



# **The Effect of COVID – 19 Pandemic On Teaching and Learning at Primary and Secondary Education levels in Uganda**

**REPORT OF NAPE 2021**

**NATIONAL ASSESSMENT OF PROGRESS IN EDUCATION**



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## FOREWORD

The whole world is currently grappling with the deadly COVID- 19 pandemic. Much effort is currently directed towards devising strategies aimed at mitigating the impact of COVID – 19 pandemic on peoples’ lives and the social – economic stability of communities. It has greatly affected all aspects of life. One of the key aspects of life that has been greatly hit by the pandemic is education.

The Ministry of Education and Sports has had to draw up programmes for staggered reopening of various classes, which programmes have not been easy to adhere to as a result of the uncertainties caused by the pandemic. There was therefore, need to determine the effects of the disruption on the teaching and learning process.

The Ministry of Education and Sports tasked UNEB to conduct a NAPE assessment as part of the study of the effects of COVID – 19 pandemic on the teaching and learning at the primary and secondary education levels. The report of the findings is ready for use.

As UNEB, we are grateful to the Ministry of Education and Sports and the Global Partnership for Education for the support towards the entire assessment exercise and eventual production of this report. We thank the Almighty God who made it possible for the assessment to be completed despite the many odds.

It is my sincere hope that the findings will help the Ministry of Education and Sports and other stakeholders in education in their efforts to mitigate the impact of COVID – 19 pandemic on the teaching and learning process in our country.

  
Dan N. Odongo  
**EXECUTIVE DIRECTOR**

## EXECUTIVE SUMMARY

Uganda was under lockdown due to the Covid-19 pandemic between March and September 2020. Schools were closed and learners and teachers stayed at home. During the lockdown, learners and teachers were affected in different ways. However, how (much) these groups were affected up to the time of school re-opening is not known.

As a result, the Ministry of Education and Sports (MoES) tasked Uganda National Examinations Board (UNEB) and Department for Education Planning and Policy Analysis (DEPPA) to conduct a joint study on the *“Effect of Covid-19 pandemic on Teaching and Learning at the primary and secondary education levels”*.

In order to establish the gap in achievement of the learners on reported back to school, the same NAPE 2018 primary six (P 6) tests of Numeracy and Literacy in English and NAPE 2017 senior three (S 3) tests of Mathematics and English, were administered to the cohort of primary six and senior three learners of 2021, respectively, who had reported back to school at re-opening. The data were equated and analysed through psychometric (item response theory) analysis procedures.

In addition to the written tests, focus group discussions were also held with the learners and face-to-face interviews were conducted with their teachers who had reported back to school while telephone interviews were also conducted with those teachers and parents of P 6 and S 3 learners who had not reported back to school, to gain a deeper understanding of the effect of the pandemic on teachers and learners. To establish whether the schools retained the learners and teachers when they reopened, the study relied on their attendance registers before and after the lockdown.

### **Sample Size and Sample Design**

**Quantitative Data:** The sample size consisted of 9,995 Primary 6 learners (48.9% boys) from 500 primary schools and 5,935 Senior 3 learners (53.8% boys) from 200 secondary schools in 100 districts.

A stratified three stage cluster sampling design was used. Stratified by 15 sub-regions, at least 4 districts were randomly selected through probability proportional to size (except for Kampala with only one district). From each of the sampled districts, 5 primary and 2 secondary schools were randomly selected through probability proportional to learners' enrolment. A simple random sample of 20 Primary 6 and 30 Senior 3 learners was obtained from each of the sampled schools. However, where the school had less than the required number of learners, a compensation was made by oversampling more learners from another school in order to realize the required minimum number of learners required per district.

**Qualitative Data:** In the sampled schools, two teachers of P 6 or S 3 class who had reported back to school were selected for face-to-face interview while a sample of two (2) teachers who had not reported back to school and two (2) parents of P 6 or S 3 learners who had not reported back to school were also selected for telephone interview.

In addition, focus group discussions were also held with 10-12 of P 6 or S 3 learners (*most of whom had not been selected for the written tests*). Respondents for the interview and participants in the Focus Group Discussion (FGD) were purposively selected taking into account the gender of the respondents.

## FINDINGS

The findings are summarized according to the objectives:

**Objective One:** To establish whether learners have retained the content of what they learnt before the closure of schools.

### 1. *The gap in achievement levels of learners before and after the lockdown*

#### Description of Proficiency Levels

The achievement of learners was categorized into four proficiency levels and each subject had its unique performance band.

Table 1: Description of level of knowledge and skills demonstrated, by proficiency levels (bands)

Band	Proficiency level	Level of knowledge and skills
<b>Band 4</b>	Highly Proficient	An exceptionally high level of understanding of concepts and use of relevant skills
<b>Band 3</b>	Proficient	High level of understanding of concepts and use of relevant skills
<b>Band 2</b>	Moderately proficient	Basic understanding of concepts and use of relevant examples
<b>Band 1</b>	Lowly proficient	Limited understanding of concepts and use of relevant skills

A learner was considered proficient if he/she was in band 3 or 4. Band 3 was the desired minimum level of proficiency.

Assuming similarity in the cohorts, results show that the percentage of P 6 learners rated proficient in Literacy in English and Numeracy in 2021 dropped by 4.7 and 13.4, respectively, from that of 2018. This result also implies that learners were more affected in Numeracy.

At S 3 level, results show that the percentage of learners rated proficient in English Language and Mathematics in 2021 increased by 10.3 and 3.2, respectively, from that of 2017. This, therefore, implies that more learners actually became proficient in English Language than in Mathematics. It is worth noting that the study in 2017 targeted only learners from hard to reach schools in the rural areas.

### 2. *Whether Learners learnt at home during the lockdown*



In almost two thirds (66.5%) of the 269 primary schools, P 6 learners reported that they had some form of learning during the lockdown while in just over half (55.4%) of the 83 secondary schools S 3 learners reported that they had some form of learning.

Similarly, the proportion of learners who said that they learnt at home during the lockdown was higher in the urban areas than in the rural areas. In less than half (48%) of the secondary schools in urban areas did S 3 learners report that there was some form of learning.

Both P 6 and S 3 learners in majority (60%) of the primary and secondary schools reported that they continued to learn during the lockdown through: Radio, Home study materials distributed by MoES or Television. The other mode of learning used by learners in 10% or less of the schools were: coaching, zoom meeting or group discussion.

### *3. Why some learners never learnt while at home during Lockdown*

In at least half of the primary schools and two-thirds of the secondary schools, learners could not learn during the lockdown because of engagement in home chores and casual labour. They never had time to learn during the day and would feel tired at the end of the day's work. In 10% of the secondary schools, the S 3 learners reported that they could not learn while at home because they had lost interest in learning.

## **Objective Two: To establish the effects of COVID 19 on learners**

### *1. Have all the learners reported back to school?*

Results show that 10% of the P 6 learners and 13% of the S 3 learners didn't report back to school. Gender wise, the proportion of P 6 girls (8%) who didn't report back to school was significantly lower than that of boys (10.2%) i.e., male learners were more affected than female learners; the proportion of P 6 learners in rural areas (11.3%) who didn't return back to school was also significantly higher than that of urban areas (1.9%) and while private primary schools gained more P 6 learners (*1.5% more*) at re-opening, 11.8% of the learners in public primary schools didn't return back to school.

At S 3 class, there was no significant variation in the proportion of learners who didn't report back to school by gender, location or school ownership i.e., they were affected equally gender-wise, location-wise or ownership-wise.

### *2. What are the reasons for not reporting back?*

In order to overcome the challenge of locating for interview those learners who had not reported back to school, parents of those learners were interviewed on their behalf through phone calls.

According to parents, the following are the reasons why their children did not report back to school after the lockdown;

- *Lack of tuition fees* was a hindrance to 40% of both P 6 and S 3 learners who did not report back to school.

- *Teenage pregnancy* affected 18% of P 6 and 30.5% of S 3 girls who did not report back to school while early marriages hindered 10% of P 6 and 23% of S 3 learners who did not report back to school.
- *Preference for casual labour over studies* hindered 14% of P 6 and 12% of S 3 learners who did not return to school.
- *Loss of interest in the studies* affected 13% of P 6 and 7% of S 3 learners who did not return to school.

### 3. *Parents' plan for children who did not report back to school after lockdown*

- Parents who lacked school (tuition) fees for their children, reported that they planned to take the learners back to school when finances become available.
- Parents whose daughters got pregnant, planned to take them back to school after delivery.
- Parents whose children preferred casual labour to formal studies, planned to take the children for skilling courses.
- Parents whose children lost interest in formal studies, planned to talk to (counsel) them in order to convince them to go back to school.
- Some parents of P 6 learners and 10.2% of parents of S 3 learners did not have any plan at all for their children's return to school.

### 4. *Challenges faced by learners during lockdown*

In at least 55% of primary schools and at least 72% of secondary schools, learners who reported back to school shared the challenges they faced as follows;

- Child labour – the learners reported that they were over-worked (got tired). They suggested that amount of domestic work given should be regulated.
- Domestic violence – disputes between parents/guardians and their use of abuse language, corporal punishments, etc on the children. Some of the children became traumatized. The children suggested that parents should peacefully settle disputes and also guide and counsel them instead of abusing them.
- Sexual abuse by relatives and other community members/ early marriages. They suggested that learners should be empowered to report child abuse and domestic violence to police.

The other challenges reported by learners (who reported back to school) in less than 40% of the schools were;

- Inadequate finances to cater for family needs – the learners suggested that government should support citizens with relief e.g., funds and food.
- Inadequate parental support to girls/teenage pregnancy – the learners suggested that parents should provide for the girls.
- Kidnaps/Arrests by police/Idleness/joining bad peer groups – the learners suggested that teenagers should be sensitised by parents and or community leaders against the dangers of joining bad groups.
- Inability to worship and uncertainty about schools reopening date.

### *5. Achievements by Learners who reported back to school Amidst Challenges Faced*

In at least 90% of the primary and secondary schools, the learners who reported back to school reported that they acquired basic skills relevant to house chores i.e. cleaning, cooking and washing, and baking during the lockdown.

The learners in over half of the primary and secondary schools also did say that they experienced positive behavioral change during the lockdown. Learners in some of the schools reportedly acquired new knowledge, experienced positive attitude (mind set) or entrepreneurship skills.

**Objective Three:** To establish the effects of COVID-19 on teachers

#### *1. Have all the teachers reported back to school?*

Overall, results showed that more teachers in public schools reported back to teach P 6 and S 3 learners at re-opening i.e., 7.4% more at P 6 and 7.8% more at S 3. This is attributed to the fact that some of the teachers of lower classes were also summoned back to school to handle the extra streams created for P 6 and S 3 learners as a result of social distancing. However, 8% of the P 6 teachers and 3.4% of the S 3 teachers in private schools didn't reported back to school. The difference was significant amongst P 6 teachers, by school ownership. While secondary schools in rural areas had 11.5% more teachers of S 3 learners reporting back at re-opening, 3.4% of the teachers in urban schools didn't report back to school.

It is important to note that that this study considered the number of teachers who were handling P 6 – P 7 and S 3 – S 4 at re-opening rather than how many of those very teachers who taught P 6 ad S 3 classes before the lockdown did not report back to school.

#### *2. What were the reasons given by the teachers for not returning following the reopening of schools?*

Those teachers who did not report back to school after the lockdown were also asked to explain why they did not return to school. These were 47 teachers of P 6 class and 23 teachers of S 3 class. The majority of them had lost interest in teaching because of inadequate or no pay and yet the income generating activities they had established proved a better alternative in terms of earnings.

#### *3. Whether teachers who reported back to school experienced any challenges during the lockdown*

A total of 519 teachers of P 6 class and 165 of S 3 class who reported back to school were interviewed. Nearly all of them (97.5% of P 6 and 100% of S 3) reported that they faced some form of challenges during the lockdown. The teachers who did not report back to school also experienced similar challenges.

Teachers in the majority of primary and secondary schools experienced financial distress and social challenges;

- 47% of those teachers of P 6 class and two-thirds (66.7%) of those teachers of S 3 class experienced inability (financial distress) to provide for their family and friends because there was no salary for teachers in private schools and also lack of allowances of any kind for those teachers in public schools. They tackled this challenge by either starting income generating income, farming or borrowing money from friends and relatives and/or spending their savings.
- Because of high transport costs and other restrictions, about a half of the teachers did say that they were not able to make visits to any person so as to relieve the stress of the pandemic.

The affected teachers suggested that the challenge of financial distress could have been mitigated through;

- Giving them interest free loans,
- Government supporting teachers in private schools with relief in form of rent, food stuff and medication or allowing teachers to access a percentage of their savings with NSSF/pension funds
- Private schools continuing to pay salaries to its teachers or provide relief in form of rent, food stuff and medication.

#### *4. Achievements by Teachers who reported back to school Amidst Challenges faced*

Although teachers experienced a number of challenges, they also achieved many good things;

- Had enough time with/for the family/community/self - 77.8% of P 6 teachers and 73.3% of S 3 teachers
- Started income generating activities - 57.6% of P 6 teachers and 65.5% of S 3 teachers
- Became creative (innovative) – 39.3% of P 6 teachers and 38.2% of S 3 teachers
- Had enough time for their side business – 28.9% of P 6 teachers and 31.5% of S 3 teachers
- Received support from family members, friends, school authority and Government or NGOs – 29.6% of P 6 teachers and 22.5% of S 3 teachers

#### *5. What will happen to the income generating activities now that the schools are fully open?*

Results show that more than half of the P 6 and S 3 teachers started income generating activities during the lockdown. The challenge is now how the teachers will sustain the businesses while they are at school teaching. Teachers reported that they would sustain the businesses in three ways namely;

- Hire someone to run it
- Handover business to a family member
- Attend to it when not engaged at school

## **1.0 Introduction**

Uganda was under lockdown due to the Covid-19 pandemic between March – September 2020. Schools were closed and learners and teachers stayed at home. During the lockdown, learners and teachers were affected in different ways. However, how (much) these groups were affected up to the time of school re-opening is not known.

As a result, the Ministry of Education and Sports (MoES) tasked Uganda National Examinations Board (UNEBC) and Department for Education Planning and Policy Analysis (DEPPA) to conduct a joint study on the '*Effect of Covid-19 pandemic on Teaching and Learning at the primary and secondary education levels in Uganda*'. The study was sponsored by the Global Partnership for Education. It involved the administration of NAPE written tests to a sample of Primary six (P 6) and Senior three (S 3) learners in Uganda. Besides the tests, qualitative data were also collected through Focus Group Discussion (FGD) and Key Informant Interviews.

### **1.1 Purpose of the study**

The overall purpose of the study was to investigate the effect of COVID-19 pandemic on teaching and learning at primary and secondary education levels in Uganda.

### **1.2 Objectives of the study**

The specific objectives of the study were:

- a) To establish the achievement levels of learners on return to school after lockdown
- b) To establish the effect of COVID-19 on learners' return to school/during the lockdown
- c) To establish the effect of COVID-19 on teachers during the lockdown on return to school

## 2.0 Methodology

The methodology of the study is discussed in the next sub-sections.

### 2.1 Instruments

#### 2.1.1 *Written Tests*

These consisted of Numeracy and Literacy in English tests at primary six and English and Mathematics at senior three.

#### 2.1.2 *Focus Group Discussion guide*

This was used by the facilitators to guide the discussion with P 6 and S 3 learners (most of whom had not been selected for the written tests)

#### 2.1.3 *Interview schedule*

This was used by the interviewer to guide the interview. The interview was conducted face-to-face with teachers of P 6 and S 3 learners who reported back to school; while the learners who did not return to school were interviewed over telephone. Parents of P 6 and S 3 learners who did not report back to school were also interviewed over telephone.

### 2.2 Sample Size and Sample Design

**Quantitative Data:** The sample size consisted of 9,995 Primary 6 learners (48.9% boys) from 500 primary schools and 5,935 Senior 3 learners (53.8% boys) from 200 secondary schools in 100 districts.

A stratified three stage cluster sampling design was used. Stratified by 15 sub-regions, at least 4 districts were randomly selected through probability proportional to size (except for Kampala with only one district). From each of the sampled districts, 5 primary and 2 secondary schools were randomly selected through probability proportional to learners' enrolment. A simple random sample of 20 Primary 6 and 30 Senior 3 learners was obtained from each of the sampled schools. However, where the school had less than the required number of learners, a compensation was made by oversampling more learners from another school in order to realize the required minimum number of learners required per district.

**Qualitative Data:** In the sampled schools, two teachers of P 6 or S 3 class who had reported back to school were selected for face-to-face interview while a sample of two (2) teachers who had not reported back to school and two (2) parents of P 6 or S 3 learners who had not reported back to school were also selected for telephone interview. In addition, focus group discussions were also held with 10-12 of P 6 or S 3 learners (*most of whom had not been selected for the written tests*). Respondents for the interview and participants in the Focus Group Discussions (FGDs) were purposively selected taking into account the gender of the respondents.

## **2.3 Analysis Procedures**

Both descriptive and inferential statistical procedures were used during the analysis. As a specialised procedure, Psychometric (Item Response Theory) Analysis was followed.

### **2.3.1 Descriptive Statistics**

The frequency (number) and proportions of learners, teachers and parents who participated in Focus Group discussions and interviews were computed in order to explain the percentage of occurrences by each category.

Survey mean percentage procedure was used to estimate the percentage of P 6/S 3 learners and their teachers who reported back to school after the lockdown. Inferential statistics was also applied to test significant differences by selected factors such as gender and location.

### **2.3.2 Psychometric (IRT) Analysis**

In order to establish the gap in achievement of learners on return to school, the NAPE 2018 primary six tests of Numeracy and Literacy in English and NAPE 2017 senior three tests of Mathematics and English, were administered to the primary six and senior three learners of 2021, respectively.

The 2017, 2018, and 2021 NAPE tests were individually analyzed using a suitable item response theory model. Before the 2018 and 2021 primary test scores and also 2017 and 2021 secondary test scores were equated, the test scores in the corresponding years that is; 2018 and 2021 for primary six and 2017 and 2021 for senior three were checked for differential item functioning (DIF).

The process eliminated items with drifting parameters and retained only those items whose difficulties and discriminations were approximately the same for both populations, that is, 2018 - P 6 , 2017 - S 3 learners and 2021 - P 6 and 2021 - S 3 learners. Items that functioned differentially across administrations were dropped from being anchor items. The test scores from the corresponding years were concurrently calibrated; thus putting the item measures on a common metric scale of reference – equating.

### **2.3.3 Description of Proficiency Levels**

The achievement of learners was categorized into four proficiency levels and each subject has its unique level of knowledge and skills expected of the learner.

Table 1: Description of level of knowledge and skills demonstrated, by proficiency levels

Proficiency level	Level of knowledge and skills
Lowly proficient	Limited understanding of concepts and use of relevant skills
Moderately proficient	Basic understanding of concepts and use of relevant examples
Proficient	High level of understanding of concepts and use of relevant skills
Highly Proficient	An exceptionally high level of understanding of concepts and use of relevant skills

A learner was considered to have reached the desired proficiency level if he/she was proficient or highly proficient.

### 3.0 FINDINGS

The findings are summarized according to the study objectives:

**Objective One: To establish whether learners have retained the content of what they learnt before the closure of schools.**

#### *1.1 The gap in achievement levels of learners before and after the lockdown*

The achievement of P 6 learners in Literacy in English and Numeracy and that of S 3 learners in English Language and Mathematics is presented in this sub-section.

##### **1.1.1 Achievement of P 6 Learners in Literacy in English**

Learners' achievement was categorized into four proficiency levels, that is, lowly proficient, moderately proficient, proficient and highly proficient. The competencies for each proficiency level are shown in Table 2.

Table 2: Description of level of knowledge and skills demonstrated, by proficiency levels

Proficiency level	Competencies
Lowly proficient	Typical learners in this category can recognize common nouns, extract information from a text, recognize and use common words in sentences, only begin an informal letter with a correct address and salutation.
Moderately proficient	In addition to having the skills in the above proficiency level, typical learners in this category can form plurals of words, re-arrange jumbled letters to form words, rearrange words to form sentences, extract information from continuous and non-continuous texts, use common vocabulary in context, and use the mechanics of basic English writing.



Proficient	In addition to having the skills in the above proficiency levels, typical learners in this category can use the correct tense, form comparative and superlative adjectives, construct grammatically correct sentences using verbs, draw inferences from a continuous text, draw simple inferences from everyday situations, and use complex grammatical structures.
Highly Proficient	In addition to having the skills in the above proficiency levels, typical learners in this category can construct a grammatically correct sentence using a verb in the present-continuous tense, interpret information from a complex text, draw inference from a non-continuous text, use less familiar vocabulary correctly, produce contextual meanings of words, and write a composition.

The desired minimum proficiency level expected of a P 6 learner is the *proficient* level. A learner is regarded *proficient* if he/she reaches the *proficient or highly proficient* level.

Table 3: The proportion of Primary 6 learners rated proficient in Literacy in English in 2018 and 2021, by selected factors.

Factor	Category	Percentage Rated Proficient in 2018	Percentage Rated Proficient in 2021
Overall	All	31.8	27.1
Gender	Boy		25.8
	Girl		28.3
Location	Urban		50.7
	Rural		20.1
Ownership	Public		20.5
	Private		55.6

Assuming similarity in the cohorts, results showed that the percentage of P 6 learners rated proficient in Literacy in English in 2021 dropped by 4.7 from that of 2018.

The statistics for 2018 by gender, school location and ownership are not shown in the table because the focus of the study was on achievement of learners in 2021, and the 2021 assessment considered only items that worked well both in 2018 and 2021.

### 1.1.2 Achievement of P 6 Learners in Numeracy

The achievement of P 6 learners was categorized into four proficiency levels, that is, lowly proficient, moderately proficient, proficient and highly proficient. The competencies for each proficiency level are shown in Table 4.3.

Table 4: Description of level of knowledge and skills demonstrated, by proficiency levels.

Proficiency level	Competencies
Lowly proficient	The learners in this category can perform basic numerical operations such as addition of up to four-digit numbers with carrying, subtraction of up to three-digit numbers with borrowing, multiply two and three-digit numbers with carrying, add simple fractions with a common denominator, and recognize place values up to thousands.
Moderately proficient	In addition to having the skills in the above proficiency level, typical learners in this category can solve word problems involving subtraction of up to four-digit numbers, divide up to four-digit numbers without remainders, name basic shapes, identify fractions, order numbers in ascending order, complete a pattern, extract information from simple graphs, represent sets using venn diagrams, write four-digit numbers in words, calculate simple profit.
Proficient	In addition to having the skills in the above proficiency levels, typical learners in this category can divide up to four-digit numbers with remainders, recognize decimal place values, subtract fractions without common denominators, convert a decimal to a fraction, calculate mean and area, form subsets, perform operations (union) on closed sets, round off numbers to the nearest thousands, convert units, calculate speed, solve word problems involving multiple operations and currency, and perform simple geometric construction.
Highly Proficient	In addition to having the skills in the above proficiency levels, typical learners in this category can solve word problems involving division of up to three-digit numbers, divide fractions, illustrate information in the form of a bar graph, infer information from a bar graph, calculate simple finite probability, interpret a venn diagram, tell time, use a ruler to measure length and understand the basic concept of symmetry.

Table 5: The proportion of Primary 6 learners rated proficient in Numeracy in 2018 and 2021, by selected factors.

Factor	Category	Percentage Rated Proficient in 2018	Percentage Rated Proficient in 2021
Overall	All	54.6	41.2
Gender	Boy		46.4
	Girl		36.1
Location	Urban		57.8
	Rural		36.3
Ownership	Public		36.1
	Private		63.5

The results show that the percentage of P 6 learners rated proficient in Numeracy in 2021 dropped by 13.4 from that of 2018. This result also implies that learners were more affected in Numeracy than in Literacy in English.

The statistics for 2018 by gender, school location and ownership are not shown in the table because the focus of the study was on achievement of learners in 2021, and the 2021 assessment considered only items that worked well both in 2018 and 2021.

### 1.1.3 Achievement of Senior 3 Learners in English Language

The achievement of S 3 learners was categorized into four proficiency levels, that is, lowly proficient, moderately proficient, proficient and highly proficient. The competencies for each proficiency level are shown in Table 6.

Table 6: Description of level of knowledge and skills demonstrated, by proficiency levels

Proficiency level	Competencies
Lowly proficient	Learners in this category can compare adjectives correctly and use comparative form of adjectives, form plurals from regular nouns, use quantifiers with countable nouns (money), use quantifiers with countable nouns (days), extract information directly from the text, address the person whom they are writing the application to.
Moderately proficient	The learners in this proficiency level can in addition to the above: use present simple tense correctly in sentences, use the correct form of auxiliary verbs, use the second conditional 'if clause', use the correct quantifier with uncountable nouns or abstract nouns, give an opinion in line with a text read, make inferences from a read text, predict an eventuality from a text read, use inferences to describe behaviour of characters in a text, draw lessons or positive behaviour from a text read, understand the story and summarize it in a phrase to bring out its general meaning and tittle, write an

Proficiency level	Competencies
	<p>advert including some relevant attributes, pick positive behaviour from a text read and use it to derive lessons, deduce knowledge and get evidence from the text read to back it up, write an application letter including many of the attributes of a formal letter, use information in a text to form their own opinion, make deductions using information given in a text read, draw from their vocabulary to explain phrases in a text read, write an opinion essay including some attributes of an essay such as tittle, introduction, conclusion and proper format.</p>
proficient	<p>In addition to the above, learners in this category can: use the continuous aspect in tense formation, use the future aspect in tense formation of verbs, form adverbs, use correct prepositions in sentence, identify and use the co-relative conjunction in sentences, use the correct question tag in commands, write in reported speech, use contrast conjunctions to join two sentences, punctuate sentences correctly using; exclamation marks, capital letters and question marks, write an advert including most of the attributes of an advert, use adjectives to describe a character in the text read, infer from their contemporary knowledge and apply it to answer questions about a text read, use vocabulary to explain meaning of a phrase in the text read, write an application letter with most of the attributes, understand and summarize a text read in their own words, extract information from a text and use their own words to talk about it, state their opinion on events in a text read, use adjectives or abstract nouns to describe feelings in a poem, use adjectives to describe characters of people in the text read, write an opinion essay using the right language in terms of spelling, tense and punctuation.</p>
Highly proficient	<p>These learners can do all the above and, place comma correctly to emphasize a pause in natural speech, write an advert and include all the attributes, write an application letter and include all the attributes of a formal letter, infer knowledge or apply their contemporary knowledge to answer questions on the text read, write an opinion essay with at least 3 well explained points and examples</p>

Table 7: The proportion of Senior 3 learners rated proficient in English Language in 2017 and 2021, by selected factors

Factor	Category	Percentage Rated Proficient in 2017	Percentage Rated Proficient in 2021
Overall	All	47.4	57.7
Gender	Boy		55.4
	Girl		60.4
Location	Urban		67.9
	Rural		52.4
Ownership	Public		61.0
	Private		55.1

At S 3 level, results showed that the percentage of learners rated proficient in English Language in 2021 increased by 10.3 from that of 2017. This, therefore, implies that more learners actually became proficient in English Language. It is worth noting that the study in 2017 targeted only learners from hard to reach schools in the rural areas.

The statistics for 2017 by gender, school location and ownership are not shown in the table because the focus of the study was on achievement of learners in 2021, and the 2021 assessment considered only items that worked well both in 2017 and 2021.

#### 1.1.4 Achievement of Senior 3 learners in Mathematics

The achievement of S 3 learners was categorized into four proficiency levels, that is, lowly proficient, moderately proficient, proficient and highly proficient. The competencies for each proficiency level are shown in Table 8.

Table 8: Description of level of knowledge and skills demonstrated, by proficiency levels

Proficiency level	Competences
Lowly proficient	Learners in this category: can write elements outside a given set, know the concept of a discount, can identify the required multiples and factors of given numbers, can compare quantities with same units using ratios, can multiply by required multiple, can convert recurring decimal into a fraction, can plot a given coordinate, can manipulate an expression to obtain a simplified form, apply division in conversion, understand time, know the concept of business interest and its formula, are able to substitute numbers in a function, understand the concept of opposite of a vector, can calculate sizes of angles in a pie chart, can draw a pie chart and recognize a bar chart

Proficiency level	Competences
Moderately proficient	Learners in this proficiency level can in addition to the above, represent the relation between the elements on a papigram, apply the concept of discount, identify required prime numbers, round off decimal numbers, identify factors to find H.C.F, multiply decimal numbers, decrease a number in a given ratio, divide numbers, calculate the gradient of a straight line, use the concept of a gradient of and coordinate on a straight line to find an equation, measure angles and lengths, use angle construction procedures to construct angles, apply Pythagoras theorem to calculate length, manipulate basic operations (arithmetic) of numbers, perform subtraction in a given base, perform correct substitution and calculation of business interest, understand the concept of symmetry, understand lines and geometry, understand vectors, plot coordinates correctly, interpret the line graph correctly.
Proficient	In addition to the above, learners in this category can, identify exterior angles, understand the difference between direct proportion and inverse proportion, interpret 3D drawings accurately, identify different types of polygons, understand foreign currency conversions, interpret bar chart correctly, understand concept of the median of data, understand circle and its properties of symmetry, use trigonometric ratios, understand the concept of midpoint and its use, apply the concept of midpoint in situations
Highly proficient	Learners in this category can do all the above and in addition, state the type of mapping, use the concept of finding the number of sides using the exterior angle, describe the elements of a set, understand the concept of reflection as well as different properties of reflection, plot lines on a coordinate, coordinate axes, understand the concept of reflection in a vertical line, interpret inverse ratios and compare lengths using ratios.

Table 9: The proportion of Senior 3 learners rated proficient in Mathematics in 2017 and 2021, by selected factors

Factor	Category	Percentage Rated Proficient in 2017	Percentage Rated Proficient in 2021
Overall	All	39.3	42.5
Gender	Boy		47.5
	Girl		36.7
Location	Urban		49.3
	Rural		38.8
Ownership	Public		40.5
	Private		45.1

The results show that the percentage of learners rated proficient in Mathematics in 2021 increased by 3.2 from that of 2017. This, therefore, implies that more learners actually became proficient in Mathematics. Like stated before, it is worth noting that the study in 2017 targeted only learners from hard to reach schools in the rural areas.

The statistics for 2017 by gender, school location and ownership are not shown in the table because the focus of the study was on achievement of learners in 2021, and the 2021 assessment considered only items that worked well both in 2017 and 2021.

## 1.2 Whether Learners learnt at home during the lockdown

Table 10: The proportions of schools where learners stated that they learnt at home during the COVID – 19 lockdown

Learnt while at home?	FGDs with P 6 Learners		FGDs with S 3 Learners	
	N	N (Percent)	N	N (Percent)
All	269	179 (66.5)	83	46 (55.4)
Urban	208	132 (63.5)	50	24 (48.0)
Rural	61	47 (77.1)	33	22 (66.7)

In almost two thirds (66.5%) of the 269 primary schools, P 6 learners reported that they had some form of learning during the lockdown while in just over half (55.4%) of the 83 secondary schools S 3 learners reported that they had some form of learning.

Similarly, the proportion of schools where the learners said that they learnt at home was higher in the rural than in the urban areas.

In less than half (48%) of the secondary schools in urban areas did S 3 learners report that there was some form of learning.

### 1.2.1 Mode of learning during lockdown

Table 11: The percentage of schools by how their learners reportedly learnt at home during the lockdown

Mode of learning	FGDs with P 6 Learners		FGDs with S 3 Learners	
	N=179	Percent	N=46	Percent
Radio	141	78.8	42	91.3
Home study materials	132	73.7	35	76.1
Television	111	62.0	31	67.4
Coaching by family member or others	60	11.3	17	10.1
Zoom meeting	14	7.8	6	13.0
Group discussions	3	1.7	3	6.5

Both P 6 and S 3 learners in more than 60% of the primary and secondary schools reported that they continued to learn during the lockdown through: Radio, Home study

materials distributed by MoES or Television. The other mode of learning used by learners in 10% or less of the schools were: coaching, zoom meeting or group discussion.

### 1.3 Why some learners never learnt while at home during Lockdown

Table 12: The proportions of schools by reasons why their learners did not learn while at home during lockdown

Reason	FGDs with P 6 Learners		FGDs with S 3 Learners	
	N=90	Percent	N=37	Percent
Home chores	66	73.3	30	81.1
Casual labor	45	50.0	25	67.6
There was no learning material or facility	14	15.6	5	13.5
Loss of interest	0	0.0	4	10.8

In at least half of the primary schools and two-thirds of the secondary schools, learners could not learn during the lockdown because of engagement in home chores and casual labour. They never had time to learn during the day and would feel tired at the end of the day's work. In 10% of the secondary schools, S 3 learners reported that they could not learn while at home because they had lost interest in learning.

## Objective Two: To establish the effects of COVID 19 on learners

### 2.1 Have all the learners reported back to school?

Table 13: The proportion of learners and teachers who returned back to school after the COVID – 19 lockdown.

Factor	Category	P 6 Learners	S 3 Learners
Overall return rate	All	90.6	87.4
Gender	Male	89.8	87.4
	Female	92.0*	86.8
Location	Urban	98.1*	89.9
	Rural	88.7	84.2
Ownership	Public	88.2	88.8
	Private	101.5*	85.3

\* Shows significant difference at 5% level of significance.

The results show that 10% of the P 6 learners and 13% of the S 3 learners did not report back to school. Gender wise, the proportion of P 6 girls (8%) who did not report back to school was significantly lower than that of boys (10.2%), male learners were more affected than female learners. The proportion of P 6 learners in rural areas (11.3%) who did not return back to school was also significantly higher than that of urban areas (1.9%) While private primary schools gained more P 6 learners (1.5%



more) at re-opening, 11.8% of the learners in public primary schools did not return back to school.

At S 3 class, there was no significant variation in the proportion of learners who did not return back to school by gender, location or school ownership i.e., they were affected equally gender-wise, location-wise or ownership-wise.

## **2.2 Reasons Why Some Learners Did Not Report Back To School After The Lockdown**

In order to overcome the challenge of locating for interview those learners who had not reported back to school, parents of those learners were interviewed on their behalf through phone calls.

Table 14: The proportions of parents who gave reasons why their children did not report to school after COVID – 19 lockdown

Reasons why learners did not return to school	Parents of P 6 Learners		Parents of S 3 Learners	
	N=352	Percent	N=118	Percent
Lack of tuition fees	137	38.9	48	40.7
Daughter got pregnant	63	17.9	36	30.5
Learner prefers casual labour to studies	49	14.0	14	11.9
Learner lost interest in studies	47	13.4	8	6.8
Early marriages	35	9.9	27	22.9
Sickness of the learners	27	7.7	5	4.2
Domestic violence (misunderstanding between parents)	9	2.6	0	0.0
Fear of contracting Covid-19	5	1.4	0	0.0

According to parents, the following are the reasons why their children did not report back to school after the lockdown;

- a) Lack of tuition fees was a hindrance to 40% of both P 6 and S 3 learners who did not return to school.
- b) Teenage pregnancy affected 18% of P 6 and 30.5% of S 3 girls who did not return to school while early marriages hindered 10% of P 6 and 23% of S 3 learners who did not return to school.
- c) Preference for casual labour over studies hindered 14% of P 6 and 12% of S 3 learners who did not return to school.
- d) Loss of interest in the studies affected 13% of P 6 and 7% of S 3 learners who did not return to school.
- e) Other challenges included learners becoming sick, domestic violence and fear of contracting Covid-19.

### **2.3 Parents' plan for children who did not report back to school after lockdown**

Future plans	Percentage of S 3 parents	Percentage of P 6 parents
	All	All
Take the child back to school when finances are there	46.6	48.6
Go back to school after delivery	28.8	18.8
Take child back to school after counselling	10.2	7.7
Take the child for specialized courses (skilling)	10.2	12.8

Although 8.5% of parents of P 6 learners and 10.2% of parents of S 3 learners did not have any plan at all for their children's return to school, the majority of them reportedly had some plan. The plans include;

- a) Parents who lacked school (tuition) fees for their children, reported that they planned to take the learners back to school when finances become available.
- b) Parents whose daughters got pregnant, planned to take them back to school after delivery.
- c) Parents whose children preferred casual labour to formal studies, planned to take the children for skilling courses.
- d) Parents whose children lost interest in formal studies, planned to talk to (counsel) them in order to convince them to go back to school.

### **2.4 Challenges faced by learners during lockdown**

Table 15: The proportions of schools in accordance with the challenges faced by their learners during lockdown

Challenges faced by learners	FGDs with P 6 Learners		FGDs with S 3 Learners	
	N=269	Percent	N=83	Percent
Child labour	207	77.0	66	79.5
Sexual harassment/ early marriages	168	62.5	65	78.3
Domestic violence	148	55.0	60	72.3
Rape of girls	55	20.5	27	32.5
Inadequate finances to cater for family needs	46	17.1	28	33.7
Inadequate parental support to girls	43	16.0	17	20.5

Arrests by police	38	14.1	31	37.4
Kidnaps	26	9.7	7	8.4
Idleness/ joining bad peer groups	22	8.2	14	16.7
Teenage pregnancy	20	7.4	11	13.3
Inability to worship (i.e., prayers)	9	3.4	3	3.6
Uncertainty about re-opening date	4	1.5	4	4.8

In at least 55% of primary schools and at least 72% of secondary schools, learners reported that they faced the following challenges;

- a) *Child labour* – the learners reported that they were over-worked (got tired). They suggested that amount of domestic work given should be regulated.
- b) *Domestic violence* – disputes between parents/guardians and their use of abuse language, corporal punishments, etc on the children. Some of them became traumatized. They suggested that parents should peacefully settle disputes and also guide and counsel their children instead of abusing them.
- c) *Sexual harassment by relatives and other community members/ early marriages.* They suggested that learners should be empowered to report child abuse and domestic violence to police.

The other challenges reported by learners in less than 40% of the schools were;

- d) *Inadequate finances to cater for family needs* – they suggested that government should support citizens with relief e.g., funds and food.
- e) *Inadequate parental support to girls/teenage pregnancy* – they suggested that parents should provide for the girls.
- f) *Kidnaps/Arrests by police/Idleness/joining bad peer groups* – they suggested that teenagers should be sensitised by parents and or community leaders against the dangers of joining bad groups.
- g) *Inability to worship and uncertainty about schools reopening date.*

## **2.5 The good things Learners who reported back to school learnt at home during the lockdown**

Table 16: The proportions of schools by the good things learners learnt at home during lockdown

Good things learnt	FGDs with P 6 Learners		FGDs with S 3 Learners	
	N=269	Percent	N=83	Percent
Acquired basic skills such as baking	241	89.6	81	97.6
Experienced positive behavioural change	148	55.0	47	56.6
Acquired new knowledge	111	41.3	44	53.0
Experienced attitude change i.e., mind set	66	24.5	29	34.9
Acquired entrepreneurship skills	8	3.0	9	10.8

In at least 90% of the primary and secondary schools, the learners reported that they acquired basic skills relevant to house chores like cleaning, cooking and washing, and baking during the lockdown.

The learners in over half of the primary and secondary schools also did say that they experienced positive behavioral change during the lockdown. Learners in some of the schools reportedly acquired new knowledge, experienced positive attitude (mind set) or entrepreneurship skills.

### **Objective Three: To establish the effects of COVID-19 on teachers**

#### **3.1 Have all the teachers returned to school?**

Table 17: The proportion of teachers who reported back to school after the COVID – 19 lockdown.

Factor	Category	P 6 Teachers	S 3 Teachers
Overall return rate	All	104.7	103.2
Gender	Male	102.4	102.4
	Female	108.5	107.6
Location	Urban	101.7	96.6
	Rural	105.5	111.5
Ownership	Public	107.4*	107.8
	Private	2.1	96.6

\* Shows significant difference at 5% level of significance.

Overall, results show that more teachers in public schools reported back to teach P 6 and S 3 learners at re-opening i.e., 7.4% more at P 6 and 7.8% more at S 3. This is attributed to the fact that some of the teachers of lower classes were also summoned back to school to handle the extra streams created for P 6 and S 3 learners as a result of social distancing. However, 8% of the P 6 teachers and 3.4% of the S 3 teachers in private schools did not report back to school. The difference was significant amongst P 6 teachers, by school ownership. While secondary schools in rural areas had 11.5% more teachers of S 3 learners reporting back at re-opening, 3.4% of the teachers in urban schools did not report back to school.

It is important to note that this study considered the number of teachers who were handling P 6 – P 7 and S 3 – S 4 at re-opening rather than how many of those very teachers who taught P 6 – P7 and S 3 – S 4 classes before the lockdown did not report back to school.

#### **3.2 The reasons given by the teachers who did not report back to teach after lockdown**

A majority of the 47 teachers of primary 6 class and 23 teachers of senior three class who did not report back to teach after lockdown said that they either had no pay or the pay was inadequate to sustain their financial needs. They observed that the income generating activities they had established became a better alternative

### ***3.3 Whether teachers who reported back to school experienced any challenges during the lockdown***

Teachers of P 6 and S 3 classes who reported back to school after the lockdown were also interviewed in order to elicit their views on how the pandemic affected them.

Table 18: The proportions of practicing teachers who mentioned the challenges they faced during the COVID – 19 lockdown

Challenges faced during the lockdown	P 6 Teachers		S 3 Teachers	
	N=519	Percent	N=165	Percent
No salary/Inability to provide for family and friends	237	46.8	110	66.7
No allowances	189	37.4	99	60.0
Unable to visit friends and relatives because of high transport costs	274	54.2	75	45.5
Psychological torture due to engagement in low class enterprise underated by community members	16	3.2	13	7.9
Unruly children/daughter eloped	31	6.1	13	7.9
Idleness/boredom	30	5.9	13	7.9
Marriage break down (disputes)	51	10.1	10	6.1
Forgetfulness of subject content/Lost of interest in teaching	18	3.6	3	1.8

A total of 519 teachers of P 6 class and 165 of S 3 class who reported back to school were interviewed. Nearly all of them (97.5% of P 6 and 100% of S 3) reported that they faced some form of challenges during the lockdown. The teachers who did not report back to school also experienced similar challenges.

Teachers in the majority of primary and secondary schools experienced financial distress and social challenges;

- a) About 47% of those teachers of P 6 class and two-thirds (66.7%) of those teachers of S 3 class experienced inability (financial distress) to provide for their family and friends because there was no salary for teachers in private schools and also lack of allowances of any kind for those teachers in public schools.

- b) Because of high transport costs and other restrictions, about a half of the teachers did say that they were not able to make visits to any person so as to relieve the stress of the pandemic.

The affected teachers suggested that the challenge of financial distress could have been mitigated through;

- a) Government giving teachers interest free loans.
- b) Government supporting teachers in private schools with relief in form of rent, food stuff and medication or allowing teachers to access a percentage of their savings with NSSF/pension funds.
- c) Private schools continuing to pay salaries to teachers or provide relief in form of rent, food stuff and medication.

### ***3.4 The good things experienced by the teachers who reported back to school after the lockdown***

Table 19: The proportions of teachers who reported back by the good things they experienced during the lock down

Achievements during the lockdown	P 6 Teachers		S 3 Teachers	
	N=519	Percent	N=165	Percent
Had enough time for family/community/ self	404	77.8	121	73.3
Started income generating activities	299	57.6	108	65.5
Became creative (innovative)	204	39.3	63	38.2
Had enough time for their side business	150	28.9	52	31.5
Received support from family members, friends and school authority	105	20.2	31	18.9
Received support from government/NGO	49	9.4	6	3.6

Although teachers experienced a number of challenges, they also benefited in many things which included;

- a) Having enough time with/for the family/community/self - 77.8% P 6 teachers and 73.3% S 3 teachers
- b) Starting income generating activities - 57.6% P 6 teachers and 65.5% S 3 teachers
- c) Becoming creative (innovative) – 39.3% P 6 teachers and 38.2% S 3 teachers
- d) Having enough time for their side businesses – 28.9% P 6 teachers and 31.5% S 3 teachers
- e) Receiving support from family members, friends, school authority and Government or NGOs – 29.6% P 6 teachers and 22.5% S 3 teachers

### ***3.5 What will happen to the income generating activities now that the schools are fully open?***

Table 20: The proportions of teachers who mentioned how to sustain the income generating activities they had established;

Ways of business sustainability	P 6 Teachers		S 3 Teachers	
	N=299	Percent	N=108	Percent
Hire someone to run it	118	39.5	48	44.4
Hand over to a family member	97	32.4	31	28.7
Attend to it when not engaged at school	46	15.4	16	14.8
Close the business	10	3.3	3	2.8

The results show that more than half of the P 6 and S 3 teachers started income generating activities during the lockdown. The challenge is now how the teachers will sustain the businesses while they are at school teaching. Teachers reported that they would sustain the businesses in three ways namely;

- a) Hire someone to run it
- b) Handover business to a family member
- c) Attend to it when not engaged at school