We also asked caregivers if they would be willing to send their children to private classes outside the school year period, and similar numbers of caregivers said that they would (76.3% in Ghana and 80.9% in Sierra Leone).

c. Willingness to send children to community classes (Liberia only)

We asked caregivers in Liberia whether they would be willing to send their children to community classes during future school closures. We found that 96.6% of caregivers are willing to send their children to free group lessons run by a school teacher; 85.3% are willing to send their children to those classes daily, and the remainder would prefer to send their children to group classes less frequently. Most (91.2%) of caregivers in Liberia would allow their children to participate in pre-recorded lessons broadcast on a speaker to a group of students by a facilitator. 79.2% of caregivers would be willing to send kids to broadcast lessons daily near the child's home.

d. Experience with take home packs in Liberia 2020

To facilitate remote learning efforts for students around the country, RAN repurposed student workbooks and distributed them as study packs to caregivers of students from pre-primary grades to Grade 5 across 87 LEAP schools in Liberia.

On average, 57.3% of caregivers of students from ABC to Grade 5 remember having received the take-home packs. Only 6 of those respondents say that they have not used the packs. 93.3% of students who used the packs reported that they returned them to teachers for grading, and 94.3% of students who returned the packs received grades on them.

As most of the students who received home packs are young (~11.2 years old), 89% of them received help with the packs from relatives. This help came from a variety of people, especially students' fathers (27.5%), siblings (26.4%) or another family member (16.6%).

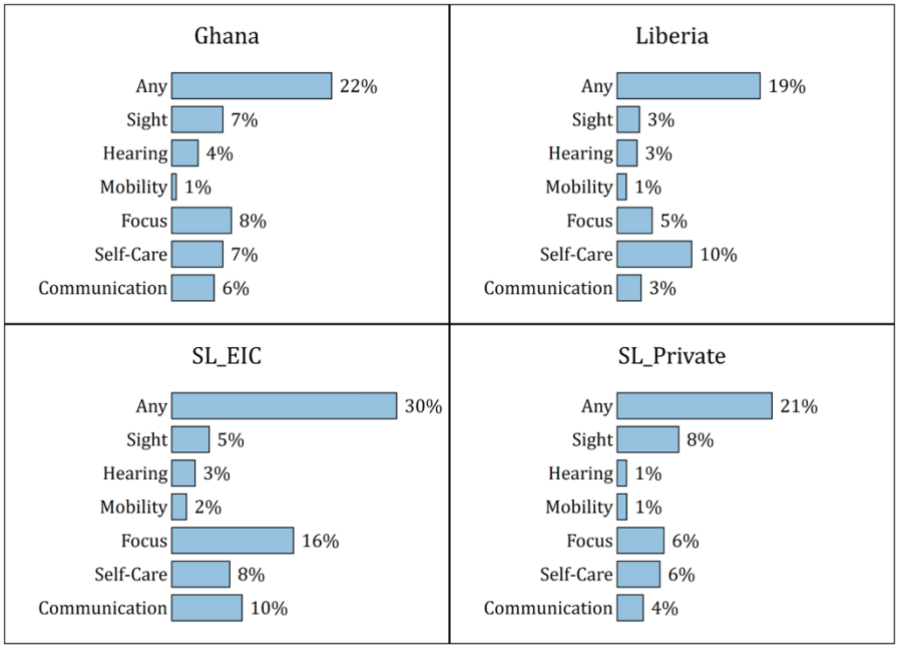
Caregivers mostly found the packs very effective (93.8%) and engaging (91.8%) in supporting students' learning during school closures.

3.4 Additional support for students

3.4.1 Learning barriers across RAN schools

To assess the prevalence of learning disabilities in RAN's student population, we administered the 6-item Washington Group Short Set of Disability Questions (WGQ)[12] to caregivers and report the results in **Figure 7**.

Figure 7: Prevalence of disabilities (% of caregivers saying their child has at least 'some' difficulty with the following)



We found that 25.2% of caregivers reported that their child had at least one learning disability, with difficulties with self care being the most common. Communication, focus, and difficulties seeing were also amongst the most cited learning barriers.

3.4.2 School safety and reported abuse

We asked caregivers about their perceptions of children's safety at Rising Academy schools concerning general safety, corporal punishment, and sexual abuse. Overall, reports are generally positive with perceptions of safety improving since RAN took over schools, though there remain some reported instances of corporal punishment and sexual abuse.

General safety

In terms of general safety, 62.2% [60.1%, 64.3%] of caregivers rated the school environment as very safe (Ghana: 38.2%; Liberia: 63%; SL private: 75.9%; SL public: 74.4%). Most (75.4%) caregivers perceive that their children are safer after schools reopened than they were before school closures.

[12] **Washington Group Short Set of Questions**

For those who mentioned that the school environment is not safe, their concerns were mostly around the surrounding area (37.8%), as well as the school not having measures in place to protect students, ranging from teachers not protecting them to poor water quality, bad infrastructure and overcrowding in the classrooms (47.2%).

Corporal punishment

We observe that 8.7% of caregivers report hearing about teachers beating children at school for misbehaving. Concerning their own child, 6.8% of caregivers say that their children have received corporal punishment at school (Ghana: 8.3%; Liberia: 3.5%; SL private: 5.1%; SL public: 12.4%). Among this subgroup of caregivers, 43.1% mention that their children are beaten at least once a month or a few times per week (38.5%).

Sexual abuse

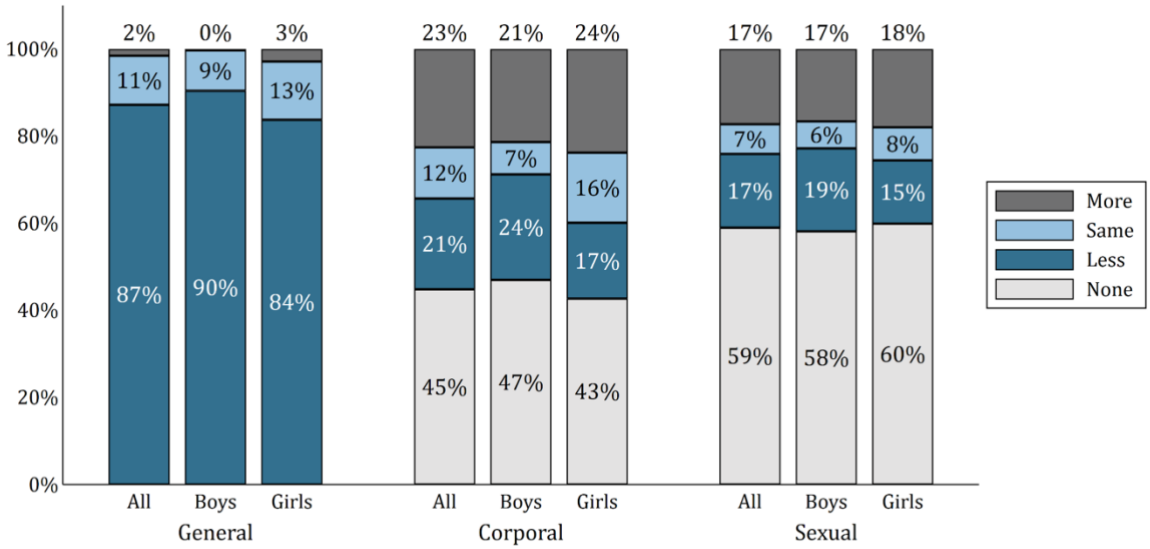
We also observe that 1.7% report having heard of children being sexually abused at school and fewer (0.6%) mentioned that their children were specifically abused at school. The differences across genders and school type are not significant.

Rising Administration's impact on child safety

For students in Liberia and Sierra Leone EIC schools, we asked caregivers to report the change in child safety in their school relative to before RAN took over the school.

In Liberia, 54.5% of the caregivers interviewed had enrolled their children in the school before RAN began administering it. Caregivers perceive that the schools are generally safer (87.2%) now than before RAN's administration, though this appears to be driven neither by changes in the prevalence of corporal punishment nor by changes in the prevalence of sexual abuse.

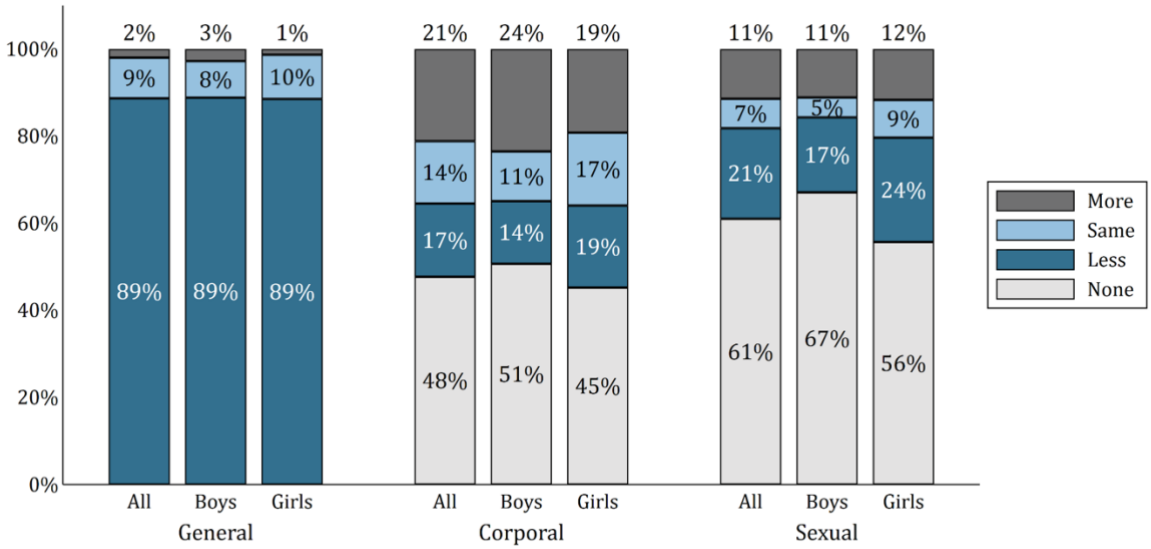
Figure 8a: Risk of abuse, after RAN took over school vs before (Liberia)[13]



[13] For perceptions of general risk, caregivers were required to specify whether the risk had increased, stayed the same, or decreased. "No risk" was not an option for this question.

In Sierra Leone, 88.1% of the caregivers interviewed enrolled their children in the school before RAN began administering it. In general, caregivers perceive that schools are safer (88.7%) now than before RAN's administration.

Figure 8b: Risk of abuse, after RAN took over school vs before (SL Public)[14]



In SL public schools, 50% of respondents reported that school staff have shared information concerning school safety and child's protection (Ghana: 38.9%; Liberia: 51.5%; SL Public: 52.0%; SL Private: 59.5%).

[14] Ibid

4 Discussion and Recommendations

The results from the first and second rounds of data collection show that school closures have negatively impacted educational outcomes. While enrollment and attendance have remained high in all three countries, the number of caregivers who cite COVID-19 as a barrier to enrollment has increased since the beginning of 2021. Furthermore, time spent on educational activities has also been impacted, with little or none of the time spent on educational activities at school being substituted with educational activities at home during school closures.

In light of these findings, understanding the needs and preferences for remote learning is crucial in order to mitigate further disruptions in education from future school closures. The results from this round show a low prevalence of high-tech tools in a majority of households, as well as a preference towards low-tech tools for distance learning, suggesting the need for a careful assessment of potential remote learning strategies that leave no child behind.

Finally, while schools are generally perceived as safe places, with improvements in that dimension since RAN came into management, there remains scope for further improvement. Despite the existence of policies aimed at reducing the use of corporal punishment in schools, this practice is still widely spread in countries like Liberia. In order for policies to be more effective, these need to be accompanied by monitoring and accountability mechanisms that allow RAN to act and respond to cases of corporal punishment.

Based on these findings we recommend that RAN:

1. Communicate the measures being taken in schools to keep children safe during COVID. While enrollment and attendance rates are high, the most common reason for not enrolling children is concerns about COVID. These concerns have increased since earlier this year, especially in Liberia, where schools closed early due to the recent increase in COVID cases. Establishing protocols in schools to keep children safe from COVID and communicating them to caregivers may reassure caregivers about the safety of in-person schooling, and increase their likelihood of sending their children to school.

2. Support home learning activities and engage caregivers in the process. School closures during COVID have led to severe learning loss in West Africa as many families have been unable to take advantage of opportunities for distance learning. School providers can support caregivers in creating an environment conducive to learning at home. Ensuring that all children have access to basic learning materials like pencils and paper, and a dedicated space for studying are critical to enabling learning at home.

2.1. Distribute and repurpose student workbooks and other materials to be distributed as study packs. Caregivers in Liberia found the study packs to be very effective in supporting learning activities during school closures. Extending the distribution of these packs to all grades and to other countries can encourage learning activities at home.

2.2. Improve existing study packs and provide teacher support. Caregivers mentioned that study packs could be improved by including more reading materials and subject textbooks as well as more practice exercises for students to work at home. Creating spaces for students to track progress and receive teacher support on the lessons included in the study packs can also contribute to keeping students engaged and to monitor that learning is happening at home.

3. Effective distance learning requires a multi-modal approach that can reach both the children who can access edtech technologies and those who cannot.

While most children have access to basic learning materials, there are significant disparities in access to technology based tools. Ensuring that no child is left behind will require the use of a mix of technologies that take into account the realities of each country and school type. A multimodal strategy would be consistent with the preferences cited by caregivers for the use of low-tech options in remote learning. An inclusive distance learning strategy should also take into account the prevalence of different types of learning disabilities in each school's student population.

3.1. Implementing a distance learning curriculum over smartphones, or other technology enabled tools, needs to recognize the restricted availability of these tools in some contexts. To implement such a strategy RAN would need to:

- Recognize which families would be eligible to participate and identify the places where such a program would be more appropriate (e.g., urban vs. rural, public vs. private, etc.). If it is to be assumed that all students without a phone number in RAN's database do not have access to a smartphone, then a distance learning curriculum over smartphones would only reach roughly 25 percent of students.

- Train and allow children to engage comfortably with technology-based learning tools, or provide caregivers with instructions on how to train their children. About one third of smartphone owners mentioned that they would not want their children to use smartphones for educational purposes because of concerns about breaking the phone or not knowing how to use it. Providing clear instructions and manuals on how to access and interact with learning materials may allay some of these concerns, as well as showing caregivers how to disable other applications not intended for learning on the phone.

- Identify the right channel for sharing learning materials. Caregivers were more likely to have access to social media platforms on their smartphones than other more traditional methods of digital communication, such as email. Ensuring that learning strategies are tailored to the most prevalent method of communication used in each country, and by type of school, can facilitate the delivery of remote learning.

4. Incorporating safeguarding can contribute to making schools a safer environment. While most caregivers do not report being concerned with safety in schools, they also agree that RAN's efforts have contributed in making schools a safe environment. Continuing with these efforts and implementing safeguarding measures, as well as support structures for students suffering from violence, can improve safety in schools.

5. Identifying students with learning disabilities and tailor instructional strategies around these. Addressing the needs of students with disabilities, and creating spaces that are conducive for learning, can also contribute to the goal of making schools a safer and more inclusive environment. RAN should monitor and assess the prevalence of disabilities amongst its students to better structure the delivery of education.

5 Appendix

Appendix 1: Attendance and Retention

Table 1.a: Enrollment decisions across subgroups

Enrollment decisions	All	CI	Ghana	Liberia	SL (EIC)	SL (Priv)	Boys	Girls	Public	Private
Students aren't enrolled	2.8%	[2.1%,3.4%]	2.6%	4.5%	0.5%	0.6%	2.1%	3.6%	3.1%	2.0%
Will enroll in school next cycle	99.3%	[99%, 99.6%]	98.3%	99.3%	99.8%	99.1%	99.5%	99.1%	99.5%	98.6%
Switching schools	18.6%	[17%, 20.2%]	22%	15.8%	21.6%	17.5%	16.7%	20.5%	17.8%	20.8%
Irregular attendance	3.2%	[2.2%, 4.2%]	8.5%	2.6%	0.3%	0.4%	4.6%	1.9%	1.9%	6.5%

Table 1.b: Students' reasons for not re-enrolling

Enrollment decisions	All	CI	Ghana	Liberia	SL (EIC)	SL (Priv)	Boys	Girls	Public	Private
Financial difficulties	18.2%	[0%, 38.5%]	24.2%	15.6%	29.5%	32.9%	23.7%	23.7%	16.5%	24.9%
Moving away	23.6%	[11.4%, 35.7%]	71.0%	10.9%	35.3%	41.2%	20.6%	20.6%	12.4%	68.5%
Health issues	16.3%	[0%, 35.5%]	0.0%	20.1%	23.3%	0.0%	13.3%	13.3%	20.3%	0.0%
Fear of COVID-19	25.1%	[8.5% , 41.6%]	0.0%	33.4%	0.0%	0.0%	29.2%	29.2%	31.3%	0.0%
Pregnancy/ marriage	4.9%	N/A	0.0%	6.6%	0.0%	0.0%	7.8%	7.8%	6.2%	0.0%
Other	12.0%	[0% ,27%]	4.8%	13.5%	12.0%	25.9%	5.5%	5.5%	13.4%	6.6%

Table 1.b: Statistics above are based on n=82 caregivers who mentioned that their children were not enrolled in school at the time of interviewing. Enrollment options included: school year ended, schools closed due to COVID-19, and students graduated.

Table 1.c: Students' reasons for switching schools

Reasons for students switching school	All	CI	Ghana	Liberia	SL (EIC)	SL (Priv)	Boys	Girls	Public	Private
Moving to JSS or SSS	38.9%	[34.7%, 43.1%]	23.4%	37.1%	60.4%	8.9%	38.9%	38.9%	46.8%	20.0%
Moving away	27.4%	[23.3%, 31.5%]	28.5%	32.3%	21.1%	21.0%	25.0%	29.2%	27.6%	26.8%
Distance	8.8%	[5.9%, 11.7%]	14.1%	7.3%	4.7%	18.2%	10.7%	7.3%	6.2%	15.1%
Dissatisfaction with the school	10.0%	[6.7%, 13.3%]	12.2%	11.5%	4.8%	16.0%	11.4%	8.9%	8.7%	13.1%
High cost of schooling	4.8%	[3.0% ,6.6%]	12.0%	0.6%	0.3%	26.5%	5.6%	4.2%	0.4%	15.3%
Other	10.1%	[7.5%, 12.6%]	9.8%	11.3%	8.8%	9.4%	8.3%	11.5%	10.2%	9.7%

Table 1.d: Students' reasons for not attending school regularly

Reasons for irregular attendance	All	CI	Ghana	Liberia	SL (EIC)	SL (Priv)	Boys	Girls	Public	Private
Financial issues in household	40.0%	N/A	65.4%	3.3%	53.1%	0.0%	37.0%	47.1%	5.9%	64.5%
Distance	7.4%	[0%, 25.1%]	3.0%	14.2%	0.0%	0.0%	7.9%	6.0%	13.4%	3.0%
Sickness/Health issues	15.6%	[0%, 51.9%]	16.4%	15.7%	0.0%	0.0%	13.1%	21.6%	14.9%	16.1%
Fear of COVID-19	1.1%	N/A	0.0%	2.9%	0.0%	0.0%	1.6%	0.0%	2.7%	0.0%
Pregnancy/Marriage	0.8%	N/A	0.0%	2.0%	0.0%	0.0%	0.0%	2.7%	1.9%	0.0%
Child chose not go	31.7%	[12.5%, 50.9%]	18.2%	53.7%	0.0%	0.0%	41.0%	9.8%	50.9%	17.9%
Other	14.0%	[0.0%, 51%]	11.6%	15.8%	46.9%	0.0%	12.0%	18.6%	17.4%	11.5%

Table 1.d: Statistics above are based on n=74 caregivers who mentioned that their children attend school less than 5 times a week.

Table 1.e: COVID-19's impact on final exams

Final year exam decisions	All	CI	Ghana	Liberia	SL (EIC)	SL (Priv)	Boys	Girls	Public	Private
Was the child at exam level in 2020	10.1%	[8.7%, 11.5%]	4.0%	8.3%	16.1%	18.9%	9.9%	10.3%	11.1%	7.9%
Did the child take the exam in 2020	89.3%	[84.6%, 94.0%]	84.8%	75.8%	99.4%	99.1%	89.3%	89.3%	87.9%	93.8%
Is the child at exam level in 2021	10.0%	[9.1%, 11.0%]	9.9%	0.0%	22.1%	30.3%	8.9%	11.1%	7.8%	15.3%
Will the child take the exam	97.4%	[96.0%, 98.8%]	95.7%	0%	98.8%	95.7%	95.5%	98.8%	98.8%	95.7%
Did the child take the exam	93.7%	[90.8%, 96.6%]	0%	0%	92.9%	96.9%	94.3%	93.3%	92.9%	96.9%

Table 1.f: Caregivers' perception of students' performance

How will the students perform this year	All	CI	Ghana	Liberia	SL (EIC)	SL (Priv)	Boys	Girls	Public	Private
Better than last year	72.1%	[70.0%, 74.1%]	50.7%	76.9%	78.3%	73.2%	70.8%	73.3%	77.4%	57.1%
Same as last year	17.3%	[15.7%, 18.9%]	35.7%	16.5%	6.8%	10.5%	17.6%	17.0%	13.3%	28.6%
Worse than last year	10.7%	[9.3%, 12%]	13.6%	6.5%	14.9%	16.2%	11.6%	9.7%	9.3%	14.3%

Table 1.g: Caregivers' perception of students' well-being

Happiness at school	All	CI	Ghana	Liberia	SL (EIC)	SL (Priv)	Boys	Girls	Public	Private
Better than last year	80.4%	[78.7%, 82.0%]	62.3%	83.3%	87.5%	83.4%	79.5%	81.2%	84.7%	68.2%
Same as last year	15.0%	[13.4%, 16.6%]	30.6%	14.3%	7.0%	6.8%	15.2%	14.8%	11.8%	23.9%
Worse than last year	4.6%	[3.8%, 5.4%]	7.1%	2.4%	5.5%	9.8%	5.2%	4.0%	3.4%	7.9%
Ability to make friends at school	Is the child able to make friends at school?									
Better than last year	65.0%	[63.0%, 67.0%]	37.0%	71.4%	71.4%	72.6%	65.8%	64.2%	71.4%	46.7%
Same as last year	30.6%	[28.6%, 32.6%]	57.1%	27.0%	20.4%	20.2%	29.7%	31.5%	24.9%	47.0%
Worse than last year	4.4%	[3.6%, 5.1%]	5.9%	1.5%	8.2%	7.2%	4.4%	4.3%	3.7%	6.3%

Appendix 2: Student activities during school closures

Table 2.a: Learning activities during school closures in 2020

Learning activities	All	CI	Ghana	Liberia	SL (EIC)	SL (Priv)	Boys	Girls	Public	Private
Following radio lessons	9.1%	[8.1%, 10.2%]	1.5%	6.4%	18.6%	15.9%	8.7%	9.5%	10.6%	5.4%
Taking private classes	48.4%	[46.2%, 50.6%]	35.0%	48.2%	55.9%	60.8%	49.8%	47.1%	50.9%	42.1%
Community study groups	17.8%	[16.3%, 19.3%]	11.6%	22.3%	16.8%	10.3%	16.5%	19.1%	20.4%	11.3%
Online lessons	3.5%	[2.6%, 4.4%]	7.9%	0.1%	5.0%	7.1%	3.5%	3.4%	1.8%	7.7%
Using workbook from schools	23.7%	[21.9%, 25.6%]	30.4%	27.9%	11.5%	20.0%	22.8%	24.6%	22.2%	27.5%
Teacher tutorial calls	5.1%	[4.3%, 5.9%]	4.3%	3.0%	10.8%	1.9%	5.6%	4.7%	5.7%	3.6%
None	12.3%	[10.8%, 13.9%]	12.1%	19.0%	3.2%	2.3%	13.3%	11.4%	13.5%	9.4%
Taking arabic classes	0.2%	[0%, 0.4%]	0.0%	0.2%	0.5%	0.0%	0.2%	0.2%	0.3%	0.0%
Reading by him/herself	7.9%	[6.8%, 8.9%]	5.2%	6.0%	9.2%	21.5%	7.1%	8.6%	7.1%	9.7%
Studying with family	6.4%	[5.3%, 7.5%]	10.5%	7.8%	1.9%	1.5%	7.4%	5.4%	5.7%	8.0%
Learning a trade/skill	0.2%	[0%, 0.3%]	0.0%	0.4%	0.0%	0.0%	0.1%	0.3%	0.2%	0.0%
Taking TV lesson	0.5%	[0.3%,0.8%]	2.2%	0.0%	0.2%	0.2%	0.6%	0.4%	0.1%	1.7%
Studying with friends	0.1%	[0%, 0.3%]	0.6%	0.1%	0.0%	0.0%	0.2%	0.1%	0.0%	0.4%

Table 2.b: Learning activities in Liberia during school closures in 2021

Learning activities in Liberia	All	CI	Boys	Girls
Following radio lessons	5.8%	[4.1%, 7.5%]	6.4%	5.1%
Taking private classes	54.4%	[51.2%, 57.7%]	57.3%	51.5%
Community study groups	22.8%	[20.4%, 25.2%]	22.3%	23.4%
Online lessons	0.2%	[0%, 0.3%]	0.3%	0.0%
Using workbook from schools	27.7%	[24.6%, .30.7%]	28.6%	26.7%
Teacher tutorial calls	3.5%	[2.4%, 4.6%]	4.0%	3.0%
None	16.2%	[13.5%, 18.9%]	17.9%	14.5%
Taking arabic classes	0.2%	[0%, 0.4%]	0.2%	0.2%
Studying with family	6.9%	[5.4%, 8.5%]	6.8%	7.1%
Reading by him/herself	4.9%	[3.5%, 6.3%]	3.9%	6.0%
Learning a trade/skill	0.7%	[0%, 1.4%]	0.2%	1.2%

Table 2.c: Other activities students engaged in during school closures in 2020

Other activities	All	CI	Ghana	Liberia	SL (EIC)	SL (Priv)	Boys	Girls	Public	Private
Help with house chores	70.6%	[69%, 72.2%]	67.0%	88.3%	47.3%	49.3%	65.0%	76.1%	74.0%	62.1%
Play with other children or adults	42.6%	[40.6%, 44.7%]	49.8%	52.7%	25.4%	18.0%	48.8%	36.5%	43.3%	41.0%
Play alone	12.3%	[11%, 13.7%]	9.4%	16.0%	8.5%	10.5%	14.9%	9.8%	13.4%	9.7%
Sit around and do nothing	13.8%	[12.4%, 15.2%]	4.5%	14.9%	18.5%	17.1%	13.7%	13.9%	16.1%	8.0%
Making money	10.1%	[8.8%, 11.4%]	4.0%	15.0%	8.3%	2.8%	9.3%	10.9%	12.7%	3.7%
Working in farming/agriculture	1.3%	[0.9%, 1.7%]	0.1%	2.0%	1.4%	0.0%	2.0%	0.5%	1.8%	0.1%
Taking arabic lessons	0.3%	[0.1%, 0.5%]	0.0%	0.0%	1.0%	0.9%	0.4%	0.2%	0.3%	0.2%
Learning music	0.1%	[0%, 0.3%]	0.0%	0.0%	0.2%	1.0%	0.1%	0.2%	0.1%	0.3%
Selling	0.2%	[0%, 0.4%]	0.2%	0.3%	0.1%	0.0%	0.1%	0.3%	0.2%	0.2%
Learning a trade/skill	0.6%	[0%, 1.2%]	0.0%	0.4%	1.6%	0.6%	1.1%	0.2%	0.8%	0.2%
Watching TV	1.5%	[1.1%, 1.8%]	1.0%	0.1%	2.5%	7.4%	1.6%	1.4%	0.9%	2.7%

Table 2.d: Other activities students engaged in during school closures in Liberia in 2020

Learning activities in Liberia	All	CI	Boys	Girls
Help with house chores	86.3%	[84.3%, 88.4%]	83.1%	89.6%
Play with other children or adults	49.9%	[46.8%, 53.1%]	52.5%	47.3%
Play alone	17.2%	[14.6%, 19.8%]	21.4%	12.8%
Sit around and do nothing	16.5%	[14%, 19%]	18.5%	14.4%
Making money	15.9%	[13.3%, 18.5%]	14.9%	16.9%

Appendix 3: Learning tools available to students

Table 3.a: Low-tech learning tools available to students

Tools available to students	All	CI	Ghana	Liberia	SL (EIC)	SL (Priv)	Boys	Girls	Public	Private
Pencils or pens	92.6%	[91.5%, 93.8%]	96.4%	93.6%	87.5%	93.9%	92.8%	92.5%	91.5%	95.7%
Paper or exercise book	82.7%	[81.0%, 84.4%]	93.0%	75.3%	85.8%	93.9%	81.3%	84.1%	78.9%	93.3%
Desk or table	43.5%	[41.3%, 45.7%]	52.3%	34.0%	48.0%	67.3%	43.4%	43.6%	38.8%	56.6%
Chair	46.1%	[43.9%,48.4%]	52.4%	38.5%	47.7%	74.1%	46.3%	46.0%	41.7%	58.5%
Calculator	9.3%	[8.1%, 10.5%]	14.3%	4.1%	7.8%	34.4%	9.5%	9.1%	5.4%	20.0%
A quiet space for child to study	67.4%	[65.3%, 69.4%]	48.3%	72.0%	68.0%	83.9%	66.0%	68.7%	70.6%	58.4%
Reading materials or children's books	61.1%	[59%, 63.2%]	65.0%	61.3%	55.3%	68.6%	59.9%	62.2%	59.3%	66.0%
Blackboard	0.3%	[0.0%, 0.5%]	0.0%	0.0%	0.9%	0.2%	0.3%	0.2%	0.3%	0.1%
None	1.1%	[0.8%, 1.5%]	0.4%	0.2%	3.2%	1.6%	1.0%	1.2%	1.2%	0.8%

Table 3.b: Technology-based learning tools

Does the household own the following:	All	CI	Ghana	Liberia	SL (EIC)	SL (Priv)	Boys	Girls	Public	Private
Smartphone	41.7%	[39.6%, 43.7%]	48.5%	26.4%	52.3%	87.6%	42.5%	40.8%	35.2%	59.5%
Handset (button phone)	60.5%	[58.4%, 62.6%]	36.5%	72.2%	61.8%	41.9%	59.7%	61.4%	68.6%	38.0%
Computer or Tablet	6.6%	[5.6%, 7.7%]	12.4%	1.8%	5.1%	27.8%	6.9%	6.3%	2.9%	16.8%
Radio	42.2%	[40.1%, 44.3%]	28.4%	38.4%	52.3%	67.4%	43.0%	41.4%	43.2%	39.4%
TV	32.7%	[31.0%, 34.3%]	66.7%	7.1%	43.0%	77.0%	31.7%	33.6%	19.4%	69.6%
None	9.1%	[7.9%, 10.4%]	13.6%	11.8%	3.0%	1.1%	9.4%	8.9%	8.8%	10.1%

Table 3.c: Smartphone penetration in the RAN population

a. Description of the household smartphone

Smartphone details	All	CI	Ghana	Liberia	SL (EIC)	SL (Priv)	Boys	Girls	Public	Private
Is there a smartphone in the house	41.7%	[39.6%, 43.7%]	48.5%	26.4%	52.3%	87.6%	42.5%	40.8%	35.2%	59.5%
Who owns the smartphone										
Child's father	40.7%	[37.0%, 44.3%]	34.2%	51.4%	39.9%	30.4%	45.3%	36.0%	45.6%	32.6%
Child's mother	35.8%	[32.7%,38.8%]	41.2%	27.9%	35.2%	44.6%	30.5%	41.1%	31.6%	42.6%
Child's sibling	11.7%	[9.3%, 14.2%]	12.4%	12.7%	13.5%	5.6%	11.0%	12.5%	13.1%	9.6%
Child themself	6.8%	[4.7%, 9.0%]	9.6%	6.1%	1.0%	16.0%	7.7%	6.0%	3.5%	12.3%
Other	5.0%	[3.1%, 6.9%]	2.6%	1.9%	10.5%	3.5%	5.6%	4.4%	6.2%	3.0%
Functionalities of the smartphone										
Phone works	92.9%	[90.3%,95.5%]	99.3%	89.3%	91.6%	93.5%	91.8%	94.1%	90.5%	96.9%
Phone can be charged	98.2%	[97.4%,99.1%]	99.5%	98.5%	96.8%	98.6%	98.4%	98.1%	97.6%	99.2%
Phone has data/internet	95.8%	[94.4%, 97.3%]	96.3%	94.6%	95.3%	98.4%	95.9%	95.8%	95.0%	97.2%
Phone has talktime	93.2%	[91.2%, 95.2%]	99.4%	86.9%	91.6%	98.8%	94.5%	91.9%	89.3%	99.1%
Phone has good cell signal	97.0%	[96.1%, 98.0%]	98.4%	96.5%	96.4%	97.1%	96.3%	97.8%	96.5%	97.9%
Phone has good data signal	93.4%	[92.1%,94.8%]	97.4%	91.0%	92.1%	94.6%	92.9%	94.0%	91.6%	96.2%
Phone has 2G signal	5.7%	[3.9%, 7.4%]	4.1%	8.5%	3.9%	4.8%	5.4%	6.0%	6.4%	4.4%
Phone has 3G signal	53.4%	[48.2%, 58.2%]	67.6%	55.6%	50.9%	32.5%	52.6%	54.2%	53.5%	53.2%
Phone has 4G signal	40.2%	[35.5%, 45.0%]	28.1%	34.6%	44.7%	62.0%	41.0%	39.5%	39.2%	42.1%
Phone does not have signal	0.7%	[0.4%, 1.0%]	0.1%	1.3%	0.6%	0.7%	1.1%	0.3%	0.9%	0.3%
Which apps are available on the smartphone										
WhatsApp	82.0%	[79.2%, 84.8%]	92.0%	51.5%	95.1%	98.9%	81.7%	83.3%	73.7%	95.0%
Email	30.9%	[27.2%, 34.6%]	32.9%	35.3%	25.2%	30.5%	31.4%	30.3%	30.2%	31.9%

Facebook	83.2%	[81.0%, 85.5%]	71.9%	90.5%	83.7%	84.5%	85.6%	80.7%	87.0%	77.4%
No apps on the phone	5.8%	[4.2%, 7.4%]	7.3%	8.5%	4.6%	0.9%	4.6%	6.7%	6.5%	4.5%

b. Using the smartphone for school

Smartphone for educational purposes	All	CI	Ghana	Liberia	SL (EIC)	SL (Priv)	Boys	Girls	Public	Private
Is the smartphone available for school	65.4%	[61.9%,68.9%]	78.6%	65.5%	51.4%	71.9%	68.6%	62.2%	58.4%	75.9%
	Reasons why the child cannot use the phone to study									
Child may get distracted	21.9%	[16.6%, 27.2%]	9.7%	24.7%	23.7%	23.4%	24.5%	19.7%	24.1%	16.1%
Child does not know how to use it	30.8%	[25.1%, 36.6%]	18.0%	46.5%	30.0%	12.4%	37.2%	25.7%	36.8%	15.4%
There is no one to monitor the child	6.5%	[4.4%, 8.6%]	10.8%	10.2%	4.3%	0.7%	10.2%	3.5%	6.7%	6.0%
Caregiver does not want child to use it	42.3%	[35.6%, 49.1%]	59.7%	44.1%	34.1%	45.7%	34.9%	48.4%	38.2%	53.1%
Data costs are too high	3.1%	[1.5%, 4.7%]	2.2%	8.2%	0.8%	0.0%	3.3%	2.9%	3.8%	1.1%
Airtime costs are too high	2.5%	[1.4%, 3.6%]	0.0%	8.1%	0.3%	0.0%	2.6%	2.5%	3.5%	0.0%
Fear that child will spoil it	1.6%	[0.2%, 2.9%]	0.0%	0.0%	3.7%	0.0%	1.7%	1.5%	2.2%	0.0%
The child has their own phone	1.6%	[0.6%, 2.9%]	0.0%	0.0%	0.4%	11.2%	2.0%	1.3%	0.2%	5.3%
Caregivers do not have time to give the phone to the child	4.9%	[2.7%, 7.2%]	6.2%	0.0%	8.2%	4.0%	4.3%	5.4%	4.8%	5.2%
	Best time for the smartphone to be used									
Morning	10.1%	[7.6%, 12.5%]	3.0%	5.1%	26.9%	7.4%	10.6%	9.5%	14.7%	4.7%
Afternoon	7.7%	[5.4%, 10.0%]	2.3%	12.4%	9.2%	6.5%	7.7%	7.8%	11.0%	3.9%
Evening	55.0%	[49.7%, 60.2%]	68.5%	55.3%	44.3%	46.6%	54.3%	55.7%	50.5%	60.3%
All day	27.2%	[22.3%, 32.2%]	26.2%	27.2%	19.6%	39.5%	27.4%	27.1%	23.9%	31.2%
How long can it be used (hours)	2.89	N/A	2.26	3.37	2.17	4.04	2.76	3.03	2.83	2.94

Table 3.d: Handset penetration in the RAN population

a. Description of the household handset

Handset details	All	CI	Ghana	Liberia	SL (EIC)	SL (Priv)	Boys	Girls	Public	Private
Is there a handset in the house	60.5%	[58.4%, 62.6%]	36.5%	72.2%	61.8%	41.9%	59.7%	61.4%	68.6%	38.0%
Who owns the handset										
Child's father	43.6%	[40.9%, 46.3%]	24.1%	47.9%	46.1%	26.8%	49.3%	38.3%	47.3%	24.9%
Child's mother	43.7%	[40.8%, 46.7%]	65.0%	42.6%	37.4%	40.8%	38.2%	48.9%	41.0%	57.5%
Child's sibling	4.5%	[3.5%, 5.6%]	4.6%	3.6%	5.1%	12.8%	4.0%	5.1%	4.0%	7.1%
Child themself	3.3%	[1.9%, 4.6%]	3.1%	3.7%	1.5%	8.1%	4.4%	2.3%	3.0%	4.6%
Other	4.8%	[3.9%, 5.7%]	3.3%	2.3%	9.9%	11.5%	4.2%	5.4%	4.6%	5.8%
Functionalities of the handset										
Is in working condition	95.1%	[94.2%, 96.1%]	96.2%	97.6%	91.6%	82.1%	95.8%	94.5%	95.8%	91.9%
It can be charged	97.3%	[96.5%, 98.1]	98.9%	98.7%	92.7%	99.5%	97.9%	96.6%	96.9%	99.0%
It has talktime	86.2%	[84.3%, 88.2%]	94.8%	85.4%	82.3%	96.8%	88.6%	84.0%	84.5%	95.3%
Phone has good cell signal	94.6%	[93.4%, 95.9%]	95.2%	93.7%	96.3%	96.1%	96.0%	93.4%	94.5%	95.5%

b. Using the handset for school

Handset for educational purposes	All	CI	Ghana	Liberia	SL (EIC)	SL (Priv)	Boys	Girls	Public	Private
Is the handset available for school	54.6%	[51.6%, 57.4%]	65.5%	53.0%	52.5%	57.3%	53.4%	55.6%	52.9%	63.3%
	Reasons why the child cannot use the handset to study									
Child may get distracted	25.4%	[21.7%, 29.0%]	13.2%	34.4%	9.5%	12.8%	28.9%	21.8%	27.2%	13.1%
Child does not know how to use	39.4%	[34.4%, 44.3%]	28.3%	44.3%	35.0%	16.1%	42.6%	36.1%	41.6%	24.4%
There is no one to monitor the child	10.0%	[7.0%, 13.0%]	14.9%	12.4%	3.8%	1.5%	9.8%	10.2%	9.9%	10.7%
Caregiver does not want child to use it	36.8%	[31.9%, 41.6%]	49.1%	33.7%	40.1%	35.6%	38.3%	35.2%	35.6%	44.9%

Airtime costs are too high	4.7%	[3.1%, 6.4%]	0.0%	7.7%	0.0%	0.0%	3.2%	6.3%	5.5%	0.0%
Handset is not of good quality	1.8%	[0.5%, 3.1%]	4.9%	0.8%	3.2%	1.1%	0.7%	2.9%	1.5%	3.7%
The child has their own handset	0.5%	[0.2%, 0.8%]	0.0%	0.0%	0.2%	10.6%	0.4%	0.6%	0.1%	3.3%
There are no apps or internet	6.5%	[4.7%, 8.2%]	0.0%	8.5%	3.3%	8.9%	6.5%	6.4%	7.0%	2.8%
Fear that child will spoil it	0.4%	[0%,0.9%]	0.0%	0.3%	0.4%	4.0%	0.8%	0.1%	0.3%	1.2%
Caregivers do not have time to give the handset to the child	3.4%	[1.9%, 5.0%]	4.6%	1.9%	6.2%	7.9%	3.8%	3.1%	3.1%	5.6%
	Best time for the handset to be used									
Morning	7.7%	[5.9%, 9.5%]	0.4%	4.7%	19.7%	8.3%	7.1%	8.3%	8.9%	2.3%
Afternoon	21.4%	[18.0%, 24.8%]	4.5%	30.6%	11.4%	5.6%	20.3%	22.4%	25.2%	4.7%
Evening	45.9%	[41.6%, 50.2%]	61.0%	44.5%	42.2%	36.6%	47.1%	44.8%	43.8%	55.0%
All day	25.0%	[21.3%, 28.7%]	34.1%	20.1%	26.8%	49.5%	25.5%	24.5%	22.0%	37.9%
How long can it be used (hours)	3.81	N/A	3.61	4.13	2.64	6.19	4.07	3.56	3.70	4.25

Table 3.e: Radio penetration in the RAN population

a. Description of the household radio

Handset details	All	CI	Ghana	Liberia	SL (EIC)	SL (Priv)	Boys	Girls	Public	Private
Is there a radio in the house	42.2%	[40.1%, 44.3%]	28.4%	38.4%	52.3%	67.4%	43.0%	41.4%	43.2%	39.4%
Who owns the radio										
Child's father	63.9%	[60.7%, 67.1%]	55.7%	69.6%	62.5%	54.8%	66.6%	61.2%	66.7%	55.3%
Child's mother	26.6%	[23.9%, 29.2%]	38.8%	24.2%	21.6%	35.3%	24.1%	29.0%	23.1%	37.1%
Child's sibling	3.3%	[1.6%, 5.0%]	1.9%	2.9%	5.1%	1.8%	3.5%	3.1%	3.8%	1.8%
Child themself	0.8%	[0.1%, 1.5%]	0.0%	1.2%	0.1%	1.9%	1.3%	0.3%	0.7%	0.9%
Other	5.5%	[4.3%, 6.6%]	3.6%	2.1%	10.6%	6.3%	4.5%	6.4%	5.6%	4.9%

Functionalities of the radio										
Is in working condition	92.4%	[90.8%, 94.1%]	95.7%	91.7%	92.4%	92.1%	93.6%	91.3%	91.9%	94.0%
It can be charged	94.2%	[92.8%, 95.6%]	95.9%	93.2%	94.2%	96.6%	93.8%	94.7%	93.6%	96.2%
Radio has good signal	97.1%	[95.8%, 98.3%]	98.8%	96.8%	97.0%	95.9%	97.1%	97.0%	96.9%	97.4%

b. Using the radio for school

Radio for educational purposes	All	CI	Ghana	Liberia	SL (EIC)	SL (Priv)	Boys	Girls	Public	Private
Is the Radio available for school	74.5%	[0.717,0.774]	63.0%	72.9%	83.0%	71.5%	75.8%	73.3%	77.1%	67.0%
	Reasons why the child cannot use the radio to study									
Child may get distracted	29.2%	[23.4%, 35.0%]	29.8%	44.9%	8.8%	4.4%	28.1%	30.3%	33.9%	19.4%
Child does not know how to use	40.5%	[33.5%, 47.5%]	39.6%	55.9%	28.8%	5.3%	43.9%	37.4%	47.6%	25.7%
There is no one to monitor the child	8.9%	[4.7%, 13.1%]	12.3%	11.6%	4.9%	0.8%	8.7%	9.2%	9.6%	7.6%
Caregiver does not want child to use it	37.1%	[30.9%,43.3%]	48.8%	31.5%	31.5%	48.7%	40.4%	34.1%	31.5%	48.8%
Radio is not of good quality	0.8%	[0.0%, 2.1%]	0.0%	0.0%	3.2%	1.5%	0.5%	1.1%	1.0%	0.6%
The child does not use it	4.8%	[2%, 7.6%]	1.7%	0.0%	11.1%	17.1%	4.6%	5.0%	3.3%	7.9%
There is no electricity	0.5%	N/A	0.0%	0.0%	2.6%	0.0%	0.0%	1.0%	0.8%	0.0%
Caregivers do not have time to give the radio to the child	1.1%	[0.3%, 1.8%]	0.0%	0.0%	0.7%	7.3%	0.7%	1.5%	0.2%	3.0%
	Best time for the radio to be used									
Morning	14.3%	[11.6%, 17.0%]	12.1%	8.4%	21.5%	17.8%	13.5%	15.2%	14.1%	14.9%
Afternoon	12.6%	[10.0%, 15.3%]	7.1%	13.3%	14.6%	9.6%	11.2%	14.1%	13.9%	8.4%
Evening	41.8%	[38.4%, 45.2%]	26.7%	58.5%	32.1%	21.4%	43.0%	40.5%	46.9%	24.0%
All day	31.3%	[28.0%, 34.5%]	54.1%	19.8%	31.8%	51.3%	32.3%	30.1%	25.1%	52.7%
How long can it be used (hours)	3.14	N/A	3.72	3.21	2.52	4.20	3.07	3.21	2.90	3.96

Appendix 4: Remote Learning Opportunities

Table 4.a: How appropriate and useful are the following learning options

	All	CI	Ghana	Liberia	SL (EIC)	SL (Priv)	Boys	Girls	Public	Private
	Take home packs									
Very appropriate and useful	93.8%	[92.9%, 94.7%]	89.7%	96.2%	92.5%	92.6%	94.4%	93.2%	94.9%	90.5%
Somewhat appropriate/useful	4.7%	[3.9%, 5.4%]	7.2%	3.5%	4.9%	5.0%	4.1%	5.2%	4.0%	6.5%
Not appropriate nor useful	1.6%	[1.1%, 2.0%]	3.1%	0.3%	2.5%	2.4%	1.5%	1.7%	1.1%	2.9%
	COVID-safe in person classes taught by a teacher									
Very appropriate and useful	86.8%	[85.3%, 88.2%]	85.5%	92.6%	80.0%	74.7%	87.4%	86.1%	88.3%	82.4%
Somewhat appropriate/useful	8.6%	[7.4%, 9.8%]	12.7%	6.6%	8.5%	11.1%	8.2%	9.0%	7.3%	12.3%
Not appropriate nor useful	4.6%	[3.9%, 5.4%]	1.8%	0.7%	11.5%	14.2%	4.3%	4.9%	4.4%	5.3%
	Private lessons with a tutor for a fee									
Very appropriate and useful	76.6%	[74.8%, 78.3%]	80.3%	69.3%	85.6%	84.0%	76.1%	77.0%	74.8%	81.3%
Somewhat appropriate/useful	17.8%	[16.1%, 19.4%]	15.2%	25.4%	7.6%	8.7%	18.7%	16.8%	19.3%	13.4%
Not appropriate nor useful	5.7%	[4.8%, 6.5%]	4.5%	5.3%	6.8%	7.3%	5.2%	6.1%	5.8%	5.3%
	Pre-recorded content shared over speaker									
Very appropriate and useful	70.9%	[69.0%, 72.9%]	52.2%	73.6%	77.9%	77.9%	71.0%	70.9%	75.1%	59.5%
Somewhat appropriate/useful	19.8%	[18.2%, 21.5%]	36.2%	20.7%	9.6%	6.7%	18.9%	20.8%	16.9%	27.9%
Not appropriate nor useful	9.2%	[8.0%, 10.5%]	11.6%	5.7%	12.5%	15.4%	10.1%	8.4%	8.0%	12.7%
	Content through smartphone									
Very appropriate and useful	40.5%	[38.5%, 42.5%]	35.2%	23.4%	65.4%	81.1%	40.5%	40.5%	37.7%	48.1%
Somewhat appropriate/useful	23.0%	[21.2%, 24.7%]	32.6%	28.4%	9.0%	9.9%	23.6%	22.3%	21.8%	26.2%
Not appropriate nor useful	36.5%	[34.5%, 38.6%]	32.2%	48.2%	25.6%	8.9%	35.9%	37.2%	40.5%	25.6%
	Calls from teacher									

Very appropriate and useful	56.5%	[54.4%, 58.6%]	40.6%	45.6%	81.1%	85.0%	55.4%	57.5%	57.7%	53.1%
Somewhat appropriate/useful	27.5%	[25.6%, 29.4%]	40.9%	34.9%	9.2%	7.1%	28.9%	26.1%	26.1%	31.4%
Not appropriate nor useful	16.0%	[14.4%, 17.6%]	18.5%	19.5%	9.8%	7.9%	15.7%	16.3%	16.2%	15.5%
	SMS/texts from teachers with lessons									
Very appropriate and useful	47.1%	[45.1%, 49.1%]	28.1%	37.3%	70.6%	79.7%	45.5%	48.6%	48.7%	42.6%
Somewhat appropriate/useful	30.2%	[28.4%, 32.1%]	43.7%	37.6%	11.3%	11.6%	32.1%	28.5%	28.7%	34.6%
Not appropriate nor useful	22.7%	[20.8%, 24.5%]	28.2%	25.0%	18.1%	8.8%	22.4%	22.9%	22.7%	22.7%
	IVR lessons over the phone									
Very appropriate and useful	48.7%	[46.6%, 50.8%]	31.1%	41.6%	66.9%	78.1%	46.5%	50.8%	50.2%	44.4%
Somewhat appropriate/useful	29.6%	[27.7%, 31.5%]	46.8%	34.4%	13.2%	10.0%	30.0%	29.2%	27.2%	36.4%
Not appropriate nor useful	21.7%	[19.9%, 23.5%]	22.1%	24.0%	19.9%	11.9%	23.5%	19.9%	22.6%	19.3%
	Radio-lessons									
Very appropriate and useful	52.2%	[50.2%, 54.3%]	26.5%	44.3%	80.1%	75.1%	51.5%	52.9%	56.6%	40.2%
Somewhat appropriate/useful	26.1%	[24.4%, 27.9%]	37.8%	32.4%	9.3%	12.6%	26.0%	26.3%	24.5%	30.7%
Not appropriate nor useful	21.6%	[19.7%, 23.5%]	35.7%	23.2%	10.6%	12.4%	22.6%	20.7%	18.9%	29.1%

Table 4.b: Top three (3) preferred remote learning tools

Preferred remote learning	All	CI	Ghana	Liberia	SL (EIC)	SL (Priv)	Boys	Girls	Public	Private
Take home packs	76.3%	[74.7%, 77.9%]	77.4%	94.1%	48.5%	51.6%	76.5%	76.2%	78.5%	70.1%
COVID-safe in person classes taught by a teacher	58.5%	[56.4%, 60.5%]	65.4%	71.8%	36.0%	29.3%	60.4%	56.6%	59.6%	55.2%
Private lessons with a tutor for a fee	53.4%	[51.2%, 55.6%]	76.0%	42.1%	56.1%	60.1%	54.4%	52.4%	46.9%	71.5%
Radio lessons	26.3%	[24.5%, 28.0%]	7.2%	17.0%	53.8%	42.6%	24.5%	28.0%	29.6%	17.2%
Calls from teacher	21.9%	[19.9%, 23.4%]	19.6%	18.9%	27.2%	26.0%	20.8%	22.5%	21.7%	21.4%
Content through smartphone	15.1%	[13.6%, 16.5%]	19.2%	6.4%	22.6%	36.2%	16.6%	13.7%	11.9%	24.0%

SMS lessons from teachers	14.9%	[13.3%, 16.5%]	4.5%	16.8%	16.8%	22.3%	14.4%	15.3%	16.8%	9.5%
Pre-recorded content shared over speaker	14.4%	[12.8%, 15.9%]	17.7%	15.7%	10.3%	11.0%	13.6%	15.2%	13.9%	15.8%
IVR lessons over the phone	8.2%	[7.1%, 9.3%]	5.7%	9.2%	6.9%	12.7%	8.2%	8.2%	8.4%	7.6%
None	0.9%	[0.4%, 1.3%]	1.1%	0.1%	2.3%	0.4%	0.8%	1.0%	0.9%	0.9%

Table 4.c: Caregivers' willingness to pay for private classes with a tutor

Paid classes with a tutor	All	CI	Ghana	SL Private	Boys	Girls
Would caregivers pay classes with a tutor in the COVID-19 context	79.3%	[76.2%, 82.4%]	78.8%	80.7%	82.8%	76.1%
	How often would caregivers pay for these classes					
Once a week	2.3%	[1.1%, 3.5%]	2.9%	0.6%	2.4%	2.2%
A few times per week	36.2%	[31.0%, 41.4%]	42.3%	19.6%	36.2%	36.2%
Daily	61.5%	[56.3%, 66.7%]	54.7%	79.9%	61.4%	61.6%
Would caregivers pay classes with a tutor outside the COVID-19 context	77.5%	[74.3%, 80.8%]	76.3%	80.9%	82.5%	73.0%
	How often would caregivers pay for these classes					
Once a month	0.2%	[0%, 0.3%]	0.1%	0.4%	0.2%	0.1%
Once a week	2.6%	[1%, 4.2%]	3.5%	0.4%	2.4%	2.9%
A few times per week	34.0%	[29.5%, 38.6%]	41.5%	14.1%	33.5%	34.5%
Daily	63.2%	[58.5%, 68.0%]	54.9%	85.2%	63.9%	62.5%

Table 4.d: Caregivers' willingness to send students to community classes

Types of classes	Liberia	CI	Boys	Girls
Would caregivers consent to pre-recorded classes	91.2%	[89.4%, 92.9%]	91.8%	90.5%
	How often would they send them to these classes			

Once a week	2.1%	[1.3%, 2.8%]	2.6%	1.5%
A few times per week	18.8%	[16.3%, 21.2%]	20.6%	16.9%
Daily	79.2%	[76.6%, 81.7%]	76.8%	81.7%
Would caregivers consent to community classes	96.6%	[95.5%, 97.8%]	96.1%	97.2%
	How often would they send them to these classes			
Once a week	1.2%	[0.4%, 2.0%]	1.0%	1.4%
A few times per week	13.5%	[11.4%, 15.6%]	13.4%	13.6%
Daily	85.3%	[83.1%, 87.5%]	85.6%	84.9%

Table 4.e: Experience with the take-home packs in 2020

Types of classes	Liberia	CI	Boys	Girls
Have caregivers received the pack	57.3%	[54.5%, 60.2%]	55.2%	59.5%
Have they returned the pack	94.1%	[91.1%, 95.5%]	94.1%	92.6%
Was the pack graded	94.3%	[92.6%, 96.0%]	94.7%	93.9%
Did they receive help with it	88.7%	[86%, 91.4%]	91.5%	86.0%
	Who helped with the study packs			
Father	27.5%	[23.7%, 31.2%]	30.4%	24.4%
Sibling	26.4%	[22.8%, 30.1%]	23.5%	29.4%
Other family member	16.6%	[13.7%, 19.5%]	17.9%	15.3%
Tutor	11.2%	[8.1%, 14.2%]	11.4%	10.9%
Mother	9.9%	[7.4%, 12.4%]	9.2%	10.6%
Other	8.4%	[6%, 10.8%]	7.6%	9.3%
	How effective were the take-home packs			
Very effective	93.8%	[91.9%,95.7%]	93.5%	94.1%
Somewhat effective	4.5%	[2.9%, 6.1%]	6.1%	3.0%

A bit effective	1.2%	[0.3%, 2.2%]	0.0%	2.4%
Not effective at all	0.5%	[0.0%, 0.9%]	0.5%	0.5%
	How engaging were the take-home packs			
Very engaging	91.8%	[89.7%, 93.9%]	91.9%	91.6%
Somewhat engaging	5.7%	[4.0%, 7.3%]	6.0%	5.4%
A bit engaging	2.2%	[0.9%, 3.4%]	1.8%	2.5%
Not engaging at all	0.4%	[0.0%, 0.7%]	0.2%	0.5%

Table 4.f: Caregivers' suggestions to improve the take-home pack experience

Caregiver suggestions	Liberia	CI	Boys	Girls
Engage caregivers and distribute the packs to all grades	27.4%	[24.7%, 30%]	26.3%	28.4%
Include reading material and textbooks	14.1%	[11.6%, .16.7%]	14.2%	14.0%
Offer teacher support to all students	20.2%	[17.3%, 23.0%]	23.2%	17.1%
Continue providing the pack to caregivers	11.2%	[9%, 13.5%]	11.6%	10.8%
Provide more practice and exercises		[5.5%, 8.8%]	6.8%	7.5%
Include all main school subjects	2.0%	[1.2%, 2.8%]	2.6%	1.3%
Match students' level with content	2.8%	[1.7%, 3.9%]	1.9%	3.8%
Make it more interactive with toys and drawings	2.3%	[1.4%, 3.2%]	2.3%	2.3%
Include regular evaluations	0.9%	[0.2%, 1.5%]	0.4%	1.3%
Offer community classes	0.9%	[0.4%, 1.4%]	0.9%	0.8%

Appendix 5: Additional support

Table 5.a: Learning disabilities across RAN school

Disability among students	All	CI	Ghana	Liberia	SL (EIC)	SL (Priv)	Boys	Girls	Public	Private
Does the student have any disability	25.2%	[18.8%, 27.0%]	22.0%	19.0%	30%	21%	27.1%	23.0%	25.4%	24.3%
Difficulty seeing	4.8%	[3.5%, 5.5%]	7.0%	3.1%	5.2%	8.4%	4.5%	5.1%	3.8%	7.4%
Difficulty hearing	3.0%	[1.9%, 3.1%]	3.7%	2.8%	3.3%	1.4%	2.5%	3.5%	3.0%	3.0%
Difficulty with mobility	1.4%	[0.7%, 1.5%]	0.7%	1.4%	2.1%	1.4%	1.4%	1.4%	1.6%	0.9%
Difficulty with self-care	8.6%	[5.3%, 9.4%]	7.0%	10.1%	7.9%	5.9%	10.5%	6.7%	9.4%	6.7%
Difficulty focusing	8.4%	[6.2%, 8.4%]	8.1%	4.8%	16.5%	6.4%	8.8%	8.3%	8.8%	7.7%
Difficulty communicating	5.4%	[4.1%, 6.5%]	5.8%	3.4%	9.6%	3.6%	5.9%	4.9%	5.5%	5.2%

Table 5.b: General safety

Caregivers perception of child's safety	All	CI	Ghana	Liberia	SL (EIC)	SL (Priv)	Boys	Girls	Public	Private
Very safe	62.2%	[60.1%, 64.3%]	38.2%	63.0%	74.4%	75.9%	60.2%	64.2%	66.8%	49.0%
Somewhat safe	30.2%	[28.3%, 32.1%]	49.6%	31.3%	17.6%	16.7%	31.4%	29.1%	26.8%	40.2%
Unsure	5.8%	[4.8%, 6.9%]	9.8%	4.9%	5.0%	5.3%	6.6%	5.1%	4.9%	8.5%
Somewhat unsafe	1.0%	[0.5%, 1.5%]	2.1%	0.6%	1.0%	0.7%	1.3%	0.7%	0.8%	1.7%
Not safe at all	0.7%	[0.4%, 1%]	0.3%	0.1%	1.9%	1.5%	0.5%	0.9%	0.7%	0.6%
	Why is the school not a safe environment?									
The school is in an unsafe area	35.6%	[25.2%, 46.1%]	12.6%	38.0%	61.3%	26.6%	28.5%	44.6%	48.0%	15.4%
There are no safety measures in place	29.7%	[21.8%, 37.6%]	40.4%	28.2%	19.5%	29.4%	35.3%	22.7%	24.5%	38.3%

Teachers do not protect students	12.1%	[5.3%, 18.8%]	24.6%	11.6%	1.2%	2.2%	11.8%	12.4%	7.1%	20.1%
Students are beaten a lot	5.6%	[1.7%, 9.5%]	4.5%	9.9%	2.8%	0.0%	5.6%	5.7%	6.8%	3.6%
There is no clean water	3.6%	[0.0%, 9.2%]	3.4%	6.4%	1.3%	0.0%	4.0%	3.2%	4.2%	2.7%
The school is too far	2.2%	[0.2%, 4.1%]	1.8%	1.7%	2.3%	5.5%	1.8%	2.6%	2.0%	2.5%
The school is overcrowded	1.0%	[0%, 2.1%]	0.0%	0.5%	1.9%	4.1%	1.4%	0.5%	1.1%	0.8%
Other	5.2%	[3.3%, 7.0%]	12.6%	0.6%	2.1%	7.3%	4.1%	6.6%	1.3%	11.6%
	Why is the school a safe environment?									
Teachers protect students	56.3%	[54.0%, 58.7%]	74.9%	55.5%	48.8%	42.8%	56.8%	55.9%	53.3%	65.3%
The school is in a safe area	33.7%	[31.5%, 35.9%]	22.9%	28.1%	46.5%	54.7%	32.7%	34.6%	34.2%	32.3%
Students are not beaten	8.7%	[7.3%, 10.0%]	2.2%	16.2%	0.3%	1.0%	9.2%	8.1%	11.0%	1.8%
Other	1.3%	[0.9%, 1.8%]	0.0%	0.2%	4.4%	1.6%	1.3%	1.3%	1.6%	0.5%
	Compared to pre COVID-19 is the school safer now?									
Safer now	75.4%	[73.6%, 77.3%]	49.1%	80.2%	83.8%	82.6%	76.0%	74.8%	81.4%	58.6%
Same	21.4%	[19.7%, 23.2%]	47.7%	18.0%	11.1%	12.7%	20.7%	22.2%	15.7%	37.8%
Less safe now	3.1%	[2.3%, 3.9%]	3.2%	1.9%	5.1%	4.6%	3.3%	3.0%	2.9%	3.6%

Table 5.c: Corporal punishment and sexual abuse

Corporal punishment	All	CI	Ghana	Liberia	SL (EIC)	SL (Priv)	Boys	Girls	Public	Private
Perception of children being beaten at school	8.7%	[7.3%, 10.0%]	11.4%	4.9%	14.3%	8.0%	9.4%	8.0%	8.0%	10.4%
Is your child being beaten at school	6.9%	[5.8%, 7.7%]	8.3%	3.5%	12.4%	5.1%	6.4%	7.1%	6.5%	7.4%
	Frequency of child beating									

Once a month	43.1%	[31.5%, 54.7%]	54.1%	46.3%	40.9%	13.5%	38.8%	47.1%	43.0%	43.4%
Once a week	11.4%	[7.5%, 15.3%]	8.3%	24.4%	4.8%	9.5%	15.4%	7.6%	12.2%	8.6%
Some times a week	38.5%	[26.9%, 50.1%]	35.4%	18.9%	47.2%	72.1%	34.0%	42.6%	36.4%	45.0%
Daily	7.1%	[3.4%, 10.7%]	2.3%	10.4%	7.1%	5.0%	11.7%	2.7%	8.3%	3.0%
	Sexual abuse									
Perception of children being sexually abused	1.7%	[1.2%,2.2%]	1.4%	1.4%	1.8%	4.0%	1.5%	1.8%	1.5%	2.1%
Is your child being sexually abused	0.6%	[0.3%, 0.9%]	0.6%	0.6%	0.4%	1.0%	0.3%	0.9%	0.5%	0.7%

Table 5.c: Statistics on child beating only refer to parents who reported that their children were beaten.

Table 5.d: Caregivers' opinion on child safety and protection

Improve child safety	All	CI	Ghana	Liberia	SL (EIC)	SL (Priv)	Boys	Girls	Public	Private
Intensify COVID-19 protocols	19.0%	[17.4%, 20.6%]	10.8%	30.6%	7.0%	5.5%	20.0%	18.0%	22.5%	9.4%
Fence schools and pave roads	10.2%	[9.0%, 11.5%]	3.4%	16.3%	5.1%	5.4%	8.9%	11.5%	12.5%	4.0%
Involve teachers in monitoring kids	6.3%	[5.2%, 7.5%]	10.7%	5.3%	5.6%	4.3%	7.6%	5.1%	5.4%	8.9%
Provide school transportation	4.1%	[3.3%, 5%]	4.1%	4.5%	3.7%	3.4%	3.6%	4.7%	4.2%	3.9%
Communicate consistently with caregivers	3.4%	[2.7%, 4.1%]	1.0%	6.0%	1.2%	0.5%	3.7%	3.1%	4.3%	0.9%
Improve and renovate buildings	3.2%	[2.5%, 3.9%]	0.5%	4.4%	3.2%	2.7%	3.2%	3.3%	4.0%	1.2%
Better toilet and drainage system	2.3%	[1.5%, 3.1%]	0.7%	3.9%	0.9%	1.4%	2.1%	2.6%	2.9%	0.9%
HIre staff for school safety	2.3%	[1.5%, 3.1%]	1.6%	2.5%	2.7%	1.5%	2.8%	1.9%	2.6%	1.5%
Reduce overcrowding and add more chairs	1.7%	[1.3%, 2.2%]	1.1%	2.1%	1.8%	1.1%	1.6%	1.9%	2.0%	1.1%
Improve security around school	1.3%	[0.9%, 1.7%]	3.0%	0.5%	0.4%	5.2%	1.2%	1.4%	0.5%	3.6%
Clean up school and surrounding	1.2%	[0.7%, 1.6%]	1.6%	1.7%	0.2%	0.0%	1.2%	1.1%	1.2%	1.2%

Avoid beating students	1.1%	[0.6%, 1.5%]	1.2%	0.8%	0.9%	2.9%	1.1%	1.1%	0.9%	1.7%
Ensure welfare prevent bullying	0.8%	[0.5%, 1.2%]	1.5%	0.3%	1.5%	0.0%	0.7%	1.0%	0.7%	1.1%
Discipline children more often	0.6%	[0.3%, 0.9%]	1.0%	0.4%	0.8%	0.5%	0.5%	0.8%	0.5%	0.8%
Provide safe drinking water	0.4%	[0.1%, 0.7%]	0.0%	0.5%	0.6%	0.2%	0.4%	0.4%	0.5%	0.1%

Table 5.e: RAN's impact on child safety in Liberia

	Liberia	CI	Boys	Girls
	Frequency of beatings since RAN took over the school			
Less beating since	20.8%	[17.1%, 24.6%]	24.3%	17.4%
Same amount of beating	11.8%	[9.0%, 14.5%]	7.4%	16.1%
More beating since	22.6%	[19.4%, 25.7%]	21.3%	23.8%
No beating at all since RAN took over	44.8%	[40.5%, 49.1%]	47.0%	42.7%
	Frequency of sexual abuse since RAN took over the school			
Less abuse now	16.9%	[13.9%, 19.8%]	19.0%	14.5%
Same amount of abuse	6.9%	[3.4%, 10.3%]	6.2%	7.6%
More abuse since	17.3%	[14.2%, 20.3%]	16.6%	18.0%
No abuse at all since RAN took over	59.0%	[54.1%, 63.9%]	58.2%	59.9%
	General safety since RAN took over			
Less safe now	1.6%	[0.5%, 2.6%]	0.3%	2.9%
Same level of safety	11.2%	[8.3%, 14.1%]	9.3%	13.4%
Safer now that RAN has taken over	87.2%	[84.2%, 90.3%]	90.4%	83.7%

Table 5.f: RAN's impact on child safety in Sierra Leone

	Sierra Leone	CI	Boys	Girls
	Frequency of beatings since RAN took over the school			
Less beating since	16.8%	[13.7%, 19.9%]	14.4%	18.8%

Same amount of beating	14.3%	[11.4%, 17.3%]	11.4%	16.8%
More beating since	21.2%	[18.1%, 24.2%]	23.5%	19.2%
No beating at all since RAN took over	47.7%	[44.0%, 51.3%]	50.7%	45.2%
	Frequency of sexual abuse since RAN took over the school			
Less abuse now	20.8%	[17.1%, 24.5%]	17.2%	24.0%
Same amount of abuse	6.8%	[4.4%, 9.1%]	4.6%	8.7%
More abuse since	11.4%	[9.0%, 13.8%]	11.1%	11.7%
No abuse at all since RAN took over	61.0%	[56.6%, 65.4%]	67.1%	55.7%
	General safety since RAN took over			
Less safe now	2.0%	[0.9%, 3.1%]	2.8%	1.3%
Same level of safety	9.3%	[6.8%, 11.8%]	8.4%	10.2%
Safer now that RAN has taken over	88.7%	[86.0%, 91.3%]	88.8%	88.5%

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