European Journal of Interactive Multimedia and Education

2022, 3(2), e02214 ISSN 2732-4362 (Online)

https://www.ejimed.com Research Article



Online Learning Resources, Challenges, and Coping Strategies of Low-Fee Private Schools in Ghana During COVID-19 Pandemic

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Citation: Kyei-Arthur, F., & Aidoo, D. A. (2022). Online Learning Resources, Challenges, and Coping Strategies of Low-Fee Private Schools in Ghana During COVID-19 Pandemic. European Journal of Interactive Multimedia and Education, 3(2), e02214. https://doi.org/10.30935/ejimed/12518

ABSTRACT

In Ghana, the education sector has been one of the most affected sectors since the emergence of COVID-19. The plights of low-fee private schools (LFPSs) in the country could be exacerbated by the closure of schools due to COVID-19. This study investigated the online learning resources, challenges, and coping strategies of LFPSs during the closure of schools in Ghana due to COVID-19 pandemic. Google Form was used to gather data from 67 heads of LFPSs in Ghana between April and June 2020. We found that about one-fifth of LFPSs used online learning before the emergence of the COVID-19 pandemic. Most LFPSs acquired an online learning resource due to COVID-19. However, heads of LFPSs had mixed perceptions of online learning. Also, the closure of schools affected school finances; teaching, learning and assessment of students; and the ability to pay teachers' salaries. To cope with their challenges, heads of LFPSs used strategies such as staff lay off; online learning and giving assignments; and the distribution of food items and personal protective equipment. The study recommends the following: there is a need for in-service training for teachers on online learning, improvement in the information and communication technology (ICT) infrastructure across the country, and subsidization of ICT resources. Also, the Government of Ghana should provide tax relief to telecommunication companies that improve their infrastructure and expand their coverage across the country to enhance internet accessibility and connectivity.

Keywords: COVID-19, low-fee private schools, online learning, Ghana

Received: 08 May 2022 ◆ Accepted: 30 Sep. 2022

INTRODUCTION

Since the emergence of COVID-19 in December 2019, it has negatively affected the human development indicators of countries, especially educational indicators. Globally, about 107 countries, as of March 18, 2020, had implemented national closure of schools (Viner et al., 2020). Furthermore, it is estimated that about 1.4 billion children were affected by the closure of schools as of June 2020 (United Nations Development Program, 2020).

In Ghana, the first confirmed cases of COVID-19 were recorded on March 12, 2020, and as of May 4, 2022, 161,222 confirmed cases of COVID-19 have been recorded (Ghana Health Service, 2022). To curb the spread of the COVID-19 pandemic, the Government of Ghana announced the closure of all educational institutions (private and public schools) on March 15, 2020. It is estimated that about 9.7 million Ghanaian students were affected by the national closure of schools (UNESCO & UNICEF, 2020). On May 21, 2020, the Government of Ghana announced the partial reopening of schools for junior high school, senior high school, and university final year students across the country (Frimpong, 2020). Furthermore, on January 3, 2021, the

Government of Ghana announced the reopening of schools from kindergarten to junior high school in the country (Communications Bureau, 2021). According to the Ghana Statistical Service (GSS, 2020), the education sector was the most affected sector during the partial lockdown (65%) and after the lifting of the partial lockdown (63%).

There are two types of schools in Ghana based on management and funding, namely public (government) and private schools. Public schools are financed and managed by the government, while private schools are funded and managed by individuals, community groups, religious bodies, or charitable trusts (Tooley et al., 2007).

After the national closure of schools, the Ghana Education Service and the Ministry of Education rolled out distance learning programs and online learning platforms to ensure continuous learning among learners, such as the launch of Ghana Learning TV (GL-TV) (Ministry of Education, 2020). Also, private schools in the country initiated and strengthened their online learning platforms to meet the educational needs of their learners.

Private institutions are essential stakeholders in the educational sector in Ghana. For instance, over one-fifth of basic school learners are enrolled in private institutions, while over one-third of technical and vocational learners are enrolled in private institutions. In addition,

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about half of tertiary learners are enrolled in private institutions (Ministry of Education, 2019).

In Ghana, private institutions comprise both high- and low-fee schools. It is estimated that about two out of five private schools in Ghana are low-fee schools as of 2010 (International Finance Corporation, 2010). Limited financial resources characterize low-fee private schools (LFPSs) due to limited financial and business advisory services (International Finance Corporation, 2010). LFPSs rely on their internally-generated funds, especially tuition fees, for their survival since they are non-beneficiary of the Government of Ghana funding to the education sector. The closure of all educational institutions in Ghana due to COVID-19 could exacerbate the plights of LFPSs and poses a threat to their survival.

Also, empirical studies in Ghana on the impacts of COVID-19 on education have focused on students (Owusu-Fordjour et al., 2020; Sarpong et al., 2021; Tuffour et al., 2021; UNESCO & UNICEF, 2020), barriers and facilitators of online learning (Adarkwah, 2021), education (Nantwi & Boateng, 2020), and teachers (IPA, 2021). There is a lack of studies on the impact of COVID-19 on LFPSs. Hence, this study sought to investigate the online learning resources, challenges, and coping strategies of LFPSs during the closure of schools in Ghana due to COVID-19 pandemic. Hence, we ask the following research questions:

- 1. What online resources were used by LFPSs during COVID-19 pandemic?
- 2. What challenges did LFPSs experienced due to closure of schools to curb COVID-19 pandemic?
- 3. What strategies were used by LFPSs to cope with the challenges they experienced due to closure of schools to curb COVID-19 pandemic?

The findings from this study would aid policy makers and other education sector stakeholders in understanding the contextual situation of LFPSs to develop appropriate interventions to alleviate their plights.

MATERIALS AND METHOD

Study Design and Setting

This study used a descriptive research design to investigate the online learning resources and challenges and coping strategies of LFPSs in Ghana during COVID-19 pandemic. The descriptive research design was used because it enables researchers to describe a social phenomenon of interest.

Ghana has an estimated 30.8 population as of 2021, and a little over half of the population (56.7%) resides in urban areas (GSS, 2021). Ghana is a lower-middle-income country, and Accra is its capital (World Bank, 2017). Burkina Faso bounds Ghana to the North, the Gulf of Guinea to the South, Togo to the East, and Côte d'Ivoire to the West. Ghana has sixteen administrative regions.

Data Collection

The data for the study was collected from heads of LFPSs from April 30, 2020, to June 2, 2020. Google Form was used to design an anonymous questionnaire. The online questionnaire consisted of 27 questions. The 27 questions consisted of 19 open-ended questions and

eight closed-ended questions. The questionnaire had four sections: socio-demographic characteristics, the role of parent-teacher association (PTA), online learning resources, and general school management.

The socio-demographic section covered questions such as the name of the school, region of school, number of students enrolled in the school, and number of teaching and non-teaching staff. The next section on the role of parent-teacher association covered questions concerning the roles of PTA, including whether a school had a functional PTA, how PTA are engaged in running the school, was PTA engaged during the emergence of COVID-19, and what role was PTA played during the emergence of COVID-19. The third section on online learning resources covered questions such as whether a school had an online learning resource to complement traditional teaching before the emergence of COVID-19, whether a school acquired an online learning resource during the emergence of COVID-19, name of the online learning resource used, and opinions about online learning, among others. The final section, general school management, covered whether a school had paid teachers since the closure of schools, how COVID-19 impacted the running of schools, measures to cope with the impacts of COVID-19, and how long schools can cope with school closures, among

The Google Form link was shared on Edify Ghana's¹ WhatsApp platform. Also, the researchers and heads of Edify Ghana partner schools were encouraged to share the Google Form link with heads of other LFPSs in Ghana. Participation in the study was voluntary, and heads of LFPSs were assured of confidentiality and anonymity. The online questionnaire began with the aims of the research and the use of the data. All participants consented to participate in the study before completing the online questionnaire.

Data Analysis

All closed-ended responses were analyzed using the statistical package for social sciences (SPSS) software version 25. Descriptive statistics such as frequency, percentage, mean, and standard deviation were used to summarize the responses. Also, all open-ended responses were analyzed thematically using NVivo software version 10. To ensure reliability of open-ended responses, the authors used constant comparison method, where each open-ended response was analyzed and interpreted by comparing it to already analyzed and interpreted open-ended responses. In addition, peers with expertise in mixed method design were made to examine how the authors collected the data, analyzed the open- and closed-ended data, and reported the findings.

Characteristics of Participants

In total, 67 heads of LFPSs participated in this survey (**Table 1**). The mean age of heads of LFPSs was 42.2 years. More than half of the heads of LFPSs were males (52%) and had attained a bachelor's degree (54%). Over one-third of LFPSs that participated in this survey were in the Greater Accra region (37%). Also, seven out of 10 LFPSs that participated in this survey were junior high schools. The mean number of students enrolled in LFPSs was 342.8. Furthermore, the mean number of teaching and non-teaching staff was 21.3 and 7.7, respectively.

¹ Edify Ghana is an international Christian non-governmental organization that assist Christian LFPSs through the provision of training, access to loans, and education technology.

Table 1. Characteristics of participants (n=67)

Characteristics	Frequency	%
Age		
Range	25-82	
Mean	42.2	
Standard deviation	12.1	
Sex		
Male	35	52.2
Female	32	47.8
Educational level		
Junior high school	1	1.5
Senior high school	4	6
Higher national diploma	1	1.5
Teacher training certificate	1	1.5
Post graduate certificate/diploma	13	19.4
Bachelor's degree	36	53.7
Master's degree	9	13.4
Doctorate degree	2	3
Region of school		
Ashanti	7	10.4
Bono	4	6
Central	18	26.9
Eastern	7	10.4
Greater Accra	25	37.3
Western	6	9
The highest educational level provided by	y the school	
Pre-school	1	1.5
Primary	13	19.4
Junior high school	52	77.6
Senior high school	1	1.5
Total number of students enrolled		
Range	15-2,041	
Mean	342.8	
Standard deviation	300.7	
Total number of teaching staff		
Range	3-79	
Mean	21.3	
Standard deviation	12.9	
Total number of non-teaching staff		
Range	1-34	
Mean	7.7	
Standard deviation	6.3	

RESULTS

Online Learning Resources

Table 2 shows that only 13 LFPSs, representing 19%, used online learning before the COVID-19 pandemic. A little over half of LFPSs (54%) who did not use online learning before the COVID-19 pandemic acquired one during the pandemic. The dominant online learning platform used by LFPSs were WhatsApp, Google Classroom, and Zoom.

Heads of LFPSs were asked their opinion on online learning. They expressed both favorable and unfavorable views about online learning. Some heads of LFPSs reported that online learning is flexible, enhances knowledge of technology, complements traditional face-to-face learning, and is the best teaching method during the COVID-19 pandemic. The following quotes buttress the favorable views about online learning:

Table 2. Information on online learning resources (n=67)

	Frequency	%
Does the school use an online lear	ning platform before the e	mergence
of COVID-19?		
Yes	13	19.4
No	54	80.6
Are you still using your online lea	rning platform?*	
Yes	12	92.3
No	1	7.7
During the emergence of COVID-1	9, have your school acquire	ed an
online platform? **		
Yes	29	53.7
No	25	46.3
Name of online learning platform	s used during COVID-19 ***	•
ClassDojo	1	1.8
E-mail	1	1.8
Google Classroom	9	16.5
Google Drive	1	1.8
Google Meet	1	1.8
Khan Academy	1	1.8
Microsoft Team	1	1.8
Schoology	1	1.8
Seesaw	1	1.8
SOS Distance Learning	1	1.8
WhatsApp	29	52.7
Zoom	8	14.6

Note. *Total number of participants=13; **Total number of participants=54; & ***Total number of responses=55

"In my opinion, online learning is good because of its flexible nature. The cost is also relatively cheaper, and above all, it gives students self-discipline and self-motivation" (Male, Central Region).

"It is the best method of teaching and learning during this pandemic. It is also developing the learners and staff in the usage of technology" (Female, Western Region).

However, some heads of LFPSs expressed unfavorable views about online learning. They narrated factors such as accessibility of ICT devices (e.g., smartphones and tablets), internet accessibility and connectivity, non-suitability of online learning for everyone (e.g., learners residing in rural areas and learners from poor households), and high cost of online learning made online learning unfavorable. Other factors include increased teachers' workload, ineffective supervision of online learning by teachers and parents, and the non-interactive nature of online learning. Some heads of LFPSs explained that:

"It's not like the main classroom where teachers can supervise learners and give the necessary help. You don't know whether the learner is doing the work independently or someone is doing it for them. Not everyone has access to the internet, and even some [learners] don't have access to the devices" (Female, Eastern Region).

"Online learning is a good initiative, but it is a challenge for children in rural areas and those from poor homes to access it" (Male, Central Region).

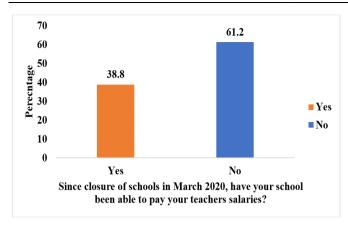


Figure 1. Percentage distribution of heads of LFPSs whose schools were able to pay their teachers' salaries since March 2020

Challenges

The challenges experienced by LFPSs due to the closure of schools were, as follows:

- 1. inability to pay teachers' salaries,
- 2. affected finances of schools, and
- 3. affected teaching, learning and assessment of students.

Inability to pay teachers' salaries

Several heads of LFPSs narrated they could not pay their teachers' salaries due to the untimely closure of schools. The inability of heads of LFPSs to pay their teachers may affect the livelihood of teachers and their households since their salaries are their primary source of income. Also, some heads of LFPSs mentioned that they could lose their teachers and students if the COVID-19 pandemic protracts:

"We received no income, so living conditions were challenging for my teachers and myself. We were taken unaware. We couldn't collect tuition and exam fees. However, the parents are not ready to pay the tuition fees they owe us since we couldn't end the term. There is a probability of losing some teachers and learners if this pandemic should keep long" (Female, Central Region).

In addition, heads of LFPSs were asked if they had paid teachers since March 2020, and about two out of five heads (39%) affirmed that they paid their teachers for some of the months (**Figure 1**).

Affected finances of schools

Heads of LFPSs reported an increased financial burden due to the closure of schools. Tuition fees are the primary cash inflows for LFPSs, and the closure of schools affected their cash inflow since most parents refused to pay the tuition fees they owed for the term. It is also worth noting that most tuition fees are often in arrears, so the closure of schools exacerbated the financial health of LFPSs. Hence, most LFPSs could not honor their financial commitments such as loan repayment schedules and statutory payments (e.g., payment of social security contribution of staff and tax payment):

"It has affected the school negatively, especially how we pay our salaries, taxes, utilities, loans and social security contribution of staff" (Male, Ashanti Region).

"We were not able to complete the term successfully. Consequently, parents are unwilling to pay the arrears of fees, so it has brought financial burden on the school" (Female, Eastern Region).

In addition, limited cash inflow from tuition fees stalled the infrastructural projects of LFPSs, such as the expansion of school infrastructures:

"It has affected me a lot because there were some ongoing projects before the pandemic [but] all those projects have stalled" (Male, Central Region).

Affected teaching, learning, and assessment of learners

Most heads of LFPSs highlighted that the closure of schools prematurely by the government brought the academic calendar to a halt and consequently affected teaching and learning during the academic year. Also, some LFPSs could not conduct their end-of-term examinations for learners to assess their academic performance for the term:

"It abruptly ended the term such that learners could not write their end-of-term examination" (Female, Greater Accra).

"Learners have been affected academically, and all programs for the year have been distorted" (Male, Bono Region).

Coping Strategies

Furthermore, the study found that heads of LFPSs employed various strategies to cope with the negative impacts of the COVID-19 pandemic. The coping strategy used by LFPSs includes

- 1. online learning and giving assignments,
- 2. staff lay off, and
- 3. sharing food items and personal protective equipment (PPE).

Use of online learning and giving of assignments

Heads of LFPSs relied on online learning to provide education to their learners while at home. In addition, some heads of LFPSs planned to expand their existing online learning platforms to enhance the provision of education to their learners. The following quotes buttress the theme:

"We are improving our online teaching and learning using google classroom and other online resources through the help of Edify to make our online learning more effective" (Female, Eastern Region).

Apart from online learning, heads of LFPSs employed other strategies such as sending weekly assignments to learners at home and organizing classes at home for learners whose parents can afford them:

"We keep visiting pupils and holding classes for few of them whose parents are willing" (Male, Greater Accra Region).

"We have decided to give take-home assignments for parents to pick up from the school for their children. Parents return the assignments for marking and pick another. We also explain the assignments on phones and WhatsApp to parents where necessary" (Female, Greater Accra Region).

Staff lay off

Heads of LFPSs had to continue paying their staff while schools were closed. To help cut costs due to limited cash inflows, some heads of LFPSs had to lay off staff to salvage their financial situation:

"Some staff have been laid off temporarily. I have sent a letter to notify the Social Security and National Insurance Trust about staff lay off" (Female, Western Region).

In addition, some heads of LFPSs engaged a few staff to teach online and paid those staff from tokens provided by parents:

"We maintained a 'skeleton' staff to run our online learning program. Parents contributed a token to support the school during the period, and we paid those staff from the proceeds" (Female, Greater Accra Region).

Sharing food items and PPE

Heads of LFPSs also shared food items and PPE with their staff to alleviate their plights during the closure of schools. Some heads of LFPSs also extended this kind gesture to their learner's parents. Some heads of LFPSs narrated the following:

"At the end of the month, we shared some of the school's food items we had in stock. These included rice, spaghetti, oil, and tin tomatoes. These food items were bought on loan before the COVID-19 pandemic" (Female, Central Region).

"The school recently received food items from individuals and groups, which were shared with the parents of our learners. About 18 parents benefited from this initiative" (Male, Greater Accra Region).

DISCUSSION

This study investigated the online learning resources, challenges, and coping strategies of LFPSs during the closure of schools in Ghana due to COVID-19 pandemic. The results showed that most LFPSs used traditional teaching methods in educating their students before the emergence of COVID-19. However, during the COVID-19 pandemic, most LFPSs acquired online learning platforms to ensure continuous education to their learners at home. The acquisition of online learning platforms by LFPSs during the COVID-19 will promote blended learning in Ghana and ensure the country will be on track to achieve the sustainable development goal (SDG) 4, which aims to achieve inclusive and equitable quality education.

Heads of LFPSs had mixed perceptions about online learning. While some heads of LFPSs believed that online learning enhanced learning during the emergence of COVID-19 and it was the best teaching method during the COVID-19 pandemic, others had concerns about the appropriateness of online learning as a mode of learning for every learner and online learning increased the workload of teachers. Previous studies have established that online learning is the best method during the COVID-19 era (Adarkwah, 2021), and the use of online learning has increased teachers' workload (Carver-Thomas et al., 2021). Concerns about the appropriateness of online learning as a mode of learning for every learner will slow the uptake of online learning in Ghana, which will negatively impact the country's progress towards the

achievement of SDG target 4.5, which aims to ensure equal access to all levels of education.

Also, heads of LFPSs reported barriers to the use of online learning. These barriers include accessibility of ICT devices, internet accessibility and connectivity, high cost of online learning, ineffective supervision of online learning by teachers and parents, and non-interactive nature of online learning. These barriers would not allow learners to harness the full benefits of online learning. This finding is consistent with previous studies which identified accessibility of ICT devices, internet accessibility and connectivity, and high cost of online learning, as barriers to online learning (Adarkwah, 2021; Owusu-Fordjour et al., 2020; Pokhrel & Chhetri, 2021; Razkane et al., 2022; Tarkar, 2020; Tuffour et al., 2021; Wolf et al., 2021). In Ghana, access to the internet is a challenge for most households. For instance, less than one-tenth (8%) of Ghanaians aged 12 years and older in 2010 had access to internet facilities (GSS, 2013), while Ghana's internet and social media penetration in 2020 was 48% and 20%, respectively (Kemp, 2020). In addition, studies have found that parents who are not technology-savvy are unable to supervise and assist their children with online learning (Nantwi & Boateng, 2020; Owusu-Fordjour et al., 2020).

We found that the main challenges experienced by LFPSs were the inability to pay teachers' salaries, impact on school finance, and impact on teaching, learning and assessment of learners. Most heads of LFPSs have been unable to pay their teaching staff their salaries since March 2020. An explanation is that most LFPSs primarily depend on the payment of tuition fees and feeding fees, so the abrupt closure of schools affected their cash inflow, which hindered their ability to pay their teachers. The primary sources of revenue for LFPSs are tuition fees and canteen fees (Brion, 2020; IDP Foundation Inc. & Results for Development Institute, n. d.). This finding supports previous studies which found that teacher lost their total or portions of their salaries due to the closure of schools (Taylor et al., 2021). The inability of heads of LFPSs to pay their teachers would affect their wellbeing, especially their financial wellbeing. Studies have found that the closure of schools due to COVID-19 has exacerbated the economic plights of private school staff (National Development Planning Commission, 2020).

Heads of LFPSs mentioned that the emergence of COVID-19 affected the school finances and, consequently, affected their ability to honor statutory payments (loan repayments and social security contributions of staff) and stalled infrastructure development. Generally, most LFPSs have infrastructural deficits (Nsiah-Peprah, 2004), and the emergence of COVID-19 would worsen their infrastructural deficit.

In addition, heads of LFPSs narrated that schools' closure due to the COVID-19 pandemic affected teaching and learning. In addition, teachers were unable to assess their learners for that term. This finding is consistent with previous studies that found that the closure of schools affected the teaching, learning and assessment of learners (Owusu-Fordjour et al., 2020; Pokhrel & Chhetri, 2021; Tarkar, 2020). For instance, studies have found that school closure due to the COVID-19 pandemic would lead to learning loss among students (IPA, 2021; Rahman & Sharma, 2021; Sabates et al., 2021).

We furthermore found that heads of LFPSs used strategies such as online learning and giving assignments, and sharing food items and PPE to cope with the challenges imposed by COVID-19. Previous studies have identified online learning as an alternative teaching method during the COVID-19 pandemic (Adarkwah, 2021). Also, some

heads of LFPSs had to lay off staff to reduce their wage bill. This finding supports earlier studies which found that some teachers lost their jobs (Bassok et al., 2020), while other studies found that teachers may have to be laid off to cut costs if learners do not enroll for their courses for the academic year (Carver-Thomas et al., 2021; Code et al., 2020).

Limitations of Study

The main limitations of this study are that the sample size for the study was small, and heads of LFPSs were not randomly selected. Therefore, the study's findings may be biased and may not represent the experiences of all LFPSs in Ghana. Despite these limitations, this study would help policy makers and other stakeholders in the educational section understand the plights of LFPSs in the COVID-19 era.

CONCLUSIONS AND RECOMMENDATIONS

This study found that a higher proportion of LFPSs acquired an online learning resource when schools were closed due to the COVID-19 pandemic. WhatsApp, Google Classroom, and Zoom were the primary online learning resources used by LFPSs. Also, while some heads of LFPSs had favorable views about online learning, others had unfavorable opinions about it. Heads of LFPSs highlighted that accessibility of ICT devices, internet accessibility and connectivity, online learning increased teachers' workload, and ineffective supervision of online learning by teachers and parents made online learning unfavorable.

In addition, heads of LFPSs acknowledged that the closure of schools due to the COVID-19 pandemic affected their ability to pay teachers' salaries. The schools' closure also affected their schools' finances and the teaching, learning, and assessment of learners. To cope with these challenges, heads of LFPSs had to lay off staff, share food items and PPE with staff, and use online learning resources to educate their learners at home. To reduce the impacts of future pandemics on teaching and learning, we recommend that all schools in the country make conscious efforts to integrate online learning into their traditional face-to-face teaching method. Also, to reap the full benefits of online learning, we recommend the following measures should be implemented: there is a need for training for teachers, learners, and parents on online learning; improvement in the ICT infrastructure across the country; and subsidization of ICT resources (e.g., the purchase of laptops, tablets, and smartphones for educational purposes). In addition, the Government of Ghana should provide tax relief to telecommunication companies that improve their infrastructure and expand their coverage across the country to enhance internet accessibility and connectivity.

Author contributions: All authors were involved in concept, design, collection of data, interpretation, writing, and critically revising the article. All authors approve final version of the article.

Funding: The authors received no financial support for the research and/or authorship of this article.

Declaration of interest: Authors declare no competing interest.

Data availability: Data generated or analyzed during this study are available from the authors on request.

REFERENCES

- Adarkwah, M. A. (2021). "I'm not against online teaching, but what about us?": ICT in Ghana post COVID-19. Education and Information Technologies, 26, 1665-1685. https://doi.org/10.1007/s10639-020-10331-z
- Bassok, D., Michie, M., Cubides-Mateus, D. M., Doromal, J. B., & Kiscaden, S. (2020). The divergent experiences of early educators in schools and childcare centers during COVID-19: Findings from Virginia. SEE-Partnerships. https://files.elfsightcdn.com/022b8cb9-839c-4bc2-992e-cefccb8e877e/710c4e38-4f63-41d0-b6d8-a93d766a094c.pdf
- Brion, C. (2020). Low-fee private schools: Case studies from Ghana. *International Journal of Education Policy and Leadership, 16*(3). https://doi.org/10.22230/ijepl.2020v16n3a957
- Carver-Thomas, D., Leung, M., & Burns, D. (2021). California teachers and COVID-19: How the pandemic is impacting the teacher workforce. *Learning Policy Institute*. https://doi.org/10.54300/987.779
- Code, J., Ralph, R., & Forde, K. (2020). Pandemic designs for the future: Perspectives of technology education teachers during COVID-19. Information and Learning Sciences, 121(5/6), 419-431. https://doi.org/10.1108/ILS-04-2020-0112
- Communications Bureau. (2021). *Update No 21: Measures taken to combat spread of coronavirus*. http://presidency.gov.gh/index.php/briefingroom/speeches/1848-update-no-21-measures-taken-to-combat-spread-of-coronavirus
- Frimpong, E. D. (2020). Why president Akufo-Addo relaxed COVID-19 restrictions. *Graphic Communications Group Ltd.* https://www.graphic.com.gh/news/politics/why-president-akufo-addo-relaxed-covid-19-restrictions-full-address.html
- Ghana Health Service. (2022). Ghana Health Service COVID-19 Dashboard. https://www.ghs.gov.gh/covid19/
- GSS. (2013). 2010 population and housing census: National analytical report. *Ghana Statistical Service*. https://statsghana.gov.gh/gssmain/fileUpload/pressrelease/2010_PHC_National_Analytical_Report.pdf
- GSS. (2020). How COVID-19 is affecting firms in Ghana: Results from the business tracker survey. *Ghana Statistical Service*. https://statsghana.gov.gh/covidtracker/Business%20Tracker%20Brief%20Report_GSS_web.pdf
- GSS. (2021). 2021 population and housing census general report: Population of regions and districts (Vol. 3A). *Ghana Statistical Service*. https://census2021.statsghana.gov.gh/
- IDP Foundation Inc. & Results for Development Institute. (n. d.).

 Understanding household and school proprietor needs in low-fee private schools in Ghana: A needs and impact assessment of the IDP rising schools program. IDP Foundation Inc. & Results for Development Institute. https://www.poverty-action.org/sites/default/files/presentation/Understanding-Household-and-School-Proprietor-Needs-in-Low-Fee-Private-Schools.pdf

- International Finance Corporation. (2010). Final Ghana country report: Market research project on low income private schools. International Finance Corporation. https://www.edify.org/wp-content/uploads/2012/01/Edify-IFC-Ghana-report-low-cost-schools-Oct-2010.pdf
- IPA. (2021). The experience of educators during the COVID-19 pandemic: Surveys from during and after school closures. Innovations for Poverty Action (IPA) Ghana. https://www.poverty-action.org/sites/default/files/publications/FINAL-Ghana-COVID-Educators-Sep29.pdf
- Kemp, S. (2020). Digital 2020: Ghana. https://datareportal.com/ reports/digital-2020-ghana
- Ministry of Education. (2019). Education sector medium-term development plan 2018-2021. https://www.globalpartnership.org/sites/default/files/2019-05-education-sector-medium-term-development-plan_2018-2021.pdf
- Ministry of Education. (2020). COVID-19 coordinated education response plan for Ghana. *Ministry of Education*. https://planipolis.iiep.unesco.org/en/2020/covid-19-coordinated-education-response-plan-ghana-6947
- Nantwi, W. K., & Boateng, B. (2020). COVID-19 and education in Ghana: A tale of chaos and calm. *African Journal of Emerging Issues*, 2(5), 41-52.
- National Development Planning Commission. (2020). *National development monitor: Peer review in a decade*. https://www.nationalplanningcommission.org.za/assets/Documents/Review%20of%20 Economic%20Progress%20NPC%20Dec%202020.pdf
- Nsiah-Peprah, Y. (2004). Assessment of the role of private schools in the development of education in Ghana. A study of the Kumasi Metropolis. *Journal of Science and Technology (Ghana), 24*(2), 54-75. https://doi.org/10.4314/just.v24i2.32917
- Owusu-Fordjour, C., Koomson, C. K., & Hanson, D. (2020). The impact of COVID-19 on learning–The perspective of the Ghanaian student. *European Journal of Education Studies, 7*(3), 88-101. https://doi.org/10.5281/zenodo.3753586
- Pokhrel, S., & Chhetri, R. (2021). A literature review on impact of COVID-19 pandemic on teaching and learning. *Higher Education for* the Future, 8(1), 133-141. https://doi.org/10.1177/2347631120983 481
- Rahman, T., & Sharma, U. (2021). A simulation of COVID-19 school closure impact on student learning in Bangladesh. *The World Bank*. https://doi.org/10.1596/35043
- Razkane, H., Sayeh, A., & Yeou, M. (2022). University teachers' attitudes towards distance learning during COVID-19 pandemic: Hurdles, challenges, and take-away lessons. European Journal of Interactive Multimedia and Education, 3(1), e02201. https://doi.org/10.30935/ejimed/11436

- Sabates, R., Carter, E., & Stern, J. M. (2021). Using educational transitions to estimate learning loss due to COVID-19 school closures: The case of complementary basic education in Ghana. *International Journal of Educational Development, 82,* 102377. https://doi.org/10.1016/j.ijedudev.2021.102377
- Sarpong, S. A., Dwomoh, G., Boakye, E. K., & Ofosua-Adjei, I. (2021).
 Online teaching and learning under COVID-19 pandemic;
 Perception of university students in Ghana. European Journal of Interactive Multimedia and Education, 3(1), e02203. https://doi.org/10.30935/ejimed/11438
- Tarkar, P. (2020). Impact of COVID-19 pandemic on education system. International Journal of Advanced Science and Technology, 29(9), 3812-3814.
- Taylor, N., Chukwuma, E., Familusi, L. C., Reddi, B., & Odunga, S. A. (2021). The impact and implications of COVID-19 on the teaching profession. In A. Osman, & J. Keevy (Eds.), The impact of COVID-19 on education systems in the commonwealth (pp. 53-77). Commonwealth Secretariat.
- Tooley, J., Dixon, P., & Amuah, I. (2007). Private and public schooling in Ghana: A census and comparative survey. *International Review of Education*, 53(4), 389-415. https://doi.org/10.1007/s11159-007-9042-3
- Tuffour, A. D., Cobbinah, S. E., Benjamin, B., & Otibua, F. (2021).
 Impact of COVID-19 pandemic on education sector in Ghana:
 Learner challenges and mitigations. Research Journal in Comparative Education, 2(1), 20-31.
- UNESCO & UNICEF. (2020). COVID-19 response in Ghana's education sector. *UNESCO and UNICEF*. https://www.unicef.org/media/111621/file/TheStateoftheGlobalEducationCrisis.pdf.pdf
- United Nations Development Program. (2020). Beyond recovery: Towards 2030. *United Nations Development Program*. https://www.undp.org/publications/beyond-recovery-towards-2030
- Viner, R. M., Russell, S. J., Croker, H., Packer, J., Ward, J., Stansfield, C., Mytton, O., Bonell, C., & Booy, R. (2020). School closure and management practices during coronavirus outbreaks including COVID-19: A rapid systematic review. *The Lancet Child & Adolescent Health*, 4, 397-404. https://doi.org/10.1016/S2352-4642(20)30095-X
- Wolf, S., Aurino, E., Suntheimer, N., Avornyo, E., Tsinigo, E., Jordan, J., Samanhyia, S., Aber, J. L., & Behrman, J. R. (2021). Learning in the time of a pandemic and implications for returning to school: Effects of COVID-19 in Ghana. CPRE Working Papers. https://repository.upenn.edu/cpre_workingpapers/28
- World Bank. (2017). Fiscal consolidation to accelerate growth and support inclusive development: Ghana public expenditure review.

 World Bank. https://openknowledge.worldbank.org/handle/10986/27558