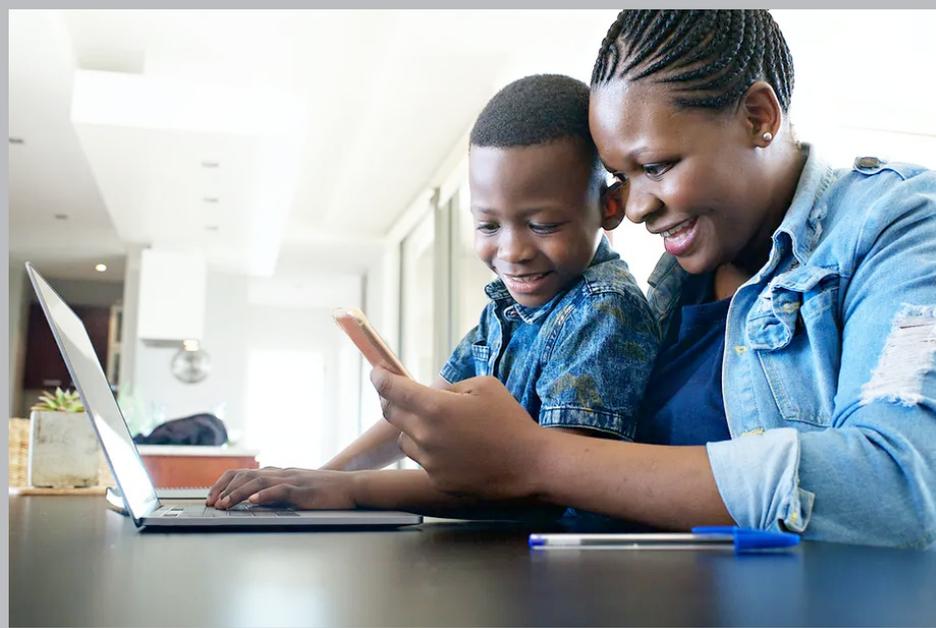
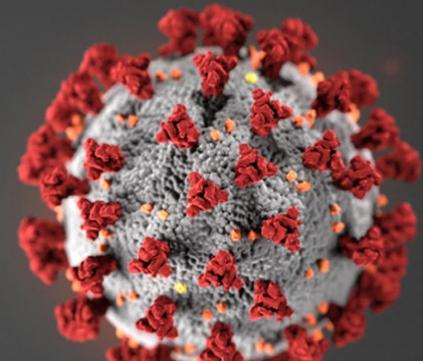




**GHANA NATIONAL  
ASSOCIATION OF TEACHERS  
(GNAT)**



**IMPACT ASSESSMENT OF  
COVID-19  
ON THE EDUCATION SECTOR  
IN GHANA:  
THE PERSPECTIVES OF GNAT**



## FOREWORD

It is an undeniable fact that the Coronavirus (COVID-19) pandemic which has rocked the world in recent times has affected all facets of life, with its devastating consequences. As a major stakeholder of one of the critical sectors of Ghana, i.e. *Education*, the Ghana National Association of Teachers, GNAT has found it necessary to take a look at the impact of the pandemic on the sector (education) and how, from its perspectives, the country can combat it, and how education could be run, when things settle.

In compiling the *Impact Assessment of COVID-19 on the Education Sector*, the Association has relied on such authorities in education as the United Nations Educational Scientific and Cultural Organization (UNESCO) and the United Nations, and examined their strategies for handling education in times of crisis such as Ghana finds itself faced with now. The UNESCO Strategic Framework for Education In Emergencies (EIE) and Goal 4 of the Sustainable Development Goals (SDGs) of the United Nations have been reliable sources of information as well as other policy documents of the Government of Ghana, the Ministry of Education, the Ghana Education Service and other stakeholders and agencies.

All in all, *the Impact Assessment* evaluates the potential impact of COVID-19 on Ghana's education system, and proposes pragmatic solutions which could help the government and the Ministry of Education to build the required resilience to the pandemic and recover rapidly from it, to enable education to continue to run its course, for the good of the country.

We have not seen COVID-19 as just a threat to education, but also as a major opportunity to reshape teaching and learning in Ghana, and hope we would take advantage of it, redirect our strategies and methodologies, to make them relevant to our cause as Ghanaians.

God bless our homeland Ghana!

**THOMAS TANKO MUSAH**  
**GENERAL SECRETARY, GNAT**

**DATED: 28<sup>TH</sup> MAY, 2020**

- i. The Ghana Library Authority (GLA) must intensify its publicity of the online library facility to encourage parents and students to patronize it, to help enhance home-based learning.
- ii. Computers, tablets, electronic assistive devices, and gadgets with their accompanying application software must be supplied to special needs children, to enable them to participate in and enjoy the novel way of lesson delivery.
- iii. All schools and education offices must be fumigated.
- iv. The necessary preventive health materials, (hand-washing buckets, alcohol-based hand sanitizers, tissues, nose masks and reliable water supply) should be provided in all schools and the teachers and learners encouraged to use them, to ward off any outbreak of any nature.
- v. Adequate numbers of health personnel should be provided for the schools to handle the health needs and challenges of both teachers and learners.
- vi. Class sizes should be reduced to make social distancing possible.
- vii. The current classroom arrangements which are inconsistent with the two (2)-meter distancing as recommended by the WHO should be addressed.
- viii. All teachers, learners and supporting staff across the country must be tested .
- ix. The schools should be opened in phases, in consultation with the health experts.

**Background**

The provision of Education in complex emergencies such as disasters and health pandemics is often destabilized, disorganized or in some instances totally destroyed or halted. In recent times, the health threat confronting the provision of education is the novel Coronavirus (COVID-19). In Ghana, like other countries, the pandemic precipitated the total closure of schools and educational institutions on March 16, 2020, to reduce human contact and possible infection.

According to UNESCO, education should not come to a halt due to the occurrence of emergencies. Ghana has therefore had to adopt e-learning (distance and online) through a wide spectrum of technological practices as a means to reach students in remote and outlandish areas to ensure the continuity of education delivery. However, using a remote learning system to help limit the disruption in the education system could be with several inequalities, particularly for the most disadvantaged and vulnerable.

In this paper, the Ghana National Association of Teachers (GNAT) evaluates the potential impact of COVID-19 on the Ghanaian education system. This is to help propose pragmatic solutions to the Government of Ghana (GoG) through the Ministry of Education (MOE) that can be used to build resilience and promote rapid recovery from the impact.

**Methods**

The framework employed for the impact assessment was the UNESCO Strategic Framework for Education in Emergencies (EIE). The basic philosophy of the Framework is that education cannot wait in times of emergency. According to the Framework, Goal 4 of the Sustainable Development Goals (SDGs) cannot be achieved without meeting the needs of the most vulnerable populations in times of crisis, such as COVID-19. The minimum standards of the EIE in terms of quality and access as

recommended by UNESCO were applied, to evaluate the impact of COVID-19 on the Ghanaian educational system. The assessment used a triangulation of data sources through targeted needs assessments, disaggregated data collection and analysis, to ensure that all the relevant stakeholders in education were mainstreamed into the impact assessment.

### Findings

While alternative forms of education have been implemented by the MOE through the Ghana Learning Television (GL TV) and Online Learning Platform for Pre -tertiary students, these interventions have presented several inequalities among students. The most disadvantaged and vulnerable households lack electricity, TV, computers and internet connectivity. This therefore makes it difficult to access the distance and online learning platforms. Other existing opportunities such as radio-school learning and mobile-based learning can be used to overcome the inequalities to benefit the most disadvantaged students.

The impact of COVID-19 on students' learning outcomes include potential loss in learning time, increase in drop out rates and learning poverty, adaption challenge to the new way of learning, and potential impact on Gross Enrolment Ratio (GER) and Net Enrolment Ratio (NER). On the part of the teaching workforce, the potential impact includes loss of jobs in private schools, potential downsizing in the private schools, potential shortages of teachers in private schools, and increase in teacher workload.

From the perspective of GNAT, COVID-19 is not just a threat to education, but also a major opportunity to reshape teaching and learning in Ghana, through the integration of pedagogies which incorporate digital learning and the prioritisation of EIE in education budget planning.

**Key Words:** *COVID-19, Education in Emergencies, Learning Loss, Learning Poverty*

that pupils/students use their time meaningfully, and not engage in trading, farming and fishing, to the detriment of studying while at home.

- **Partnerships and Collaboration:** The MOE should continue to engage with teachers through their unions, to determine and assess the impact of COVID-19 on teaching, learning and student well-being, with the view to addressing them.
- **Equity:** The impact of COVID-19 may be unequal, with the vulnerable students being the most affected. A student-learning support system should therefore be put in place, particularly for students who are unable to participate in online or home-based learning during the pandemic. This would ensure equity on the education front.
- **Psycho-social support:** There is a great need for psycho-social support for both parents, learners and teachers during and after COVID-19, to help them to cope in the school environment, and minimise poor attendance and drop out rates, with particular attention to girls, people with disabilities and children who may be at risk of child labour.
- **Guidelines on reopening of the schools:** Government should ensure safety from COVID-19 in all classrooms for teachers and students before opening the schools. Student–classroom ratio, student–seating arrangements, and student-to-desk ratio are all important conditionalities for ensuring social distancing to prevent the pandemic. And they must be put in place!

While GNAT acknowledges the untiring efforts government is putting in place to combat the COVID-19 pandemic, GNAT further urges the GES to put the following preventive measures in place as prerequisites for the reopening of the schools:

9.0. CONCLUSION AND RECOMMENDATIONS

9.1. Conclusion

The position of GNAT is that, the duration and scope of the impact of COVID-19 on Ghana's education system is unknown. However, the reconstruction of education after COVID-19 will require resources to make up for the time lost in learning and targeting of disadvantaged learners who were the most affected during the pandemic. COVID-19 has changed the pedagogical approach and how students should be educated.

The pandemic has resulted in innovations in education. However, given the wide digital divide in Ghana, a pragmatic shift to the new approach to education could widen the equality gaps in existence. The impact of COVID-19 appears to differ across the levels of education, with the pre-primary, primary, JHS/SHS levels significantly impacted in different ways.

9.2. Recommendations

Based on the outcomes of the impact assessment, the following measures are recommended to address both the immediate and post-COVID-19 impact on pre-tertiary education in Ghana:

- **Support to parents on the use of digital-learning tools:** The Ministry of Communication, in collaboration with the MOE, should use the same learning platforms to empower parents better, to support their children in home-based learning.
- **Measures by the Assemblies (MMDAs):** In the short-term, if the schools should still remain closed, to minimize the time lost in learning, the MOE, in collaboration with the MLGRD, and the Assemblies (MMDAs) should institute measures to ensure

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- Promote internet access for all educational institutions, for the benefit of both teachers and learners.
- Government must intensify its provision of Community ICT Centres, School Connectivity, SMART Community Programme and Rural Telephony across the country, as envisaged under the Ghana Investment Fund for Electronic Communication (GIFEC) programme.

## 8.2 Bridging the Household Digital-Divide

The COVID-19 pandemic has reaffirmed the inequalities which exist in home-based education in Ghana. With the pandemic, the existing inequalities in access to education in Ghana are likely to widen, without the priority on equity in access. Therefore, attention should be given to household ownership of computers and internet connectivity, to complement school-based technological infrastructure. Thus, in the medium to long term, the MOE should decentralize and broaden the provision of school-based computer labs to include home-based digital learning tools to enhance online learning.

## 8.3 Prioritising EIE in Education Budgeting

Chapter 4 of the *GNAT Standpoint on Education* posits that education cannot wait in an emergency. We note the alarming emergencies which challenge the provision of education in Ghana, and the neglect of the funding of education within humanitarian aid budgeting by successive governments. We note further that Education in Emergencies has never received the deserved educational planning in Ghana. Thus COVID-19 presents the Government, the opportunity to prioritise EIE in its budget. And this must be done!

Though most teachers who are not technologically literate may find it difficult to manage online teaching, following the adoption of online learning by the MOE, teachers are integrating pedagogies which incorporate digital learning, using the principle of Diffusion of Innovation through online streaming, to reach their students. This is likely to enhance the digital pedagogical skills and knowledge of the teachers, and boost their confidence in adopting the pedagogies which incorporate digital learning, using e-platforms.

The COVID-19 pandemic has therefore created the opportunity for the integration of the Teacher Empowerment and Support through Technology (TEST) project delivered by the Voluntary Service Overseas (VSO) into the GoG Online Technology to enhance teaching and learning in Ghana.



A potential lesson from the pandemic is the need for the MOE to enhance the digital knowledge base of teachers, to enable them deliver live streaming lessons, through e-learning platforms.

Further, GNAT urges Government to:

- Be committed to the rapid deployment, utilization and exploitation of ICT in the educational system from primary school upwards, as envisaged under the Ghana ICT for Accelerated Development Policy (2003).
- Review the One Laptop Per Child (OLPC) and the One Laptop Per Teacher, One Laptop Per Student projects, to enable both teachers and learners, the special needs children included, to enhance e-learning which has become the alternative mode of delivery, in this COVID-19 era.

## LIST OF ABBREVIATIONS AND ACRONYMS

ABFA	Annual Budget Funding Amount
CG	Capitation Grant
COVID-19	Coronavirus
DPs	Development Partners
EC	European Commission
EGMA	Early Grade Mathematics Assessment
EGRA	Early Grade Assessment
EIE	Education in Emergencies
EMIS	Education Management Information System
ESPR	Education Sector Performance Report
GBC	Ghana Broadcasting Corporation
GER	Gross Enrolment Ratio
GES	Ghana Education Service
GETFund	Ghana Education Trust Fund
GIFEC	Ghana Investment Fund for Electronic Communication
GL TV	Ghana Learning Television
GLA	Ghana Library Authority
GLFS	Ghana Labour Force Survey
GLSS	Ghana Living Standard Survey
GNAT	Ghana National Association of Teachers
GoG	Government of Ghana
GPE	Global Programme for Education
GPEG	Ghana Partnership for Education Grant
GPI	Gender Parity Index
GSS	Ghana Statistical Service
HD	High Definition

IBES	Integrated Business Establishment Survey
IEIE	Institute of Education in Emergency
IGF	Internally Generated Fund
IIEP	International Institute on Education Planning
INEE	Inter-Agency Network on Education in Emergencies
IRI	Interactive Radio Instruction
ITU	International Telecommunication Union
JHS	Junior High School
KG	Kindergarten
L1	Local Language(mother tongue)
MLGRD	Ministry of Local Government and Rural Development
MMDAs	Metropolitan, Municipal and District Assembles
MOE	Ministry of Education
NCA	National Communication Authority
NER	Net Enrolment Ratio
OECD	Organization for Economic Cooperation and Development
OOSC	Out-of-School Children
P2	Primary 2
P6	Primary 6
PISA	Programme for International Student Assessment
SHS	Senior High School
STEM	Science, Technology, Engineering & Mathematics
TEST	Teacher Empowerment and Support through Technology
UNESCO	United Nations Educational, Scientific and Cultural Organisation
VSO	Voluntary Service Overseas
WHO	World Health Organization

**8.0. RESHAPING OF EDUCATION:  
LESSONS FROM COVID-19**

“Necessity”, as the saying goes, “is the mother of invention”. Following the outbreak of COVID-19 and its impact on education, several innovations have been implemented with the view to reshaping education in Ghana. With the COVID-19, countries are searching for innovative ways of sustaining teaching and learning. In Ghana, the pandemic has provided such lessons as distance and online learning which can be used as opportunities to transform education delivery.

From the perspective of GNAT, COVID-19 is not just a threat to education, but a major opportunity to reshape teaching and learning in Ghana. For GNAT, remote learning is not just about online learning but the use of a hybrid of media learning to reach as many disadvantaged children as possible. *And this needs to be explored further.*

**8.1 Integration of Pedagogies which Incorporate Digital Learning**

The ICT in Education Policy of Ghana (2003) requires the use of ICT in teaching and learning at all levels of the education system. However, GNAT notes that the official curriculum on ICT focuses more on the development of students' skills in operating ICT gadgets, and but not necessarily using technology as a means of learning. The adoption of online learning by the MOE is likely to enhance the digital learning skills of students. The integrated digital learning platforms and video lessons developed through the GL TV as well as the Online Learning Platforms are proving to many students, the effectiveness and feasibility of online pedagogy. Students are also expected to develop knowledge of digital learning which will prepare them for distance education, the system many higher education institutions in Ghana were using prior to the outbreak of COVID-19.

education system. With the schools not in session, the timely release of the Capitation Grant (CG) may be affected.

### **7.3. Decline in Government Revenue from Development Partners (DPs)**

The Ghana Education Trust Fund (GETFund) and the Annual Budget Funding Amount (ABFA) are the main sources of funds for government expenditure on goods, services and capital. The proportion of education spending from IGF has decreased, due to the rolling out of the free Senior High School (SHS) programme (Education Strategic Plan: 2018-2030).

Development Partners (DPs) also contribute to educational financing in Ghana. In the wake of the pandemic, there is the possibility of a reduction in development assistance from the high-income countries which themselves may have to realign their fiscal priorities, with the global economic impact of the pandemic.

### **7.4. Economic Cost to Parents**

For students using the Online Learning Platforms, the direct bother for parents is the cost of data. Though MTN and Vodafone are offering zero-rate policies to mitigate the economic cost on parents, parents are still incurring cost with accessing data for online learning for their wards, and in some instances acquiring electronic gadgets for them.

Household expenditures have also shot up.

## **CHAPTER ONE**

### **1.0. INTRODUCTION**

#### **1.1 Background**

Complex emergencies such as disasters and health pandemics often destabilise, disorganise or destroy the provision of education. In 2015, the European Commission recommended that the international community should step up its efforts and increase humanitarian aid budgeting in education from, at least, 4% to 6%, to address Education In Emergencies (EIE). Globally, the current health threat confronting the provision of education is the Coronavirus (COVID-19). According to the World Health Organization (WHO), one of the best means of mitigating the spread of COVID-19 is the exercising of social distancing and self-isolation. This has necessitated the need for the total closure of schools and educational institutions globally, to reduce human contacts. Epidemiologists have acknowledged the necessity for the closures and that they have the desired effect of preventing community transmission.

According to UNICEF<sup>1</sup>, the global closure of schools has impacted about 98.5 % of the world's student population in pre-primary, primary, secondary and tertiary institutions in 194 countries which are currently implementing either nationwide closures or local closures. Ghana recorded its first case of COVID-19 on March 12, 2020, and subsequently closed down all schools and educational institutions on March 16, 2020. Consequent to this, many nations are adopting e-learning approach through a wide spectrum of technological practices as a means to reach students in remote and outlandish areas, to ensure the continuity of education delivery as recommended by UNESCO.

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<sup>1</sup>UNESCO Institute for Statistics data

As part of mitigating the effect of COVID-19 on the teaching and learning process in Ghana, the Ministry of Education (MOE) in partnership with the Ghana Broadcasting Corporation (GBC) launched an Online Study Platform for SHS students. A virtual learning timetable for KG, Primary and JHS was also launched on the Ghana Learning TV (GL TV) on May 06, 2020.

Taking cognisance of the potential occurrence of emergencies such as COVID-19 as a challenge to the provision of education in Ghana, Chapter Four (4) of the *GNAT Standpoint on Education* focuses on the prioritisation of Education in Emergencies to ensure that teaching and learning are not disrupted in times of such crises.

Due to the COVID-19, school-based learning has been temporarily transformed into home-based learning to ensure the continuity of teaching and learning. However, it is obvious that home-based learning cannot replace school-based learning but is rather a complement which has risen as a result of the exigency of the moment and brought to the fore, the socio-economic inequalities in the country.

## 1.2 Objectives and Scope

It is well known that time lost in learning, otherwise known as learning loss, is one of the most reliable predictors of opportunity to learn. The closure of schools has the likelihood of causing a major and unequal interruption in student learning outcomes. Home-based learning implies limitations to the ability of teachers and students to meet physically during COVID-19, thus limiting the opportunities of students to learn during the period of closure.

While the MOE could be lauded for facilitating the continuity of education delivery for all through remote learning, it must be pointed out that this system has a number of inequalities, particularly for the most disadvantaged and the vulnerable. In this paper, the Ghana National Association of Teachers (GNAT) evaluates the potential impact of COVID-19 on the Ghanaian education system, with the view to help propose pragmatic solutions to the Government of Ghana (GoG) through the MOE to be used to build resilience and promote rapid recovery from the pandemic.

## 7.0. IMPACT OF COVID-19 ON EDUCATION FINANCING

An important component of the impact of COVID-19 on education is education financing. From the perspective of GNAT, COVID-19 will impact education financing on two separate but related levels:

1. The loss of education spending for the duration of the pandemic, as well as the resulting additional costs, and
2. The expected downturn in future financial resources available to the education sector.

The views of GNAT are consistent with those of the International Institute on Education Planning (IIEP).

### 7.1. Financial Loss in Recurrent Expenditure

A larger proportion of Government expenditure is often recurrent across all the sub-sectors of education. For most SHSs particularly the boarding, cost of goods for the current 2019/2020 academic year has already been incurred. From an educational response planning perspective, public sector teachers are still being paid by the GoG, despite the closure of the schools. These expenses on the wage bill in the short term are not translating into learning. Though financial losses may be high and mount up if the pandemic continues, the continued payment of public teachers' salaries is necessary to prevent any potential attrition or industrial unrest even in the private education sub-sector.

### 7.2. Cost of Mitigating the Consequences of the School Closure

The MOE is currently using distance and online learning systems to limit the loss of learning time. Considering the limited technological infrastructure in Ghana, the financial cost for the Government may be substantial, and constitute an additional financial burden for the

out of the 365, 618 teachers employed in Ghana (Nursery to JHS), 44.16% are in primary schools.

The main source of revenue of the private schools is the payment of school fees. Following COVID-19 and the closure of schools, the private schools are unable to raise revenue to pay the salaries of their staff and other overhead expenses and this may result in downsizing of staff and layoffs which may in turn trigger labour unrest.

## 6.2. Potential Increase in Teacher Workload

With the considerable loss in learning time, teachers will either have to extend their instructional hours or find extra time outside the instruction hours to make up for the losses. This will induce unrelenting stress, pressure and psychological strain on the teachers.

Considering the inequalities in students' cognitive abilities, socio-economic inequalities and regional imbalances in educational infrastructure, the workload of teachers will be significantly disproportionate across geographical locations, especially, in the rural areas. And this would be a major challenge!

We also take cognisance of the fact that teachers in the public schools would also be hit by the effect of COVID-19. They would be faced with the issue of large class sizes, the nature of the existing school blocks, seating arrangements, class room spaces and their own health, among other issues.

**Objective 1:** Examine the pull and push factors facilitating and/or inhibiting access to education in COVID-19;

**Objective 2:** Assess the potential impact of COVID-19 on students' learning outcomes;

**Objective 3:** Assess the impact of COVID-19 on the teaching workforce;

**Objective 4:** Examine the existing opportunities that can be used to mitigate the impact; and

**Objective 5:** Explore how COVID-19 could reshape and transform formal education in Ghana.

The restrictions on mobility resulting from COVID-19 and ensuring social distancing have impacted different sectors of the Ghanaian economy; the education sector is one of the most affected, due to the several vulnerabilities associated with it. According to UNESCO<sup>2</sup>, the detrimental impact of the crisis on education is overwhelming. Apart from profiling the impact of COVID-19 on the Ghanaian education sector, this paper further lays out the strategic vision and pragmatic objectives of GNAT in mitigating the negative effects of the pandemic on the sector.

While students at all levels of education (pre-primary, primary, secondary and tertiary) are affected by the COVID-19, the scope of this impact assessment is limited to the pre-primary to secondary levels. The assessment also focuses on both private and public sub-sectors of the education enterprise. Both short and long term impact are assessed and segmented across the key stakeholders in the provision of education in Ghana (Government, teachers, students, supporting staff and parents).

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<sup>2</sup>UNESCO Strategic Framework for Education in Emergencies in the Arab Region (2018-2021)

## 2.0 IMPACT ASSESSMENT FRAMEWORK UNESCO STRATEGIC FRAMEWORK FOR EIE

The basic philosophy of the UNESCO framework for Education in Emergencies (EIE) is that, education cannot wait in times of crises which destabilise its provision. The causes of Emergencies in Education could be communal conflict(s), epidemic(s), pandemic(s), famine, or natural disaster(s). The *emergency* under assessment in this paper is *a pandemic, the COVID-19*. According to the UNESCO Framework, Goal 4 of the SDG cannot be achieved without meeting the needs of the most vulnerable populations in times of crisis such as COVID-19. The Framework is anchored on the three pillars of education (Access, Quality and System Strengthening). These three indicators emphasise the importance of relevant and inclusive education to meet the challenges confronting learners, educators, and educational systems in both crises and post-crises settings.

### 2.1 Access

According to the Framework, learners affected by a crisis such as COVID-19 should have access to inclusive learning opportunities during its prevalence. This is premised on the fact that during such emergencies, large numbers of learners, particularly, the most disadvantaged and vulnerable, are excluded from receiving any form of education.

### 2.2 Quality

The quality component of the Framework argues that education actors and managers should provide quality education and ensure better learning outcomes, during emergencies. However, the quality of education provided in most emergencies has been found to be greatly compromised<sup>3</sup>, since focus is often placed on access than quality.

<sup>3</sup>UNESCO

## 6.0. IMPACT OF COVID-19 ON THE TEACHING WORKFORCE

The role of teachers is essential to the success of the learning experience, even more so than the physical environment of schools or technological infrastructure. When the structuring power of time and place that schools provide dissolve and online learning becomes the dominant mode of teaching, the role of teachers does not diminish. Through direct instruction or guidance provided in self-directed learning, in synchronous or asynchronous modes, the teacher remains essential in steering students' learning. According to EMIS data for the 2017/2018<sup>18</sup> academic year, the Education Sector in Ghana, including the private sub-sector, employed 412,558 teachers. The private sub-sector employed 30.56 per cent of teachers across the country. Therefore, any impact assessment of COVID-19 on the education system will be incomplete, without focusing on the impact on private schools, and private school teachers.

### 6.1. Loss of Jobs in Private Schools/Potential Downsizing in Private Schools

According to EMIS data for 2017/2018, about 30.56 per cent of persons employed in the education sector are engaged by the private sector (private schools). The MOE's 2017/2018 ESPR also shows that the growth in the number of schools has come from the private sector. Private schools constitute about a third of basic school structures in Ghana. Over 20% of potential basic school pupils are enrolled in the private schools, with the private schools still making up about half of the JHSs and SHSs established between 2011 and 2017. According to the 2017/2018 ESPR, out of the 75,740 schools in Ghana, 34, 123 (45.1%) are privately owned. The Education Management Information System (EMIS) data further shows that

<sup>18</sup>EMIS data for the 2017/2018

assessment exams, including the WASSCE. While predicted grades are being referred to as alternatives elsewhere, they are inaccurate, since they cause inequalities among high achieving students. In Norway, for example, it has been decided that all 10<sup>th</sup>-grade students will be awarded high school degrees. This may lead to labour market consequences for the affected cohorts. In Ghana, GNAT supports a postponement of internal assessment, instead of its skipping/cancellation.

Apart from the pandemic disrupting the internal assessment, it also has the potential of mismatching the pedagogical approach with the mode of assessment, and this may lead to larger measurement errors. According to Professor Ofori-Birikorang<sup>16</sup>, the Pro-Vice Chancellor of the University of Education, Winneba (UEW), the means via which teaching and learning takes place should be the same means via which assessment is done. Therefore, the online teaching and learning method ought to be used to assess students even when school returns to normality, for the period for which the assessment would be done. This is essential in order to eliminate the adaption challenges of students to the new way i.e. online and distance learning.

### 5.7. Interruption in Students' Learning

The assessment conducted in the previous chapter implies that while teaching has moved online, it has also presented several inequalities in students' learning outcomes. About 44.0 per cent of Ghana's population is rural<sup>17</sup>. The impact has been more severe for the disadvantaged children and their families, most of them in rural Ghana, and causing interruption in their learning.

<sup>16</sup>Joy FM (April 03, 2020). Beyond COVID-19: Impact of COVID 19 on Education

<sup>17</sup>World Bank (2019). Ghana population. Accra: World Bank

## 2.3 System Strengthening

The third pillar of the Framework argues that educational systems should be responsive and resilient to emergencies. In response to this provision, Ghana's Ministry of Education (MOE), has rolled out a number of interventions that can ensure the continuity of education delivery in the crisis the country is going through.

In summary, the impact assessment of COVID-19 on the Ghanaian education sector, has been conducted, applying the minimum standards of EIE, in terms of quality and access, as recommended by the Inter-Agency Network on Education in Emergencies (INEE) of UNESCO.

## 2.4 Methods

The assessment applied a triangulation of data sources through targeted needs assessments, disaggregated data collection and analysis to ensure that all the relevant stakeholders in education were mainstreamed; in other words, a stakeholder mapping was done and completed with a subsequent stakeholder consultation, to help obtain the relevant data for the impact assessment.

## CHAPTER THREE

### 3.0. ACCESS TO EDUCATION AND RETENTION DURING AND AFTER COVID-19

As part of mitigating the effect of COVID-19 on the teaching and learning process, the MOE has implemented temporary measures to enhance access to education. While these measures are in line with the recommendations of UNESCO, the implications on access to education during COVID-19 ought to be profiled. Consequently, this chapter profiles the pull and push factors that are facilitating and or/ preventing access to e-learning during the COVID-19 as well as the implications of retaining students in school after COVID-19.

#### 3.1 Push Factors<sup>4</sup>: Access to E-learning

While alternative forms of education have been implemented by the MOE through e-learning platforms such as the Ghana Learning TV and Online Learning Platform for Pre-tertiary students, these interventions have also brought out several inequalities among the students, such as disparities in socio-economic status, and regional imbalances.

- **Access to electricity**

According to the World Bank, in 2019, 79.0 per cent of the Ghanaian population had access to electricity. This implies that about 21.0 per cent of the population do not have electricity in their homes.

Available data from the 2019 Ghana Living Standard Survey (GLSS-7)<sup>5</sup> of the Ghana Statistical Service (GSS) further shows that electricity is the most important lighting source in Accra (96.5%), with the urban forest zone having 91.9% and the rural savannah, 48.0%.

According to the GSS, about 41.6 per cent of rural households are more likely than their urban counterparts (2.4%) not to be connected to the national grid, due to the unavailability of the

As in most drop out cases, the girls tend to be the most affected as against the boys. Therefore, girls may disproportionately fall out, thus hampering the progress made in Ghana at addressing the Gender Parity Index (GPI) in education.

#### 5.4. Potential Impact on GER and NER

With the high potential of decline in enrolment when the schools reopen, the Gross Enrolment Ratio (GER) and the Net Enrolment Ratio (NER), the major indicators of access, are likely to be affected. Currently, Ghana's NER is much lower in both basic and secondary education, indicating a large proportion of children who are not of the appropriate age enrolled in school. One of the reasons for this is the late enrolment for kindergarten or primary education.

#### 5.5. Adaption to the New Way of Learning

In Ghana, digital and distance learning programmes have not been an integral component of learning from the primary to the SHS. While the GL TV and Online Learning Platforms present the opportunity for students to embrace a new way of learning, GNAT gathers that several students initially struggle to adapt to the new online learning process.

The first time I logged onto the “icampusgh.com, I was confused, though I have watched several online streaming videos, but not those on teaching. But over time, I am enjoying it, though not as perfect as it would have been in the classroom [SHS 3 Student-Oti Region]

#### 5.6. Interruption and Potential Measurement Errors in Internal Assessment

According to the PISA, participating in internal assessment has the potential of increasing students' test results. Globally, exams for all cohorts have been cancelled. In Ghana, the closure of schools has resulted in the cancellation and/or postponement of several public

<sup>4</sup>World Bank (2019). Energy situation in Ghana: Accra: World Bank

<sup>5</sup>Ghana Statistical Service (GSS, 2019): Ghana Living Standard Survey: Round 7: Accra: GSS

start everything again, because most of them would have forgotten what I taught them [Primary 3 Teacher-Teshie Camp 2, Accra]

### 5.3. Potential Drop out and High Out-of-School Children(OOSC) Rates

According to the 2017/2018 Education Sector Performance Review (ESPR)<sup>14</sup> report of the MOE, children begin to drop out of school in Ghana from P6 onwards. Pockets of out-of-school children (OOSC) have existed in Ghana since 2011, with the highest proportion in the three (3) northern regions. An OOSC study by Marshall et al<sup>15</sup> shows that an estimated 9% of 14-year-olds drop out. The ESPR also noted that in the 2017/2018 academic year, drop out rates for SHS1 and SHS2 were 3% and 4% respectively.

Due to the economic hardship in most disadvantaged households, many children may be compelled to assist their parents in their trades and on the farms during the school closure. GNAT observes that many pupils/students have started engaging in several income-generating activities as a result of the closure.

The implications are that some children are likely not to return to school after the closure, especially girls who might have gotten pregnant and boys who might have decided to leave school altogether. In other words, many disadvantaged children may find it difficult to return to school. For those who may return, they may return late, several weeks after.

GNAT is of the view that a long duration of disengagement of students from learning can result in undue drop out rates for the most disadvantaged, the at-risk, or homeless children. This is consistent with the view of UNESCO that student drop out rates tend to increase in EIE.

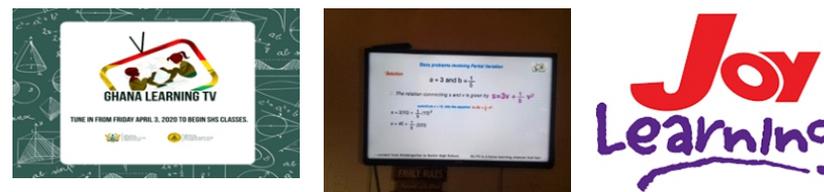


grid/being too far from their households. Such households therefore have to resort to alternative sources of lighting, such as Kerosene lanterns and solar panels.

Thus, students in such rural communities without electricity are denied access to education through the Ghana Learning TV and the Online Learning Platform for pre-tertiary students.

- **Access to household TV**

Currently, the GL TV, as well as learning programmes by other private TV stations, such as *Joy Learning*, are used to promote access to education in the midst of the COVID-19. These TV channels are offering daily educational programming virtually, and helping to reach out to substantial numbers of students, through terrestrial and satellite transmissions.



The 2019 GLSS-7 of the GSS reports that the 57.2% households have television sets in Ghana. This implies that 42.8 per cent of households do not have access to television.

Further, the 2017 Satellite Monitor Study of the SES Group notes that only 23 per cent of the homes in Ghana own High Definition (HD) television sets. The report notes again that only 10 per cent of terrestrial TV homes in Ghana are digital.

<sup>14</sup>ESPR (2019). 2017/2018 Education Performance Sector Review . Accra: MOE

<sup>15</sup>Marshall, J. et al.(2016) . Updated Analysis of Out-of-school Children in Ghana with District-Level Summaries and Projections'. London: Crown Agents.

Thus, not all homes in Ghana have decoders needed for digital television. Therefore, most homes are likely not to have the learning channels at all or where they have, they may face interrupted transmission, poor sound and picture quality essential for TV-based learning.

Thus, while the GL TV platform is essential in broadcasting daily educational programmes to help ensure the continuity of education delivery in the midst of COVID-19, households without TV, stand disadvantaged and are most likely to be excluded from accessing the programmes.

- **Access to computers and the internet**

A major means of enhancing digital content and assessment in home-based learning is accessibility to computers and affordable and stable internet connectivity. Online learning through computers, aided by reliable internet, is an effective distance learning mechanism, since it simulates the interactive, real-time and multimodal experience of the school environment.

On March 20, 2020, the GES announced that it had developed an Online Study Platform for all SHSs which could be accessed through “icampusgh.com”; that with the Online Learning Platform, Pre-tertiary students can perform the following:

- Access all the core subjects and selected electives
- Access video lessons and lesson notes
- Access virtual labs and simulation (in some instances)
- Access online test(s) for every lesson

A major requirement for home-based online learning is accessibility to a household computer. According to the GLSS-7, in Ghana, only 7.2 per cent of the population aged twelve (12) years or older own, at least, one type of computing device, yet in the developed countries, household access to computers is over

GNAT observes that parents with some level of literacy are offering home tuition to their children to help them minimise their learning loss.



While GNAT is confident in the abilities of its members to restore the learning time lost by their students, the Association is cognisant of the social-emotional trauma which prevents the brain from learning, especially outside the school setting

## 5.2. Potential Increase in Learning Poverty among Pupils

The World Bank defines learning poverty as the percentage of children who cannot read and understand at age ten (10). Numeracy and literacy are the fundamental skills necessary for achieving learning outcomes. Both the 2013 and 2015 Early Grade Mathematics Assessments (EGRAs) showed that many pupils spent two to three (3) years in school without learning to read a single word. Thus, learning outcomes in numeracy and literacy are poor at the primary level and that most pupils lacked pre-and early reading skills.

The EGRA has consistently shown that by the end of P2, majority of school pupils struggled with even foundational reading skills and cannot read with comprehension (either the L1 or in English). With the high rate of learning loss, learning poverty among pupil is likely to worsen, with the impact disproportionately felt by the most disadvantaged.

With the launch of the UNICEF reading programme, my pupils were picking up in their reading ability. However, with the closure of the schools, I know for sure that I have to

In the perspective of GNAT, the time children spend out of school, does not necessarily translate into learning, particularly with the most disadvantaged and the vulnerable. GNAT further observes that the impact of COVID-19 on students' learning loss would be worse for children in disadvantaged communities.

In the rural areas, farming is the activity children engage in most after school. With the closure of the schools, all the learning time of rural pupils/students may either go into trading, fishing, farming or playing. In most urban poor and rural areas, it may be normal, seeing school children roaming about, going to farm or fishing without the mind-set of sitting home to study.



GNAT also observes that the learning loss differs among students, in terms of support from parents with educational opportunities at home, differences in the capacity of schools to support the learning of their students remotely, and differences among students in their resilience, motivation and skills to learn independently and online.

With online learning, parents have become home tutors and helping their children to understand the content of online tuition. Thus, parents have become facilitators of the learning of their children at home. However, this is difficult for the illiterate parents.

According to the GLSS-7, the overall literacy rate in Ghana is 76.6%, though varies widely across geo-demographics. The 2015 Ghana Labour Force Survey (GLFS)<sup>13</sup> also found that literacy rates were lowest in the three northern regions and highest in Greater Accra.

So how would children from homes with low literacy rates cope?

<sup>13</sup>Ghana Statistical Service (2015). Labour Force Survey. Accra: GSS

80 per cent (82.3%). Thus, despite the efforts of the MOE to move teaching and learning online, there is a wide digital divide in Ghana. Significant differences exist among rural and urban dwellers, such that 10.8 per cent of urban dwellers own, at least, one computing device, when only 3.1 per cent do same in the rural areas<sup>5</sup>.



While some efforts have been made by the Government in providing school and community-based computer centres, such centres cannot be used currently, due to the closure of the schools. Therefore, in the future, the focus should be extended to household ownership of computers and internet connectivity, to enhance the learning avenues.

For home-based learning, household internet is crucial. However, according to the International Telecommunication Union (ITU)<sup>6</sup>, 87.0 per cent of households in developed countries have access to the internet, compared with the 17.8% of households in Africa. According to the Global Digital Overview Report 2020<sup>7</sup>, Ghana had an internet penetration of 48.0%, as at January 2020. Data on household internet however, is unavailable.

Assessment by GNAT shows that very few households in Ghana have access to the internet, due to limited telecommunication infrastructure and high cost of data.

With household computers, GNAT is of the view that households are more likely to have internet access at home, compared to computers, since internet access is also possible through other means such as mobile phones.

<sup>6</sup>ITU (2019). Measuring the digital divide: Geneva: ITU Publications

<sup>7</sup>Digital 2020: Global Digital Overview, Simon Kemp (2020)

According to the GLSS-7, about 74.3 per cent of the population use mobile phones. The National Communication Authority (NCA)<sup>8</sup> also indicates that mobile phone penetration in Ghana was 136.79 per cent, as at January 2020.

Lack of access to technology or reliable internet connectivity is another obstacle to continued online learning, especially for students from disadvantaged families and communities. While open educational applications and platforms can be used to reach learners remotely to limit the disruption of education by COVID-19, for students without internet at home, this increases the difficulty of keeping up with distance learning. Generally, in Ghana, technological infrastructure at the home-based level is limited, thus hindering the adoption of technology for distance learning. Apart from poor and unstable internet connectivity, access is also almost non-existent in the rural areas.

- **Unconducive and non-supportive home environment**

The home is certainly not the conducive environment for learning, despite the fact that families have played significant roles in students' learning processes. Distance learning platforms such as the GL TV, and the Online Learning Platform for SHSs require conducive places in homes to facilitate learning. However, according to the Programme for International Student Assessment (PISA)<sup>9</sup>, on the average, across the Organization for Economic Cooperation and Development (OECD) countries, 9% of 15-year-old students do not have quiet places in their homes for studies.

GNAT observes that the impact is worse on the most disadvantaged students who do not even have the spaces in which to sit and study at home, not to talk of quiet spaces. GNAT again gathers from many children that their inability to learn at home is due to the many disrupting factors in the home environment.

<sup>8</sup>NCA (2020). Mobile Voice Subscription. Accra: NCA  
<sup>9</sup>PISA (2020): Education disrupted – Education rebuilt: Some insights from PISA on the availability and use of digital tools for learning: OECD Education and Skills Today

## 5.0. IMPACT OF COVID-19 ON STUDENTS' LEARNING OUTCOMES

According to UNESCO, learning outcomes are often overlooked in times of EIE, since the primary focus is usually on ensuring access to education. Therefore, the potential to overlook quality in place of access is high, leading to a deterioration in quality. GNAT is of the view that the disadvantaged and underprivileged learners, who tend to have fewer educational opportunities outside the normal school setting, will be affected most, from the closure of the schools.

### 5.1. Learning and Memory Loss

Learning time, otherwise known as duration of schooling is an essential educational input/resource. Several empirical studies show direct correlation between the duration of school and student academic performance. Extended interruption of one's studies causes not only a suspension of learning time, but loss of knowledge and skills acquired. In the US, Quinn and Polikoff<sup>10</sup> found that during the summer vacation, students lose the equivalent of one month of academic year learning. The loss was greater for the most disadvantaged students.

In Sweden, Carlson et al<sup>11</sup>. estimated how the number of days of school affects students' performance, using two (2) randomly conditioned samples. The study noted that even ten (10) days of extra schooling significantly raised students' test scores by one (1) per cent.

In Ghana, Kwofie et al<sup>12</sup>. found that one year of extra schooling resulted in a seventeen (17) per cent differential in the performance of students. By extension and simple extrapolation, the seven (7) weeks of school closure as at May 09, 2020 implies, about 2.48% less in student performance (learning loss) over the period of the closure of the schools.

<sup>10</sup>Quinne, D. M. & Polikoff, M. (2017). Summer learning loss: What is it, and what can we do about it  
<sup>11</sup>Carlson et al.(2015). Physical education and academic achievement in elementary school: Data from the early childhood longitudinal study. *Academic Journal of Public Health*, 99 (4), 721-727  
<sup>12</sup>Kwofie, F.A, Mensah, D.K & Kwofie, R.I (2018); The duration in school and academic performance: A comparative study of the three and four year senior high school education in Ghana. *International Journal Of Innovative Research & Development*, 7, 190-196

## CHAPTER FOUR

### 4.0 INCLUSIVE EDUCATION

As the COVID-19 pandemic continues to spread across the globe, schools are closed in 180 countries, leaving an estimated 1.5 billion children out of school. In addition, 80% of persons with disabilities live in developing countries with access to education, a challenge to them. The impact of COVID-19 is worse for people in the lower socio-economic group, with children with disabilities facing an even greater risk of being left behind in the scheme of things.

GNAT observes the disproportionate impact the pandemic is having on persons with disabilities and therefore wants them included in emergency education planning and the necessary steps taken to rehabilitate and re-integrate them into main stream society.

To address the challenge to the traditional way of teaching in the schools in this era of the pandemic, education is now being delivered through online portals.

GNAT recommends that computers, tablets, electronic assistive devices, and gadgets with their accompanying application software be supplied to these special needs children to enable them to participate in and enjoy this novel way of lesson delivery.

When reading my book, my mother will call ... and send me. It disturbs me. In school, my teacher will not disturb me when reading my book. I want to go back to school [Primary 1 Pupil, Teshie-Accra].

Textbooks are a crucial component of the learning process and related to higher achievement scores. According to UNESCO, every child should have a textbook. The MOE has also tasked parents to provide notebooks and pens/pencils for their wards to enhance the home-based teaching and learning, through the GL TV. However, GNAT observes that many homes do not have the requisite materials such as textbooks and desks and only rely on those provided at school. Consequently, many of the children are unable to learn at home.



Considering the varied factors in the home environment which inhibit the students' learning process, especially in the underprivileged homes, GNAT's view is that, there would be disparities in the support students obtain from home.

### 3.2 Pull Factors: Access to Distance and Online Learning

The most disadvantaged and vulnerable households which lack TV, computer and internet connectivity, which makes it difficult for students to access distance and online learning platforms notwithstanding, other existing delivery modes such as phones can be used by the MOE as online learning platforms, to address the inequalities in the privileged and underprivileged homes.

- **Radio-school learning**

According to UNESCO, despite the global world being digitally saturated, radio is still the commonest available and accessed technology across the globe. In Ghana, the GLSS-7 notes that higher proportions of households in the rural forest (61.9%), rural savannah (56.2%) and rural coastal (54.3%) own radios, compared with the urban areas (44.8%). Thus Ghana can adopt the Interactive Radio Instruction (IRI) which uses one-way radio to reach students via pre-recorded, interactive lessons. The IRI concept has been used in such Sub-Saharan counties as Guinea, Liberia, and Somalia, among others, to help students to learn.

The cost of radio-school learning appears lesser than other platforms which most rural communities cannot afford. In the Western Region, the Youth Bridge Foundation, an NGO and Tullow Oil Ghana have implemented a Science, Technology, Engineering and Mathematics (STEM) radio school through community radio stations to support children in the peri-urban and rural areas of the region.

Other regions can also adopt this.



- **Mobile-based learning**

Mobile phones can facilitate interactive learning, by access to the curriculum content, and lesson plans via SMS, and Social Media platforms (Twitter, Instagram, facebook, WhatsApp, Telegram),

among others. According to the Global Programme for Education (GPE), children exposed to these programmes are readier for primary education than those who are not. Investigations by GNAT show that most private schools are employing mobile-based learning platforms such as WhatsApp to reach their learners through their parents' phones.

Self-Learning Shapes Quiz



It is a fact that in Ghana, not all parents own mobile phones; and with those who do, not many of them own smartphones. However, for both smart and non-smart-phone owners, lessons of their children can be sent through SMS. In this context, parents who do not own phones at all stand disadvantaged, because there is no medium through which they can access lessons for their wards.

- **Online Library: Ghana Library Authority**

The position of GNAT is that libraries and books are the bedrock of children's academic and social development. The Ghana Library Authority (GLA) has made provisions for students and parents to access its mobile application for books and other educational resources to supplement learning at home.

GNAT observes that most parents and learners are not aware of the GLA's online library facility, hence their failure to access it. We therefore entreat the GLA to intensify its publicity of the online library facility to encourage parents and students to patronize it, to help enhance home-based learning.